

Soil Descriptions - Non Technical

AA--Kasota Sandy Loam, 0 To 2 Percent Slopes

Component Description

Kasota and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Stream terrace
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: 5.7 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap,A--0 to 9 inches; sandy loam
Bt--9 to 30 inches; clay loam
2C--30 to 60 inches; sand

AB2--Kasota Sandy Loam, 2 To 6 Percent Slopes, Eroded

Component Description

Kasota, eroded and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Stream terrace
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: 5.3 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 26 inches; clay loam
2C--26 to 60 inches; sand

AD--Hawick Sandy Loam, 18 To 25 Percent Slopes

Component Description

Hawick and similar soils

Extent: 90 percent of the unit
Geomorphic description:
Stream terrace
Slope range: 18 to 25 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: 3.3 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A--0 to 5 inches; sandy loam
Bw--5 to 18 inches; loamy sand
C--18 to 60 inches; gravelly coarse sand

AE--Hawick Loamy Sand, 18 To 40 Percent Slopes

Component Description

Hawick and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Stream terrace
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: 2.8 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
A--0 to 4 inches; loamy sand
Bw--4 to 10 inches; loamy sand
C--10 to 60 inches; stratified gravelly coarse sand to sand

BA--Kasota Loam, 0 To 2 Percent Slopes

Component Description

Kasota and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Stream terrace
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: 6.5 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap,A--0 to 11 inches; loam
Bt--11 to 28 inches; clay
2BC--28 to 40 inches; loamy sand
2C--40 to 60 inches; sand

BB2--Kasota Loam, 2 To 6 Percent Slopes, Eroded

Component Description

Kasota, eroded and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Stream terrace
Slope range: 2 to 6 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: 5.9 inches
Content of organic matter in the upper 10 inches: 4.2 percent
Typical profile:
Ap--0 to 9 inches; loam
Bt--9 to 24 inches; clay
2BC--24 to 36 inches; loamy sand
2C--36 to 60 inches; sand

BH--Blue Earth Mucky Silt Loam

Component Description

Blue earth and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Depression on moraine
Flat on flood plain
Slope range: 0 to 1 percent
Surface layer texture: Mucky silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Coprogeous 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

Bt--7 to 38 inches; clay loam
Bk--38 to 60 inches; loam
C--60 to 80 inches; loam

CD3--Lester Clay Loam, 12 To 18 Percent Slopes, Severely Eroded

Component Description

Lester, severely eroded and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Moraine

Slope range: 12 to 18 percent

Surface layer texture: Clay 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; clay loam

Bt--7 to 38 inches; clay loam

Bk--38 to 60 inches; loam

C--60 to 80 inches; loam

CE3--Lester Clay Loam, 18 To 25 Percent Slopes, Severely Eroded

Component Description

Lester, severely eroded and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Moraine

Slope range: 18 to 25 percent

Surface layer texture: Clay 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; clay loam

Bt--7 to 38 inches; clay loam

Bk--38 to 60 inches; loam

C--60 to 80 inches; loam

CH--Chaska Loam, Occasionally Flooded

Component Description

Chaska, occasionally flooded and similar soils

Extent: 85 percent of the unit
 Geomorphic description:
 Flood plain
 Slope range: 0 to 2 percent
 Surface layer texture: Silty clay 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 July August September October November
 December
 Flooding is most likely (frequency, months):
 Occasional March April May June
 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: 9.8 inches
 Content of organic matter in the upper 10 inches: 3.4 percent
 Typical profile:
 Ap--0 to 9 inches; silty clay loam
 A--9 to 36 inches; silty clay loam
 C--36 to 60 inches; loam

CL--Coland Clay Loam, Occasionally Flooded

Component Description

Coland, occasionally flooded and similar soils
 Extent: 85 percent of the unit
 Geomorphic description:
 Flat on flood plain
 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: 11.9 inches
 Content of organic matter in the upper 10 inches: 6.0 percent
 Typical profile:
 Ap--0 to 10 inches; loam
 A--10 to 48 inches; clay loam
 Cg--48 to 60 inches; loam

CO--Cordova Clay Loam

Component Description

Cordova and similar soils

Extent: 85 percent of the unit
Geomorphic description:
 Drainageway on moraine
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

CS--Canisteo Silty Clay Loam, Depressional

Component Description

Canisteo, depressional and similar soils

Extent: 85 percent of the unit
Geomorphic description:
 Depression on moraine
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 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: 10.7 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
 Ap,A--0 to 18 inches; silty clay loam
 Bkg--18 to 39 inches; loam
 Cg--39 to 80 inches; loam

CT--Canisteo Clay Loam

Component Description

Canisteo and similar soils
Extent: 85 percent of the unit

Geomorphic description:

Flat on moraine
Swale on moraine
Slope range: 0 to 2 percent
Surface layer texture: Clay 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
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.7 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A--0 to 18 inches; clay loam
Bkg--18 to 39 inches; loam
Cg--39 to 80 inches; loam

CU--Coland Clay Loam, Frequently Flooded

Component Description

Coland, frequently flooded and similar soils

Extent: 85 percent of the unit
Geomorphic description:
Flat on flood plain
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):
Frequent March April May June
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: 11.9 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap--0 to 10 inches; loam
A--10 to 48 inches; clay loam
Cg--48 to 60 inches; loam

CW--Cordova-Webster Complex

Component Description

Cordova and similar soils
Extent: 70 percent of the unit
Geomorphic description:
Drainageway on moraine

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

Webster and similar soils

Extent: 30 percent of the unit
Geomorphic description:
Drainageway on moraine
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,A--0 to 14 inches; loam
Bg--14 to 20 inches; clay loam
Cg--20 to 60 inches; loam

DA--Dakota And Rasset Sandy Loams, 0 To 2 Percent Slopes

Component Description

Dakota and similar soils

Extent: 50 percent of the unit
Geomorphic description:
Stream terrace
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: 6.7 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 30 inches; loam
2BC,2C--30 to 60 inches; fine sand

Rasset and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Stream terrace

Slope range: 1 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

DB--Dakota And Rasset Sandy Loams, 2 To 6 Percent Slopes

Component Description

Dakota and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Stream terrace

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: 6.7 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 30 inches; loam
2BC,2C--30 to 60 inches; fine sand

Rasset and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Stream terrace

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

EA--Estherville Sandy Loam, 0 To 2 Percent Slopes

Component Description

Estherville and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Moraine
Stream terrace
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: 4.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 13 inches; sandy loam
Bw1--13 to 18 inches; sandy loam
2Bw2--18 to 23 inches; loamy coarse sand
2C--23 to 60 inches; gravelly coarse sand

EB--Estherville Sandy Loam, 2 To 6 Percent Slopes

Component Description

Estherville and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Stream terrace
Moraine
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: 4.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 13 inches; sandy loam

Bw1--13 to 18 inches; sandy loam
2Bw2--18 to 23 inches; loamy coarse sand
2C--23 to 60 inches; gravelly coarse sand

EB2--Estherville Sandy Loam, 2 To 6 Percent Slopes, Eroded

Component Description

Estherville, eroded and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace

Moraine

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: 3.7 inches

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

Typical profile:

Ap,A--0 to 10 inches; sandy loam

Bw1--10 to 15 inches; sandy loam

2Bw2--15 to 20 inches; loamy coarse sand

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

EX--Essexville Sandy Loam

Component Description

Essexville and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Rim on lake on moraine

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:

Sandy beach sediments

Flooding: None

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

0.5 foot April May

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

2.0 feet 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: 6.0 percent

Typical profile:

Ap,A--0 to 15 inches; sandy loam

Bg--15 to 30 inches; sand

2Cg--30 to 80 inches; loam

FA--Fairhaven Silt Loam, 0 To 2 Percent Slopes

Component Description

Fairhaven and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace

Slope range: 0 to 2 percent

Surface layer texture: Silt 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: 7.6 inches

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

Typical profile:

Ap--0 to 10 inches; silt loam

Bw--10 to 31 inches; silt loam

2C--31 to 60 inches; sand

FB--Fairhaven Silt Loam, 2 To 6 Percent Slopes

Component Description

Fairhaven and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace

Slope range: 2 to 6 percent

Surface layer texture: Silt 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: 7.6 inches

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

Typical profile:

Ap--0 to 10 inches; silt loam

Bw--10 to 31 inches; silt loam

2C--31 to 60 inches; sand

FC2--Fairhaven Silt Loam, 6 To 12 Percent Slopes, Eroded

Component Description

Fairhaven, eroded and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace

Slope range: 6 to 12 percent

Surface layer texture: Silt 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: 6.5 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
Ap--0 to 7 inches; silt loam
Bw--7 to 25 inches; silt loam
2C--25 to 60 inches; sand

GL--Glencoe Clay Loam

Component Description

Glencoe and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Depression on moraine
Slope range: 0 to 1 percent
Surface layer texture: 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 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: 11.2 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap--0 to 10 inches; clay loam
A,ABg--10 to 35 inches; clay loam
Bg--35 to 48 inches; loam
Cg--48 to 60 inches; loam

GP--Pits-Udipsamments Complex

Component Description

Pits
Extent: 55 percent of the unit
Geomorphic description:
Moraine
Outwash plain
Stream terrace
Slope range: 0 to 50 percent
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: 45 percent of the unit
Geomorphic description:
 Moraine
 Outwash plain
 Stream terrace
Slope range: 0 to 25 percent
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.

HC--Estherville-Hawick Sandy Loams, 6 To 12 Percent Slopes

Component Description

Estherville and similar soils

Extent: 65 percent of the unit
Geomorphic description:
 Moraine
 Stream terrace
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: 3.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap,A--0 to 10 inches; sandy loam
 Bw1--10 to 15 inches; sandy loam
 2Bw2--15 to 20 inches; loamy coarse sand
 2C--20 to 60 inches; gravelly coarse sand

Hawick and similar soils

Extent: 35 percent of the unit
Geomorphic description:
 Stream terrace
 Moraine
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 60 inches; gravelly coarse sand

HC2--Estherville-Hawick Sandy Loams, 6 To 12 Percent Slopes, Eroded

Component Description

Estherville, eroded and similar soils

Extent: 65 percent of the unit

Geomorphic description:

Stream terrace

Moraine

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: 3.5 inches

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

Typical profile:

Ap,A--0 to 8 inches; sandy loam

Bw1--8 to 13 inches; sandy loam

2Bw2--13 to 18 inches; loamy coarse sand

2C--18 to 60 inches; gravelly coarse sand

Hawick, eroded and similar soils

Extent: 35 percent of the unit

Geomorphic description:

Stream terrace

Moraine

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 60 inches; gravelly coarse sand

HD--Estherville-Hawick Sandy Loams, 12 To 18 Percent Slopes

Component Description

Estherville and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Stream terrace

Moraine

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: 3.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 10 inches; sandy loam
Bw1--10 to 15 inches; sandy loam
2Bw2--15 to 18 inches; loamy coarse sand
2C--18 to 60 inches; gravelly coarse sand

Hawick and similar soils

Extent: 40 percent of the unit
Geomorphic description:
Stream terrace
Moraine
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 60 inches; gravelly coarse sand

HM--Hamel Loam

Component Description

Hamel and similar soils

Extent: 85 percent of the unit
Geomorphic description:
Drainageway on moraine
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:
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 60 inches; loam

HN--Hanlon Loam

Component Description

Hanlon, occasionally and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Flood plain

Slope range: 0 to 2 percent

Surface layer texture: 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: 10.6 inches

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

Typical profile:

A1--0 to 10 inches; loam

A2,A3--10 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

IA--Dickman Sandy Loam, 0 To 2 Percent Slopes

Component Description

Dickman and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace

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 14 inches; sandy loam

Bw--14 to 19 inches; sandy loam

2Bw--19 to 33 inches; loamy sand

2C--33 to 60 inches; sand

IB2--Dickman Sandy Loam, 2 To 6 Percent Slopes, Eroded

Component Description

Dickman, eroded and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Stream terrace
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: 5.0 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 12 inches; sandy loam
Bw--12 to 19 inches; sandy loam
2Bw--19 to 33 inches; loamy sand
2C--33 to 60 inches; sand

IC2--Dickman Sandy Loam, 6 To 12 Percent Slopes, Eroded

Component Description

Dickman, eroded and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Stream terrace
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: 4.9 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 10 inches; sandy loam
Bw--10 to 17 inches; sandy loam
2Bw--17 to 31 inches; loamy sand
2C--31 to 60 inches; sand

KB--Kilkenny-Lester Loams, 2 To 6 Percent Slopes

Component Description

Kilkenny and similar soils
Extent: 60 percent of the unit
Geomorphic description:

Moraine
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:
 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: 10.5 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap--0 to 11 inches; loam
 Bt--11 to 35 inches; clay loam
 2Bk, 2C--35 to 80 inches; loam

Lester and similar soils

Extent: 40 percent of the unit
Geomorphie description:
 Moraine
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 60 inches; loam

KB2--Lester-Kilkenny Loams, 2 To 6 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils
Extent: 60 percent of the unit
Geomorphie description:
 Moraine
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

Kilkenny, eroded and similar soils
Extent: 40 percent of the unit
Geomorphic description:
Moraine
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:
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: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap--0 to 11 inches; loam
Bt--11 to 35 inches; clay loam
2Bk,2C--35 to 60 inches; loam

KC--Lester-Kilkenny Loams, 6 To 12 Percent Slopes

Component Description

Lester and similar soils
Extent: 60 percent of the unit
Geomorphic description:
Moraine
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: 2.0 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 and similar soils

Extent: 40 percent of the unit

Geomorphic description:

Moraine

Slope range: 6 to 12 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 March June July

August September October

November December

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

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

Typical profile:

Ap--0 to 9 inches; loam

Bt--9 to 53 inches; clay loam

2BC,2C--53 to 80 inches; loam

KC2--Lester-Kilkenny Loams, 6 To 12 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Moraine

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: 40 percent of the unit

Geomorphic description:

Moraine

Slope range: 6 to 12 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 March June July
August September October
November December
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap--0 to 9 inches; loam
Bt--9 to 53 inches; clay loam
2BC,2C--53 to 80 inches; loam

KD--Lester-Kilkenny Loams, 12 To 18 Percent Slopes

Component Description

Lester and similar soils

Extent: 60 percent of the unit
Geomorphic description:
Moraine
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: 2.0 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 and similar soils

Extent: 40 percent of the unit
Geomorphic description:
Moraine
Slope range: 12 to 18 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 March June July
August September October
November December
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap--0 to 9 inches; loam
Bt--9 to 53 inches; clay loam
2BC,2C--53 to 80 inches; loam

KD2--Lester-Kilkenny Loams, 12 To 18 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Moraine

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: 40 percent of the unit

Geomorphic description:

Moraine

Slope range: 12 to 18 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 March June July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

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

Typical profile:

Ap--0 to 9 inches; loam

Bt--9 to 53 inches; clay loam

2BC,2C--53 to 80 inches; loam

KE2--Lester-Kilkenny Loams, 18 To 25 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 60 percent of the unit
Geomorphic description:
Moraine
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, eroded and similar soils

Extent: 40 percent of the unit
Geomorphic description:
Moraine
Slope range: 18 to 25 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 March June July
August September October
November December
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 2.7 percent
Typical profile:
A--0 to 7 inches; loam
Bt--7 to 31 inches; clay loam
2Bk,2C--31 to 80 inches; loam

KF--Lester-Kilkenny Loams, 25 To 40 Percent Slopes

Component Description

Lester and similar soils

Extent: 60 percent of the unit
Geomorphic description:
Moraine
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: 10.4 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: 40 percent of the unit
Geomorphic description:
Moraine
Slope range: 25 to 35 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 March June July
August September October
November December

Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
A--0 to 7 inches; loam
Bt--7 to 31 inches; clay loam
2Bk,2C--31 to 80 inches; loam

KL--Hanlon-Kalmarville Complex, Frequently Flooded

Component Description

Hanlon, occasionally flooded and similar soils

Extent: 55 percent of the unit
Geomorphic description:
Flood plain
Slope range: 1 to 3 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):
Frequent March April May June
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: 9.2 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:

A1--0 to 16 inches; fine sandy loam
A2--16 to 40 inches; fine sandy loam
Bw--40 to 60 inches; fine sandy loam

Kalmarville, frequently flooded and similar soils

Extent: 45 percent of the unit

Geomorphic description:

Flat on flood plain

Slope range: 0 to 1 percent

Surface layer texture: 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):

Frequent March April May June

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: 9.6 inches

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

Typical profile:

A1,A2,A3--0 to 32 inches; sandy loam

A4--32 to 60 inches; silt loam

KM--Minneiska-Kalmarville Complex, Frequently Flooded

Component Description

Minneiska, frequently flooded and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Flood plain

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):

Frequent March

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

Kalmarville, frequently flooded and similar soils

Extent: 40 percent of the unit

Geomorphic description:

Flat on flood plain
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:
 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):
 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: 11.1 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
 A1--0 to 7 inches; loam
 A2,A3--7 to 60 inches; stratified fine sand to fine sandy loam to
 silt loam

LA--Le Sueur-Lester Loams, 1 To 4 Percent Slopes

Component Description

Le sueur and similar soils
Extent: 70 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):
 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

Lester and similar soils
Extent: 30 percent of the unit
Geomorphic description:
 Moraine
Slope range: 2 to 4 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

LB2--Lester Loam, 2 To 6 Percent Slopes

Component Description

Lester and similar soils
Extent: 85 percent of the unit
Geomorphic description:
 Moraine
Slope range: 2 to 6 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

LC--Lester Loam, 6 To 12 Percent Slopes

Component Description

Lester and similar soils
Extent: 85 percent of the unit
Geomorphic description:
 Moraine
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: 2.0 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

LC2--Lester Loam, 6 To 12 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Moraine
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

LD--Lester Loam, 12 To 18 Percent Slopes

Component Description

Lester and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Moraine
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: 2.0 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

LD2--Lester Loam, 12 To 18 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Moraine
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

LE2--Lester Loam, 18 To 25 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Moraine
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: 1.7 percent
Typical profile:
Ap--0 to 5 inches; loam
Bt--5 to 34 inches; clay loam
Bk--34 to 60 inches; loam
C--60 to 80 inches; loam

LF--Lester Loam, 25 To 40 Percent Slopes

Component Description

Lester and similar soils
Extent: 85 percent of the unit
Geomorphic description:

Moraine

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: 10.4 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

LS--Le Sueur Loam

Component Description

Le sueur and similar soils
Extent: 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: Moderately well 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

M-W--Water, Miscellaneous

Component Description

Water, miscellaneous
Extent: 100 percent of the unit

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.

MK--Houghton And Muskego Soils

Component Description

Houghton and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Depression on moraine

Slope range: 0 to 2 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: 65.0 percent

Typical profile:

Oap--0 to 10 inches; muck

Oa--10 to 80 inches; muck

Muskego and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Depression on moraine

Slope range: 0 to 2 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 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: 19.4 inches

Content of organic matter in the upper 10 inches: 65.8 percent

Typical profile:

Oap--0 to 9 inches; muck

Oa--9 to 36 inches; muck

Lco--36 to 60 inches; coprogenous earth

MN--Minneiska Loam

Component Description

Minneiska, occasionally flooded and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Flood plain

Slope range: 0 to 2 percent

Surface layer texture: 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: 10.1 inches

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

Typical profile:

Ap--0 to 10 inches; loam

C--10 to 60 inches; stratified sand to silt loam

MP--Klossner And Muskego Soils, Ponded

Component Description

Klossner, ponded and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Marsh on moraine

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: 65.0 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

Muskego, ponded and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Marsh on moraine

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

MY--Mayer Loam

Component Description

Mayer and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Swale on moraine

Swale on stream terrace

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

NC3--Lester-Kilkenny Clay Loams, 6 To 12 Percent Slopes, Severely Eroded

Component Description

Lester, severely eroded and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Moraine

Slope range: 6 to 12 percent

Surface layer texture: Clay 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: 10.2 inches
Content of organic matter in the upper 10 inches: 0.9 percent
Typical profile:
Ap--0 to 7 inches; clay loam
Bt--7 to 38 inches; clay loam
Bk--38 to 60 inches; loam
C--60 to 80 inches; loam

Kilkenny, severely eroded and similar soils

Extent: 40 percent of the unit
Geomorphic description:
Moraine
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:
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: 1.6 percent
Typical profile:
Ap--0 to 7 inches; clay loam
Bt--7 to 30 inches; clay loam
2BC,2C--30 to 80 inches; loam

ND3--Lester-Kilkenny Clay Loams, 12 To 18 Percent Slopes, Severely Eroded

Component Description

Lester, severely eroded and similar soils

Extent: 60 percent of the unit
Geomorphic description:
Moraine
Slope range: 12 to 18 percent
Surface layer texture: Clay 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: 10.2 inches
Content of organic matter in the upper 10 inches: 0.9 percent
Typical profile:
Ap--0 to 7 inches; clay loam
Bt--7 to 38 inches; clay loam
Bk--38 to 60 inches; loam
C--60 to 80 inches; loam

Kilkenny, severely eroded and similar soils

Extent: 40 percent of the unit

Geomorphic description:

Moraine

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:

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: 0.9 percent

Typical profile:

Ap--0 to 7 inches; clay loam

Bt--7 to 30 inches; clay loam

2BC,2C--30 to 80 inches; loam

NE3--Lester-Kilkenny Clay Loams, 18 To 25 Percent Slopes, Severely Eroded

Component Description

Lester, severely eroded and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Moraine

Slope range: 18 to 25 percent

Surface layer texture: Clay 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: 10.2 inches

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

Typical profile:

Ap--0 to 5 inches; clay loam

Bt--5 to 34 inches; clay loam

Bk--34 to 60 inches; loam

C--60 to 80 inches; loam

Kilkenny, severely eroded and similar soils

Extent: 40 percent of the unit

Geomorphic description:

Moraine

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:

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: 0.9 percent
 Typical profile:
 A--0 to 7 inches; clay loam
 Bt--7 to 31 inches; clay loam
 2Bk,2C--31 to 80 inches; loam

OS--Oshawa Silty Clay Loam

Component Description

Oshawa, frequently flooded and similar soils
 Extent: 85 percent of the unit
 Geomorphic description:
 Oxbow on flood plain
 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:
 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 February March April May June
 July November December
 Wet soil moisture status is lowest (depth, months):
 1.0 foot January September
 Ponding does not occur (months):
 January February December
 Ponding is deepest (depth, months):
 2.0 feet May June
 Available water capacity to a depth of 60 inches: 11.5 inches
 Content of organic matter in the upper 10 inches: 7.0 percent
 Typical profile:
 A--0 to 37 inches; silty clay loam
 Cg--37 to 60 inches; silty clay loam

PA--Sparta Loamy Sand, 0 To 2 Percent Slopes

Component Description

Sparta and similar soils
 Extent: 90 percent of the unit
 Geomorphic description:
 Stream terrace
 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: 4.7 inches

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

Typical profile:

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

Bw--16 to 29 inches; loamy sand

C--29 to 60 inches; sand

PB--Sparta Loamy Sand, 2 To 6 Percent Slopes

Component Description

Sparta and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace

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: 4.7 inches

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

Typical profile:

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

Bw--16 to 29 inches; loamy sand

C--29 to 60 inches; sand

PC--Sparta Loamy Sand, 6 To 12 Percent Slopes

Component Description

Sparta and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace

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: 4.1 inches

Content of organic matter in the upper 10 inches: 1.2 percent

Typical profile:

Ap--0 to 7 inches; loamy sand

Bw--7 to 13 inches; loamy fine sand

C--13 to 60 inches; sand

PD--Sparta Loamy Sand, 12 To 18 Percent Slopes

Component Description

Sparta and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Stream terrace
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: 4.1 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap--0 to 7 inches; loamy sand
Bw--7 to 13 inches; loamy fine sand
C--13 to 60 inches; sand

PM--Klossner Muck

Component Description

Klossner and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Depression on moraine
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

PS--Klossner Muck, Sandy Substratum

Component Description

Klossner, sandy substratum and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Depression on moraine

Depression on stream terrace

Slope range: 0 to 2 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 or alluvium

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: 14.6 inches

Content of organic matter in the upper 10 inches: 65.0 percent

Typical profile:

Oa--0 to 29 inches; muck

2A--29 to 37 inches; sandy clay loam

2Cg--37 to 60 inches; gravelly loamy coarse sand

RB--Rasset Sandy Loam, 0 To 6 Percent Slopes

Component Description

Rasset and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace

Slope range: 0 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

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

Component Description

Rasset and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace
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

RD--Rasset Sandy Loam, 12 To 18 Percent Slopes

Component Description

Rasset and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Stream terrace
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 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

RW--Richwood Silt Loam

Component Description

Richwood and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Stream terrace
Slope range: 0 to 2 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Silty or loamy sediments over 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: 10.6 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
Ap,A1,BA--0 to 15 inches; silt loam
Bt--15 to 42 inches; silt loam
BC--42 to 47 inches; silt loam
2C--47 to 60 inches; very fine sand

SC2--Lester-Storden Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Moraine

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

Storden, eroded and similar soils

Extent: 40 percent of the unit

Geomorphic description:

Moraine

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: 1.2 percent

Typical profile:

Ap--0 to 7 inches; loam

Bk--7 to 55 inches; loam

C--55 to 80 inches; loam

SD2--Lester-Storden Complex, 12 To 18 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 65 percent of the unit
Geomorphic description:
Moraine
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

Storden, eroded and similar soils

Extent: 35 percent of the unit
Geomorphic description:
Moraine
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: 1.2 percent
Typical profile:
Ap--0 to 7 inches; loam
Bk--7 to 55 inches; loam
C--55 to 80 inches; loam

SV--Spillville Loam, Occasionally Flooded

Component Description

Spillville, occasionally flooded and similar soils

Extent: 85 percent of the unit
Geomorphic description:
Flood plain
Slope range: 0 to 2 percent
Surface layer texture: 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):
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: 11.4 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
Ap,A1,A2,A3--0 to 40 inches; loam
C--40 to 60 inches; loam

TB--Terril Loam, 0 To 6 Percent Slopes

Component Description

Terril and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Moraine
Stream terrace
Slope range: 0 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

TC--Terril Loam, 6 To 12 Percent Slopes

Component Description

Terril and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Moraine
Stream terrace
Slope range: 6 to 12 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

TT--Talcot Silty Clay Loam

Component Description

Talcot and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Stream terrace
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:
Silty or loamy deposits over 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: 6.8 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A1,A2--0 to 23 inches; silty clay loam
Bg--23 to 30 inches; silty clay loam
2Cg--30 to 60 inches; gravelly coarse sand

US--Udipsamments, Sloping

Component Description

Udipsamments, sloping and similar soils
Extent: 100 percent of the unit
Geomorphic description:
Stream terrace
Slope range: 6 to 18 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Colluvium
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: 0.2 percent
Typical profile:
A--0 to 14 inches; loamy sand
C--14 to 60 inches; sand

W--Water

Component Description

Water

Extent: 100 percent of the unit

This mapunit consists of natural occurring 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.

WA--Wadena Loam, 0 To 2 Percent Slopes

Component Description

Wadena and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Moraine

Stream terrace

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: 6.5 inches

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

Typical profile:

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

Bw--13 to 30 inches; loam

2BC,2C--30 to 60 inches; coarse sand

WB--Wadena Loam, 2 To 6 Percent Slopes

Component Description

Wadena and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Stream terrace

Moraine

Slope range: 2 to 6 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: 6.5 inches

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

Typical profile:

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

Bw--13 to 30 inches; loam

2BC,2C--30 to 60 inches; coarse sand

WC2--Wadena Loam, 6 To 12 Percent Slopes, Eroded

Component Description

Wadena, eroded and similar soils
Extent: 90 percent of the unit
Geomorphic description:
 Stream terrace
 Moraine
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:
 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: 5.7 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
 Ap--0 to 10 inches; loam
 Bw--10 to 25 inches; loam
 2BC,2C--25 to 60 inches; coarse sand

XB--Rasset-Lester Complex, 2 To 6 Percent Slopes

Component Description

Rasset and similar soils
Extent: 55 percent of the unit
Geomorphic description:
 Moraine
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

Lester and similar soils
Extent: 45 percent of the unit
Geomorphic description:
 Moraine
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 60 inches; loam

XC--Rasset-Lester Complex, 6 To 12 Percent Slopes

Component Description

Rasset and similar soils
Extent: 60 percent of the unit
Geomorphic description:
 Moraine
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

Lester and similar soils
Extent: 40 percent of the unit
Geomorphic description:
 Moraine
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: 2.0 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

XC2--Rasset-Lester Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Rasset, eroded and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Moraine

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: 5.4 inches

Content of organic matter in the upper 10 inches: 2.7 percent

Typical profile:

Ap--0 to 8 inches; sandy loam

Bt--8 to 20 inches; sandy loam

2BC--20 to 30 inches; loamy sand

2C--30 to 80 inches; sand

Lester, eroded and similar soils

Extent: 40 percent of the unit

Geomorphic description:

Moraine

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

XD--Rasset-Lester Complex, 12 To 18 Percent Slopes

Component Description

Rasset and similar soils

Extent: 65 percent of the unit

Geomorphic description:

Moraine

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 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

Lester and similar soils

Extent: 35 percent of the unit
Geomorphic description:
Moraine
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: 2.0 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

XE--Rasset-Lester Complex, 18 To 25 Percent Slopes

Component Description

Rasset and similar soils

Extent: 65 percent of the unit
Geomorphic description:
Moraine
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:
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

Lester and similar soils

Extent: 35 percent of the unit

Geomorphic description:

Moraine

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

YB--Rasset-Lester-Kilkenny Complex, 2 To 6 Percent Slopes

Component Description

Rasset and similar soils

Extent: 55 percent of the unit

Geomorphic description:

Moraine

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

Lester and similar soils

Extent: 25 percent of the unit

Geomorphic description:

Moraine

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 60 inches; loam

Kilkenny and similar soils

Extent: 20 percent of the unit
Geomorphic description:
 Moraine
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:
 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: 10.5 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap--0 to 11 inches; loam
 Bt--11 to 35 inches; clay loam
 2Bk,2C--35 to 80 inches; loam

YC--Rasset-Lester-Kilkenny Complex, 6 To 12 Percent Slopes

Component Description

Rasset and similar soils

Extent: 55 percent of the unit
Geomorphic description:
 Moraine
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

Lester and similar soils

Extent: 25 percent of the unit

Geomorphic description:

Moraine
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: 2.0 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 and similar soils

Extent: 20 percent of the unit
Geomorphic description:
Moraine
Slope range: 6 to 12 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 March June July
August September October
November December
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap--0 to 9 inches; loam
Bt--9 to 53 inches; clay loam
2BC,2C--53 to 80 inches; loam

YC2--Rasset-Lester-Kilkenny Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Rasset, eroded and similar soils

Extent: 55 percent of the unit
Geomorphic description:
Moraine
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: 5.4 inches
Content of organic matter in the upper 10 inches: 2.7 percent
Typical profile:
Ap--0 to 8 inches; sandy loam
Bt--8 to 20 inches; sandy loam
2BC--20 to 30 inches; loamy sand
2C--30 to 80 inches; sand

Lester, eroded and similar soils
Extent: 25 percent of the unit
Geomorphic description:
Moraine
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: 20 percent of the unit
Geomorphic description:
Moraine
Slope range: 6 to 12 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 March June July
August September October
November December
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap--0 to 9 inches; loam
Bt--9 to 53 inches; clay loam
2BC,2C--53 to 80 inches; loam

YD--Rasset-Lester-Kilkenny Complex, 12 To 18 Percent Slopes

Component Description

Rasset and similar soils
Extent: 55 percent of the unit

Geomorphic description:

Moraine
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 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

Lester and similar soils

Extent: 25 percent of the unit
Geomorphic description:
Moraine
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: 2.0 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 and similar soils

Extent: 20 percent of the unit
Geomorphic description:
Moraine
Slope range: 12 to 18 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 March June July
August September October
November December
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:

Ap--0 to 9 inches; loam
Bt--9 to 53 inches; clay loam
2BC,2C--53 to 80 inches; loam

YE--Rasset-Lester-Kilkenny Complex, 18 To 25 Percent Slopes

Component Description

Rasset and similar soils

Extent: 55 percent of the unit

Geomorphic description:

Moraine

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:

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

Lester and similar soils

Extent: 25 percent of the unit

Geomorphic description:

Moraine

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: 20 percent of the unit

Geomorphic description:

Moraine

Slope range: 18 to 25 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 March June July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 2.7 percent

Typical profile:

A--0 to 7 inches; loam

Bt--7 to 31 inches; clay loam

2Bk,2C--31 to 80 inches; loam