

Soil Descriptions - Non Technical

27A--Dickinson Loam, 0 To 2 Percent Slopes

Component Description

Dickinson and similar soils

Extent: 90 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.7 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
 H1--0 to 17 inches; loam
 H2--17 to 32 inches; fine sandy loam
 H3--32 to 38 inches; loamy fine sand
 H4--38 to 60 inches; fine sand

Hanska

Extent: 5 percent of the unit
Geomorphic description:
 Flat

Lemond

Extent: 5 percent of the unit
Geomorphic description:
 Flat

27B--Dickinson Loam, 2 To 6 Percent Slopes

Component Description

Dickinson and similar soils

Extent: 90 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.0 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
 H1--0 to 15 inches; loam
 H2--15 to 29 inches; fine sandy loam
 H3--29 to 60 inches; sand

Hanska

Extent: 5 percent of the unit
Geomorphic description:
 Drainageway

Lemond

Extent: 5 percent of the unit
Geomorphic description:
 Drainageway

35--Blue Earth Mucky Silt Loam, 0 To 1 Percent Slopes

Component Description

Blue earth and similar soils

Extent: 95 percent of the unit

Geomorphic description:

Relict lakebed

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

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: 12.6 inches

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

Typical profile:

H1--0 to 22 inches; mucky silt loam

H2--22 to 60 inches; mucky silty clay loam

Canisteo

Extent: 5 percent of the unit

Geomorphic description:

Rim

39A--Wadena Loam, 0 To 2 Percent Slopes

Component Description

Wadena and similar soils

Extent: 90 percent of the unit

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

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

Ponding: None

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

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

Typical profile:

H1--0 to 18 inches; loam

H2--18 to 37 inches; loam

H3--37 to 60 inches; stratified sand to gravelly coarse sand

Biscay

Extent: 10 percent of the unit

Geomorphic description:

Flat

39B--Wadena Loam, 2 To 6 Percent Slopes

Component Description

Wadena and similar soils

Extent: 90 percent of the unit

Slope range: 2 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

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

Ponding: None

Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 14 inches; loam
H2--14 to 30 inches; loam
H3--30 to 60 inches; stratified sand to gravelly coarse sand

Biscay

Extent: 10 percent of the unit
Geomorphic description:
Drainageway

85--Calco Silty Clay Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Calco 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: Poorly drained
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: 12.6 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 14 inches; silty clay loam
H2--14 to 40 inches; silty clay loam
H3--40 to 60 inches; silty clay loam

Nishna

Extent: 10 percent of the unit
Geomorphic description:
Flood plain

Havelock

Extent: 5 percent of the unit
Geomorphic description:
Flood plain

86--Canisteo Clay Loam, Moderately Fine Substratum, 0 To 2 Percent Slopes

Component Description

Canisteo and similar soils

Extent: 85 percent of the unit
Geomorphic description:
Flat
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
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: 10.0 inches
Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 20 inches; clay loam
H2--20 to 23 inches; clay loam
H3--23 to 38 inches; loam
H4--38 to 60 inches; loam

Glencoe

Extent: 10 percent of the unit
Geomorphic description:
Depression

Okoboji

Extent: 5 percent of the unit
Geomorphic description:
Depression

94C--Terril Loam, 6 To 12 Percent Slopes

Component Description

Terril and similar soils

Extent: 85 percent of the unit
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
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 23 inches; loam
H2--23 to 50 inches; loam
H3--50 to 60 inches; loam

Delft

Extent: 15 percent of the unit
Geomorphic description:
Drainageway
Ponding: None

102B--Clarion Loam, Moderately Fine Substratum, 2 To 5 Percent Slopes

Component Description

Clarion and similar soils

Extent: 85 percent of the unit
Slope range: 2 to 5 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 13 inches; loam
H2--13 to 25 inches; loam
H3--25 to 60 inches; loam

Webster

Extent: 10 percent of the unit
Geomorphic description:
Drainageway

Glencoe

Extent: 5 percent of the unit

Geomorphic description:

Depression

112--Harms Clay Loam, 0 To 2 Percent Slopes

Component Description

Harms and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Rim

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

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: 4.0 percent

Typical profile:

H1--0 to 13 inches; clay loam

H2--13 to 30 inches; clay loam

H3--30 to 60 inches; loam

Okoboji

Extent: 10 percent of the unit

Geomorphic description:

Depression

Seaforth

Extent: 5 percent of the unit

113--Webster Clay Loam, 0 To 2 Percent Slopes

Component Description

Webster and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Flat

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

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:

H1--0 to 16 inches; clay loam

H2--16 to 32 inches; clay loam

H3--32 to 60 inches; loam

Glencoe

Extent: 5 percent of the unit

Geomorphic description:

Depression

Nicollet

Extent: 5 percent of the unit

Normania

Extent: 5 percent of the unit

118--Crippin Loam, Moderately Fine Substratum, 1 To 3 Percent Slopes

Component Description

Crippin and similar soils

Extent: 85 percent of the unit

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Flooding: None

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

1.5 feet April

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

More than 5.0 feet February August

Ponding: None

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

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

H1--0 to 10 inches; loam

H2--10 to 26 inches; loam

H3--26 to 60 inches; loam

Canisteco

Extent: 10 percent of the unit

Geomorphic description:

Flat

Glencoe

Extent: 5 percent of the unit

Geomorphic description:

Depression

128C2--Grogan Silt Loam, 6 To 15 Percent Slopes, Eroded

Component Description

Grogan and similar soils

Extent: 85 percent of the unit

Slope range: 6 to 15 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

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

Ponding: None

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

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

Typical profile:

H1--0 to 13 inches; silt loam

H2--13 to 35 inches; silt loam

H3--35 to 60 inches; stratified loamy very fine sand to silt loam

Delft

Extent: 10 percent of the unit

Geomorphic description:

Drainageway

Terril

Extent: 5 percent of the unit

130--Nicollet Clay Loam, 1 To 3 Percent Slopes

Component Description

Nicollet and similar soils

Extent: 85 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 1.5 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.7 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
 H1--0 to 16 inches; clay loam
 H2--16 to 35 inches; clay loam
 H3--35 to 60 inches; loam

Webster

Extent: 10 percent of the unit
Geomorphic description:
 Flat

Glencoe

Extent: 5 percent of the unit
Geomorphic description:
 Depression

134--Okoboji Silty Clay Loam, Depressional, 0 To 1 Percent Slopes

Component Description

Okoboji and similar soils

Extent: 85 percent of the unit
Geomorphic description:
 Depression
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
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: 11.6 inches
Content of organic matter in the upper 10 inches: 8.5 percent
Typical profile:
 H1--0 to 8 inches; silty clay loam
 H2--8 to 28 inches; silty clay loam
 H3--28 to 60 inches; silty clay loam

Canisteo

Extent: 5 percent of the unit
Geomorphic description:
 Flat

Harps

Extent: 5 percent of the unit
Geomorphic description:
 Rim

Klossner

Extent: 5 percent of the unit

Geomorphic description:
Depression

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

Component Description

Fairhaven and similar soils

Extent: 85 percent of the unit
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
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.1 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 18 inches; silt loam
H2--18 to 33 inches; silt loam
H3--33 to 60 inches; stratified gravelly coarse sand to sand

Biscay

Extent: 10 percent of the unit
Geomorphic description:
Flat

Hanska

Extent: 5 percent of the unit
Geomorphic description:
Flat

211--Lura Silty Clay, Depressional, 0 To 1 Percent Slopes

Component Description

Lura and similar soils

Extent: 90 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Silty clay
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
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: 9.4 inches
Content of organic matter in the upper 10 inches: 6.9 percent
Typical profile:
H1--0 to 8 inches; silty clay
H2--8 to 39 inches; silty clay
H3--39 to 60 inches; silty clay loam

Corvuso

Extent: 5 percent of the unit
Geomorphic description:
Flat

Cosmos

Extent: 5 percent of the unit
Geomorphic description:

Flat

227--Lemond Loam, 0 To 2 Percent Slopes

Component Description

Lemond and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

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: 6.7 inches

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

Typical profile:

H1--0 to 12 inches; loam

H2--12 to 34 inches; sandy loam

H3--34 to 60 inches; sand

Biscay

Extent: 5 percent of the unit

Geomorphic description:

Flat

Linder

Extent: 5 percent of the unit

Mayer

Extent: 5 percent of the unit

Geomorphic description:

Flat

247--Linder Loam, 0 To 2 Percent Slopes

Component Description

Linder and similar soils

Extent: 85 percent of the unit

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Flooding: None

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

1.5 feet April

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

More than 5.0 feet February August

Ponding: None

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

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

Typical profile:

H1--0 to 18 inches; loam

H2--18 to 30 inches; sandy loam

H3--30 to 60 inches; coarse sand

Biscay

Extent: 10 percent of the unit

Geomorphic description:

Flat

Mayer

Extent: 5 percent of the unit

Geomorphic description:
Flat

255--Mayer Loam, 0 To 2 Percent Slopes

Component Description

Mayer and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

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

0.5 foot April

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

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 8.0 inches

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

Typical profile:

H1--0 to 21 inches; loam

H2--21 to 37 inches; silt loam

H3--37 to 60 inches; gravelly coarse sand

Linder

Extent: 10 percent of the unit

Biscay

Extent: 5 percent of the unit

Geomorphic description:

Flat

282--Hanska Loam, 0 To 2 Percent Slopes

Component Description

Hanska and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

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: 6.3 inches

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

Typical profile:

H1--0 to 17 inches; loam

H2--17 to 26 inches; loam

H3--26 to 31 inches; loamy sand

H4--31 to 60 inches; sand

Biscay

Extent: 5 percent of the unit

Geomorphic description:

Flat

Linder

Extent: 5 percent of the unit

Mayer

Extent: 5 percent of the unit
Geomorphic description:
Flat

318--Mayer Clay Loam, Depressional, 0 To 1 Percent Slopes

Component Description

Mayer and similar soils

Extent: 85 percent of the unit
Geomorphic description:
Depression
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
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: 7.4 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 23 inches; clay loam
H2--23 to 33 inches; silt loam
H3--33 to 60 inches; gravelly coarse sand

Biscay

Extent: 5 percent of the unit
Geomorphic description:
Flat

Estherville

Extent: 5 percent of the unit

Linder

Extent: 5 percent of the unit

327A--Dickman Sandy Loam, 0 To 2 Percent Slopes

Component Description

Dickman and similar soils

Extent: 90 percent of the unit
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
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 14 inches; sandy loam
H2--14 to 20 inches; sandy loam
H3--20 to 60 inches; sand

Biscay

Extent: 5 percent of the unit
Geomorphic description:
Flat

Hanska

Extent: 5 percent of the unit
Geomorphic description:
Flat

327B--Dickman Sandy Loam, 2 To 6 Percent Slopes

Component Description

Dickman and similar soils

Extent: 85 percent of the unit
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
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 11 inches; sandy loam
H2--11 to 20 inches; sandy loam
H3--20 to 60 inches; sand

Biscay

Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Hanska

Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Linder

Extent: 5 percent of the unit

327C--Dickman Sandy Loam, 6 To 12 Percent Slopes

Component Description

Dickman and similar soils

Extent: 85 percent of the unit
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
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
H1--0 to 8 inches; sandy loam
H2--8 to 16 inches; sandy loam
H3--16 to 60 inches; sand

Biscay

Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Hanska

Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Linder

Extent: 5 percent of the unit

336--Delft Loam, 1 To 3 Percent Slopes

Component Description

Delft and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Drainageway

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

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: 11.7 inches

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

Typical profile:

H1--0 to 19 inches; loam

H2--19 to 30 inches; clay loam

H3--30 to 49 inches; clay loam

H4--49 to 60 inches; loam

Glencoe

Extent: 10 percent of the unit

Geomorphic description:

Depression

Webster

Extent: 5 percent of the unit

Geomorphic description:

Flat

386--Okoboji Mucky Silty Clay Loam, Depressional, 0 To 1 Percent Slopes

Component Description

Okoboji and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 1 percent

Surface layer texture: Mucky silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

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: 12.0 inches

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

Typical profile:

H1--0 to 13 inches; mucky silty clay loam

H2--13 to 35 inches; silty clay loam

H3--35 to 60 inches; silty clay loam

Blue earth

Extent: 5 percent of the unit

Geomorphic description:

Depression

Harps

Extent: 5 percent of the unit

Geomorphic description:

Rim

Klossner

Extent: 5 percent of the unit

Geomorphic description:

Depression

392--Biscay Loam, 0 To 2 Percent Slopes

Component Description

Biscay and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

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: 5.9 inches

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

Typical profile:

H1--0 to 17 inches; loam

H2--17 to 24 inches; sandy clay loam

H3--24 to 60 inches; stratified coarse sand to loamy sand

Estherville

Extent: 5 percent of the unit

Linder

Extent: 5 percent of the unit

Mayer

Extent: 5 percent of the unit

Geomorphic description:

Flat

423--Seaforth Loam, 1 To 3 Percent Slopes

Component Description

Seaforth and similar soils

Extent: 85 percent of the unit

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

Flooding: None

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

1.5 feet April

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

More than 5.0 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.9 inches

Content of organic matter in the upper 10 inches: 3.8 percent

Typical profile:

H1--0 to 8 inches; loam

H2--8 to 23 inches; loam

H3--23 to 60 inches; loam

Canisteco

Extent: 10 percent of the unit
Geomorphic description:
Flat

Okoboji

Extent: 5 percent of the unit
Geomorphic description:
Depression

446--Normania Loam, 1 To 3 Percent Slopes

Component Description

Normania and similar soils

Extent: 85 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.7 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 14 inches; loam
H2--14 to 20 inches; loam
H3--20 to 29 inches; loam
H4--29 to 60 inches; loam

Webster

Extent: 10 percent of the unit
Geomorphic description:
Flat

Glencoe

Extent: 5 percent of the unit
Geomorphic description:
Depression

463A--Minneiska Silt Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Minneiska and similar soils

Extent: 85 percent of the unit
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
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.0 inches
Content of organic matter in the upper 10 inches: 3.3 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 60 inches; stratified sand to loamy fine sand to loam

Rushriver

Extent: 10 percent of the unit
Geomorphic description:
Flood plain

Du page
Extent: 5 percent of the unit

463B--Minneiska Loam, 1 To 4 Percent Slopes, Rarely Flooded

Component Description

Minneiska and similar soils
Extent: 85 percent of the unit
Slope range: 1 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.1 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 60 inches; stratified sand to loamy fine sand to loam

Du page
Extent: 5 percent of the unit

Havelock
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

Terril
Extent: 5 percent of the unit

519--Klossner Muck, Depressional, Calcareous, 0 To 1 Percent Slopes

Component Description

Klossner and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Depression
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
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: 16.9 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
H1--0 to 22 inches; muck
H2--22 to 34 inches; mucky silty clay loam
H3--34 to 47 inches; silty clay loam
H4--47 to 60 inches;

Harps
Extent: 5 percent of the unit
Geomorphic description:

Rim

Muskego

Extent: 5 percent of the unit
Geomorphic description:
Depression

Okoboji

Extent: 5 percent of the unit
Geomorphic description:
Depression

525--Muskego Muck, Depressional, 0 To 1 Percent Slopes

Component Description

Muskego and similar soils

Extent: 90 percent of the unit
Geomorphic description:
Depression
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
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: 16.4 inches
Content of organic matter in the upper 10 inches: 75.0 percent
Typical profile:
H1--0 to 10 inches; muck
H2--10 to 20 inches; muck
H3--20 to 60 inches; mucky silt loam

Blue earth

Extent: 5 percent of the unit
Geomorphic description:
Depression

Okoboji

Extent: 5 percent of the unit
Geomorphic description:
Depression

539--Klossner Muck, Depressional, 0 To 1 Percent Slopes

Component Description

Klossner and similar soils

Extent: 90 percent of the unit
Geomorphic description:
Depression
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
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: 16.7 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
H1--0 to 20 inches; muck
H2--20 to 29 inches; mucky silty clay loam
H3--29 to 60 inches; silty clay loam

Canisteo
Extent: 5 percent of the unit
Geomorphic description:
Rim

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

574--Du Page Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Du page and similar soils
Extent: 85 percent of the unit
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
Flooding does not occur (months):
January February March July August September October
November December
Flooding is most likely (frequency, months):
Occasional April May June
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3.8 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 60 inches; loam

Havelock
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

Nishna
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

Rushriver
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

575--Nishna Silty Clay, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Nishna and similar soils
Extent: 85 percent of the unit
Geomorphic description:
Flood plain
Slope range: 0 to 2 percent

Surface layer texture: Silty clay
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
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: 7.3 inches
Content of organic matter in the upper 10 inches: 4.7 percent
Typical profile:
H1--0 to 9 inches; silty clay
H2--9 to 60 inches; silty clay

Du page
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

Havelock
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

Rushriver
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

595F--Swanlake Loam, 18 To 50 Percent Slopes

Component Description

Swanlake and similar soils
Extent: 85 percent of the unit
Slope range: 18 to 50 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 2.4 percent
Typical profile:
H1--0 to 7 inches; loam
H2--7 to 43 inches; loam
H3--43 to 60 inches; loam

Delft
Extent: 10 percent of the unit
Geomorphic description:
Drainageway

Terril
Extent: 5 percent of the unit

610--Calco Silty Clay Loam, 0 To 1 Percent Slopes, Frequently Flooded

Component Description

Calco and similar soils
Extent: 90 percent of the unit
Geomorphic description:
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: Poorly drained
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 March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
All year
Ponding is deepest (depth, months):
Same as for shallowest
Available water capacity to a depth of 60 inches: 12.7 inches
Content of organic matter in the upper 10 inches: 5.4 percent
Typical profile:
H1--0 to 7 inches; silty clay loam
H2--7 to 44 inches; silty clay loam
H3--44 to 60 inches; silty clay loam

Rushriver

Extent: 10 percent of the unit
Geomorphic description:
Flood plain

770C2--Ves-Terril Complex, 6 To 15 Percent Slopes, Eroded

Component Description

Ves and similar soils

Extent: 60 percent of the unit
Slope range: 6 to 15 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.7 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 16 inches; loam
H2--16 to 20 inches; loam
H3--20 to 28 inches; loam
H4--28 to 60 inches; loam

Terril and similar soils

Extent: 30 percent of the unit
Slope range: 6 to 15 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.7 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 36 inches; loam
H2--36 to 45 inches; loam
H3--45 to 60 inches; loam

Delft

Extent: 10 percent of the unit
Geomorphic description:
Drainageway

810--Coriff-Fieldon Complex, 0 To 2 Percent Slopes

Component Description

Coriff and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

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: 10.0 inches

Content of organic matter in the upper 10 inches: 8.0 percent

Typical profile:

H1--0 to 10 inches; loam

H2--10 to 24 inches; sandy loam

H3--24 to 33 inches; loamy fine sand

H4--33 to 60 inches; loam

Fieldon and similar soils

Extent: 45 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

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: 6.3 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

H1--0 to 17 inches; fine sandy loam

H2--17 to 27 inches; fine sandy loam

H3--27 to 60 inches; stratified fine sand to fine sandy loam

Hanska

Extent: 5 percent of the unit

Geomorphic description:

Flat

817--Canisteo-Seaforth Complex, 0 To 3 Percent Slopes

Component Description

Canisteo and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Flat

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

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

H1--0 to 20 inches; silty clay loam
H2--20 to 31 inches; clay loam
H3--31 to 38 inches; clay loam
H4--38 to 60 inches; loam

Seaforth and similar soils

Extent: 30 percent of the unit
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
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.9 inches
Content of organic matter in the upper 10 inches: 3.8 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 14 inches; loam
H3--14 to 60 inches; loam

Okoboji

Extent: 10 percent of the unit
Geomorphic description:
Depression

875C--Hawick-Estherville Complex, 6 To 12 Percent Slopes

Component Description

Hawick and similar soils

Extent: 60 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Gravelly sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.8 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
H1--0 to 8 inches; gravelly sandy loam
H2--8 to 12 inches; gravelly loamy coarse sand
H3--12 to 60 inches; gravelly coarse sand

Estherville and similar soils

Extent: 25 percent of the unit
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
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 10 inches; sandy loam
H2--10 to 18 inches; sandy loam
H3--18 to 60 inches; gravelly coarse sand

Biscay

Extent: 5 percent of the unit

Geomorphic description:
Drainageway

Linder

Extent: 5 percent of the unit

Wadena

Extent: 5 percent of the unit

887B--Clarion-Swanlake Complex, 2 To 6 Percent Slopes

Component Description

Clarion and similar soils

Extent: 70 percent of the unit

Slope range: 2 to 5 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

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

3.6 feet April

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

More than 5.0 feet January February July August
September October December

Ponding: None

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

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

Typical profile:

H1--0 to 16 inches; loam

H2--16 to 31 inches; loam

H3--31 to 60 inches; loam

Swanlake and similar soils

Extent: 20 percent of the unit

Slope range: 4 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

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

Ponding: None

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

Content of organic matter in the upper 10 inches: 2.6 percent

Typical profile:

H1--0 to 8 inches; loam

H2--8 to 14 inches; loam

H3--14 to 60 inches; loam

Webster

Extent: 10 percent of the unit

Geomorphic description:

Drainageway

899--Harps-Okoboji, Depressional, Complex, 0 To 2 Percent Slopes

Component Description

Harps and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Rim

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

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: 10.6 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 13 inches; clay loam
H2--13 to 17 inches; clay loam
H3--17 to 60 inches; loam

Okoboji and similar soils

Extent: 30 percent of the unit
Geomorphic description:
Depression
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
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: 11.6 inches
Content of organic matter in the upper 10 inches: 8.5 percent
Typical profile:
H1--0 to 8 inches; silty clay loam
H2--8 to 28 inches; silty clay loam
H3--28 to 60 inches; silty clay loam

Canisteco

Extent: 5 percent of the unit
Geomorphic description:
Flat

Seaforth

Extent: 5 percent of the unit

920B--Clarion-Storden-Hawick Complex, 2 To 6 Percent Slopes

Component Description

Clarion and similar soils

Extent: 50 percent of the unit
Slope range: 2 to 5 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 14 inches; loam
H2--14 to 26 inches; loam
H3--26 to 60 inches; loam

Storden and similar soils

Extent: 20 percent of the unit
Slope range: 4 to 6 percent
Surface layer texture: Loam

Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 36 inches; loam
H3--36 to 60 inches; loam

Hawick and similar soils

Extent: 15 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Gravelly sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.9 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
H1--0 to 10 inches; gravelly sandy loam
H2--10 to 15 inches; gravelly loamy coarse sand
H3--15 to 60 inches; gravelly coarse sand

Webster

Extent: 10 percent of the unit
Geomorphic description:
Drainageway

Glencoe

Extent: 5 percent of the unit
Geomorphic description:
Depression

927--Harps-Seaforth-Okoboji, Depressional, Complex, 0 To 3 Percent Slopes

Component Description

Harps and similar soils

Extent: 40 percent of the unit
Geomorphic description:
Rim
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
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: 10.9 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 18 inches; clay loam
H2--18 to 33 inches; clay loam
H3--33 to 60 inches; loam

Seaforth and similar soils

Extent: 30 percent of the unit
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

Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 13 inches; loam
H2--13 to 24 inches; loam
H3--24 to 60 inches; loam

Okoboji and similar soils

Extent: 25 percent of the unit
Geomorphic description:
Depression
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
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: 11.6 inches
Content of organic matter in the upper 10 inches: 8.5 percent
Typical profile:
H1--0 to 9 inches; silty clay loam
H2--9 to 41 inches; silty clay loam
H3--41 to 60 inches; silty clay loam

Canisteo

Extent: 5 percent of the unit
Geomorphic description:
Flat

954C2--Ves-Storden Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Ves and similar soils

Extent: 65 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 22 inches; loam
H3--22 to 38 inches; loam
H4--38 to 60 inches; loam

Storden and similar soils

Extent: 25 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained

Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
H1--0 to 7 inches; loam
H2--7 to 20 inches; loam
H3--20 to 60 inches; loam

Delft

Extent: 10 percent of the unit
Geomorphic description:
Drainageway

956--Canisteo-Glencoe, Depressional, Complex, 0 To 2 Percent Slopes

Component Description

Canisteo and similar soils

Extent: 65 percent of the unit
Geomorphic description:
Flat
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
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 16 inches; clay loam
H2--16 to 21 inches; clay loam
H3--21 to 28 inches; clay loam
H4--28 to 60 inches; loam

Glencoe and similar soils

Extent: 25 percent of the unit
Geomorphic description:
Depression
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
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
H1--0 to 10 inches; clay loam
H2--10 to 32 inches; clay loam
H3--32 to 42 inches; loam
H4--42 to 60 inches; loam

Crippin

Extent: 5 percent of the unit

Harps

Extent: 5 percent of the unit
Geomorphic description:
Rim

960D2--Storden-Omsrud Complex, 12 To 18 Percent Slopes, Eroded

Component Description

Storden and similar soils

Extent: 65 percent of the unit
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
H1--0 to 7 inches; loam
H2--7 to 18 inches; loam
H3--18 to 60 inches; loam

Omsrud and similar soils

Extent: 20 percent of the unit
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 2.9 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 36 inches; loam
H3--36 to 60 inches; loam

Delft

Extent: 10 percent of the unit
Geomorphic description:
Drainageway

Terril

Extent: 5 percent of the unit

960F--Storden-Omsrud Complex, 18 To 50 Percent Slopes

Component Description

Storden and similar soils

Extent: 70 percent of the unit
Slope range: 18 to 50 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
H1--0 to 6 inches; loam
H2--6 to 15 inches; loam
H3--15 to 60 inches; loam

Omsrud and similar soils

Extent: 15 percent of the unit
Slope range: 18 to 40 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 2.9 percent
Typical profile:
 H1--0 to 9 inches; loam
 H2--9 to 16 inches; loam
 H3--16 to 60 inches; loam

Delft

Extent: 10 percent of the unit
Geomorph description:
 Drainageway

Terril

Extent: 5 percent of the unit

978--Cordova-Rolfe, Depressional, Complex, 0 To 2 Percent Slopes

Component Description

Cordova and similar soils

Extent: 60 percent of the unit
Geomorph description:
 Flat
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
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: 10.4 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
 H1--0 to 22 inches; clay loam
 H2--22 to 39 inches; clay loam
 H3--39 to 60 inches; loam

Rolfe and similar soils

Extent: 30 percent of the unit
Geomorph description:
 Depression
Slope range: 0 to 1 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Very poorly drained
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: 10.1 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
 H1--0 to 21 inches; silt loam

H2--21 to 40 inches; silty clay
H3--40 to 60 inches; clay loam

Nicollet

Extent: 10 percent of the unit

999C2--Ves-Storden-Hawick Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Storden and similar soils

Extent: 35 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
 H1--0 to 7 inches; loam
 H2--7 to 32 inches; loam
 H3--32 to 60 inches; loam

Ves and similar soils

Extent: 35 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.4 percent
Typical profile:
 H1--0 to 8 inches; loam
 H2--8 to 25 inches; loam
 H3--25 to 40 inches; loam
 H4--40 to 60 inches; loam

Delft

Extent: 15 percent of the unit
Geomorphic description:
 Drainageway
Ponding: None

Hawick and similar soils

Extent: 15 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Gravelly sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.9 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
 H1--0 to 7 inches; gravelly sandy loam
 H2--7 to 15 inches; gravelly loamy coarse sand
 H3--15 to 60 inches; gravelly coarse sand

1030--Pits, Gravel-Udipsammments Complex

Component Description

Pits and similar soils

Extent: 45 percent of the unit
Depth to restrictive feature:
 Very deep (more than 60 inches)
Flooding: None
Ponding: None

Udipsamments

Extent: 45 percent of the unit
Slope range: 0 to 30 percent
Surface layer texture: Sand
Drainage class: Excessively drained
Flooding: None
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 0.2 percent
Typical profile:
 H1--0 to 14 inches; sand
 H2--14 to 60 inches; sand
 H3--60 to 80 inches; coarse sand

Biscay

Extent: 10 percent of the unit
Geomorphic description:
 Flat

1080--Klossner, Okoboji, And Glencoe Soils, Ponded, 0 To 1 Percent Slopes

Component Description

Glencoe and similar soils

Extent: 30 percent of the unit
Geomorphic description:
 Depression
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
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
 0.5 foot August September October
Ponding is deepest (depth, months):
 1.0 foot January February March April May
 June July November December
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
 H1--0 to 26 inches; silty clay loam
 H2--26 to 30 inches; clay loam
 H3--30 to 60 inches; loam

Klossner and similar soils

Extent: 30 percent of the unit
Geomorphic description:
 Depression
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
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
 0.5 foot August September October
Ponding is deepest (depth, months):
 1.0 foot January February March April May
 June July November December
Available water capacity to a depth of 60 inches: 17.8 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
 H1--0 to 32 inches; muck

H2--32 to 60 inches; clay loam

Okoboji and similar soils

Extent: 30 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 1 percent

Surface layer texture: Mucky silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August September October

Ponding is deepest (depth, months):

1.0 foot January February March April May
June July November December

Available water capacity to a depth of 60 inches: 12.2 inches

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

Typical profile:

H1--0 to 17 inches; mucky silty clay loam

H2--17 to 48 inches; silty clay loam

H3--48 to 60 inches; silty clay loam

Harps

Extent: 10 percent of the unit

Geomorphic description:

Rim

1100--Nicollet Silty Clay Loam, 1 To 3 Percent Slopes

Component Description

Nicollet and similar soils

Extent: 85 percent of the unit

Slope range: 1 to 3 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Flooding: None

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

1.5 feet April

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

More than 5.0 feet February August

Ponding: None

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

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

Typical profile:

H1--0 to 15 inches; silty clay loam

H2--15 to 20 inches; clay loam

H3--20 to 60 inches; loam

Webster

Extent: 10 percent of the unit

Geomorphic description:

Flat

Okoboji

Extent: 5 percent of the unit

Geomorphic description:

Depression

1101--Webster Silty Clay Loam, Moderately Fine Substratum, 0 To 2 Percent Slopes

Component Description

Webster and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Flat
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
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:
 H1--0 to 17 inches; silty clay loam
 H2--17 to 24 inches; clay loam
 H3--24 to 60 inches; loam

Nicollet
 Extent: 5 percent of the unit

Okoboji
 Extent: 5 percent of the unit
 Geomorphic description:
 Depression

1159B--Strout-Arkton Complex, 2 To 6 Percent Slopes

Component Description

Strout and similar soils
 Extent: 70 percent of the unit
 Slope range: 2 to 6 percent
 Surface layer texture: Clay
 Depth to restrictive feature:
 Very deep (more than 60 inches)
 Drainage class: Moderately well drained
 Flooding: None
 Wet soil moisture status is highest (depth, months):
 3.6 feet April
 Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet January February July August
 September October December
 Ponding: None
 Available water capacity to a depth of 60 inches: 8.4 inches
 Content of organic matter in the upper 10 inches: 4.5 percent
 Typical profile:
 H1--0 to 10 inches; clay
 H2--10 to 23 inches; clay loam
 H3--23 to 60 inches; clay loam

Arkton and similar soils
 Extent: 20 percent of the unit
 Slope range: 4 to 6 percent
 Surface layer texture: Clay loam
 Depth to restrictive feature:
 Very deep (more than 60 inches)
 Drainage class: Moderately well drained
 Flooding: None
 Wet soil moisture status is highest (depth, months):
 1.5 feet April
 Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet February August
 Ponding: None
 Available water capacity to a depth of 60 inches: 9.5 inches
 Content of organic matter in the upper 10 inches: 3.3 percent
 Typical profile:
 H1--0 to 9 inches; clay loam
 H2--9 to 25 inches; clay loam
 H3--25 to 60 inches; clay loam

Cosmos

Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Lura

Extent: 5 percent of the unit
Geomorphic description:
Depression

1162A--Kandiyohi Clay, 0 To 2 Percent Slopes

Component Description

Kandiyohi and similar soils

Extent: 85 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Clay
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April May
Wet soil moisture status is lowest (depth, months):
4.9 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: 5.2 percent
Typical profile:
H1--0 to 9 inches; clay
H2--9 to 21 inches; clay
H3--21 to 46 inches; clay loam
H4--46 to 60 inches; clay loam

Cosmos

Extent: 10 percent of the unit
Geomorphic description:
Flat

Lura

Extent: 5 percent of the unit
Geomorphic description:
Depression

1169--Corvuso-Lura, Depressional, Complex, 0 To 2 Percent Slopes

Component Description

Corvuso and similar soils

Extent: 60 percent of the unit
Geomorphic description:
Rim
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
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 8.8 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
H1--0 to 11 inches; clay loam
H2--11 to 28 inches; clay
H3--28 to 60 inches; clay loam

Lura and similar soils

Extent: 30 percent of the unit

Geomorphic description:

Depression
Slope range: 0 to 1 percent
Surface layer texture: Silty clay
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
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: 9.4 inches
Content of organic matter in the upper 10 inches: 7.6 percent
Typical profile:
H1--0 to 9 inches; silty clay
H2--9 to 43 inches; silty clay
H3--43 to 60 inches; silty clay

Cosmos

Extent: 5 percent of the unit
Geomorphic description:
Flat

Kandiyohi

Extent: 5 percent of the unit

1193--Cosmos Silty Clay, 0 To 2 Percent Slopes

Component Description

Cosmos and similar soils

Extent: 85 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Silty clay
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 23 inches; silty clay
H2--23 to 38 inches; clay
H3--38 to 60 inches; silty clay

Corvuso

Extent: 5 percent of the unit
Geomorphic description:
Rim

Kandiyohi

Extent: 5 percent of the unit

Lura

Extent: 5 percent of the unit
Geomorphic description:
Depression

1205--Leen-Okoboji, Depressional, Complex, 0 To 2 Percent Slopes

Component Description

Leen and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Rim

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

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: 5.7 percent

Typical profile:

H1--0 to 9 inches; silty clay loam

H2--9 to 27 inches; silt loam

H3--27 to 36 inches; silt loam

H4--36 to 60 inches; loam

Okoboji and similar soils

Extent: 30 percent of the unit

Geomorphic description:

Depression

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

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: 12.3 inches

Content of organic matter in the upper 10 inches: 8.5 percent

Typical profile:

H1--0 to 32 inches; silty clay loam

H2--32 to 38 inches; silty clay loam

H3--38 to 60 inches; silty clay loam

Louris

Extent: 10 percent of the unit

1242F--Swanlake-Terril Complex, 18 To 50 Percent Slopes

Component Description

Swanlake and similar soils

Extent: 50 percent of the unit

Slope range: 18 to 50 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

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

Ponding: None

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

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

Typical profile:

H1--0 to 9 inches; loam

H2--9 to 15 inches; loam
H3--15 to 60 inches; loam

Terril and similar soils

Extent: 40 percent of the unit
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
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
 H1--0 to 32 inches; loam
 H2--32 to 40 inches; loam
 H3--40 to 60 inches; loam

Delft

Extent: 10 percent of the unit
Geomorphic description:
 Drainageway

1261B--Bechyn Loam, 2 To 6 Percent Slopes

Component Description

Bechyn and similar soils

Extent: 85 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Bedrock (lithic): 8 to 20 inches
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
 H1--0 to 15 inches; loam
 H2--15 to 18 inches; loam
 H3--18 to 60 inches; bedrock

Cedarrock

Extent: 15 percent of the unit
Geomorphic description:
 Flood plain
Ponding: None

1262--Seaforth Silt Loam, 1 To 3 Percent Slopes

Component Description

Seaforth and similar soils

Extent: 85 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 1.5 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:

H1--0 to 16 inches; silt loam
H2--16 to 44 inches; loam
H3--44 to 60 inches; loam

Chetomba

Extent: 5 percent of the unit
Geomorphic description:
Flat

Leen

Extent: 5 percent of the unit
Geomorphic description:
Flat

Okoboji

Extent: 5 percent of the unit
Geomorphic description:
Depression

1267--Cedarrock Silty Clay Loam, 0 To 2 Percent Slopes, Frequently Flooded

Component Description

Cedarrock 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:
Bedrock (lithic): 24 to 40 inches
Drainage class: Poorly drained
Flooding does not occur (months):
January February July August 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: 6.7 inches
Content of organic matter in the upper 10 inches: 8.0 percent
Typical profile:
H1--0 to 28 inches; silty clay loam
H2--28 to 34 inches; loam
H3--34 to 60 inches;

Havelock

Extent: 10 percent of the unit
Geomorphic description:
Flood plain

Nishna

Extent: 5 percent of the unit
Geomorphic description:
Flood plain

1268--Hanlon Loam, 1 To 3 Percent Slopes, Rarely Flooded

Component Description

Hanlon and similar soils

Extent: 85 percent of the unit
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
Flooding: None
Wet soil moisture status is highest (depth, months):

1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.1 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
H1--0 to 14 inches; loam
H2--14 to 48 inches; fine sandy loam
H3--48 to 60 inches; fine sandy loam

Coland

Extent: 10 percent of the unit
Geomorphic description:
Flood plain

Havelock

Extent: 5 percent of the unit
Geomorphic description:
Flood plain

1269--Lowlein Silt Loam, 0 To 2 Percent Slopes

Component Description

Lowlein and similar soils

Extent: 85 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
H1--0 to 15 inches; silt loam
H2--15 to 32 inches; fine sandy loam
H3--32 to 60 inches; loam

Hanska

Extent: 10 percent of the unit
Geomorphic description:
Drainageway

Biscay

Extent: 5 percent of the unit
Geomorphic description:
Flat

1270D--Bechyn-Rock Outcrop Complex, 0 To 40 Percent Slopes

Component Description

Bechyn and similar soils

Extent: 65 percent of the unit
Slope range: 0 to 40 percent
Surface layer texture: Loam
Depth to restrictive feature:
Bedrock (lithic): 8 to 20 inches
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.1 inches
Content of organic matter in the upper 10 inches: 3.3 percent
Typical profile:

H1--0 to 9 inches; loam
H2--9 to 15 inches; loam
H3--15 to 60 inches; bedrock

Outcrop and similar soils

Extent: 25 percent of the unit
Slope range: 0 to 40 percent
Surface layer texture: Bedrock
Depth to restrictive feature:
 Bedrock (lithic): 0 to 4 inches
Flooding: None
Ponding: None
Typical profile:
 H1--0 to 60 inches; bedrock

Cedarrock

Extent: 5 percent of the unit
Geomorphic description:
 Flood plain

Delft

Extent: 5 percent of the unit
Geomorphic description:
 Drainageway

1285--Chetomba Silty Clay Loam, 0 To 2 Percent Slopes

Component Description

Chetomba and similar soils

Extent: 85 percent of the unit
Geomorphic description:
 Flat
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
Flooding: None
Wet soil moisture status is highest (depth, months):
 0.5 foot April
Wet soil moisture status is lowest (depth, months):
 3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
 H1--0 to 23 inches; silty clay loam
 H2--23 to 31 inches; silty clay loam
 H3--31 to 43 inches; silt loam
 H4--43 to 60 inches; loam

Crooksford

Extent: 5 percent of the unit

Okoboji

Extent: 5 percent of the unit
Geomorphic description:
 Depression

Prinsburg

Extent: 5 percent of the unit
Geomorphic description:
 Flat

1286--Prinsburg Silty Clay Loam, 0 To 2 Percent Slopes

Component Description

Prinsburg and similar soils

Extent: 85 percent of the unit
Geomorphic description:

Flat
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
Flooding: None
Wet soil moisture status is highest (depth, months):
 0.5 foot April
Wet soil moisture status is lowest (depth, months):
 3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
 H1--0 to 19 inches; silty clay loam
 H2--19 to 36 inches; silt loam
 H3--36 to 46 inches; silt loam
 H4--46 to 60 inches; clay loam

Okoboji
 Extent: 10 percent of the unit
 Geomorphic description:
 Depression

Louris
 Extent: 5 percent of the unit

1287--Calco Silty Clay Loam, Ponded, 0 To 1 Percent Slopes, Frequently Flooded

Component Description

Calco and similar soils
 Extent: 85 percent of the unit
 Geomorphic description:
 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: Poorly drained
 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: 12.6 inches
 Content of organic matter in the upper 10 inches: 5.4 percent
 Typical profile:
 H1--0 to 7 inches; silty clay loam
 H2--7 to 41 inches; silty clay loam
 H3--41 to 60 inches; silty clay loam

Nishna
 Extent: 10 percent of the unit
 Geomorphic description:
 Flood plain

Prinsburg
 Extent: 5 percent of the unit

1355B--Amiret-Swanlake Complex, 2 To 6 Percent Slopes

Component Description

Amiret and similar soils
 Extent: 70 percent of the unit

Slope range: 2 to 5 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 1.5 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
 H1--0 to 10 inches; loam
 H2--10 to 26 inches; loam
 H3--26 to 35 inches; loam
 H4--35 to 60 inches; loam

Swanlake and similar soils

Extent: 20 percent of the unit
Slope range: 4 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 2.4 percent
Typical profile:
 H1--0 to 7 inches; loam
 H2--7 to 32 inches; loam
 H3--32 to 60 inches; loam

Glencoe

Extent: 5 percent of the unit
Geomorphic description:
 Depression

Webster

Extent: 5 percent of the unit
Geomorphic description:
 Drainageway

1356--Water, Miscellaneous

Component Description

Water

Extent: 100 percent of the unit
Ponding: None

1369A--Crooksford Silt Loam, 1 To 3 Percent Slopes

Component Description

Crooksford and similar soils

Extent: 90 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 1.5 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.8 inches

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

Typical profile:

H1--0 to 15 inches; silt loam
H2--15 to 29 inches; silt loam
H3--29 to 36 inches; loam
H4--36 to 60 inches; loam

Chetomba

Extent: 5 percent of the unit
Geomorphic description:
Flat

Okoboji

Extent: 5 percent of the unit
Geomorphic description:
Depression

1369B--Crooksford Silt Loam, 3 To 5 Percent Slopes

Component Description

Crooksford and similar soils

Extent: 85 percent of the unit
Slope range: 3 to 5 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 12.0 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
H1--0 to 15 inches; silt loam
H2--15 to 27 inches; silt loam
H3--27 to 43 inches; loam
H4--43 to 60 inches; loam

Chetomba

Extent: 10 percent of the unit
Geomorphic description:
Drainageway

Okoboji

Extent: 5 percent of the unit
Geomorphic description:
Depression

1370B--Amiret Loam, 2 To 5 Percent Slopes

Component Description

Amiret and similar soils

Extent: 85 percent of the unit
Slope range: 2 to 5 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

H1--0 to 12 inches; loam
H2--12 to 20 inches; loam
H3--20 to 30 inches; loam
H4--30 to 60 inches; loam

Chetomba

Extent: 10 percent of the unit
Geomorphic description:
Drainageway

Okoboji

Extent: 5 percent of the unit
Geomorphic description:
Depression

1371B--Crooksford-Swanlake Complex, 3 To 6 Percent Slopes

Component Description

Crooksford and similar soils

Extent: 60 percent of the unit
Slope range: 3 to 5 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.7 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
H1--0 to 10 inches; silt loam
H2--10 to 25 inches; silt loam
H3--25 to 35 inches; loam
H4--35 to 60 inches; loam

Swanlake and similar soils

Extent: 30 percent of the unit
Slope range: 4 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 46 inches; loam
H3--46 to 60 inches; loam

Chetomba

Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Webster

Extent: 5 percent of the unit
Geomorphic description:
Drainageway

1373C--Omsrud-Storden-Hawick Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Omsrud and similar soils

Extent: 45 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
 H1--0 to 7 inches; loam
 H2--7 to 22 inches; loam
 H3--22 to 60 inches; loam

Storden and similar soils

Extent: 30 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
 H1--0 to 10 inches; loam
 H2--10 to 23 inches; loam
 H3--23 to 60 inches; loam

Hawick and similar soils

Extent: 15 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Gravelly sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.3 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
 H1--0 to 9 inches; gravelly sandy loam
 H2--9 to 28 inches; gravelly loamy coarse sand
 H3--28 to 60 inches; gravelly coarse sand

Delft

Extent: 10 percent of the unit
Geomorphic description:
 Drainageway

1374--Havelock Clay Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Havelock and similar soils

Extent: 85 percent of the unit
Geomorphic description:
 Flood plain
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
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: 11.1 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 23 inches; clay loam
H2--23 to 35 inches; clay loam
H3--35 to 60 inches; loam

Calco

Extent: 10 percent of the unit
Geomorphic description:
Flood plain

Rushriver

Extent: 5 percent of the unit
Geomorphic description:
Flood plain

1375D--Storden-Ves Complex, 12 To 18 Percent Slopes, Eroded

Component Description

Storden and similar soils

Extent: 60 percent of the unit
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 24 inches; loam
H3--24 to 60 inches; loam

Ves and similar soils

Extent: 30 percent of the unit
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.4 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 22 inches; loam
H3--22 to 44 inches; loam
H4--44 to 60 inches; loam

Delft

Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Terril

Extent: 5 percent of the unit

1376C--Omsrud-Storden Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Omsrud and similar soils

Extent: 50 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 H1--0 to 10 inches; loam
 H2--10 to 29 inches; loam
 H3--29 to 60 inches; loam

Storden and similar soils

Extent: 40 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
 H1--0 to 7 inches; loam
 H2--7 to 55 inches; loam
 H3--55 to 60 inches; loam

Delft

Extent: 10 percent of the unit
Geomorphic description:
 Drainageway

1382--Louris Silt Loam, 1 To 3 Percent Slopes

Component Description

Louris and similar soils

Extent: 85 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 1.5 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
 H1--0 to 13 inches; silt loam
 H2--13 to 20 inches; silt loam
 H3--20 to 31 inches; silt loam
 H4--31 to 60 inches; loam

Leen

Extent: 10 percent of the unit
Geomorphic description:
 Flat

Okoboji

Extent: 5 percent of the unit
Geomorphic description:

Depression

1386B--Amiret-Swanlake-Hawick Complex, 2 To 6 Percent Slopes

Component Description

Amiret and similar soils

Extent: 40 percent of the unit
Slope range: 2 to 5 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 3.6 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet January February July August
 September October December
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
 H1--0 to 12 inches; loam
 H2--12 to 20 inches; loam
 H3--20 to 50 inches; loam
 H4--50 to 60 inches; loam

Swanlake and similar soils

Extent: 30 percent of the unit
Slope range: 4 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 2.6 percent
Typical profile:
 H1--0 to 8 inches; loam
 H2--8 to 15 inches; loam
 H3--15 to 60 inches; loam

Hawick and similar soils

Extent: 15 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Gravelly loamy coarse sand
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.3 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
 H1--0 to 8 inches;
 H2--8 to 13 inches; gravelly loamy coarse sand
 H3--13 to 60 inches; gravelly coarse sand

Webster

Extent: 10 percent of the unit
Geomorphic description:
 Drainageway

Glencoe

Extent: 5 percent of the unit
Geomorphic description:
 Depression

1388B--Terril Loam, Moderately Wet, 2 To 6 Percent Slopes

Component Description

Terril and similar soils

Extent: 90 percent of the unit
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
Flooding: None
Wet soil moisture status is highest (depth, months):
 1.5 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
 H1--0 to 27 inches; loam
 H2--27 to 40 inches; loam
 H3--40 to 60 inches; loam

Delft

Extent: 10 percent of the unit
Geomorphic description:
 Drainageway

1389--Havelock Silt Loam, 0 To 2 Percent Slopes, Frequently Flooded

Component Description

Havelock and similar soils

Extent: 85 percent of the unit
Geomorphic description:
 Flood plain
Slope range: 0 to 2 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Poorly drained
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 March April
Wet soil moisture status is lowest (depth, months):
 2.0 feet February August
Ponding does not occur (months):
 All year
Ponding is deepest (depth, months):
 Same as for shallowest
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
 H1--0 to 30 inches; silt loam
 H2--30 to 40 inches; clay loam
 H3--40 to 60 inches; loam

Rushriver

Extent: 10 percent of the unit
Geomorphic description:
 Flood plain

Nishna

Extent: 5 percent of the unit
Geomorphic description:
 Flood plain

1390--Leen Silty Clay Loam, 0 To 2 Percent Slopes

Component Description

Leen and similar soils

Extent: 85 percent of the unit

Geomorphic description:

Flat

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

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: 11.7 inches

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

Typical profile:

H1--0 to 15 inches; silty clay loam

H2--15 to 25 inches; silt loam

H3--25 to 38 inches; silt loam

H4--38 to 60 inches; loam

Louris

Extent: 10 percent of the unit

Okoboji

Extent: 5 percent of the unit

Geomorphic description:

Depression

1392B--Grogan Silt Loam, Moderately Wet, 1 To 4 Percent Slopes

Component Description

Grogan and similar soils

Extent: 90 percent of the unit

Slope range: 1 to 4 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

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

3.6 feet April

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

More than 5.0 feet January February July August
September October December

Ponding: None

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

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

Typical profile:

H1--0 to 15 inches; silt loam

H2--15 to 38 inches; silt loam

H3--38 to 60 inches; stratified loamy very fine sand to silt loam

Bechyn

Extent: 5 percent of the unit

Chetomba

Extent: 5 percent of the unit

Geomorphic description:

Drainageway

1802--Calcousta-Okoboji Complex, Depressional, 0 To 1 Percent Slopes

Component Description

Calcousta and similar soils

Extent: 50 percent of the unit
Geomorphic description:
Depression
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
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: 12.4 inches
Content of organic matter in the upper 10 inches: 9.0 percent
Typical profile:
H1--0 to 12 inches; silty clay loam
H2--12 to 24 inches; silty clay loam
H3--24 to 60 inches; silty clay loam

Okoboji and similar soils

Extent: 40 percent of the unit
Geomorphic description:
Depression
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
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: 11.7 inches
Content of organic matter in the upper 10 inches: 11.8 percent
Typical profile:
H1--0 to 6 inches;
H2--6 to 32 inches; silty clay loam
H3--32 to 60 inches; silty clay loam

Canisteo

Extent: 5 percent of the unit
Geomorphic description:
Flat

Harps

Extent: 5 percent of the unit
Geomorphic description:
Rim

1833--Coland Clay Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Coland and similar soils

Extent: 85 percent of the unit
Geomorphic description:
Flood plain
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
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: 12.2 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 18 inches; clay loam
H2--18 to 54 inches; clay loam
H3--54 to 60 inches; loam

Havelock

Extent: 10 percent of the unit
Geomorphic description:
Flood plain

Biscay

Extent: 5 percent of the unit
Geomorphic description:
Flat

1834--Coland Clay Loam, 0 To 2 Percent Slopes, Frequently Flooded

Component Description

Coland and similar soils

Extent: 85 percent of the unit
Geomorphic description:
Flood plain
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
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: 10.7 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 12 inches; clay loam
H2--12 to 28 inches; clay loam
H3--28 to 60 inches; loam

Havelock

Extent: 10 percent of the unit
Geomorphic description:
Flood plain

Biscay

Extent: 5 percent of the unit
Geomorphic description:
Flat

1845A--Estherville Loam, 0 To 2 Percent Slopes

Component Description

Estherville and similar soils
Extent: 90 percent of the unit

Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.6 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 H1--0 to 12 inches; loam
 H2--12 to 17 inches; sandy loam
 H3--17 to 60 inches; gravelly coarse sand

Biscay

Extent: 5 percent of the unit
Geomorphic description:
 Flat

Linder

Extent: 5 percent of the unit

1845B--Estherville Loam, 2 To 6 Percent Slopes

Component Description

Estherville and similar soils

Extent: 90 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 2.4 percent
Typical profile:
 H1--0 to 8 inches; loam
 H2--8 to 13 inches; sandy loam
 H3--13 to 60 inches; gravelly coarse sand

Biscay

Extent: 5 percent of the unit
Geomorphic description:
 Drainageway

Linder

Extent: 5 percent of the unit

1900--Okoboji-Canisteo Complex, Depressional, 0 To 1 Percent Slopes

Component Description

Okoboji and similar soils

Extent: 70 percent of the unit
Geomorphic description:
 Depression
Slope range: 0 to 1 percent
Surface layer texture: Mucky silty clay loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Very poorly drained
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: 12.0 inches
Content of organic matter in the upper 10 inches: 14.0 percent
Typical profile:
H1--0 to 12 inches; mucky silty clay loam
H2--12 to 30 inches; silty clay loam
H3--30 to 60 inches; silty clay loam

Canisteo and similar soils

Extent: 15 percent of the unit
Geomorphic description:
Depression
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
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):
All year
Ponding is deepest (depth, months):
Same as for shallowest
Available water capacity to a depth of 60 inches: 10.0 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 19 inches; silty clay loam
H2--19 to 23 inches; clay loam
H3--23 to 39 inches; clay loam
H4--39 to 60 inches; loam

Seaforth

Extent: 10 percent of the unit

Harps

Extent: 5 percent of the unit
Geomorphic description:
Rim

1917--Nishna Silty Clay Loam, 0 To 1 Percent Slopes, Frequently Flooded

Component Description

Nishna and similar soils

Extent: 85 percent of the unit
Geomorphic description:
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
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: 7.4 inches
Content of organic matter in the upper 10 inches: 8.0 percent
Typical profile:
H1--0 to 21 inches; silty clay loam
H2--21 to 60 inches; silty clay

Havelock

Extent: 5 percent of the unit
Geomorphic description:
Flood plain

Nishna

Extent: 5 percent of the unit
Geomorphic description:
Flood plain

Rushriver

Extent: 5 percent of the unit
Geomorphic description:
Flood plain

1958--Danube Silty Clay, 0 To 2 Percent Slopes

Component Description

Danube and similar soils

Extent: 85 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Silty clay
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
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: 7.4 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 19 inches; silty clay
H2--19 to 31 inches; silt loam
H3--31 to 35 inches; sandy loam
H4--35 to 60 inches; loamy sand

Linder

Extent: 5 percent of the unit

Mayer

Extent: 5 percent of the unit
Geomorphic description:
Depression

Wadena

Extent: 5 percent of the unit

1999--Minneiska-Rushriver Complex, 0 To 2 Percent Slopes, Frequently Flooded

Component Description

Minneiska and similar soils

Extent: 55 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
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: 9.9 inches
Content of organic matter in the upper 10 inches: 2.9 percent
Typical profile:
 H1--0 to 7 inches; silt loam
 H2--7 to 60 inches; stratified silt loam to sand

Rushriver and similar soils

Extent: 35 percent of the unit
Geomorphic description:
 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
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: 10.7 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
 H1--0 to 46 inches; loam
 H2--46 to 60 inches; stratified silt loam to coarse sand

Havelock

Extent: 10 percent of the unit
Geomorphic description:
 Flood plain

W--Water

Component Description

Water

Extent: 100 percent of the unit