Soil Descriptions - Non Technical

12C--Emmert Gravelly Fine Sandy Loam, 1 To 12 Percent Slopes Component Description Emmert and similar soils Extent: 100 percent of the unit Slope range: 1 to 12 percent Surface layer texture: Gravelly fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 2.7 inches Content of organic matter in the upper 10 inches: 0.7 percent Typical profile: H1--0 to 9 inches; gravelly fine sandy loam H2--9 to 60 inches; very gravelly coarse sand 12E--Emmert Gravelly Fine Sandy Loam, 12 To 25 Percent Slope S Component Description Emmert and similar soils Extent: 100 percent of the unit Slope range: 12 to 25 percent Surface layer texture: Gravelly fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 2.7 inches Content of organic matter in the upper 10 inches: 0.7 percent Typical profile: H1--0 to 9 inches; gravelly fine sandy loam H2--9 to 60 inches; very gravelly coarse sand 21--Ahmeek Loam, 0 To 2 Percent Slopes Component Description Ahmeek and similar soils Extent: 100 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 Ponding: None Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 1.0 percent Typical profile: H1--0 to 2 inches; loam H2--2 to 16 inches; loam H3--16 to 60 inches; fine sandy loam H4--60 to 75 inches; fine sandy loam 21C--Ahmeek Loam, 2 To 12 Percent Slopes Component Description Ahmeek and similar soils Extent: 100 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 9.5 inches Content of organic matter in the upper 10 inches: 1.0 percent Typical profile: H1--0 to 2 inches; loam H2--2 to 16 inches; loam H3--16 to 60 inches; fine sandy loam H4--60 to 75 inches; fine sandy loam 21E--Ahmeek Loam, 12 To 25 Percent Slopes Component Description Ahmeek and similar soils Extent: 100 percent of the unit Slope range: 12 to 25 percent Surface layer texture: Loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 9.5 inches Content of organic matter in the upper 10 inches: 1.0 percent Typical profile: H1--0 to 2 inches; loam H2--2 to 16 inches; loam H3--16 to 60 inches; fine sandy loam H4--60 to 75 inches; fine sandy loam 22--Allendale Loamy Fine Sand Component Description Allendale and similar soils Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Loamy fine sand Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained Flooding: None Wet soil moisture status is highest (depth, months): 1.0 feet January February March April May October November December Wet soil moisture status is lowest (depth, months): More than 6.0 feet June July August September Ponding: None Available water capacity to a depth of 60 inches: 5.6 inches Content of organic matter in the upper 10 inches: 2.2 percent Typical profile: H1--0 to 7 inches; loamy fine sand H2--7 to 31 inches; loamy fine sand H3--31 to 60 inches; clay 43--Automba Fine Sandy Loam, 0 To 2 Percent Slopes Component Description Automba and similar soils Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Moderately well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 6.6 inches Content of organic matter in the upper 10 inches: 2.0 percent Typical profile: H1--0 to 24 inches; fine sandy loam H2--24 to 46 inches; fine sandy loam H3--46 to 60 inches; fine sandy loam 43B--Automba Fine Sandy Loam, 2 To 6 Percent Slopes Component Description Automba and similar soils Extent: 100 percent of the unit Slope range: 2 to 6 percent Surface layer texture: Fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 6.6 inches Content of organic matter in the upper 10 inches: 2.0 percent Typical profile: H1--0 to 24 inches; fine sandy loam H2--24 to 46 inches; fine sandy loam H3--46 to 60 inches; fine sandy loam

147--Spooner Silt Loam

Component Description

Spooner and similar soils Extent: 100 percent of the unit Geomorphic description: Flat 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: None Wet soil moisture status is highest (depth, months): January February March April May 1.0 feet June July November December Wet soil moisture status is lowest (depth, months): August September October More than 6.0 feet Ponding: None Available water capacity to a depth of 60 inches: 12.1 inches Content of organic matter in the upper 10 inches: 2.4 percent Typical profile: H1--0 to 7 inches; silt loam H2--7 to 10 inches; very fine sandy loam H3--10 to 20 inches; silty clay loam H4--20 to 60 inches; silt loam 186--Nemadji Fine Sand Component Description Nemadji and similar soils Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Fine sand 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): 2.3 feet March April May June Wet soil moisture status is lowest (depth, months): More than 6.0 feet January February July August September October November December Ponding: None Available water capacity to a depth of 60 inches: 4.4 inches Content of organic matter in the upper 10 inches: 1.4 percent Typical profile: H1--0 to 6 inches; fine sand H2--6 to 39 inches; fine sand H3--39 to 60 inches; fine sand 188--Omega Loamy Sand, 0 To 2 Percent Slopes Component Description Omega and similar soils Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Loamy sand Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 4.1 inches Content of organic matter in the upper 10 inches: 1.2 percent Typical profile: H1--0 to 10 inches; loamy sand H2--10 to 60 inches; sand 188C--Omega Loamy Sand, 2 To 12 Percent Slopes Component Description Omega and similar soils Extent: 100 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Loamy sand Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 4.1 inches Content of organic matter in the upper 10 inches: 1.2 percent Typical profile: H1--0 to 10 inches; loamy sand H2--10 to 60 inches; sand 188E--Omega Loamy Sand, 12 To 25 Percent Slopes Component Description Omega and similar soils Extent: 100 percent of the unit Slope range: 12 to 25 percent Surface layer texture: Loamy sand Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 4.1 inches Content of organic matter in the upper 10 inches: 1.2 percent Typical profile: H1--0 to 10 inches; loamy sand H2--10 to 60 inches; sand 204--Cushing Fine Sandy Loam Component Description Warba and similar soils Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None

Ponding: None Available water capacity to a depth of 60 inches: 11.0 inches Content of organic matter in the upper 10 inches: 1.8 percent Typical profile: H1--0 to 8 inches; fine sandy loam H2--8 to 36 inches; clay loam H3--36 to 60 inches; loam 254--Hibbing Silt Loam, 0 To 2 Percent Slopes Component Description Hibbing and similar soils Extent: 100 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 Ponding: None Available water capacity to a depth of 60 inches: 8.2 inches Content of organic matter in the upper 10 inches: 2.1 percent Typical profile: H1--0 to 6 inches; silt loam H2--6 to 70 inches; clay H3--70 to 75 inches; clay 254C--Hibbing Silt Loam, 2 To 12 Percent Slopes Component Description Hibbing and similar soils Extent: 100 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Silt loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 8.2 inches Content of organic matter in the upper 10 inches: 2.1 percent Typical profile: H1--0 to 6 inches; silt loam H2--6 to 70 inches; clay H3--70 to 75 inches; clay 268--Cromwell Sandy Loam, 0 To 2 Percent Slopes Component Description Cromwell and similar soils Extent: 100 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 Ponding: None Available water capacity to a depth of 60 inches: 5.2 inches Content of organic matter in the upper 10 inches: 1.2 percent Typical profile: H1--0 to 15 inches; sandy loam H2--15 to 69 inches; coarse sand 268B--Cromwell Sandy Loam, 2 To 6 Percent Slopes Component Description Cromwell and similar soils Extent: 100 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 Ponding: None Available water capacity to a depth of 60 inches: 5.2 inches Content of organic matter in the upper 10 inches: 1.2 percent Typical profile: H1--0 to 15 inches; sandy loam H2--15 to 69 inches; coarse sand 274--Newson Mucky Loamy Sand Component Description Newson and similar soils Extent: 100 percent of the unit Geomorphic description: Depression Slope range: 0 to 1 percent Surface layer texture: Mucky loamy sand 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): January February March April May At the surface June October November December Wet soil moisture status is lowest (depth, months): July August September More than 6.0 feet Ponding: At 0.5 foot all year Available water capacity to a depth of 60 inches: 4.8 inches Content of organic matter in the upper 10 inches: 8.3 percent Typical profile: H1--0 to 5 inches; mucky loamy sand H2--5 to 26 inches; sand H3--26 to 70 inches; sand 292--Alstad Fine Sandy Loam Component Description

Alstad and similar soils

Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat poorly drained Flooding: None Wet soil moisture status is highest (depth, months): January February March April May 1.7 feet September October November December Wet soil moisture status is lowest (depth, months): More than 6.0 feet June July August Ponding: None Available water capacity to a depth of 60 inches: 8.5 inches Content of organic matter in the upper 10 inches: 1.0 percent Typical profile: H1--0 to 2 inches; fine sandy loam H2--2 to 9 inches; fine sandy loam H3--9 to 14 inches; loam H4--14 to 37 inches; loam H5--37 to 64 inches; loam 303--Ontonagon Silty Clay, 0 To 2 Percent Slopes Component Description Ontonagon and similar soils Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Silty clay Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 7.5 inches Content of organic matter in the upper 10 inches: 0.8 percent Typical profile: H1--0 to 3 inches; silty clay H2--3 to 6 inches; silty clay H3--6 to 24 inches; clay H4--24 to 60 inches; clay 303C--Ontonagon Silty Clay, 2 To 12 Percent Slopes Component Description Ontonagon and similar soils Extent: 100 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Silty clay Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 7.5 inches Content of organic matter in the upper 10 inches: 0.8 percent Typical profile:

H1--0 to 3 inches; silty clay H2--3 to 6 inches; silty clay H3--6 to 24 inches; clay H4--24 to 60 inches; clay 303E--Ontonagon Silty Clay, 12 To 25 Percent Slopes Component Description Ontonagon and similar soils Extent: 100 percent of the unit Slope range: 12 to 25 percent Surface layer texture: Silty clay Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 7.5 inches Content of organic matter in the upper 10 inches: 0.8 percent Typical profile: H1--0 to 3 inches; silty clay H2--3 to 6 inches; silty clay H3--6 to 24 inches; clay H4--24 to 60 inches; clay 305--Bergland Clay Component Description Bergland and similar soils Extent: 100 percent of the unit Geomorphic description: Flat Slope range: 0 to 1 percent Surface layer texture: 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): January February March April May At the surface June November December Wet soil moisture status is lowest (depth, months): More than 6.0 feet July August September October Ponding: At 0.5 foot all year Available water capacity to a depth of 60 inches: 6.4 inches Content of organic matter in the upper 10 inches: 2.4 percent Typical profile: H1--0 to 8 inches; clay H2--8 to 25 inches; clay H3--25 to 60 inches; clay 337--Warman Mucky Loam Component Description

Warman and similar soils Extent: 100 percent of the unit

Geomorphic description: Depression Slope range: 0 to 1 percent Surface layer texture: Mucky 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: At 0.5 foot all year Available water capacity to a depth of 60 inches: 5.9 inches Content of organic matter in the upper 10 inches: 11.4 percent Typical profile: H1--0 to 8 inches; mucky loam H2--8 to 20 inches; loam H3--20 to 60 inches; gravelly coarse sand 355--Cloquet Fine Sandy Loam, 0 To 2 Percent Slopes Component Description Cloquet and similar soils Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 3.8 inches Content of organic matter in the upper 10 inches: 1.6 percent Typical profile: H1--0 to 8 inches; fine sandy loam H2--8 to 14 inches; very fine sandy loam H3--14 to 36 inches; gravelly loamy coarse sand H4--36 to 60 inches; stratified gravel to coarse sand 355C--Cloquet Fine Sandy Loam, 2 To 12 Percent Slopes Component Description Cloquet and similar soils Extent: 100 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 3.8 inches Content of organic matter in the upper 10 inches: 1.6 percent Typical profile: H1--0 to 8 inches; fine sandy loam H2--8 to 14 inches; very fine sandy loam H3--14 to 36 inches; gravelly loamy coarse sand H4--36 to 60 inches; stratified gravel to coarse sand

355E--Cloquet Fine Sandy Loam, 12 To 25 Percent Slopes Component Description Cloquet and similar soils Extent: 100 percent of the unit Slope range: 12 to 25 percent Surface layer texture: Fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 3.8 inches Content of organic matter in the upper 10 inches: 1.6 percent Typical profile: H1--0 to 8 inches; fine sandy loam H2--8 to 14 inches; very fine sandy loam H3--14 to 36 inches; gravelly loamy coarse sand H4--36 to 60 inches; stratified gravel to coarse sand 367--Campia Silt Loam, 0 To 2 Percent Slopes Component Description Campia and similar soils Extent: 100 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 Ponding: None Available water capacity to a depth of 60 inches: 11.2 inches Content of organic matter in the upper 10 inches: 1.9 percent Typical profile: H1--0 to 7 inches; silt loam H2--7 to 9 inches; silty clay loam H3--9 to 16 inches; silty clay loam H4--16 to 40 inches; silt loam H5--40 to 60 inches; stratified silty clay loam to fine sand 367C--Campia Silt Loam, 2 To 12 Percent Slopes Component Description Campia and similar soils Extent: 100 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Silt loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 11.2 inches Content of organic matter in the upper 10 inches: 1.9 percent Typical profile: H1--0 to 7 inches; silt loam

H2--7 to 9 inches; silty clay loam H3--9 to 16 inches; silty clay loam H4--16 to 40 inches; silt loam H5--40 to 60 inches; stratified silty clay loam to fine sand 367E--Campia Silt Loam, 12 To 25 Percent Slopes Component Description Campia and similar soils Extent: 100 percent of the unit Slope range: 12 to 25 percent Surface layer texture: Silt loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 11.2 inches Content of organic matter in the upper 10 inches: 1.9 percent Typical profile: H1--0 to 7 inches; silt loam H2--7 to 9 inches; silty clay loam H3--9 to 16 inches; silty clay loam H4--16 to 40 inches; silt loam H5--40 to 60 inches; stratified silty clay loam to fine sand 502--Dusler Silt Loam Component Description Dusler and similar soils Extent: 100 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: Somewhat poorly drained Flooding: None Wet soil moisture status is highest (depth, months): 2.0 feet April May June Wet soil moisture status is lowest (depth, months): More than 6.0 feet January February March July August September October November December 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 4 inches; silt loam H2--4 to 22 inches; fine sandy loam H3--22 to 55 inches; loam H4--55 to 60 inches; loam 504--Duluth Very Fine Sandy Loam, 0 To 2 Percent Slopes Component Description Duluth and similar soils

Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Moderately well drained Flooding: None Wet soil moisture status is highest (depth, months): April May 4.8 feet Wet soil moisture status is lowest (depth, months): January February March June July More than 6.0 feet August September October November December Ponding: None Available water capacity to a depth of 60 inches: 10.4 inches Content of organic matter in the upper 10 inches: 1.2 percent Typical profile: H1--0 to 2 inches; very fine sandy loam H2--2 to 13 inches; fine sandy loam H3--13 to 64 inches; loam H4--64 to 72 inches; loam 504C--Duluth Very Fine Sandy Loam, 2 To 12 Percent Slopes Component Description Duluth and similar soils Extent: 100 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 10.4 inches Content of organic matter in the upper 10 inches: 1.6 percent Typical profile: H1--0 to 2 inches; very fine sandy loam H2--2 to 13 inches; fine sandy loam H3--13 to 64 inches; loam H4--64 to 72 inches; loam 504E--Duluth Very Fine Sandy Loam, 12 To 25 Percent Slopes Component Description Duluth and similar soils Extent: 100 percent of the unit Slope range: 12 to 25 percent Surface layer texture: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 10.4 inches Content of organic matter in the upper 10 inches: 1.6 percent Typical profile: H1--0 to 2 inches; very fine sandy loam

H2--2 to 13 inches; fine sandy loam H3--13 to 64 inches; loam H4--64 to 72 inches; loam 504G--Duluth Very Fine Sandy Loam, 25 To 35 Percent Slopes Component Description Duluth and similar soils Extent: 100 percent of the unit Slope range: 25 to 35 percent Surface layer texture: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 10.4 inches Content of organic matter in the upper 10 inches: 1.6 percent Typical profile: H1--0 to 2 inches; very fine sandy loam H2--2 to 13 inches; fine sandy loam H3--13 to 64 inches; loam H4--64 to 72 inches; loam 530--Greenwood Mucky Peat Component Description Greenwood and similar soils Extent: 100 percent of the unit Geomorphic description: Bog Slope range: 0 to 1 percent Surface layer texture: Mucky peat 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): 0.5 foot January February March April May June September October November December Wet soil moisture status is lowest (depth, months): More than 6.0 feet July August Ponding: None Available water capacity to a depth of 60 inches: 29.9 inches Content of organic matter in the upper 10 inches: 65.0 percent Typical profile: H1--0 to 20 inches; mucky peat H2--20 to 70 inches; 531--Beseman Muck

Component Description

Beseman and similar soils Extent: 100 percent of the unit Geomorphic description:

Bog 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: At 1.0 foot all year Available water capacity to a depth of 60 inches: 25.1 inches Content of organic matter in the upper 10 inches: 59.6 percent Typical profile: H1--0 to 8 inches; muck H2--8 to 36 inches; H3--36 to 60 inches; loam 533--Loxley Muck Component Description Loxley and similar soils Extent: 100 percent of the unit Geomorphic description: Bog Slope range: 0 to 1 percent Surface layer texture: Mucky peat 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 January February March April May October November December Wet soil moisture status is lowest (depth, months): More than 6.0 feet June July August September Ponding: At 0.5 foot all year Available water capacity to a depth of 60 inches: 24.5 inches Content of organic matter in the upper 10 inches: 80.0 percent Typical profile: H1--0 to 6 inches; mucky peat H2--6 to 60 inches; muck 534--Mooselake Mucky Peat Component Description Mooselake and similar soils Extent: 100 percent of the unit Geomorphic description: Bog 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: At 0.5 foot all year Available water capacity to a depth of 60 inches: 26.6 inches Content of organic matter in the upper 10 inches: 62.0 percent

Typical profile: H1--0 to 6 inches; muck H2--6 to 72 inches; mucky peat 535--Merwin Mucky Peat Component Description Merwin and similar soils Extent: 100 percent of the unit Geomorphic description: Bog Slope range: 0 to 1 percent Surface layer texture: Peat 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 January February March April May June October November December Wet soil moisture status is lowest (depth, months): More than 6.0 feet July August September Ponding: At 0.5 foot all year Available water capacity to a depth of 60 inches: 25.4 inches Content of organic matter in the upper 10 inches: 62.0 percent Typical profile: H1--0 to 6 inches; peat H2--6 to 42 inches; mucky peat H3--42 to 60 inches; fine sandy loam 536--Dawson Muck Component Description Dawson and similar soils Extent: 100 percent of the unit Geomorphic description: Bog Slope range: 0 to 1 percent Surface layer texture: Mucky peat 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 January February March April May June September October November December Wet soil moisture status is lowest (depth, months): More than 6.0 feet July August Ponding: At 0.5 foot all year Available water capacity to a depth of 60 inches: 14.4 inches Content of organic matter in the upper 10 inches: 75.0 percent Typical profile: H1--0 to 3 inches; mucky peat H2--3 to 30 inches; muck H3--30 to 60 inches; sand

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Component Description
     Lobo and similar soils
        Extent: 100 percent of the unit
        Geomorphic description:
           Βοα
        Slope range: 0 to 1 percent
        Surface layer texture: Peat
        Depth to restrictive feature:
           Very deep (more than 60 inches)
        Drainage class: Very poorly drained
        Flooding: None
        Wet soil moisture status: At 1.0 foot all year
        Ponding: None
        Available water capacity to a depth of 60 inches: 34.1 inches
        Content of organic matter in the upper 10 inches: 62.0 percent
        Typical profile:
           H1--0 to 42 inches; peat
           H2--42 to 60 inches;
538--Waskish Peat
  Component Description
     Waskish and similar soils
        Extent: 100 percent of the unit
        Geomorphic description:
           Βοα
        Slope range: 0 to 1 percent
        Surface layer texture: Peat
        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):
           1.0 feet
                                   January February March April May
                                   June July November December
        Wet soil moisture status is lowest (depth, months):
           More than 6.0 feet
                                   August September October
        Ponding: None
        Available water capacity to a depth of 60 inches: 35.9 inches
        Content of organic matter in the upper 10 inches: 94.5 percent
        Typical profile:
           H1--0 to 66 inches; peat
549--Greenwood Peat
  Component Description
     Greenwood and similar soils
        Extent: 100 percent of the unit
        Geomorphic description:
           Bog
        Slope range: 0 to 1 percent
        Surface layer texture: Peat
        Depth to restrictive feature:
           Very deep (more than 60 inches)
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Drainage class: Very poorly drained

537--Lobo Peat

Flooding: None Wet soil moisture status is highest (depth, months): January February March April May 0.5 foot June September October November December Wet soil moisture status is lowest (depth, months): July August More than 6.0 feet Ponding: None Available water capacity to a depth of 60 inches: 31.9 inches Content of organic matter in the upper 10 inches: 65.0 percent Typical profile: H1--0 to 20 inches; peat H2--20 to 70 inches; 975--Ahmeek-Omega Complex, 0 To 2 Percent Slopes Component Description Ahmeek and similar soils Extent: 50 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 Ponding: None Available water capacity to a depth of 60 inches: 9.5 inches Content of organic matter in the upper 10 inches: 1.0 percent Typical profile: H1--0 to 2 inches; loam H2--2 to 16 inches; loam H3--16 to 60 inches; fine sandy loam H4--60 to 75 inches; fine sandy loam Omega and similar soils Extent: 35 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Loamy sand Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 4.1 inches Content of organic matter in the upper 10 inches: 1.2 percent Typical profile: H1--0 to 10 inches; loamy sand H2--10 to 60 inches; sand 975C--Ahmeek-Omega Complex, 2 To 12 Percent Slopes Component Description Ahmeek and similar soils Extent: 50 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Loam Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 9.5 inches Content of organic matter in the upper 10 inches: 1.0 percent Typical profile: H1--0 to 2 inches; loam H2--2 to 16 inches; loam H3--16 to 60 inches; fine sandy loam H4--60 to 75 inches; fine sandy loam Omega and similar soils Extent: 35 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Loamy sand Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 4.1 inches Content of organic matter in the upper 10 inches: 1.2 percent Typical profile: H1--0 to 10 inches; loamy sand H2--10 to 60 inches; sand 975E--Ahmeek-Omega Complex, 12 To 25 Percent Slopes Component Description Ahmeek and similar soils Extent: 50 percent of the unit Slope range: 12 to 25 percent Surface layer texture: Loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 9.5 inches Content of organic matter in the upper 10 inches: 1.0 percent Typical profile: H1--0 to 2 inches; loam H2--2 to 16 inches; loam H3--16 to 60 inches; fine sandy loam H4--60 to 75 inches; fine sandy loam Omega and similar soils Extent: 35 percent of the unit Slope range: 12 to 25 percent Surface layer texture: Loamy sand Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 4.1 inches Content of organic matter in the upper 10 inches: 1.2 percent Typical profile: H1--0 to 10 inches; loamy sand H2--10 to 60 inches; sand

976C--Campia-Ontonagon Complex, 2 To 12 Percent Slopes Component Description Campia and similar soils Extent: 50 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Silt loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 11.2 inches Content of organic matter in the upper 10 inches: 1.9 percent Typical profile: H1--0 to 7 inches; silt loam H2--7 to 9 inches; silty clay loam H3--9 to 16 inches; silty clay loam H4--16 to 40 inches; silt loam H5--40 to 60 inches; stratified silty clay loam to fine sand Ontonagon and similar soils Extent: 35 percent of the unit Slope range: 2 to 12 percent Surface layer texture: Silty clay Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 7.5 inches Content of organic matter in the upper 10 inches: 0.8 percent Typical profile: H1--0 to 3 inches; silty clay H2--3 to 6 inches; silty clay H3--6 to 24 inches; clay H4--24 to 60 inches; clay 977G--Cloquet-Emmert Complex, 25 To 60 Percent Slopes Component Description Cloquet and similar soils Extent: 50 percent of the unit Slope range: 25 to 60 percent Surface layer texture: Fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 3.8 inches Content of organic matter in the upper 10 inches: 1.6 percent Typical profile: H1--0 to 8 inches; fine sandy loam H2--8 to 14 inches; very fine sandy loam H3--14 to 36 inches; gravelly loamy coarse sand H4--36 to 60 inches; stratified gravel to coarse sand

Emmert and similar soils Extent: 35 percent of the unit Slope range: 25 to 60 percent Surface layer texture: Gravelly fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Excessively drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 2.7 inches Content of organic matter in the upper 10 inches: 0.7 percent Typical profile: H1--0 to 9 inches; gravelly fine sandy loam H2--9 to 60 inches; very gravelly coarse sand 980--Blackhoof And Mahtowa Soils Component Description Blackhoof and similar soils Extent: 50 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: At 0.5 foot all year Available water capacity to a depth of 60 inches: 14.5 inches Content of organic matter in the upper 10 inches: 37.5 percent Typical profile: H1--0 to 11 inches; muck H2--11 to 15 inches; silty clay loam H3--15 to 60 inches; loam Mahtowa and similar soils Extent: 50 percent of the unit Geomorphic 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 January February March April May June July October November December Wet soil moisture status is lowest (depth, months): More than 6.0 feet August September Ponding: At 0.5 foot all year Available water capacity to a depth of 60 inches: 10.7 inches Content of organic matter in the upper 10 inches: 5.0 percent Typical profile: H1--0 to 11 inches; silt loam H2--11 to 21 inches; silt loam

990--Twig And Parent Soils Component Description Parent 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: At the surface all year Ponding: At 0.5 foot all year Available water capacity to a depth of 60 inches: 4.6 inches Content of organic matter in the upper 10 inches: 4.3 percent Typical profile: H1--0 to 6 inches; silty clay loam H2--6 to 18 inches; loam H3--18 to 53 inches; fine sandy loam H4--53 to 60 inches; fine sandy loam Twig and similar soils Extent: 50 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 January February March April May June July September October November December Wet soil moisture status is lowest (depth, months): More than 6.0 feet August Ponding: At 0.5 foot all year Available water capacity to a depth of 60 inches: 10.9 inches Content of organic matter in the upper 10 inches: 37.5 percent Typical profile: H1--0 to 12 inches; muck H2--12 to 20 inches; mucky silt loam H3--20 to 26 inches; loam H4--26 to 48 inches; fine sandy loam H5--48 to 72 inches; fine sandy loam

1005--Fluvaquents

Component Description

Fluvaquents and similar soils Extent: 100 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: Very poorly drained Flooding does not occur (months): January February November December Flooding is most likely (frequency, months): March April May June July August Frequent September October Wet soil moisture status is highest (depth, months): At the surface April May June July August September October Wet soil moisture status is lowest (depth, months): More than 6.0 feet January February March November December Ponding: At 0.5 foot all year Available water capacity to a depth of 60 inches: 8.6 inches Content of organic matter in the upper 10 inches: 6.5 percent Typical profile: H1--0 to 16 inches; silt loam H2--16 to 80 inches; stratified loamy sand to silt loam

1020--Udorthents

Component Description

Udorthents and similar soils Extent: 100 percent of the unit Slope range: 25 to 50 percent Surface layer texture: Clay loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Well drained Flooding: None Ponding: None Available water capacity to a depth of 60 inches: 9.0 inches Content of organic matter in the upper 10 inches: 0.8 percent Typical profile: H1--0 to 60 inches; clay loam H2--60 to 80 inches; variable

## 1073--Borofolists

Component Description

Borofolists and similar soils Extent: 100 percent of the unit Slope range: 1 to 12 percent Depth to restrictive feature: Very deep (more than 60 inches) Flooding: None Ponding: None

## 1074--Borosaprists

Component Description

Borosaprists and similar soils

Extent: 100 percent of the unit Slope range: 0 to 1 percent Depth to restrictive feature: Very deep (more than 60 inches) Flooding: None Ponding: None CW--Census Water Component Description Census water Extent: 100 percent of the unit V166--Mora Fine Sandy Loam, Wet Component Description Mora and similar soils Extent: 100 percent of the unit Slope range: 0 to 2 percent Surface layer texture: Fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches) Drainage class: Somewhat poorly drained Flooding: None Wet soil moisture status is highest (depth, months): 1.7 feet April May June Wet soil moisture status is lowest (depth, months): More than 6.0 feet January February March July August September October November December Ponding: None Available water capacity to a depth of 60 inches: 8.1 inches Content of organic matter in the upper 10 inches: 1.6 percent Typical profile: H1--0 to 4 inches; fine sandy loam H2--4 to 11 inches; fine sandy loam H3--11 to 21 inches; fine sandy loam H4--21 to 58 inches; fine sandy loam H5--58 to 85 inches; fine sandy loam V292--Alstad Variant Loam Component Description Alstad variant and similar soils Extent: 100 percent of the unit Geomorphic description: Depression Slope range: 0 to 1 percent Surface layer texture: 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): January February March April May At the surface June July October November

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December
        Wet soil moisture status is lowest (depth, months):
          More than 6.0 feet
                                 August September
        Ponding: At 0.5 foot all year
        Available water capacity to a depth of 60 inches: 9.4 inches
        Typical profile:
           H1--0 to 3 inches;
           H2--3 to 19 inches; loam
           H3--19 to 45 inches; clay loam
           H4--45 to 60 inches; loam
V337--Warman Fine Sandy Loam
  Component Description
     Oesterle and similar soils
        Extent: 100 percent of the unit
        Slope range: 0 to 2 percent
        Surface layer texture: Fine sandy loam
        Depth to restrictive feature:
           Very deep (more than 60 inches)
        Drainage class: Somewhat poorly drained
        Flooding: None
        Wet soil moisture status is highest (depth, months):
           2.0 feet
                                   January February March April May
                                   June October November December
        Wet soil moisture status is lowest (depth, months):
          More than 6.0 feet
                                   July August September
        Ponding: None
        Available water capacity to a depth of 60 inches: 4.5 inches
        Content of organic matter in the upper 10 inches: 2.1 percent
        Typical profile:
           H1--0 to 8 inches; fine sandy loam
           H2--8 to 20 inches; loam
           H3--20 to 60 inches; gravelly sand
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