

Map Unit Description (MN)

Dakota County, Minnesota

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation]

2B--Ostrander loam, 1 to 6 percent slopes

Ostrander

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 6 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 17 in	loam	moderate	3.39 to 4.06 in	5.6 to 7.3
2Bw -- 17 to 53 in	loam	moderate	6.16 to 6.88 in	5.1 to 7.3
2C -- 53 to 60 in	loam	moderate	1.14 to 1.27 in	6.6 to 8.4

2C--Ostrander loam, 6 to 12 percent slopes

Ostrander

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	loam	moderate	2.60 to 3.12 in	5.6 to 7.3
2Bw -- 13 to 53 in	loam	moderate	6.83 to 7.63 in	5.1 to 7.3
2C -- 53 to 60 in	loam	moderate	1.14 to 1.27 in	6.6 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

7A--Hubbard loamy sand, 0 to 1 percent slopes

Hubbard

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 1 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .05

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 17 in	loamy sand	rapid	1.35 to 2.03 in	5.1 to 7.3
BA,Bw -- 17 to 39 in	loamy sand	rapid	0.66 to 1.54 in	5.1 to 7.3
C -- 39 to 60 in	sand	rapid	0.63 to 1.46 in	5.6 to 7.8

7B--Hubbard loamy sand, 1 to 6 percent slopes

Hubbard

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 1 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .05

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 16 in	loamy sand	rapid	1.29 to 1.94 in	5.1 to 7.3
BA,Bw -- 16 to 38 in	loamy sand	rapid	0.65 to 1.52 in	5.1 to 7.3
C -- 38 to 60 in	sand	rapid	0.66 to 1.54 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

7C--Hubbard loamy sand, 6 to 12 percent slopes

Hubbard

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .05

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 13 in	loamy sand	rapid	1.04 to 1.56 in	5.1 to 7.3
BA,Bw -- 13 to 31 in	loamy sand	rapid	0.54 to 1.27 in	5.1 to 7.3
C -- 31 to 60 in	sand	rapid	0.86 to 2.01 in	5.6 to 7.8

7D--Hubbard loamy sand, 12 to 18 percent slopes

Hubbard

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 12 to 18 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .05

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 11 in	loamy sand	rapid	0.88 to 1.32 in	5.1 to 7.3
BA,Bw -- 11 to 28 in	loamy sand	rapid	0.51 to 1.19 in	5.1 to 7.3
C -- 28 to 60 in	sand	rapid	0.96 to 2.23 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

8A--Sparta loamy fine sand, 0 to 1 percent slopes

Sparta

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 1 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .17

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 12 in	loamy fine sand	moderately rapid	1.06 to 1.42 in	5.1 to 7.3
Bw -- 12 to 30 in	fine sand	rapid	0.91 to 1.99 in	5.1 to 7.3
C -- 30 to 60 in	fine sand	rapid	1.20 to 2.09 in	5.1 to 7.8

8B--Sparta loamy fine sand, 1 to 6 percent slopes

Sparta

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 1 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .17

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 10 in	loamy fine sand	moderately rapid	0.89 to 1.18 in	5.1 to 7.3
Bw -- 10 to 25 in	fine sand	rapid	0.77 to 1.69 in	5.1 to 7.3
C -- 25 to 60 in	fine sand	rapid	1.39 to 2.43 in	5.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

12C--Emmert very gravelly sandy loam, 3 to 15 percent slopes

Emmert

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 15 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .10

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	very gravelly sandy loam	rapid	0.39 to 0.59 in	5.1 to 6.5
BA,Bw,C -- 4 to 60 in	very gravelly sand	very rapid	1.12 to 2.24 in	5.1 to 7.3

27A--Dickinson sandy loam, 0 to 2 percent slopes

Dickinson

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 16 in	sandy loam	moderately rapid	1.94 to 2.42 in	5.6 to 7.3
Bw -- 16 to 25 in	sandy loam	moderately rapid	1.09 to 1.36 in	5.1 to 6.5
BC,C -- 25 to 60 in	sand	rapid	1.39 to 2.43 in	5.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

27B--Dickinson sandy loam, 2 to 6 percent slopes

Dickinson

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: A

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 15 in	sandy loam	moderately rapid	1.80 to 2.24 in	5.6 to 7.3
Bw -- 15 to 24 in	sandy loam	moderately rapid	1.09 to 1.36 in	5.1 to 6.5
BC,C -- 24 to 60 in	sand	rapid	1.43 to 2.51 in	5.1 to 7.8

39A--Wadena loam, 0 to 2 percent slopes

Wadena

Extent: 85 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 2s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 16 in	loam	moderate	3.23 to 3.55 in	6.1 to 7.3
Bw -- 16 to 35 in	loam	moderate	2.65 to 3.59 in	5.6 to 7.3
2BC,2C -- 35 to 60 in	sand	very rapid	0.50 to 0.99 in	6.6 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

39B--Wadena loam, 2 to 6 percent slopes

Wadena

Extent: 85 percent of the unit

Landform(s): outwash plains

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 15 in	loam	moderate	2.99 to 3.29 in	6.1 to 7.3
Bw -- 15 to 34 in	loam	moderate	2.65 to 3.59 in	5.6 to 7.3
2BC,2C -- 34 to 60 in	sand	very rapid	0.52 to 1.04 in	6.6 to 8.4

39B2--Wadena loam, 2 to 6 percent slopes, eroded

Wadena, eroded

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	6.1 to 7.3
Bw -- 9 to 31 in	loam	moderate	3.09 to 4.19 in	5.6 to 7.3
2C -- 31 to 60 in	sand	very rapid	0.57 to 1.15 in	6.6 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

39C--Wadena loam, 6 to 12 percent slopes

Wadena

Extent: 85 percent of the unit

Landform(s): outwash plains

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 14 in	loam	moderate	2.76 to 3.03 in	6.1 to 7.3
Bw -- 14 to 26 in	loam	moderate	1.71 to 2.32 in	5.6 to 7.3
2C -- 26 to 60 in	sand	very rapid	0.68 to 1.35 in	6.6 to 8.4

39C2--Wadena loam, 6 to 12 percent slopes, eroded

Wadena, eroded

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	6.1 to 7.3
Bw -- 7 to 22 in	loam	moderate	2.09 to 2.84 in	5.6 to 7.3
2C -- 22 to 60 in	sand	very rapid	0.76 to 1.51 in	6.6 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

39D--Wadena loam, 12 to 18 percent slopes

Wadena

Extent: 85 percent of the unit

Landform(s): outwash plains

Slope gradient: 12 to 18 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	loam	moderate	2.60 to 2.86 in	6.1 to 7.3
Bw -- 13 to 22 in	loam	moderate	1.27 to 1.72 in	5.6 to 7.3
2C -- 22 to 60 in	sand	very rapid	0.76 to 1.51 in	6.6 to 8.4

41A--Estherville sandy loam, 0 to 2 percent slopes

Estherville

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

Land capability, nonirrigated: 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
Bw -- 13 to 21 in	sandy loam	moderately rapid	1.02 to 1.42 in	5.6 to 7.3
2BC,2C -- 21 to 60 in	sand	rapid	0.78 to 1.56 in	6.6 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

41B--Estherville sandy loam, 2 to 6 percent slopes

Estherville

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

Land capability, nonirrigated: 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.98 in	5.6 to 7.3
Bw -- 11 to 19 in	sandy loam	moderately rapid	1.02 to 1.42 in	5.6 to 7.3
2BC,2C -- 19 to 60 in	sand	rapid	0.82 to 1.64 in	6.6 to 8.4

42C--Salida gravelly coarse sandy loam, 2 to 12 percent slopes

Salida

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 2 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .10

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	gravelly coarse sandy loam	moderately rapid	0.79 to 0.94 in	6.1 to 8.4
Bw -- 8 to 14 in	gravelly loamy coarse sand	very rapid	0.13 to 0.25 in	6.6 to 8.4
C -- 14 to 60 in	very gravelly sand	very rapid	0.91 to 1.83 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

49B--Antigo silt loam, 1 to 8 percent slopes

Antigo

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 1 to 8 percent

Parent material: loess over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.57 to 1.89 in	4.5 to 6.5
BA,Bw,Bt -- 8 to 24 in	silt loam	moderate	2.58 to 3.55 in	4.5 to 6.5
2C -- 24 to 60 in	sand	rapid	0.72 to 2.15 in	5.1 to 6.5

81B--Boone loamy fine sand, 2 to 6 percent slopes

Boone

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 2 to 6 percent

Parent material: siliceous sandy residuum

Restrictive feature(s): paralithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .24

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy fine sand	rapid	0.31 to 0.41 in	3.5 to 7.3
AC -- 3 to 8 in	loamy fine sand	rapid	0.14 to 0.57 in	3.5 to 7.3
C -- 8 to 24 in	fine sand	rapid	0.32 to 1.78 in	4.5 to 6.5
Cr -- 24 to 60 in	weathered bedrock	moderate		5.0 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

81C--Boone loamy fine sand, 6 to 12 percent slopes

Boone

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: siliceous sandy residuum

Restrictive feature(s): paralithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .24

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy fine sand	rapid	0.31 to 0.41 in	3.5 to 7.3
AC -- 3 to 8 in	loamy fine sand	rapid	0.14 to 0.57 in	3.5 to 7.3
C -- 8 to 24 in	fine sand	rapid	0.32 to 1.78 in	4.5 to 6.5
Cr -- 24 to 60 in	weathered bedrock	moderate		5.0 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

81E--Boone loamy fine sand, 12 to 40 percent slopes

Boone

Extent: 100 percent of the unit

Landform(s): hills

Slope gradient: 12 to 40 percent

Parent material: siliceous sandy residuum

Restrictive feature(s): paralithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .24

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy fine sand	rapid	0.31 to 0.41 in	3.5 to 7.3
AC -- 3 to 8 in	loamy fine sand	rapid	0.14 to 0.57 in	3.5 to 7.3
C -- 8 to 24 in	fine sand	rapid	0.32 to 1.78 in	4.5 to 6.5
Cr -- 24 to 60 in	weathered bedrock	moderate		5.0 to 6.5

94C--Terril loam, 4 to 12 percent slopes

Terril

Extent: 100 percent of the unit

Landform(s): toes on moraines, toes on bluffs

Slope gradient: 4 to 12 percent

Parent material: colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2,A3 -- 0 to 36 in	loam	moderate	7.17 to 7.88 in	6.1 to 7.3
Bw -- 36 to 48 in	loam	moderate	2.07 to 2.32 in	6.1 to 7.3
C -- 48 to 60 in	loam	moderate	1.89 to 2.13 in	6.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

98--Colo silt loam, occasionally flooded

Colo, occasionally flooded

Extent: 85 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 20 in	silt loam	moderate	4.42 to 4.82 in	5.6 to 7.3
A3,A4,A5 -- 20 to 54 in	silty clay loam	moderate	6.09 to 6.77 in	6.1 to 7.3
C -- 54 to 60 in	silty clay loam	moderate	1.06 to 1.18 in	6.1 to 7.3

100A--Copaston loam, 0 to 2 percent slopes

Copaston

Extent: 97 percent of the unit

Landform(s): stream terraces, hills

Slope gradient: 0 to 2 percent

Parent material: alluvial sediment over bedrock

Restrictive feature(s): lithic bedrock at 12 to 20 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .24

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
BA,Bw -- 8 to 18 in	loam	moderately rapid	1.54 to 1.74 in	5.6 to 7.3
2R -- 18 to 60 in	unweathered bedrock	moderately rapid		

Map Unit Description (MN)

Dakota County, Minnesota

100B--Copaston loam, 2 to 6 percent slopes

Copaston

Extent: 97 percent of the unit

Landform(s): stream terraces, hills

Slope gradient: 2 to 6 percent

Parent material: alluvial sediment over bedrock

Restrictive feature(s): lithic bedrock at 12 to 20 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .24

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
BA,Bw -- 7 to 17 in	loam	moderately rapid	1.48 to 1.67 in	5.6 to 7.3
2R -- 17 to 60 in	unweathered bedrock	moderately rapid		

100C--Copaston loam, 6 to 12 percent slopes

Copaston

Extent: 97 percent of the unit

Landform(s): stream terraces, hills

Slope gradient: 6 to 12 percent

Parent material: alluvial sediment over bedrock

Restrictive feature(s): lithic bedrock at 12 to 20 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .24

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
BA,Bw -- 6 to 15 in	loam	moderately rapid	1.36 to 1.54 in	5.6 to 7.3
2R -- 15 to 60 in	unweathered bedrock	moderately rapid		

Map Unit Description (MN)

Dakota County, Minnesota

106B--Lester loam, 2 to 6 percent slopes

Lester

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
BA,Bt,Bw -- 6 to 38 in	clay loam	moderate	4.78 to 6.06 in	5.1 to 7.3
C -- 38 to 60 in	loam	moderate	3.09 to 4.19 in	7.4 to 8.4

106C--Lester loam, 6 to 12 percent slopes

Lester

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
BA,Bt,Bw -- 6 to 38 in	clay loam	moderate	4.78 to 6.06 in	5.1 to 7.3
C -- 38 to 60 in	loam	moderate	3.09 to 4.19 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

106C2--Lester loam, 6 to 12 percent slopes, eroded

Lester, eroded

Extent: 95 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
BA,Bt,Bw -- 6 to 38 in	clay loam	moderate	4.78 to 6.06 in	5.1 to 7.3
C -- 38 to 60 in	loam	moderate	3.09 to 4.19 in	7.4 to 8.4

106D2--Lester loam, 12 to 18 percent slopes, eroded

Lester, eroded

Extent: 100 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
BA,Bt,Bw -- 6 to 38 in	clay loam	moderate	4.78 to 6.06 in	5.1 to 7.3
C -- 38 to 60 in	loam	moderate	3.09 to 4.19 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

109--Cordova silty clay loam

Cordova

Extent: 95 percent of the unit

Landform(s): swales on moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,BA -- 0 to 20 in	silty clay loam	moderately slow	3.61 to 4.42 in	6.1 to 7.3
Btg -- 20 to 34 in	clay loam	moderately slow	2.07 to 2.62 in	5.1 to 6.5
C -- 34 to 60 in	loam	moderate	3.64 to 4.16 in	7.4 to 8.4

113--Webster clay loam

Webster

Extent: 85 percent of the unit

Landform(s): swales on moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .17

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 14 in	clay loam	moderate	2.69 to 2.98 in	6.6 to 7.3
Bg -- 14 to 30 in	clay loam	moderate	2.52 to 2.83 in	6.6 to 7.8
Cg -- 30 to 60 in	clay loam	moderate	4.19 to 5.69 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

114--Glencoe silty clay loam

Glencoe

Extent: 90 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 3w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 21 in	silty clay loam	moderate	3.76 to 4.59 in	6.1 to 7.8
A3 -- 21 to 26 in	clay loam	moderate	0.92 to 1.13 in	6.1 to 7.8
Bg -- 26 to 38 in	clay loam	moderate	1.77 to 2.24 in	6.6 to 7.8
Cg -- 38 to 60 in	clay loam	moderate	3.31 to 4.19 in	6.6 to 7.8

129--Cylinder loam

Cylinder

Extent: 85 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 2s

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 12 in	loam	moderate	2.36 to 2.60 in	5.6 to 7.3
Bw -- 12 to 25 in	loam	moderate	2.28 to 2.54 in	6.1 to 7.3
2Bw,2C -- 25 to 60 in	sand	very rapid	0.69 to 1.39 in	6.6 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

150B--Spencer silt loam, 2 to 6 percent slopes

Spencer

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 7 in	silt loam	moderate	1.42 to 1.70 in	4.5 to 7.3
E -- 7 to 13 in	silt loam	moderate	1.18 to 1.42 in	4.5 to 6.0
Bt -- 13 to 35 in	silt loam	moderate	3.97 to 4.85 in	4.5 to 6.0
Bw -- 35 to 45 in	silt loam	moderate	0.69 to 1.57 in	5.1 to 6.5
2C -- 45 to 60 in	sandy loam	moderate	0.75 to 2.24 in	5.1 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

151C--Burkhardt sandy loam, 6 to 12 percent slopes

Burkhardt

Extent: 95 percent of the unit

Landform(s): outwash plains

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 12 in	sandy loam	moderately rapid	1.30 to 1.77 in	5.1 to 6.5
Bw,BC -- 12 to 22 in	sandy loam	moderately rapid	1.02 to 1.94 in	5.1 to 6.5
2C -- 22 to 60 in	gravelly coarse sand	rapid	0.76 to 1.51 in	5.6 to 6.5

151D--Burkhardt sandy loam, 12 to 18 percent slopes

Burkhardt

Extent: 95 percent of the unit

Landform(s): outwash plains

Slope gradient: 12 to 18 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 12 in	sandy loam	moderately rapid	1.30 to 1.77 in	5.1 to 6.5
Bw,BC -- 12 to 22 in	sandy loam	moderately rapid	1.02 to 1.94 in	5.1 to 6.5
2C -- 22 to 60 in	gravelly coarse sand	rapid	0.76 to 1.51 in	5.6 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

155B--Chetek sandy loam, 3 to 8 percent slopes

Chetek

Extent: 85 percent of the unit

Landform(s): outwash plains, moraines

Slope gradient: 3 to 8 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 7 in	sandy loam	moderately rapid	0.71 to 1.06 in	5.1 to 7.3
Bt -- 7 to 14 in	loam	moderate	0.64 to 1.35 in	5.1 to 7.3
2Bt -- 14 to 24 in	gravelly loamy sand	rapid	0.39 to 0.98 in	5.1 to 7.3
2C -- 24 to 60 in	gravelly sand	rapid	0.72 to 1.43 in	5.1 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

155C--Chetek sandy loam, 8 to 15 percent slopes

Chetek

Extent: 85 percent of the unit
Landform(s): outwash plains, moraines
Slope gradient: 8 to 15 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 7 in	sandy loam	moderately rapid	0.71 to 1.06 in	5.1 to 7.3
Bt -- 7 to 14 in	loam	moderate	0.64 to 1.35 in	5.1 to 7.3
2Bt -- 14 to 24 in	gravelly loamy sand	rapid	0.39 to 0.98 in	5.1 to 7.3
2C -- 24 to 60 in	gravelly sand	rapid	0.72 to 1.43 in	5.1 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

155E--Chetek sandy loam, 15 to 25 percent slopes

Chetek

Extent: 85 percent of the unit
Landform(s): outwash plains, moraines
Slope gradient: 15 to 25 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: B
Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 7 in	sandy loam	moderately rapid	0.71 to 1.06 in	5.1 to 7.3
Bt -- 7 to 14 in	loam	moderate	0.64 to 1.35 in	5.1 to 7.3
2Bt -- 14 to 24 in	gravelly loamy sand	rapid	0.39 to 0.98 in	5.1 to 7.3
2C -- 24 to 60 in	gravelly sand	rapid	0.72 to 1.43 in	5.1 to 7.3

173F--Frontenac silt loam, 25 to 40 percent slopes

Frontenac

Extent: 100 percent of the unit
Landform(s): hills
Slope gradient: 25 to 40 percent
Parent material: colluvial sediments over limestone residuum
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .20
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 11 in	loam	moderate	2.20 to 2.65 in	5.6 to 7.3
Bw -- 11 to 24 in	loam	moderate	2.21 to 2.86 in	5.6 to 7.3
2C -- 24 to 60 in	very flaggy loam	moderately rapid	1.43 to 3.58 in	6.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

176--Garwin silty clay loam

Garwin

Extent: 90 percent of the unit

Landform(s): swales on moraines

Slope gradient: 0 to 2 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 14 in	silty clay loam	moderate	2.98 to 3.26 in	5.6 to 7.3
Bwg -- 14 to 37 in	silty clay loam	moderate	4.11 to 4.57 in	6.1 to 7.3
BCg,Cg -- 37 to 60 in	silt loam	moderate	4.57 to 5.02 in	6.6 to 7.8

177A--Gotham loamy fine sand, 0 to 2 percent slopes

Gotham

Extent: 97 percent of the unit

Landform(s): outwash plains, stream terraces, moraines

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .24

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loamy fine sand	rapid	0.91 to 1.09 in	5.6 to 7.3
BA -- 9 to 25 in	loamy fine sand	rapid	0.97 to 1.78 in	5.1 to 7.3
Bw,Bt -- 25 to 48 in	loamy fine sand	rapid	2.06 to 2.51 in	5.1 to 7.3
C -- 48 to 60 in	fine sand	rapid	0.59 to 1.18 in	5.1 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

177B--Gotham loamy fine sand, 2 to 6 percent slopes

Gotham

Extent: 97 percent of the unit

Landform(s): outwash plains, stream terraces, moraines

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .24

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loamy fine sand	rapid	0.79 to 0.94 in	5.6 to 7.3
BA -- 8 to 24 in	loamy fine sand	rapid	0.97 to 1.78 in	5.1 to 7.3
Bw,Bt -- 24 to 47 in	loamy fine sand	rapid	2.06 to 2.51 in	5.1 to 7.3
C -- 47 to 60 in	fine sand	rapid	0.65 to 1.30 in	5.1 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

177C--Gotham loamy fine sand, 6 to 12 percent slopes

Gotham

Extent: 97 percent of the unit

Landform(s): outwash plains, stream terraces, moraines

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .24

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loamy fine sand	rapid	0.71 to 0.85 in	5.6 to 7.3
BA -- 7 to 23 in	loamy fine sand	rapid	0.94 to 1.73 in	5.1 to 7.3
Bw,Bt -- 23 to 46 in	loamy fine sand	rapid	2.09 to 2.56 in	5.1 to 7.3
C -- 46 to 60 in	fine sand	rapid	0.69 to 1.38 in	5.1 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

189--Auburndale silt loam

Auburndale

Extent: 90 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: glaciofluvial sediments over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .32

Land capability, nonirrigated: 5w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	4.5 to 7.3
E1,E2 -- 13 to 25 in	silt loam	moderate	2.44 to 2.93 in	4.5 to 6.0
Btg -- 25 to 36 in	silt loam	moderate	2.13 to 2.34 in	4.5 to 6.0
Cg -- 36 to 58 in	silt loam	moderate	4.41 to 4.85 in	5.6 to 6.5
2C -- 58 to 60 in	sandy loam	moderate	0.16 to 0.37 in	5.6 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

203B--Joy silt loam, 1 to 5 percent slopes

Joy

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 1 to 5 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 23 in	silt loam	moderate	5.02 to 5.48 in	5.6 to 7.3
Bw,BC -- 23 to 55 in	silt loam	moderate	6.46 to 7.10 in	5.1 to 7.3
C -- 55 to 60 in	silt loam	moderate	0.94 to 1.04 in	6.1 to 8.4

208--Kato silty clay loam

Kato

Extent: 95 percent of the unit

Landform(s): flats on outwash plains

Slope gradient: 0 to 1 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,ABg -- 0 to 23 in	silty clay loam	moderate	4.11 to 5.48 in	6.1 to 7.8
Bg -- 23 to 30 in	silt loam	moderate	1.28 to 1.56 in	5.1 to 7.3
2BCg -- 30 to 33 in	loamy sand	rapid	0.25 to 0.41 in	6.1 to 7.8
2Cg -- 33 to 60 in	sand	rapid	0.54 to 1.87 in	6.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

213B--Klinger silt loam, 1 to 5 percent slopes

Klinger

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 5 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.1 to 7.3
Bt -- 13 to 28 in	silt loam	moderate	2.69 to 2.99 in	5.1 to 6.5
2Bt,2Bw -- 28 to 55 in	loam	moderate	4.62 to 5.16 in	5.1 to 7.8
2C -- 55 to 60 in	loam	moderate	0.80 to 0.90 in	6.1 to 7.8

226--Lawson silt loam

Lawson

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 2w

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 15 in	silt loam	moderate	3.29 to 3.59 in	6.1 to 7.8
AC -- 15 to 30 in	silt loam	moderate	2.69 to 3.29 in	6.1 to 7.8
Cg -- 30 to 60 in	silt loam	moderate	5.39 to 5.98 in	6.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

239--Le Sueur loam

Le Sueur

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 1

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 10 in	loam	moderate	1.97 to 2.36 in	5.6 to 7.3
Bt,BC -- 10 to 53 in	clay loam	moderate	6.50 to 8.23 in	5.1 to 7.3
C -- 53 to 60 in	loam	moderate	1.00 to 1.27 in	7.4 to 8.4

250--Kennebec silt loam

Kennebec

Extent: 100 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1,A2 -- 0 to 41 in	silt loam	moderate	9.01 to 9.83 in	5.6 to 7.3
C -- 41 to 60 in	silt loam	moderate	3.78 to 4.16 in	6.1 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

251D--Marlean loam, 12 to 18 percent slopes

Marlean

Extent: 95 percent of the unit

Landform(s): hills

Slope gradient: 12 to 18 percent

Parent material: loamy residuum over bedrock

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loam	moderate	1.02 to 1.13 in	6.1 to 7.3
Bw -- 5 to 11 in	loam	moderate	1.06 to 1.30 in	6.1 to 7.3
2C -- 11 to 42 in	very channery loam	moderately rapid	1.24 to 3.73 in	7.4 to 7.8
2R -- 42 to 60 in	unweathered bedrock	rapid		

Map Unit Description (MN)

Dakota County, Minnesota

251E--Marlean loam, 18 to 25 percent slopes

Marlean

Extent: 95 percent of the unit

Landform(s): hills

Slope gradient: 18 to 25 percent

Parent material: loamy residuum over bedrock

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	loam	moderate	0.79 to 0.87 in	6.1 to 7.3
Bw -- 4 to 10 in	loam	moderate	1.06 to 1.30 in	6.1 to 7.3
2C -- 10 to 40 in	very channery loam	moderately rapid	1.21 to 3.64 in	7.4 to 7.8
2R -- 40 to 60 in	unweathered bedrock	rapid		

252--Marshan silty clay loam

Marshan

Extent: 90 percent of the unit

Landform(s): flats on outwash plains, flats on stream terraces

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine sediments over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 14 in	silty clay loam	moderate	2.83 to 3.12 in	5.6 to 7.3
BA,Bg -- 14 to 32 in	loam	moderate	2.66 to 3.37 in	5.6 to 7.3
2C -- 32 to 60 in	sand	rapid	0.56 to 1.40 in	6.1 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

253--Maxcreek silty clay loam

Maxcreek

Extent: 90 percent of the unit

Landform(s): swales on moraines

Slope gradient: 0 to 1 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 17 in	silty clay loam	moderate	3.05 to 3.72 in	6.1 to 7.3
Bg1,Bg2 -- 17 to 30 in	silty clay loam	moderate	2.60 to 2.86 in	6.1 to 7.3
2C -- 30 to 60 in	loam	moderate	5.09 to 5.69 in	6.6 to 7.8

255--Mayer silt loam

Mayer

Extent: 90 percent of the unit

Landform(s): flats on outwash plains, flats on stream terraces

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 17 in	silt loam	moderate	3.39 to 3.72 in	7.4 to 8.4
Bg,BC -- 17 to 31 in	loam	moderate	2.27 to 2.69 in	7.4 to 8.4
2C -- 31 to 60 in	gravelly loamy sand	rapid	0.57 to 1.15 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

279B--Otterholt silt loam, 1 to 6 percent slopes

Otterholt

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 6 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	silt loam	moderate	0.39 to 0.47 in	4.5 to 7.3
E, BE -- 2 to 15 in	silt loam	moderate	2.34 to 2.86 in	4.5 to 6.0
Bt -- 15 to 35 in	silt loam	moderate	3.61 to 4.42 in	4.5 to 6.0
2C -- 35 to 60 in	sandy loam	moderate	1.24 to 3.72 in	5.1 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

279C--Otterholt silt loam, 6 to 15 percent slopes

Otterholt

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 15 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	silt loam	moderate	0.39 to 0.47 in	4.5 to 7.3
E, BE -- 2 to 15 in	silt loam	moderate	2.34 to 2.86 in	4.5 to 6.0
Bt -- 15 to 35 in	silt loam	moderate	3.61 to 4.42 in	4.5 to 6.0
2C -- 35 to 60 in	sandy loam	moderate	1.24 to 3.72 in	5.1 to 6.5

283A--Plainfield loamy sand, 0 to 2 percent slopes

Plainfield

Extent: 95 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .20

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	loamy sand	rapid	0.35 to 0.47 in	5.1 to 7.3
Bw, BC, C -- 4 to 60 in	sand	very rapid	1.68 to 3.91 in	4.5 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

283B--Plainfield loamy sand, 2 to 6 percent slopes

Plainfield

Extent: 95 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .20

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	loamy sand	rapid	0.35 to 0.47 in	5.1 to 7.3
Bw,BC,C -- 4 to 60 in	sand	very rapid	1.68 to 3.91 in	4.5 to 6.5

283D--Plainfield loamy sand, 6 to 18 percent slopes

Plainfield

Extent: 95 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient: 6 to 18 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .20

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	loamy sand	rapid	0.35 to 0.47 in	5.1 to 7.3
Bw,BC,C -- 4 to 60 in	sand	very rapid	1.68 to 3.91 in	4.5 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

285A--Port Byron silt loam, 0 to 2 percent slopes

Port Byron

Extent: 95 percent of the unit

Landform(s): hills

Slope gradient: 0 to 2 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated: 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 19 in	silt loam	moderate	4.16 to 4.54 in	5.1 to 7.3
Bw -- 19 to 52 in	silt loam	moderate	6.61 to 7.28 in	5.6 to 7.3
C -- 52 to 60 in	silt loam	moderate	1.57 to 1.73 in	5.6 to 8.4

285B--Port Byron silt loam, 2 to 6 percent slopes

Port Byron

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 2 to 6 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 16 in	silt loam	moderate	3.55 to 3.87 in	5.1 to 7.3
Bw -- 16 to 48 in	silt loam	moderate	6.38 to 7.02 in	5.6 to 7.3
C -- 48 to 60 in	silt loam	moderate	2.36 to 2.60 in	5.6 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

285C--Port Byron silt loam, 6 to 12 percent slopes

Port Byron

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 14 in	silt loam	moderate	3.12 to 3.40 in	5.1 to 7.3
Bw -- 14 to 44 in	silt loam	moderate	5.98 to 6.58 in	5.6 to 7.3
C -- 44 to 60 in	silt loam	moderate	3.15 to 3.46 in	5.6 to 8.4

299A--Rockton loam, 0 to 2 percent slopes

Rockton

Extent: 100 percent of the unit

Landform(s): hills

Slope gradient: 0 to 2 percent

Parent material: alluvial sediments over bedrock

Restrictive feature(s): lithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated: 2s

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 16 in	loam	moderate	3.23 to 3.55 in	5.1 to 6.5
Bt -- 16 to 35 in	clay loam	moderate	3.21 to 3.59 in	5.1 to 6.5
2R -- 35 to 60 in	weathered bedrock	moderately rapid		

Map Unit Description (MN)

Dakota County, Minnesota

299B--Rockton loam, 2 to 6 percent slopes

Rockton

Extent: 100 percent of the unit

Landform(s): hills

Slope gradient: 2 to 6 percent

Parent material: alluvial sediments over bedrock

Restrictive feature(s): lithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 16 in	loam	moderate	3.23 to 3.55 in	5.1 to 6.5
Bt -- 16 to 35 in	clay loam	moderate	3.21 to 3.59 in	5.1 to 6.5
2R -- 35 to 60 in	weathered bedrock	moderately rapid		

299C--Rockton loam, 6 to 12 percent slopes

Rockton

Extent: 100 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: alluvial sediments over bedrock

Restrictive feature(s): lithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 16 in	loam	moderate	3.23 to 3.55 in	5.1 to 6.5
Bt -- 16 to 35 in	clay loam	moderate	3.21 to 3.59 in	5.1 to 6.5
2R -- 35 to 60 in	weathered bedrock	moderately rapid		

Map Unit Description (MN)

Dakota County, Minnesota

301B--Lindstrom silt loam, 1 to 4 percent slopes

Lindstrom

Extent: 100 percent of the unit

Landform(s): hills

Slope gradient: 1 to 4 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 34 in	silt loam	moderate	6.77 to 7.45 in	5.6 to 7.3
Bw -- 34 to 60 in	silt loam	moderate	5.20 to 5.72 in	5.6 to 7.3

313--Spillville loam, occasionally flooded

Spillville, occasionally flooded

Extent: 100 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 2w

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2,A3 -- 0 to 48 in	loam	moderate	9.13 to 10.09 in	5.6 to 7.3
A4 -- 48 to 60 in	loam	moderately rapid	1.77 to 2.13 in	5.6 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

317--Oshawa silty clay loam

Oshawa

Extent: 95 percent of the unit

Landform(s): oxbows on flood plains

Slope gradient: 0 to 1 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .28

Land capability, nonirrigated: 6w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ag -- 0 to 37 in	silty clay loam	moderately slow	6.66 to 8.14 in	7.4 to 7.8
Cg -- 37 to 60 in	silty clay loam	moderately slow	3.88 to 4.34 in	7.4 to 7.8

318--Mayer loam, swales

Mayer, swales

Extent: 90 percent of the unit

Landform(s): depressions on outwash plains, depressions on stream terraces

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated: 3w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 19 in	loam	moderate	3.78 to 4.16 in	7.4 to 8.4
Bg,BC -- 19 to 36 in	loam	moderate	2.71 to 3.22 in	7.4 to 8.4
2C -- 36 to 60 in	gravelly loamy sand	rapid	0.48 to 0.96 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

320B--Tallula silt loam, 2 to 6 percent slopes

Tallula

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 2 to 6 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	6.6 to 7.8
Bw,BC -- 9 to 27 in	silt loam	moderate	3.54 to 3.90 in	6.6 to 7.8
C -- 27 to 60 in	silt loam	moderate	6.61 to 7.28 in	7.4 to 8.4

320C2--Tallula silt loam, 6 to 12 percent slopes, eroded

Tallula, eroded

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	6.6 to 7.8
Bw,BC -- 9 to 27 in	silt loam	moderate	3.54 to 3.90 in	6.6 to 7.8
C -- 27 to 60 in	silt loam	moderate	6.61 to 7.28 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

342B--Kingsley sandy loam, 3 to 8 percent slopes

Kingsley

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 8 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

342C--Kingsley sandy loam, 8 to 15 percent slopes

Kingsley

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 8 to 15 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

342E--Kingsley sandy loam, 15 to 25 percent slopes

Kingsley

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 15 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

342F--Kingsley sandy loam, 25 to 40 percent slopes

Kingsley

Extent: 100 percent of the unit

Landform(s): moraines

Slope gradient: 25 to 40 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

344--Quam silt loam

Quam

Extent: 90 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: glaciolacustine sediments

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 6w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 12 in	silt loam	moderate	2.60 to 2.83 in	5.1 to 7.3
A2,Ab -- 12 to 45 in	silt loam	moderately slow	5.29 to 7.28 in	5.1 to 7.8
Cg -- 45 to 60 in	silt loam	moderately slow	2.09 to 2.84 in	5.6 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

377B--Merton silt loam, 1 to 6 percent slopes

Merton

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 6 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 15 in	silt loam	moderate	3.29 to 3.59 in	5.6 to 7.3
2Bt -- 15 to 37 in	loam	moderate	4.41 to 4.85 in	5.6 to 7.3
2BC,2C -- 37 to 60 in	loam	moderate	3.88 to 4.34 in	5.6 to 7.8

378--Maxfield silty clay loam

Maxfield

Extent: 90 percent of the unit

Landform(s): swales on moraines

Slope gradient: 0 to 2 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 21 in	silty clay loam	moderate	4.38 to 4.80 in	6.6 to 7.3
Bg -- 21 to 27 in	silty clay loam	moderate	1.06 to 1.18 in	6.1 to 7.3
2Bg -- 27 to 30 in	loam	moderate	0.54 to 0.60 in	6.1 to 7.8
2C -- 30 to 60 in	loam	moderate	5.09 to 5.69 in	6.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

382B--Blooming silt loam, 1 to 6 percent slopes

Blooming

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 6 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	2.17 to 2.72 in	5.6 to 6.5
Bt -- 9 to 16 in	silty clay loam	moderate	1.28 to 1.56 in	5.6 to 6.5
2Bt -- 16 to 48 in	sandy clay loam	moderate	5.10 to 6.06 in	5.1 to 7.3
2C -- 48 to 60 in	fine sandy loam	moderate	2.01 to 2.24 in	6.6 to 7.8

408--Faxon silty clay loam

Faxon

Extent: 90 percent of the unit

Landform(s): flats on stream terraces, flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium over bedrock

Restrictive feature(s): lithic bedrock at 20 to 40 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 5w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 28 in	silty clay loam	moderate	5.59 to 6.71 in	6.6 to 8.4
2Cg -- 28 to 37 in	flaggy loam	moderate	1.09 to 1.72 in	6.6 to 8.4
2R -- 37 to 60 in	unweathered bedrock	rapid		

Map Unit Description (MN)

Dakota County, Minnesota

409B--Etter fine sandy loam, 2 to 6 percent slopes

Etter

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 2 to 6 percent

Parent material: glacial drift over sandy residuum

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	fine sandy loam	moderately rapid	2.39 to 2.69 in	5.6 to 7.3
Bw -- 15 to 21 in	fine sandy loam	moderate	0.71 to 1.12 in	4.5 to 7.3
2C -- 21 to 60 in	fine sand	rapid	1.95 to 3.90 in	4.5 to 8.4

409C--Etter fine sandy loam, 6 to 12 percent slopes

Etter

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: glacial drift over sandy residuum

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	fine sandy loam	moderately rapid	2.39 to 2.69 in	5.6 to 7.3
Bw -- 15 to 21 in	fine sandy loam	moderate	0.71 to 1.12 in	4.5 to 7.3
2C -- 21 to 60 in	fine sand	rapid	1.95 to 3.90 in	4.5 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

411A--Waukegan silt loam, 0 to 1 percent slopes

Waukegan

Extent: 90 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient: 0 to 1 percent

Parent material: glaciofluvial sediments over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 2s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
Bt -- 13 to 28 in	silt loam	moderate	2.99 to 3.29 in	5.1 to 7.3
2BC -- 28 to 42 in	gravelly sand	rapid	0.28 to 0.57 in	5.6 to 7.8
2C -- 42 to 60 in	gravelly sand	rapid	0.35 to 0.71 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

411B--Waukegan silt loam, 1 to 6 percent slopes

Waukegan

Extent: 90 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient: 1 to 6 percent

Parent material: glaciofluvial sediments over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
Bt -- 13 to 28 in	silt loam	moderate	2.99 to 3.29 in	5.1 to 7.3
2BC -- 28 to 42 in	gravelly sand	rapid	0.28 to 0.57 in	5.6 to 7.8
2C -- 42 to 60 in	gravelly sand	rapid	0.35 to 0.71 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

411C--Waukegan silt loam, 6 to 12 percent slopes

Waukegan

Extent: 90 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient: 6 to 12 percent

Parent material: glaciofluvial sediments over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
Bt -- 13 to 28 in	silt loam	moderate	2.99 to 3.29 in	5.1 to 7.3
2BC -- 28 to 42 in	gravelly sand	rapid	0.28 to 0.57 in	5.6 to 7.8
2C -- 42 to 60 in	gravelly sand	rapid	0.35 to 0.71 in	5.6 to 7.8

414--Hamel silt loam

Hamel

Extent: 90 percent of the unit

Landform(s): swales on moraines

Slope gradient: 0 to 3 percent

Parent material: colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 16 in	silt loam	moderate	3.23 to 3.87 in	5.6 to 7.3
Btg -- 16 to 40 in	silty clay loam	moderately slow	3.84 to 4.56 in	5.6 to 7.3
C -- 40 to 60 in	loam	moderate	2.76 to 3.54 in	7.4 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

415A--Kanaranzi loam, 0 to 2 percent slopes

Kanaranzi

Extent: 100 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 3s

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.54 to 1.90 in	5.6 to 7.3
Bw -- 9 to 19 in	silt loam	moderate	1.48 to 1.87 in	5.6 to 7.8
2BC -- 19 to 23 in	loamy sand	very rapid	0.08 to 0.16 in	6.6 to 8.4
2C -- 23 to 60 in	coarse sand	very rapid	0.74 to 1.48 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

415B--Kanaranzi loam, 2 to 6 percent slopes

Kanaranzi

Extent: 100 percent of the unit

Landform(s): outwash plains

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.54 to 1.90 in	5.6 to 7.3
Bw -- 9 to 19 in	silt loam	moderate	1.48 to 1.87 in	5.6 to 7.8
2BC -- 19 to 23 in	loamy sand	very rapid	0.08 to 0.16 in	6.6 to 8.4
2C -- 23 to 60 in	coarse sand	very rapid	0.74 to 1.48 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

415C--Kanmaranzi loam, 6 to 12 percent slopes

Kanmaranzi

Extent: 100 percent of the unit

Landform(s): outwash plains

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.54 to 1.90 in	5.6 to 7.3
Bw -- 9 to 19 in	silt loam	moderate	1.48 to 1.87 in	5.6 to 7.8
2BC -- 19 to 23 in	loamy sand	very rapid	0.08 to 0.16 in	6.6 to 8.4
2C -- 23 to 60 in	coarse sand	very rapid	0.74 to 1.48 in	7.4 to 8.4

449B--Crystal Lake silt loam, 1 to 8 percent slopes

Crystal Lake

Extent: 100 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 8 percent

Parent material: glaciolacustrine sediments

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.81 to 2.17 in	4.5 to 7.3
Bt -- 9 to 40 in	silty clay loam	moderate	5.60 to 6.84 in	4.5 to 6.0
C -- 40 to 60 in	silty clay loam	moderately slow	3.94 to 4.33 in	4.5 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

454B--Mahtomedi loamy sand, 3 to 8 percent slopes

Mahtomedi

Extent: 85 percent of the unit

Landform(s): outwash plains, moraines

Slope gradient: 3 to 8 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.1 to 6.5
Bw -- 5 to 35 in	coarse sand	rapid	1.50 to 2.09 in	5.1 to 6.5
C -- 35 to 60 in	sand	rapid	0.99 to 2.23 in	5.1 to 7.8

454C--Mahtomedi loamy sand, 8 to 15 percent slopes

Mahtomedi

Extent: 85 percent of the unit

Landform(s): outwash plains, moraines

Slope gradient: 8 to 15 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.1 to 6.5
Bw -- 5 to 35 in	coarse sand	rapid	1.50 to 2.09 in	5.1 to 6.5
C -- 35 to 60 in	sand	rapid	0.99 to 2.23 in	5.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

454E--Mahtomedi loamy sand, 15 to 25 percent slopes

Mahtomedi

Extent: 85 percent of the unit

Landform(s): outwash plains, moraines

Slope gradient: 15 to 25 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.1 to 6.5
Bw -- 5 to 35 in	coarse sand	rapid	1.50 to 2.09 in	5.1 to 6.5
C -- 35 to 60 in	sand	rapid	0.99 to 2.23 in	5.1 to 7.8

463--Minneiska loam, occasionally flooded

Minneiska, occasionally flooded

Extent: 85 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated: 2w

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	loam	moderately rapid	1.57 to 1.73 in	7.4 to 8.4
C -- 8 to 60 in	stratified loam to loamy fine sand to silt loam	moderately rapid	6.76 to 9.35 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

465--Kalmarville sandy loam, frequently flooded

Kalmarville, frequently flooded

Extent: 100 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 1 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated: 5w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 42 in	sandy loam	moderately rapid	5.48 to 7.58 in	6.6 to 7.8
2C -- 42 to 60 in	sand	very rapid	1.06 to 1.59 in	5.6 to 7.8

495--Zumbro fine sandy loam

Zumbro

Extent: 100 percent of the unit

Landform(s): flood plains, outwash plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: rare

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1 -- 0 to 18 in	fine sandy loam	moderately rapid	2.35 to 3.26 in	5.6 to 7.8
A2,A3 -- 18 to 56 in	loamy fine sand	rapid	3.78 to 4.54 in	5.6 to 7.8
Bw -- 56 to 60 in	fine sand	rapid	0.24 to 0.43 in	6.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

522--Boots muck

Boots

Extent: 100 percent of the unit

Landform(s): depressions on moraines, flood plains

Slope gradient: 0 to 1 percent

Parent material: organic material

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .02

Land capability, nonirrigated: 6w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa -- 0 to 5 in	muck	moderately rapid	1.79 to 2.30 in	
Oe1,Oe2 -- 5 to 60 in	mucky peat	rapid	19.15 to 24.63 in	

539--Palms muck

Palms

Extent: 100 percent of the unit

Landform(s): depressions on moraines, flood plains

Slope gradient: 0 to 1 percent

Parent material: organic material over loamy sediments

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .02

Land capability, nonirrigated: 6w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 45 in	muck	moderately rapid	15.71 to 21.54 in	
2Ab -- 45 to 56 in	clay loam	moderate	1.98 to 2.43 in	
2Cg -- 56 to 60 in	clay loam	moderate	0.59 to 0.75 in	

Map Unit Description (MN)

Dakota County, Minnesota

540--Seelyeville muck

Seelyeville

Extent: 100 percent of the unit

Landform(s): depressions on moraines, flood plains

Slope gradient: 0 to 1 percent

Parent material: organic material

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .02

Land capability, nonirrigated: 6w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 -- 0 to 6 in	muck	moderately rapid	2.07 to 2.66 in	
Oa2,Oa3,Oa4 - 6 to 60 in	muck	moderately rapid	18.88 to 24.27 in	

545--Rondeau muck

Rondeau

Extent: 100 percent of the unit

Landform(s): depressions on moraines, flood plains

Slope gradient: 0 to 1 percent

Parent material: organic material over limnic sediments

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .02

Land capability, nonirrigated: 6w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa -- 0 to 45 in	muck	moderately rapid	15.71 to 21.54 in	
Lma -- 45 to 60 in	marl	moderately rapid	2.99 to 3.29 in	

Map Unit Description (MN)

Dakota County, Minnesota

611C--Hawick coarse sandy loam, 6 to 12 percent slopes

Hawick

<p><i>Extent:</i> 90 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, stream terraces</p> <p><i>Slope gradient:</i> 6 to 12 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 3</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .15</p> <p><i>Land capability, nonirrigated:</i> 4s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
--	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 11 in	coarse sandy loam	moderately rapid	1.43 to 1.65 in	6.1 to 7.8
Bw,BC -- 11 to 21 in	gravelly loamy coarse sand	rapid	0.30 to 0.98 in	6.1 to 7.8
C -- 21 to 60 in	gravelly coarse sand	very rapid	0.78 to 2.34 in	7.4 to 8.4

611D--Hawick coarse sandy loam, 12 to 18 percent slopes

Hawick

<p><i>Extent:</i> 90 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, stream terraces</p> <p><i>Slope gradient:</i> 12 to 18 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 3</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .15</p> <p><i>Land capability, nonirrigated:</i> 6s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
---	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	coarse sandy loam	moderately rapid	1.18 to 1.36 in	6.1 to 7.8
Bw,BC -- 9 to 21 in	gravelly loamy coarse sand	rapid	0.35 to 1.18 in	6.1 to 7.8
C -- 21 to 60 in	gravelly coarse sand	very rapid	0.78 to 2.34 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

611E--Hawick loamy sand, 18 to 25 percent slopes

Hawick

Extent: 100 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient: 18 to 25 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .05

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 9 in	loamy sand	rapid	0.91 to 1.09 in	6.1 to 7.8
Bw,BC -- 9 to 21 in	gravelly loamy coarse sand	rapid	0.35 to 1.18 in	6.1 to 7.8
C -- 21 to 60 in	gravelly coarse sand	very rapid	0.78 to 2.34 in	7.4 to 8.4

611F--Hawick loamy sand, 25 to 50 percent slopes

Hawick

Extent: 100 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient: 25 to 50 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .05

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 7 in	loamy sand	rapid	0.71 to 0.85 in	6.1 to 7.8
Bw,BC -- 7 to 21 in	gravelly loamy coarse sand	rapid	0.41 to 1.38 in	6.1 to 7.8
C -- 21 to 60 in	gravelly coarse sand	very rapid	0.78 to 2.34 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

857A--Urban land-Waukegan complex, 0 to 1 percent slopes

Urban land

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 1 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil: no

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Waukegan

Extent: 10 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 1 percent

Parent material: glaciofluvial sediments over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 2s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
Bt -- 13 to 28 in	silt loam	moderate	2.99 to 3.29 in	5.1 to 7.3
2BC -- 28 to 42 in	gravelly sand	rapid	0.28 to 0.57 in	5.6 to 7.8
2C -- 42 to 60 in	gravelly sand	rapid	0.35 to 0.71 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

857B--Urban land-Waukegan complex, 1 to 8 percent slopes

Urban land

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 1 to 8 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil: no

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Waukegan

Extent: 10 percent of the unit

Landform(s): outwash plains

Slope gradient: 1 to 8 percent

Parent material: glaciofluvial sediments over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
Bt -- 13 to 28 in	silt loam	moderate	2.99 to 3.29 in	5.1 to 7.3
2BC -- 28 to 42 in	gravelly sand	rapid	0.28 to 0.57 in	5.6 to 7.8
2C -- 42 to 60 in	gravelly sand	rapid	0.35 to 0.71 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

858C--Urban land-Chetek complex, 1 to 15 percent slopes

Urban land

<p><i>Extent:</i> 65 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, moraines</p> <p><i>Slope gradient:</i> 1 to 15 percent</p> <p><i>Parent material:</i></p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i></p> <p><i>Ponding:</i></p> <p><i>Drainage class:</i></p>	<p><i>Soil loss tolerance (T factor):</i></p> <p><i>Wind erodibility group (WEG):</i></p> <p><i>Wind erodibility index (WEI):</i></p> <p><i>Kw factor (surface layer)</i></p> <p><i>Land capability, nonirrigated:</i></p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i></p> <p><i>Potential for frost action:</i></p>
---	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Chetek

<p><i>Extent:</i> 35 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, moraines</p> <p><i>Slope gradient:</i> 1 to 15 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> somewhat excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 2</p> <p><i>Wind erodibility group (WEG):</i> 3</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .20</p> <p><i>Land capability, nonirrigated:</i> 4e</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> B</p> <p><i>Potential for frost action:</i> low</p>
--	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 7 in	sandy loam	moderately rapid	0.71 to 1.06 in	5.1 to 7.3
Bt -- 7 to 14 in	loam	moderate	0.64 to 1.35 in	5.1 to 7.3
2Bt -- 14 to 24 in	gravelly loamy sand	rapid	0.39 to 0.98 in	5.1 to 7.3
2C -- 24 to 60 in	gravelly sand	rapid	0.72 to 1.43 in	5.1 to 7.3

Map Unit Description (MN)

Dakota County, Minnesota

860C--Urban land-Lester complex, 3 to 15 percent slopes

Urban land

Extent: 65 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 15 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil: no

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Lester

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 15 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
BA,Bt,Bw -- 6 to 38 in	clay loam	moderate	4.78 to 6.06 in	5.1 to 7.3
C -- 38 to 60 in	loam	moderate	3.09 to 4.19 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

861C--Urban land-Kingsley complex, 3 to 15 percent slopes

Urban land

Extent: 65 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 15 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil: no

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Kingsley

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 15 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

861E--Urban land-Kingsley complex, 15 to 25 percent slopes

Urban land

Extent: 65 percent of the unit

Landform(s): moraines

Slope gradient: 15 to 25 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil: no

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Kingsley

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 15 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

865B--Urban land-Hubbard complex, 0 to 6 percent slopes

Urban land

Extent: 65 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 6 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil: no

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Hubbard

Extent: 35 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .05

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 16 in	loamy sand	rapid	1.29 to 1.94 in	5.1 to 7.3
BA,Bw -- 16 to 38 in	loamy sand	rapid	0.65 to 1.52 in	5.1 to 7.3
C -- 38 to 60 in	sand	rapid	0.66 to 1.54 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

880F--Brodale-Rock outcrop complex, 18 to 45 percent slopes

Brodale

Extent: 70 percent of the unit

Landform(s): hills

Slope gradient: 18 to 45 percent

Parent material: colluvium over bedrock

Restrictive feature(s): lithic bedrock at 40 to 80 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .15

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 6 in	flaggy loam	moderate	0.35 to 0.71 in	6.6 to 8.4
Bw,C -- 6 to 47 in	very flaggy very fine sandy loam	moderately rapid	1.64 to 3.69 in	7.4 to 8.4
R -- 47 to 51 in	unweathered bedrock	rapid		

Rock outcrop

Extent: 30 percent of the unit

Landform(s): hills

Slope gradient: 18 to 45 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil: no

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>

Map Unit Description (MN)

Dakota County, Minnesota

888B--Kingsley-Lester complex, 2 to 6 percent slopes

Kingsley

Extent: 55 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Lester

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
BA,Bt,Bw -- 6 to 38 in	clay loam	moderate	4.78 to 6.06 in	5.1 to 7.3
C -- 38 to 60 in	loam	moderate	3.09 to 4.19 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

888C--Kingsley-Lester complex, 6 to 12 percent slopes

Kingsley

Extent: 55 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Lester

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
BA,Bt,Bw -- 6 to 38 in	clay loam	moderate	4.78 to 6.06 in	5.1 to 7.3
C -- 38 to 60 in	loam	moderate	3.09 to 4.19 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

888D--Kingsley-Lester complex, 12 to 18 percent slopes

Kingsley

Extent: 55 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Lester

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
BA,Bt,Bw -- 6 to 38 in	clay loam	moderate	4.78 to 6.06 in	5.1 to 7.3
C -- 38 to 60 in	loam	moderate	3.09 to 4.19 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

889B--Wadena-Hawick complex, 2 to 6 percent slopes

Wadena

<p><i>Extent:</i> 55 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, valley trains</p> <p><i>Slope gradient:</i> 2 to 6 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> well drained</p>	<p><i>Soil loss tolerance (T factor):</i> 3</p> <p><i>Wind erodibility group (WEG):</i> 6</p> <p><i>Wind erodibility index (WEI):</i> 48</p> <p><i>Kw factor (surface layer)</i> .20</p> <p><i>Land capability, nonirrigated:</i> 2e</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> B</p> <p><i>Potential for frost action:</i> low</p>
--	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 16 in	loam	moderate	3.23 to 3.55 in	6.1 to 7.3
Bw -- 16 to 31 in	loam	moderate	2.09 to 2.84 in	5.6 to 7.3
2BC,2C -- 31 to 60 in	sand	very rapid	0.57 to 1.15 in	6.6 to 8.4

Hawick

<p><i>Extent:</i> 35 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, valley trains</p> <p><i>Slope gradient:</i> 2 to 6 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 3</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .15</p> <p><i>Land capability, nonirrigated:</i> 4s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
---	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 11 in	coarse sandy loam	moderately rapid	1.43 to 1.65 in	6.1 to 7.8
Bw,BC -- 11 to 21 in	gravelly loamy coarse sand	rapid	0.30 to 0.98 in	6.1 to 7.8
C -- 21 to 60 in	gravelly coarse sand	very rapid	0.78 to 2.34 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

889C--Wadena-Hawick complex, 6 to 12 percent slopes

Wadena

<p><i>Extent:</i> 55 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, valley trains</p> <p><i>Slope gradient:</i> 6 to 12 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> well drained</p>	<p><i>Soil loss tolerance (T factor):</i> 3</p> <p><i>Wind erodibility group (WEG):</i> 6</p> <p><i>Wind erodibility index (WEI):</i> 48</p> <p><i>Kw factor (surface layer)</i> .20</p> <p><i>Land capability, nonirrigated:</i> 3e</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> B</p> <p><i>Potential for frost action:</i> low</p>
---	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 16 in	loam	moderate	3.23 to 3.55 in	6.1 to 7.3
Bw -- 16 to 31 in	loam	moderate	2.09 to 2.84 in	5.6 to 7.3
2BC,2C -- 31 to 60 in	sand	very rapid	0.57 to 1.15 in	6.6 to 8.4

Hawick

<p><i>Extent:</i> 35 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, valley trains</p> <p><i>Slope gradient:</i> 6 to 12 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 3</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .15</p> <p><i>Land capability, nonirrigated:</i> 4s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
--	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 11 in	coarse sandy loam	moderately rapid	1.43 to 1.65 in	6.1 to 7.8
Bw,BC -- 11 to 21 in	gravelly loamy coarse sand	rapid	0.30 to 0.98 in	6.1 to 7.8
C -- 21 to 60 in	gravelly coarse sand	very rapid	0.78 to 2.34 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

889D--Wadena-Hawick complex, 12 to 18 percent slopes

Wadena

<p><i>Extent:</i> 60 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, valley trains</p> <p><i>Slope gradient:</i> 12 to 18 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> well drained</p>	<p><i>Soil loss tolerance (T factor):</i> 3</p> <p><i>Wind erodibility group (WEG):</i> 6</p> <p><i>Wind erodibility index (WEI):</i> 48</p> <p><i>Kw factor (surface layer)</i> .20</p> <p><i>Land capability, nonirrigated:</i> 4e</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> B</p> <p><i>Potential for frost action:</i> low</p>
--	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 16 in	loam	moderate	3.23 to 3.55 in	6.1 to 7.3
Bw -- 16 to 31 in	loam	moderate	2.09 to 2.84 in	5.6 to 7.3
2BC,2C -- 31 to 60 in	sand	very rapid	0.57 to 1.15 in	6.6 to 8.4

Hawick

<p><i>Extent:</i> 40 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, valley trains</p> <p><i>Slope gradient:</i> 12 to 18 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 3</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .15</p> <p><i>Land capability, nonirrigated:</i> 6s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
---	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 11 in	coarse sandy loam	moderately rapid	1.43 to 1.65 in	6.1 to 7.8
Bw,BC -- 11 to 21 in	gravelly loamy coarse sand	rapid	0.30 to 0.98 in	6.1 to 7.8
C -- 21 to 60 in	gravelly coarse sand	very rapid	0.78 to 2.34 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

895B--Kingsley-Mahtomedi-Spencer complex, 3 to 8 percent slopes

Kingsley

Extent: 45 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 8 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Mahtomedi

Extent: 23 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 8 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.1 to 6.5
Bw -- 5 to 35 in	coarse sand	rapid	1.50 to 2.09 in	5.1 to 6.5
C -- 35 to 60 in	sand	rapid	0.99 to 2.23 in	5.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

895B--Kingsley-Mahtomedi-Spencer complex, 3 to 8 percent slopes

Spencer

Extent: 22 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 8 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 7 in	silt loam	moderate	1.42 to 1.70 in	4.5 to 7.3
E -- 7 to 13 in	silt loam	moderate	1.18 to 1.42 in	4.5 to 6.0
Bt -- 13 to 35 in	silt loam	moderate	3.97 to 4.85 in	4.5 to 6.0
Bw -- 35 to 45 in	silt loam	moderate	0.69 to 1.57 in	5.1 to 6.5
2C -- 45 to 60 in	sandy loam	moderate	0.75 to 2.24 in	5.1 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

895C--Kingsley-Mahtomedi-Spencer complex, 8 to 15 percent slopes

Kingsley

Extent: 45 percent of the unit

Landform(s): moraines

Slope gradient: 8 to 15 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Mahtomedi

Extent: 23 percent of the unit

Landform(s): moraines

Slope gradient: 8 to 15 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.1 to 6.5
Bw -- 5 to 35 in	coarse sand	rapid	1.50 to 2.09 in	5.1 to 6.5
C -- 35 to 60 in	sand	rapid	0.99 to 2.23 in	5.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

895C--Kingsley-Mahtomedi-Spencer complex, 8 to 15 percent slopes

Spencer

Extent: 22 percent of the unit

Landform(s): moraines

Slope gradient: 8 to 12 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 7 in	silt loam	moderate	1.42 to 1.70 in	4.5 to 7.3
E -- 7 to 13 in	silt loam	moderate	1.18 to 1.42 in	4.5 to 6.0
Bt -- 13 to 35 in	silt loam	moderate	3.97 to 4.85 in	4.5 to 6.0
Bw -- 35 to 45 in	silt loam	moderate	0.69 to 1.57 in	5.1 to 6.5
2C -- 45 to 60 in	sandy loam	moderate	0.75 to 2.24 in	5.1 to 6.5

Map Unit Description (MN)

Dakota County, Minnesota

896E--Kingsley-Mahtomedi complex, 15 to 25 percent slopes

Kingsley

Extent: 60 percent of the unit

Landform(s): moraines

Slope gradient: 15 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Mahtomedi

Extent: 30 percent of the unit

Landform(s): moraines

Slope gradient: 15 to 25 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.1 to 6.5
Bw -- 5 to 35 in	coarse sand	rapid	1.50 to 2.09 in	5.1 to 6.5
C -- 35 to 60 in	sand	rapid	0.99 to 2.23 in	5.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

896F--Kingsley-Mahtomedi complex, 25 to 40 percent slopes

Kingsley

Extent: 65 percent of the unit

Landform(s): moraines

Slope gradient: 25 to 35 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderate	0.79 to 1.42 in	5.6 to 6.5
E -- 8 to 12 in	loamy sand	moderate	0.39 to 0.59 in	5.6 to 6.5
Bt,Bw -- 12 to 38 in	sandy loam	moderately slow	3.38 to 4.16 in	5.1 to 7.3
C -- 38 to 60 in	sandy loam	moderately slow	2.43 to 3.09 in	5.6 to 7.8

Mahtomedi

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 25 to 40 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.1 to 6.5
Bw -- 5 to 35 in	coarse sand	rapid	1.50 to 2.09 in	5.1 to 6.5
C -- 35 to 60 in	sand	rapid	0.99 to 2.23 in	5.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

963C2--Timula-Bold silt loams, 6 to 12 percent slopes, eroded

Timula, eroded

Extent: 57 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.57 to 1.89 in	6.1 to 7.8
Bw -- 8 to 20 in	silt loam	moderate	2.20 to 2.44 in	6.6 to 7.8
C -- 20 to 60 in	silt loam	moderate	7.16 to 7.95 in	7.4 to 8.4

Bold, eroded

Extent: 38 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .43

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.65 to 1.89 in	7.4 to 8.4
C -- 8 to 60 in	silt loam	moderate	10.39 to 12.47 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

963D2--Timula-Bold silt loams, 12 to 18 percent slopes, eroded

Timula, eroded

Extent: 57 percent of the unit

Landform(s): hills

Slope gradient: 12 to 18 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.57 to 1.89 in	6.1 to 7.8
Bw -- 8 to 20 in	silt loam	moderate	2.20 to 2.44 in	6.6 to 7.8
C -- 20 to 60 in	silt loam	moderate	7.16 to 7.95 in	7.4 to 8.4

Bold, eroded

Extent: 38 percent of the unit

Landform(s): hills

Slope gradient: 12 to 18 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .43

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.65 to 1.89 in	7.4 to 8.4
C -- 8 to 60 in	silt loam	moderate	10.39 to 12.47 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

963E2--Timula-Bold silt loams, 18 to 25 percent slopes, eroded

Timula, eroded

Extent: 57 percent of the unit

Landform(s): hills

Slope gradient: 18 to 25 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	silt loam	moderate	1.57 to 1.89 in	6.1 to 7.8
Bw -- 8 to 18 in	silt loam	moderate	1.84 to 2.05 in	6.6 to 7.8
C -- 18 to 60 in	silt loam	moderate	7.51 to 8.35 in	7.4 to 8.4

Bold, eroded

Extent: 38 percent of the unit

Landform(s): hills

Slope gradient: 18 to 25 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .43

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	silt loam	moderate	1.65 to 1.89 in	7.4 to 8.4
C -- 8 to 60 in	silt loam	moderate	10.39 to 12.47 in	7.4 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

1013--Pits, quarry

Pits, quarry

Extent: 100 percent of the unit

Landform(s): stream terraces, outwash plains, moraines

Slope gradient: 0 to 50 percent

Parent material: limestone and sandstone bedrock

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil:

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

1027--Udorthents, wet

Udorthents, wet

Extent: 100 percent of the unit

Landform(s): stream terraces, outwash plains, moraines

Slope gradient: 0 to 2 percent

Parent material: variable soil material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil:

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Map Unit Description (MN)

Dakota County, Minnesota

1029--Pits, gravel

Pits, gravel

Extent: 100 percent of the unit

Landform(s): outwash plains, moraines, stream terraces

Slope gradient: 0 to 25 percent

Parent material: gravelly and sandy outwash

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil:

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

1039--Urban land

Urban land

Extent: 100 percent of the unit

Landform(s): moraines, stream terraces, outwash plains

Slope gradient: 0 to 6 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil:

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Map Unit Description (MN)

Dakota County, Minnesota

1055--Aquolls and Histosols, ponded

Aquolls, ponded

<p><i>Extent:</i> 50 percent of the unit</p> <p><i>Landform(s):</i> depressions on moraines</p> <p><i>Slope gradient:</i> 0 to 1 percent</p> <p><i>Parent material:</i> mineral sediments</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> frequent</p> <p><i>Drainage class:</i> very poorly drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 8</p> <p><i>Wind erodibility index (WEI):</i> 0</p> <p><i>Kw factor (surface layer)</i> .32</p> <p><i>Land capability, nonirrigated:</i> 8w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> B/D</p> <p><i>Potential for frost action:</i> none</p>
---	---

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 42 in	silty clay loam	moderate	7.58 to 9.27 in	6.1 to 7.8
Bg -- 42 to 50 in	clay loam	moderate	1.18 to 1.50 in	6.6 to 7.8
Cg -- 50 to 60 in	loam	moderate	1.48 to 1.87 in	7.4 to 8.4

Histosols, ponded

<p><i>Extent:</i> 50 percent of the unit</p> <p><i>Landform(s):</i> depressions on moraines</p> <p><i>Slope gradient:</i> 0 to 1 percent</p> <p><i>Parent material:</i> organic material</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> frequent</p> <p><i>Drainage class:</i> very poorly drained</p>	<p><i>Soil loss tolerance (T factor):</i> 2</p> <p><i>Wind erodibility group (WEG):</i> 8</p> <p><i>Wind erodibility index (WEI):</i> 0</p> <p><i>Kw factor (surface layer)</i> .02</p> <p><i>Land capability, nonirrigated:</i> 8w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> A/D</p> <p><i>Potential for frost action:</i></p>
--	--

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 -- 0 to 8 in	muck	moderately rapid	2.76 to 3.54 in	
Oa2 -- 8 to 60 in	muck	moderately rapid	18.19 to 23.39 in	

Map Unit Description (MN)

Dakota County, Minnesota

1072--Udorthents, moderately shallow

Udorthents, moderately shallow

Extent: 100 percent of the unit
Landform(s): stream terraces, outwash plains, moraines
Slope gradient: 0 to 6 percent
Parent material: variable soil material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class:

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated:
Hydric soil:
Hydrologic group:
Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

1815--Zumbro loamy fine sand

Zumbro, non-flooded

Extent: 100 percent of the unit
Landform(s): flood plains, outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1 -- 0 to 18 in	loamy fine sand	rapid	1.81 to 2.17 in	5.6 to 7.8
A2,A3 -- 18 to 56 in	loamy fine sand	rapid	3.78 to 4.54 in	5.6 to 7.8
Bw -- 56 to 60 in	fine sand	rapid	0.24 to 0.43 in	6.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

1816--Kennebec variant silt loam

Kennebec

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 4 percent

Parent material: colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2,A3 -- 0 to 37 in	silt loam	moderate	5.92 to 8.88 in	5.6 to 7.3
Ab,Bb -- 37 to 60 in	silty clay loam	moderate	3.65 to 5.48 in	5.6 to 7.3

1821--Alganssee sandy loam, occasionally flooded

Alganssee, occasionally flooded

Extent: 95 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 3w

Hydric soil: no

Hydrologic group: A/D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 12 in	sandy loam	moderately rapid	1.42 to 1.65 in	5.6 to 7.8
C -- 12 to 60 in	sand	rapid	2.40 to 4.80 in	5.6 to 8.4

Map Unit Description (MN)

Dakota County, Minnesota

1824--Quam silt loam, ponded

Quam, ponded

Extent: 90 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: glaciolacustine sediments

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .37

Land capability, nonirrigated: 8w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 12 in	silt loam	moderate	2.60 to 2.83 in	5.1 to 7.3
A2,Ab1,Ab2 -- 12 to 45 in	silt loam	moderately slow	5.29 to 7.28 in	5.1 to 7.8
Cg -- 45 to 60 in	silt loam	moderately slow	2.09 to 2.84 in	5.6 to 8.4

1825C--Seelyeville muck, sloping

Seelyeville, sloping

Extent: 90 percent of the unit

Landform(s): toes on bluffs

Slope gradient: 0 to 15 percent

Parent material: organic material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: very poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .02

Land capability, nonirrigated: 6w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa -- 0 to 60 in	muck	moderately rapid	20.94 to 26.93 in	

Map Unit Description (MN)

Dakota County, Minnesota

1827A--Waukegan silt loam, bedrock substratum, 0 to 2 percent slopes

Waukegan, bedrock substratum

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 0 to 2 percent

Parent material: glaciofluvial sediments over bedrock

Restrictive feature(s): lithic bedrock at 30 to 45 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 2s

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 17 in	silt loam	moderate	3.72 to 4.06 in	5.6 to 7.3
Bt -- 17 to 36 in	silt loam	moderate	3.78 to 4.16 in	5.1 to 7.3
2C -- 36 to 40 in	sand	rapid	0.26 to 0.35 in	5.6 to 7.3
R -- 40 to 60 in	unweathered bedrock	rapid		

Map Unit Description (MN)

Dakota County, Minnesota

1827B--Waukegan silt loam, bedrock substratum, 2 to 6 percent slopes

Waukegan, bedrock substratum

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 2 to 6 percent

Parent material: glaciofluvial sediments over bedrock

Restrictive feature(s): lithic bedrock at 30 to 45 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 17 in	silt loam	moderate	3.72 to 4.06 in	5.6 to 7.3
Bt -- 17 to 36 in	silt loam	moderate	3.78 to 4.16 in	5.1 to 7.3
2C -- 36 to 40 in	sand	rapid	0.26 to 0.35 in	5.6 to 7.3
R -- 40 to 60 in	unweathered bedrock	rapid		

Map Unit Description (MN)

Dakota County, Minnesota

1827C--Waukegan silt loam, bedrock substratum, 6 to 12 percent slopes

Waukegan, bedrock substratum

Extent: 90 percent of the unit

Landform(s): outwash plains

Slope gradient: 6 to 12 percent

Parent material: glaciofluvial sediments over bedrock

Restrictive feature(s): lithic bedrock at 30 to 45 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 17 in	silt loam	moderate	3.72 to 4.06 in	5.6 to 7.3
Bt -- 17 to 36 in	silt loam	moderate	3.78 to 4.16 in	5.1 to 7.3
2C -- 36 to 40 in	sand	rapid	0.26 to 0.35 in	5.6 to 7.3
R -- 40 to 60 in	unweathered bedrock	rapid		

Map Unit Description (MN)

Dakota County, Minnesota

1848B--Sparta loamy sand, bedrock substratum, 2 to 8 percent slopes

Sparta, bedrock substratum

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 2 to 8 percent

Parent material: outwash over bedrock

Restrictive feature(s): lithic bedrock at 40 to 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	loamy sand	rapid	0.98 to 1.18 in	5.6 to 6.0
Bw -- 10 to 38 in	fine sand	rapid	1.70 to 2.27 in	5.6 to 6.0
2Bw -- 38 to 42 in	clay loam	moderate	0.55 to 0.63 in	5.1 to 7.8
R -- 42 to 60 in	unweathered bedrock	moderately slow		

1894B--Winnebago loam, 2 to 6 percent slopes

Winnebago

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	loam	moderate	2.24 to 3.29 in	5.1 to 6.5
2Bt,2BC -- 15 to 44 in	sandy clay loam	moderate	4.37 to 5.54 in	5.1 to 6.0
2C -- 44 to 60 in	sandy loam	moderate	1.73 to 2.83 in	5.6 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

1895B--Carmi loam, 2 to 8 percent slopes

Carmi

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 8 percent

Parent material: glaciofluvial sediments

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .28

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	loam	moderate	1.95 to 2.34 in	5.1 to 7.3
Bw,Bt -- 13 to 25 in	sandy loam	moderately rapid	1.10 to 1.46 in	4.5 to 7.3
2Bw -- 25 to 48 in	gravelly sandy loam	rapid	0.91 to 2.28 in	5.1 to 7.3
2C -- 48 to 60 in	gravelly loamy sand	rapid	0.47 to 1.18 in	5.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

1896B--Ostrander-Carmi loams, 2 to 6 percent slopes

Ostrander

Extent: 55 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 17 in	loam	moderate	3.39 to 4.06 in	5.6 to 7.3
2Bw -- 17 to 53 in	loam	moderate	6.16 to 6.88 in	5.1 to 7.3
2C -- 53 to 60 in	loam	moderate	1.14 to 1.27 in	6.6 to 8.4

Carmi

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: glaciofluvial sediments

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .28

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	loam	moderate	1.95 to 2.34 in	5.1 to 7.3
Bw,Bt -- 13 to 25 in	sandy loam	moderately rapid	1.10 to 1.46 in	4.5 to 7.3
2Bw -- 25 to 48 in	gravelly sandy loam	rapid	0.91 to 2.28 in	5.1 to 7.3
2C -- 48 to 60 in	gravelly loamy sand	rapid	0.47 to 1.18 in	5.1 to 7.8

Map Unit Description (MN)

Dakota County, Minnesota

1898F--Etter-Brodale complex, 25 to 60 percent slopes

Etter

Extent: 50 percent of the unit

Landform(s): hills

Slope gradient: 25 to 40 percent

Parent material: glacial drift over sandy residuum

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	fine sandy loam	moderately rapid	2.39 to 2.69 in	5.6 to 7.3
Bw -- 15 to 21 in	fine sandy loam	moderate	0.71 to 1.12 in	4.5 to 7.3
2C -- 21 to 60 in	fine sand	rapid	1.95 to 3.90 in	4.5 to 8.4

Brodale

Extent: 50 percent of the unit

Landform(s): hills

Slope gradient: 25 to 60 percent

Parent material: colluvium over bedrock

Restrictive feature(s): lithic bedrock at 40 to 80 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .15

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 6 in	flaggy loam	moderate	0.35 to 0.71 in	6.6 to 8.4
Bw,C -- 6 to 47 in	very flaggy very fine sandy loam	moderately rapid	1.64 to 3.69 in	7.4 to 8.4
R -- 47 to 60 in	unweathered bedrock	rapid		

Map Unit Description (MN)

Dakota County, Minnesota

1902B--Jewett silt loam, 1 to 6 percent slopes

Jewett

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 6 percent

Parent material: loess over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	silt loam	moderate	0.87 to 0.94 in	5.1 to 7.3
E -- 4 to 13 in	silt loam	moderate	1.81 to 1.99 in	5.1 to 7.3
Bt -- 13 to 24 in	silt loam	moderate	1.98 to 2.43 in	5.1 to 6.0
2Bt -- 24 to 33 in	loam	moderate	1.09 to 1.72 in	5.1 to 6.0
2C -- 33 to 60 in	sandy loam	moderately slow	2.68 to 4.82 in	5.1 to 6.0

W--Water

Water

Extent: 100 percent of the unit

Landform(s):

Slope gradient:

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil:

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
-------------------------------------	----------------	---------------------	---------------------------------	-----------

Map Unit Description (MN)

Dakota County, Minnesota

This report provides a semitabular listing of some soil and site properties and interpretations that are valuable in communicating the concept of a map unit. The report also provides easy access to the commonly used conservation planning information in one place. The major soil components in each map unit are displayed. Minor components may be displayed if they are included in the database and are selected at the time the report is generated.