

Map Unit Description (MN)

Polk 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]

20B--Chapett fine sandy loam, 2 to 6 percent slopes

Chapett

Extent: 90 percent of the unit

Landform(s): hillslopes on 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) .17

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 8 in	fine sandy loam	moderate	1.02 to 1.50 in	6.1 to 7.3
Bt1,Bt2 -- 8 to 19 in	sandy clay loam	moderate	1.65 to 2.09 in	6.1 to 7.3
Bk -- 19 to 30 in	fine sandy loam	moderate	1.21 to 2.09 in	7.4 to 8.4
Bck,C -- 30 to 80 in	fine sandy loam	moderate	5.00 to 8.00 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

20C2--Chapett fine sandy loam, 6 to 12 percent slopes, eroded

Chapett, eroded

Extent: 90 percent of the unit

Landform(s): hillslopes on 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) .17

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	fine sandy loam	moderate	1.18 to 1.72 in	6.1 to 7.3
Bt1,Bt2 -- 9 to 21 in	sandy clay loam	moderate	1.77 to 2.24 in	6.1 to 7.3
Bk -- 21 to 33 in	fine sandy loam	moderate	1.34 to 2.32 in	7.4 to 8.4
Bck,C -- 33 to 80 in	fine sandy loam	moderate	4.69 to 7.50 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

20D2--Chapett fine sandy loam, 12 to 20 percent slopes, eroded

Chapett, eroded

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 12 to 20 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) .17

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 12 in	fine sandy loam	moderate	1.54 to 2.24 in	6.1 to 7.3
Bt1,Bt2 -- 12 to 21 in	sandy clay loam	moderate	1.36 to 1.72 in	6.1 to 7.3
Bk -- 21 to 31 in	fine sandy loam	moderate	1.13 to 1.94 in	7.4 to 8.4
Bc,C -- 31 to 80 in	fine sandy loam	moderate	4.88 to 7.81 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

20E--Chapett fine sandy loam, 20 to 40 percent slopes

Chapett

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 20 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) .17

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 -- 0 to 4 in	fine sandy loam	moderate	0.51 to 0.75 in	6.1 to 7.3
Bt1,Bt2 -- 4 to 15 in	sandy clay loam	moderate	1.65 to 2.09 in	6.1 to 7.3
Bk -- 15 to 50 in	fine sandy loam	moderate	3.85 to 6.66 in	7.4 to 8.4
BCk,C -- 50 to 80 in	fine sandy loam	moderate	2.99 to 4.79 in	7.4 to 8.4

38B--Waukon loam, 2 to 6 percent slopes

Waukon

Extent: 90 percent of the unit

Landform(s): hillslopes on 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): 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 -- 0 to 6 in	loam	moderate	1.18 to 1.42 in	6.1 to 7.3
E,B/E...Bt2 -- 6 to 29 in	clay loam	moderate	3.48 to 4.41 in	6.1 to 8.4
Bk1...C2 -- 29 to 80 in	loam	moderate	7.62 to 9.65 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

38C2--Waukon loam, 6 to 12 percent slopes, eroded

Waukon, eroded

Extent: 90 percent of the unit

Landform(s): hillslopes on 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): 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 -- 0 to 7 in	loam	moderate	1.42 to 1.70 in	6.1 to 7.3
E,B/E...Bt2 -- 7 to 18 in	clay loam	moderate	1.65 to 2.09 in	6.1 to 8.4
Bk1...C2 -- 18 to 80 in	loam	moderate	9.27 to 11.74 in	7.4 to 8.4

38D2--Waukon loam, 12 to 20 percent slopes, eroded

Waukon, eroded

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 12 to 20 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): 5

Wind erodibility index (WEI): 56

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 1.42 in	6.1 to 7.3
E,B/E...Bt2 -- 6 to 18 in	clay loam	moderate	1.83 to 2.32 in	6.1 to 8.4
Bk1...C2 -- 18 to 80 in	loam	moderate	9.27 to 11.74 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

45B--Maddock loamy fine sand, 1 to 6 percent slopes

Maddock

Extent: 90 percent of the unit

Landform(s): hillslopes on lake plains, hillslopes on outwash plains

Slope gradient: 1 to 6 percent

Parent material: glaciolacustrine

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) .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 10 in	loamy fine sand	rapid	0.98 to 1.18 in	6.6 to 7.8
Bw...C3 --	10 to 80 in	fine sand	rapid	3.50 to 7.01 in	6.6 to 8.4

45C--Maddock loamy fine sand, 6 to 12 percent slopes

Maddock

Extent: 90 percent of the unit

Landform(s): hillslopes on lake plains, hillslopes on outwash plains

Slope gradient: 6 to 12 percent

Parent material: glaciolacustrine

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) .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 10 in	loamy fine sand	rapid	0.98 to 1.18 in	6.6 to 7.8
Bw...C3 --	10 to 80 in	fine sand	rapid	3.50 to 7.01 in	6.6 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

45E--Maddock loamy fine sand, 12 to 30 percent slopes

Maddock

Extent: 90 percent of the unit
Landform(s): hillslopes on lake plains, hillslopes on outwash plains
Slope gradient: 12 to 30 percent
Parent material: glaciolacustrine
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) .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 10 in	loamy fine sand	rapid	0.98 to 1.18 in	6.6 to 7.8
Bw...C3 --	10 to 80 in	fine sand	rapid	3.50 to 7.01 in	6.6 to 8.4

47--Colvin silty clay loam

Colvin

Extent: 90 percent of the unit
Landform(s): flats on lake plains
Slope gradient: 0 to 1 percent
Parent material: lacustrine
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: occasional
Drainage class: poorly 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 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 --	0 to 9 in	silty clay loam	moderately slow	1.81 to 1.99 in	6.6 to 8.4
Bk1,Bk2 --	9 to 24 in	silty clay loam	moderately slow	2.39 to 2.99 in	7.4 to 8.4
C1...C3 --	24 to 80 in	silt loam	moderate	8.39 to 11.18 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

57A--Fargo silty clay, 0 to 1 percent slopes

Fargo

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

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 -- 0 to 10 in	silty clay	slow	1.48 to 1.77 in	6.6 to 7.8
Bssg -- 10 to 19 in	clay	slow	1.27 to 1.54 in	6.6 to 8.4
Cg1...Cg4 -- 19 to 80 in	clay	slow	8.54 to 10.37 in	7.9 to 8.4

59--Grimstad fine sandy loam

Grimstad

Extent: 90 percent of the unit

Landform(s): rises on lake plains, rises on moraines

Slope gradient: 0 to 3 percent

Parent material: glaciolacustrine 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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: B/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>
Ap,ABk -- 0 to 16 in	fine sandy loam	moderately rapid	2.26 to 2.91 in	7.4 to 8.4
Bk,C1 -- 16 to 31 in	fine sand	rapid	0.75 to 2.54 in	7.4 to 8.4
2C2...2C5 -- 31 to 80 in	loam	moderate	7.32 to 9.28 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

65--Foxhome sandy loam

Foxhome

Extent: 90 percent of the unit

Landform(s): flats on lake plains, rises on lake plains

Slope gradient: 0 to 3 percent

Parent material: glaciolacustrine 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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

Land capability, nonirrigated 3s

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 10 in	sandy loam	moderately rapid	1.28 to 1.48 in	6.6 to 7.8
Bw1 -- 10 to 15 in	loamy sand	rapid	0.36 to 0.61 in	6.6 to 7.8
2Bw2 -- 15 to 23 in	very gravelly coarse sand	rapid	0.16 to 0.55 in	7.4 to 8.4
3C1...3C3 -- 23 to 80 in	fine sandy loam	moderate	8.56 to 10.85 in	7.4 to 8.4

66--Flaming loamy fine sand

Flaming

Extent: 90 percent of the unit

Landform(s): flats on lake plains, rises on lake plains

Slope gradient: 0 to 3 percent

Parent material: glaciolacustrine

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): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .15

Land capability, nonirrigated 4s

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 -- 0 to 12 in	loamy fine sand	rapid	1.18 to 1.42 in	5.6 to 7.3
Bw1...C4 -- 12 to 80 in	fine sand	rapid	4.09 to 8.17 in	5.6 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

67A--Bearden silt loam, 0 to 2 percent slopes

Bearden

Extent: 90 percent of the unit

Landform(s): flats on lake plains, rises on lake plains

Slope gradient: 0 to 2 percent

Parent material: lacustrine

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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .43

Land capability, nonirrigated 2s

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 8 in	silt loam	moderate	1.57 to 1.89 in	7.4 to 8.4
Bk1,Bk2 -- 8 to 28 in	silt loam	moderately slow	3.21 to 4.42 in	7.4 to 8.4
C1 -- 28 to 42 in	silt loam	moderately slow	2.27 to 3.12 in	7.4 to 8.4
C2...C4 -- 42 to 80 in	silt loam	slow	6.05 to 8.31 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

67B--Bearden silt loam, 2 to 6 percent slopes

Bearden

Extent: 90 percent of the unit

Landform(s): rises on lake plains

Slope gradient: 2 to 6 percent

Parent material: lacustrine

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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .43

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 7 in	silt loam	moderate	1.42 to 1.70 in	7.4 to 8.4
Bk1,Bk2 -- 7 to 17 in	silt loam	moderately slow	1.57 to 2.17 in	7.4 to 8.4
C1 -- 17 to 30 in	silt loam	moderately slow	2.08 to 2.86 in	7.4 to 8.4
C2...C4 -- 30 to 80 in	silt loam	slow	8.00 to 11.00 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

93A--Bearden silty clay loam, 0 to 2 percent slopes

Bearden

Extent: 90 percent of the unit

Landform(s): flats on lake plains, rises on lake plains

Slope gradient: 0 to 2 percent

Parent material: lacustrine

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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2s

Hydric soil: no

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 -- 0 to 10 in	silty clay loam	moderately slow	1.67 to 2.26 in	7.4 to 8.4
Bk1,Bk2 -- 10 to 18 in	silty clay loam	moderately slow	1.32 to 1.82 in	7.4 to 8.4
C1 -- 18 to 26 in	silty clay loam	moderately slow	1.26 to 1.73 in	7.4 to 8.4
C2...C4 -- 26 to 80 in	silty clay loam	slow	8.63 to 11.87 in	7.4 to 8.4

111--Hangaard sandy loam

Hangaard

Extent: 90 percent of the unit

Landform(s): flats on beach plains, swales on beach plains

Slope gradient: 0 to 2 percent

Parent material: beach deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .10

Land capability, nonirrigated 4w

Hydric soil: yes

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>
Ap -- 0 to 10 in	sandy loam	moderately rapid	0.98 to 1.48 in	6.6 to 7.8
A -- 10 to 15 in	loamy sand	rapid	0.36 to 0.56 in	6.6 to 7.8
Cg1...Cg5 -- 15 to 80 in	coarse sand	very rapid	1.30 to 2.60 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

184A--Hamerly loam, 0 to 3 percent slopes

Hamerly

Extent: 90 percent of the unit

Landform(s): hillslopes on lake plains, rises on lake plains

Slope gradient: 0 to 3 percent

Parent material: 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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

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 -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	6.6 to 8.4
Bk -- 9 to 20 in	loam	moderate	1.65 to 2.09 in	7.4 to 8.4
C1...C4 -- 20 to 80 in	loam	moderate	8.98 to 11.37 in	7.4 to 8.4

185D2--Hattie clay, 6 to 18 percent slopes, eroded

Hattie, eroded

Extent: 90 percent of the unit

Landform(s): hillslopes on lake plains, hillslopes on stream terraces

Slope gradient: 6 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): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 4e

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>
Ap -- 0 to 8 in	clay	slow	1.02 to 1.34 in	7.4 to 8.4
Bkss...C3 -- 8 to 80 in	clay	slow	6.48 to 13.69 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

236--Vallers loam

Vallers

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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: 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 -- 0 to 14 in	loam	moderate	2.83 to 3.12 in	7.4 to 8.4
Bkg1,Bkg2 -- 14 to 35 in	clay loam	moderate	3.13 to 3.96 in	7.4 to 8.4
Cg1,Cg2 -- 35 to 80 in	clay loam	moderate	6.73 to 8.53 in	7.4 to 8.4

242B--Marquette loamy sand, 1 to 8 percent slopes

Marquette

Extent: 90 percent of the unit

Landform(s): hillslopes on beach ridges

Slope gradient: 1 to 8 percent

Parent material: beach deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 2

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>
Ap -- 0 to 8 in	loamy sand	rapid	0.79 to 1.10 in	5.6 to 7.3
Bt -- 8 to 18 in	very gravelly sandy loam	moderately rapid	1.02 to 1.64 in	6.6 to 8.4
C1...C4 -- 18 to 80 in	stratified extremely gravelly coarse sand to fine sand	very rapid	1.24 to 2.47 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

242D--Marquette loamy sand, 8 to 30 percent slopes

Marquette

Extent: 90 percent of the unit

Landform(s): hillslopes on beach ridges

Slope gradient: 8 to 30 percent

Parent material: beach deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 2

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>
Ap -- 0 to 7 in	loamy sand	rapid	0.71 to 0.99 in	5.6 to 7.3
Bt -- 7 to 16 in	very gravelly sandy loam	moderately rapid	0.91 to 1.45 in	6.6 to 8.4
C1...C4 -- 16 to 80 in	stratified extremely gravelly coarse sand to fine sand	very rapid	1.28 to 2.55 in	7.4 to 8.4

258B--Sandberg loamy sand, 1 to 6 percent slopes

Sandberg

Extent: 90 percent of the unit

Landform(s): hillslopes on beach ridges

Slope gradient: 1 to 6 percent

Parent material: beach deposits

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,Bw -- 0 to 19 in	loamy sand	rapid	1.89 to 2.27 in	5.6 to 7.8
C1 -- 19 to 25 in	gravelly sand	rapid	0.19 to 0.63 in	6.1 to 7.8
C2 -- 25 to 38 in	sand	very rapid	0.25 to 0.76 in	7.4 to 8.4
C3...C5 -- 38 to 80 in	gravelly sand	very rapid	0.84 to 1.69 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

258C--Sandberg loamy sand, 6 to 12 percent slopes

Sandberg

Extent: 90 percent of the unit

Landform(s): hillslopes on beach ridges

Slope gradient: 6 to 12 percent

Parent material: beach deposits

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 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,AB,Bw -- 0 to 10 in	loamy sand	rapid	0.98 to 1.18 in	5.6 to 7.8
C1 -- 10 to 38 in	gravelly sand	rapid	0.84 to 2.80 in	6.1 to 7.8
C2 -- 38 to 59 in	sand	very rapid	0.43 to 1.28 in	7.4 to 8.4
C3...C5 -- 59 to 80 in	gravelly sand	very rapid	0.42 to 0.83 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

258E--Sandberg loamy sand, 12 to 30 percent slopes

Sandberg

Extent: 90 percent of the unit

Landform(s): hillslopes on beach ridges

Slope gradient: 12 to 30 percent

Parent material: beach deposits

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 7e

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,Bw -- 0 to 9 in	loamy sand	rapid	0.91 to 1.09 in	5.6 to 7.8
C1 -- 9 to 16 in	gravelly sand	rapid	0.21 to 0.71 in	6.1 to 7.8
C2 -- 16 to 41 in	sand	very rapid	0.50 to 1.49 in	7.4 to 8.4
C3...C5 -- 41 to 80 in	gravelly sand	very rapid	0.78 to 1.56 in	7.4 to 8.4

296--Fram loam

Fram

Extent: 90 percent of the unit

Landform(s): flats on moraines, rises on 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): 4L

Wind erodibility index (WEI): 86

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	loam	moderate	1.81 to 1.99 in	7.4 to 8.4
Bk -- 9 to 22 in	loam	moderate	1.69 to 2.60 in	7.4 to 8.4
C1...C3 -- 22 to 80 in	loam	moderate	7.52 to 11.57 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

341B--Arvilla sandy loam, 1 to 4 percent slopes

Arvilla

Extent: 90 percent of the unit
Landform(s): hillslopes on beach plains, hillslopes on outwash plains
Slope gradient: 1 to 4 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): .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 -- 0 to 8 in	sandy loam	moderately rapid	1.02 to 1.18 in	6.1 to 8.4
BA,Bw -- 8 to 16 in	coarse sandy loam	moderately rapid	0.91 to 1.16 in	6.6 to 8.4
2BC...2C3 -- 16 to 80 in	gravelly coarse sand	very rapid	1.28 to 3.19 in	7.4 to 8.4

348--Borup loam, depressional

Borup, depressional

Extent: 90 percent of the unit
Landform(s): depressions on lake plains
Slope gradient: 0 to 1 percent
Parent material: lacustrine
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): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer): .37
Land capability, nonirrigated: 3w
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>
Ap -- 0 to 15 in	loam	moderately rapid	2.99 to 3.44 in	7.4 to 8.4
Bkg -- 15 to 24 in	very fine sandy loam	moderately rapid	1.54 to 1.81 in	7.4 to 8.4
Cg1...Cg4 -- 24 to 80 in	very fine sand	rapid	8.39 to 10.62 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

372--Hamar loamy fine sand

Hamar

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 4w

Hydric soil: yes

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>
A1p -- 0 to 8 in	loamy fine sand	rapid	0.79 to 1.02 in	6.1 to 7.8
A2 -- 8 to 13 in	loamy fine sand	rapid	0.31 to 0.51 in	6.6 to 7.8
C...Cg2 -- 13 to 80 in	fine sand	rapid	4.02 to 6.69 in	7.4 to 8.4

387--Roliss loam, depressional

Roliss, depressional

Extent: 90 percent of the unit

Landform(s): depressions on lake plains

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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

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 -- 0 to 15 in	loam	moderate	2.99 to 3.74 in	6.6 to 8.4
A -- 15 to 20 in	clay loam	moderate	0.77 to 0.97 in	7.4 to 8.4
Bg -- 20 to 47 in	loam	moderate	4.02 to 5.09 in	7.4 to 8.4
Cg1...Cg4 -- 47 to 80 in	loam	moderate	4.96 to 6.28 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

412--Mavie fine sandy loam

Mavie

Extent: 90 percent of the unit

Landform(s): flats on lake plains

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

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 -- 0 to 8 in	fine sandy loam	moderately rapid	1.26 to 1.42 in	7.4 to 8.4
Ak -- 8 to 16 in	fine sandy loam	moderate	0.99 to 1.57 in	7.9 to 8.4
2Cg1,2Cg2 -- 16 to 30 in	very gravelly coarse sand	rapid	0.41 to 0.83 in	7.4 to 8.4
3Cg3...3Cg6 -- 30 to 80 in	loam	moderate	7.50 to 9.50 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

422A--Bygland silty clay loam, 0 to 2 percent slopes

Bygland

Extent: 90 percent of the unit

Landform(s): flats on lake plains, rises on lake plains

Slope gradient: 0 to 2 percent

Parent material: lacustrine

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) .24

Land capability, nonirrigated 1

Hydric soil: no

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 -- 0 to 7 in	silty clay loam	moderately slow	1.28 to 1.56 in	6.1 to 7.3
Bt1,Bt2 -- 7 to 29 in	silty clay	moderately slow	2.20 to 4.19 in	6.1 to 7.8
BC -- 29 to 37 in	silty clay	moderately slow	1.26 to 1.73 in	7.4 to 8.4
C1,C2 -- 37 to 80 in	stratified silt loam to silty clay loam	moderately slow	6.87 to 9.44 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

422B--Bygland silty clay loam, 2 to 6 percent slopes

Bygland

Extent: 90 percent of the unit

Landform(s): hillslopes on lake plains, rises on lake plains

Slope gradient: 2 to 6 percent

Parent material: lacustrine

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) .24

Land capability, nonirrigated 2e

Hydric soil: no

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 -- 0 to 9 in	silty clay loam	moderately slow	1.63 to 1.99 in	6.1 to 7.3
Bt1,Bt2 -- 9 to 22 in	silty clay	moderately slow	1.30 to 2.47 in	6.1 to 7.8
BC -- 22 to 32 in	silty clay	moderately slow	1.57 to 2.17 in	7.4 to 8.4
C1,C2 -- 32 to 80 in	stratified silt loam to silty clay loam	moderately slow	7.69 to 10.57 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

422C2--Bygland silty clay loam, 6 to 12 percent slopes, eroded

Bygland, eroded

Extent: 90 percent of the unit

Landform(s): hillslopes on lake plains

Slope gradient: 6 to 12 percent

Parent material: lacustrine

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) .24

Land capability, nonirrigated 3e

Hydric soil: no

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 -- 0 to 9 in	silty clay loam	moderately slow	1.63 to 1.99 in	6.1 to 7.3
Bt1,Bt2 -- 9 to 20 in	silty clay	moderately slow	1.10 to 2.09 in	6.1 to 7.8
BC -- 20 to 31 in	silty clay	moderately slow	1.76 to 2.43 in	7.4 to 8.4
C1,C2 -- 31 to 80 in	stratified silt loam to silty clay loam	moderately slow	7.81 to 10.74 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

426--Foldahl loamy fine sand

Foldahl

Extent: 90 percent of the unit

Landform(s): rises on lake plains, rises on moraines

Slope gradient: 0 to 3 percent

Parent material: glaciolacustrine 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): 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: high

<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	rapid	1.18 to 1.65 in	6.1 to 7.8
Bw1,Bw2 -- 12 to 30 in	fine sand	rapid	1.27 to 2.17 in	6.6 to 7.8
2C1 -- 30 to 44 in	fine sandy loam	moderate	2.13 to 2.69 in	7.4 to 8.4
2C2...2C4 -- 44 to 80 in	fine sandy loam	moderate	5.37 to 6.81 in	7.4 to 8.4

435--Syrene sandy loam

Syrene

Extent: 90 percent of the unit

Landform(s): flats on beach plains

Slope gradient: 0 to 2 percent

Parent material: beach deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 4w

Hydric soil: yes

Hydrologic group: B/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>
Ap -- 0 to 11 in	sandy loam	moderate	1.43 to 1.65 in	7.4 to 8.4
Bkg1 -- 11 to 18 in	sandy loam	moderately rapid	0.85 to 1.35 in	7.9 to 8.4
2Bkg2...2Cg4 - 18 to 80 in	stratified gravelly coarse sand to loamy fine sand	rapid	1.24 to 2.47 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

439--Strathcona fine sandy loam

Strathcona

Extent: 90 percent of the unit

Landform(s): flats on lake plains

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

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 -- 0 to 10 in	fine sandy loam	moderately rapid	1.28 to 1.77 in	7.4 to 8.4
Bkg -- 10 to 17 in	fine sandy loam	moderately rapid	0.64 to 1.20 in	7.4 to 8.4
Cg1 -- 17 to 30 in	fine sand	rapid	0.65 to 1.56 in	7.4 to 8.4
2Cg2...2Cg4 -- 30 to 80 in	fine sandy loam	moderate	7.50 to 9.50 in	7.4 to 8.4

450--Rauville silty clay loam

Rauville

Extent: 90 percent of the unit

Landform(s): oxbows on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: very frequent

Ponding: frequent

Drainage class: very poorly 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 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...A3 -- 0 to 36 in	silty clay loam	moderate	6.45 to 8.96 in	7.4 to 8.4
Cg1...Cg4 -- 36 to 80 in	silty clay	moderate	7.50 to 9.70 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

481--Kratka fine sandy loam

Kratka

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on moraines

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 3w

Hydric soil: yes

Hydrologic group: B/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>
Ap -- 0 to 10 in	fine sandy loam	moderately rapid	1.57 to 1.77 in	5.6 to 7.8
Bw,Bg -- 10 to 25 in	loamy fine sand	rapid	0.92 to 1.84 in	5.6 to 7.8
2Cg1...2Cg4 -- 25 to 80 in	loam	moderate	8.21 to 10.40 in	7.4 to 8.4

494B--Darnen loam, 2 to 6 percent slopes

Darnen

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 2 to 6 percent

Parent material: colluvial deposits 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,A -- 0 to 28 in	loam	moderate	5.03 to 5.59 in	6.6 to 7.8
Bw -- 28 to 38 in	loam	moderate	1.48 to 1.87 in	6.1 to 7.8
BC,C -- 38 to 60 in	loam	moderate	3.09 to 4.19 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

506--Overly silty clay loam

Overly

Extent: 90 percent of the unit

Landform(s): rises on lake plains

Slope gradient: 0 to 3 percent

Parent material: lacustrine

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) .32

Land capability, nonirrigated 1

Hydric soil: no

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 18 in	silty clay loam	moderately slow	3.08 to 4.17 in	6.6 to 7.8
Bw,Bk1,Bk2 -- 18 to 46 in	silty clay loam	moderately slow	4.75 to 6.15 in	6.6 to 8.4
C1,C2 -- 46 to 80 in	stratified silt loam to silty clay	moderately slow	4.40 to 7.45 in	7.9 to 8.4

540--Seelyeville muck

Seelyeville

Extent: 90 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic

Restrictive feature(s): greater than 60 inches

Flooding: none

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 20 in	muck	moderately rapid	7.03 to 9.64 in	
Oa2...Cg -- 20 to 80 in	muck	moderately rapid	20.94 to 28.72 in	

Map Unit Description (MN)

Polk County, Minnesota

543--Markey muck

Markey

Extent: 90 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines, depressions on outwash plains

Slope gradient: 0 to 1 percent

Parent material: organic over glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

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...O'a -- 0 to 32 in	muck	moderately rapid	11.16 to 15.31 in	
Cg1...Cg5 -- 32 to 80 in	fine sand	rapid	1.44 to 4.80 in	

544--Cathro muck

Cathro

Extent: 90 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic over till

Restrictive feature(s): greater than 60 inches

Flooding: none

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>
Op,Oa1 -- 0 to 24 in	muck	moderately rapid	8.41 to 11.53 in	
Oa2 -- 24 to 42 in	muck	moderately rapid	6.34 to 8.69 in	
A...Cg3 -- 42 to 80 in	loam	moderate	5.67 to 7.18 in	

Map Unit Description (MN)

Polk County, Minnesota

547--Deerwood muck

Deerwood

Extent: 90 percent of the unit

Landform(s): depressions on lake plains, depressions on outwash plains

Slope gradient: 0 to 1 percent

Parent material: organic over glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

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: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa --	0 to 14 in	muck		moderately rapid	4.96 to 6.80 in	5.6 to 7.8
A,Cg1 --	14 to 35 in	loamy fine sand		rapid	1.88 to 3.55 in	6.1 to 8.4
Cg2...Cg5 --	35 to 80 in	fine sand		rapid	0.90 to 4.49 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

563--Northwood muck

Northwood

Extent: 90 percent of the unit

Landform(s): depressions on lake plains

Slope gradient: 0 to 1 percent

Parent material: organic over glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

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: 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>
Oa -- 0 to 9 in	muck	moderately rapid	3.17 to 4.35 in	5.1 to 7.8
A -- 9 to 16 in	loamy fine sand	rapid	0.71 to 1.28 in	5.6 to 7.8
Bg -- 16 to 31 in	loamy fine sand	rapid	0.90 to 1.65 in	5.6 to 8.4
2Cg1...2Cg3 -- 31 to 80 in	loam	moderate	7.32 to 9.28 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

565--Eckvoll loamy fine sand

Eckvoll

Extent: 90 percent of the unit

Landform(s): rises on lake plains, rises on moraines

Slope gradient: 0 to 3 percent

Parent material: glaciolacustrine 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): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .20

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

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 7 in	loamy fine sand	rapid	0.71 to 0.85 in	6.1 to 7.3
E1,E2 -- 7 to 26 in	fine sand	rapid	0.94 to 2.27 in	6.1 to 7.3
2Bt -- 26 to 35 in	sandy clay loam	moderate	1.45 to 1.63 in	6.6 to 7.8
2C1...2C4 -- 35 to 80 in	fine sandy loam	moderate	6.73 to 8.53 in	7.4 to 8.4

573D--Serden fine sand, 6 to 30 percent slopes

Serden

Extent: 90 percent of the unit

Landform(s): hillslopes on dunes on lake plains

Slope gradient: 6 to 30 percent

Parent material: eolian

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): 1

Wind erodibility index (WEI): 250

Kw factor (surface layer) .05

Land capability, nonirrigated 7e

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	fine sand	rapid	0.19 to 0.38 in	6.1 to 7.3
C1...C3 -- 3 to 80 in	fine sand	rapid	3.84 to 5.37 in	6.6 to 7.8

Map Unit Description (MN)

Polk County, Minnesota

582--Roliss loam

Roliss

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

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 -- 0 to 9 in	loam	moderate	1.54 to 2.17 in	6.6 to 8.4
A -- 9 to 14 in	clay loam	moderate	0.77 to 0.97 in	7.4 to 8.4
Bg -- 14 to 20 in	clay loam	moderate	0.89 to 1.12 in	7.4 to 8.4
Cg1...Cg4 -- 20 to 80 in	loam	moderate	8.98 to 11.37 in	7.4 to 8.4

641--Clearwater clay

Clearwater

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

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 -- 0 to 12 in	clay	slow	1.54 to 2.01 in	6.6 to 7.8
Bssg1,Bssg2 -- 12 to 26 in	clay	slow	1.42 to 2.69 in	7.4 to 8.4
Cg1...Cg3 -- 26 to 80 in	clay	slow	4.85 to 10.25 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

642--Clearwater loam

Clearwater

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

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 -- 0 to 10 in	loam	moderately rapid	1.97 to 2.17 in	6.6 to 7.8
Bssg1,Bssg2 -- 10 to 20 in	clay	slow	1.02 to 1.94 in	7.4 to 8.4
Cg1...Cg3 -- 20 to 80 in	clay	slow	5.39 to 11.37 in	7.4 to 8.4

643--Huot fine sandy loam

Huot

Extent: 90 percent of the unit

Landform(s): rises on lake plains

Slope gradient: 0 to 3 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 2s

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,Ak -- 0 to 14 in	fine sandy loam	moderately rapid	1.84 to 2.55 in	7.4 to 8.4
Bk -- 14 to 26 in	loamy fine sand	moderately rapid	1.06 to 2.01 in	7.4 to 8.4
C1 -- 26 to 34 in	fine sand	rapid	0.47 to 0.87 in	7.4 to 8.4
2C2,2C3 -- 34 to 80 in	clay	slow	4.15 to 8.75 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

645--Espelie fine sandy loam

Espelie

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

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 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 -- 0 to 9 in	fine sandy loam	moderately rapid	1.18 to 1.63 in	6.6 to 7.3
Bw1,Bw2 -- 9 to 22 in	loamy fine sand	rapid	0.78 to 1.43 in	6.6 to 7.8
2Cg1...2Cg3 -- 22 to 80 in	clay	slow	5.21 to 11.00 in	7.4 to 8.4

647--Hilaire loamy fine sand

Hilaire

Extent: 90 percent of the unit

Landform(s): rises on lake plains

Slope gradient: 0 to 3 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .20

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

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 10 in	loamy fine sand	rapid	0.98 to 1.38 in	6.6 to 7.3
Bw1 -- 10 to 16 in	loamy fine sand	rapid	0.44 to 0.69 in	6.6 to 7.8
Bw2 -- 16 to 25 in	loamy sand	rapid	0.63 to 1.00 in	6.6 to 7.8
2Bk...2Cg2 -- 25 to 80 in	clay	slow	4.93 to 10.40 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

650--Reiner fine sandy loam

Reiner

Extent: 90 percent of the unit

Landform(s): rises on lake plains

Slope gradient: 0 to 3 percent

Parent material: 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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

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 -- 0 to 9 in	fine sandy loam	moderately rapid	1.45 to 1.63 in	6.6 to 7.3
Bt1,Bt2 -- 9 to 20 in	clay loam	moderate	1.65 to 2.09 in	6.6 to 7.3
Bk...C4 -- 20 to 80 in	loam	moderate	8.98 to 11.37 in	7.4 to 8.4

651--Thiefriever fine sandy loam

Thiefriever

Extent: 90 percent of the unit

Landform(s): flats on lake plains

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

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 12 in	fine sandy loam	moderately rapid	1.54 to 2.13 in	7.4 to 8.4
Bkg1...Bkg3 -- 12 to 23 in	loamy fine sand	moderately rapid	0.99 to 1.87 in	7.4 to 8.4
Cg1 -- 23 to 32 in	fine sand	rapid	0.54 to 1.00 in	7.4 to 8.4
2Cg2...2Cg4 -- 32 to 80 in	clay	slow	4.32 to 9.13 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

667B--Fairdale silt loam, 1 to 6 percent slopes, occasionally flooded

Fairdale, occasionally flooded

Extent: 90 percent of the unit

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

Slope gradient: 1 to 6 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) .32

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>
Ap -- 0 to 9 in	silt loam	moderate	1.81 to 2.17 in	7.4 to 7.8
C1...C' -- 9 to 80 in	stratified very fine sandy loam to silty clay loam	moderate	12.05 to 16.30 in	7.4 to 8.4

667C2--Fairdale silt loam, 6 to 15 percent slopes, eroded, occasionally flooded

Fairdale, eroded, occasionally flooded

Extent: 90 percent of the unit

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

Slope gradient: 6 to 15 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) .32

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>
Ap -- 0 to 8 in	silt loam	moderate	1.57 to 1.89 in	7.4 to 7.8
C1...C' -- 8 to 80 in	stratified very fine sandy loam to silty clay loam	moderate	12.25 to 16.57 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

670--Knutte fine sandy loam

Knutte

Extent: 90 percent of the unit

Landform(s): rises on moraines

Slope gradient: 0 to 3 percent

Parent material: 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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: B/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>
Ap -- 0 to 7 in	fine sandy loam	moderate	0.92 to 1.28 in	6.1 to 7.3
Bt1,Bt2 -- 7 to 18 in	sandy clay loam	moderate	1.65 to 2.09 in	6.1 to 7.8
Bk -- 18 to 36 in	fine sandy loam	moderate	1.95 to 3.37 in	7.4 to 8.4
C1...C3 -- 36 to 80 in	fine sandy loam	moderate	4.85 to 8.38 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

671--Onstad loam

Onstad

Extent: 90 percent of the unit

Landform(s): rises on moraines

Slope gradient: 0 to 3 percent

Parent material: 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) .28

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: B/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>
Ap -- 0 to 10 in	loam	moderate	1.97 to 2.17 in	6.1 to 7.3
Bw -- 10 to 17 in	fine sandy loam	moderate	0.85 to 1.35 in	6.1 to 7.8
Bk1,Bk2 -- 17 to 47 in	very fine sandy loam	moderate	3.29 to 5.69 in	7.4 to 8.4
Bk3,C -- 47 to 80 in	fine sandy loam	moderate	3.64 to 6.28 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

681--Brandsvold loam

Brandsvold

Extent: 90 percent of the unit

Landform(s): flats on moraines, swales on moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

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 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 -- 0 to 10 in	loam	moderate	1.97 to 2.17 in	6.1 to 7.3
Btg -- 10 to 19 in	sandy clay loam	moderate	1.36 to 1.72 in	6.1 to 7.8
Bkg -- 19 to 36 in	fine sandy loam	moderate	1.86 to 3.22 in	7.4 to 8.4
Cg1...Cg3 -- 36 to 80 in	fine sandy loam	moderate	4.85 to 8.38 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

694D2--Zell silt loam, 6 to 20 percent slopes, eroded

Zell, eroded

Extent: 90 percent of the unit

Landform(s): hillslopes on lake plains, hillslopes on stream terraces

Slope gradient: 6 to 20 percent

Parent material: glaciolacustrine

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 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 7 in	silt loam	moderate	1.35 to 1.56 in	6.6 to 8.4
Bk1 -- 7 to 14 in	silt loam	moderate	1.06 to 1.42 in	7.4 to 8.4
Bk2...C3 -- 14 to 80 in	silt loam	moderate	9.86 to 13.15 in	7.4 to 8.4

704--Wyrene sandy loam

Wyrene

Extent: 90 percent of the unit

Landform(s): flats on beach plains, rises on beach plains

Slope gradient: 0 to 2 percent

Parent material: beach deposits

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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .10

Land capability, nonirrigated 3e

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>
Ap,A,Bk1 -- 0 to 21 in	sandy loam	moderately rapid	2.50 to 4.17 in	6.6 to 8.4
2Bk2...@c4 -- 21 to 80 in	gravelly coarse sand	rapid	1.18 to 4.13 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

707A--Lizzie silt loam, 1 to 3 percent slopes

Lizzie

Extent: 90 percent of the unit

Landform(s): flats on moraines, rises on moraines

Slope gradient: 1 to 3 percent

Parent material: glaciolacustrine

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) .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 -- 0 to 14 in	silt loam	moderate	2.83 to 3.40 in	6.1 to 7.3
Bt -- 14 to 24 in	silt loam	moderate	1.48 to 2.17 in	6.1 to 7.3
Bk -- 24 to 36 in	silt loam	moderate	1.77 to 2.60 in	7.4 to 8.4
C1...C4 -- 36 to 80 in	very fine sandy loam	moderately rapid	3.53 to 9.70 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

712--Rosewood fine sandy loam

Rosewood

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 3w

Hydric soil: yes

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>
Ap -- 0 to 10 in	fine sandy loam	moderately rapid	1.57 to 1.77 in	7.4 to 8.4
Bk -- 10 to 17 in	fine sandy loam	moderately rapid	0.64 to 1.20 in	7.4 to 8.4
Cg1 -- 17 to 30 in	fine sand	rapid	0.65 to 1.04 in	7.4 to 8.4
Cg2...Cg4 -- 30 to 80 in	sand	rapid	1.00 to 3.50 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

713--Linveldt fine sandy loam

Linveldt

Extent: 90 percent of the unit
Landform(s): rises on lake plains
Slope gradient: 0 to 3 percent
Parent material: glaciolacustrine 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): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated 3s
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	fine sandy loam	moderately rapid	1.27 to 1.63 in	6.6 to 7.8
Bt -- 9 to 16 in	sandy loam	moderately rapid	0.85 to 1.28 in	6.6 to 7.8
2Bw1,2Bw2 -- 16 to 29 in	sand	rapid	0.65 to 1.43 in	7.4 to 8.4
3Bk...3Cg3 -- 29 to 80 in	loam	moderate	7.62 to 9.65 in	7.4 to 8.4

718B--Naytahwaush loam, 2 to 8 percent slopes

Naytahwaush

Extent: 90 percent of the unit
Landform(s): hillslopes on moraines
Slope gradient: 2 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): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
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 7 in	loam	moderate	1.42 to 1.70 in	5.6 to 7.3
Bt1...Btk -- 7 to 31 in	clay	slow	2.40 to 4.56 in	5.6 to 7.3
Bk1...Bk3 -- 31 to 80 in	clay loam	moderately slow	6.83 to 9.28 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

718C--Naytahwaush loam, 8 to 15 percent slopes

Naytahwaush

Extent: 90 percent of the unit

Landform(s): hillslopes on 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): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

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>
Ap -- 0 to 4 in	loam	moderate	0.79 to 0.94 in	5.6 to 7.3
A -- 4 to 8 in	fine sandy loam	moderate	0.63 to 0.94 in	5.6 to 7.3
Bt1,Bt2 -- 8 to 18 in	clay	slow	1.02 to 1.94 in	6.1 to 7.8
Btk...Bk3 -- 18 to 80 in	clay loam	moderately slow	8.65 to 11.74 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

718E--Naytahwaush loam, 15 to 30 percent slopes

Naytahwaush

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 15 to 30 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 6e

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 -- 0 to 3 in	loam	moderate	0.63 to 0.76 in	5.6 to 7.3
A2 -- 3 to 7 in	fine sandy loam	moderate	0.63 to 0.94 in	5.6 to 7.3
Bt1,Bt2 -- 7 to 14 in	clay	slow	0.71 to 1.35 in	6.1 to 7.8
Btk...Bk3 -- 14 to 80 in	clay loam	moderately slow	9.20 to 12.49 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

733--Berner muck

Berner

Extent: 90 percent of the unit

Landform(s): depressions on lake plains

Slope gradient: 0 to 1 percent

Parent material: organic over glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

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 32 in	muck	moderately rapid	11.16 to 15.31 in	
A -- 32 to 36 in	sandy loam	moderately rapid	0.39 to 0.71 in	
Bg -- 36 to 45 in	sand	rapid	0.45 to 0.91 in	
2Cg1...2Cg3 -- 45 to 80 in	fine sandy loam	moderate	5.26 to 6.66 in	

Map Unit Description (MN)

Polk County, Minnesota

735B--Halverson loamy fine sand, 1 to 6 percent slopes

Halverson

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 1 to 6 percent

Parent material: outwash 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): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .24

Land capability, nonirrigated 3s

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 fine sand	moderately rapid	0.79 to 1.18 in	5.6 to 7.3
E/A,E --	10 to 23 in	loamy fine sand	rapid	0.78 to 1.43 in	5.6 to 7.3
2Bt1,@bt2 --	23 to 35 in	loam	moderate	1.83 to 2.32 in	6.1 to 7.8
2Bk1,2Bk2 --	35 to 55 in	fine sandy loam	moderate	2.21 to 3.81 in	7.4 to 8.4
2C --	55 to 80 in	fine sandy loam	moderately slow	0.99 to 2.48 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

735C--Halverson loamy fine sand, 6 to 15 percent slopes

Halverson

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 6 to 15 percent

Parent material: outwash 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): 2

Wind erodibility index (WEI): 134

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>
Ap --	0 to 10 in	loamy fine sand	moderately rapid	0.79 to 1.18 in	5.6 to 7.3
E/A,E --	10 to 21 in	loamy fine sand	rapid	0.66 to 1.21 in	5.6 to 7.3
2Bt1,2Bt2 --	21 to 29 in	loam	moderate	1.24 to 1.57 in	6.1 to 7.8
2Bk1...2C --	29 to 80 in	fine sandy loam	moderately slow	2.03 to 5.08 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

737--Mahkonce loam

Mahkonce

Extent: 90 percent of the unit

Landform(s): rises on moraines

Slope gradient: 1 to 3 percent

Parent material: 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): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: 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 4 in	loam	moderately slow	0.67 to 0.87 in	5.6 to 7.3
E -- 4 to 9 in	fine sandy loam	moderately slow	0.82 to 1.13 in	5.6 to 7.3
Bt1,Bt2 -- 9 to 26 in	clay	slow	2.20 to 3.22 in	6.1 to 7.3
BC -- 26 to 34 in	clay loam	moderately slow	1.02 to 1.50 in	6.1 to 7.8
C -- 34 to 80 in	clay loam	moderately slow	5.99 to 8.75 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

746--Haslie muck

Haslie

Extent: 90 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic and coprogenous earth

Restrictive feature(s): greater than 60 inches

Flooding: none

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: 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>
Oa1	--	0 to 12 in	muck	moderately rapid	4.13 to 5.67 in	
Oa2	--	12 to 30 in	muck	moderately rapid	6.34 to 8.69 in	
Cg1...Cg3	--	30 to 80 in	coprogenous earth	slow	9.00 to 12.00 in	

Map Unit Description (MN)

Polk County, Minnesota

749--Colvin silt loam, occasionally flooded

Colvin, occasionally flooded

Extent: 90 percent of the unit

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

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .37

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 --	0 to 9 in	silt loam	moderate	1.81 to 1.99 in	7.4 to 8.4
Bk1 --	9 to 28 in	silt loam	moderate	3.40 to 3.97 in	7.4 to 8.4
Bk2 --	28 to 52 in	silt loam	moderate	4.08 to 4.80 in	7.4 to 8.4
C1...C3 --	52 to 60 in	stratified fine sandy loam to silty clay loam	moderate	1.34 to 1.57 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

765--Smiley loam

Smiley

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains, flats on moraines, swales on moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

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 -- 0 to 10 in	loam	moderate	1.97 to 2.36 in	6.6 to 7.8
Btg -- 10 to 18 in	clay loam	moderate	1.24 to 1.57 in	6.6 to 8.4
Bkg1...Bkg4 -- 18 to 61 in	loam	moderate	6.44 to 8.15 in	7.4 to 8.4
Cg1,Cg2 -- 61 to 80 in	loam	moderate	2.83 to 3.59 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

767--Auganaush loam

Auganaush

Extent: 90 percent of the unit

Landform(s): flats on moraines, 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): 5

Wind erodibility index (WEI): 56

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>
A -- 0 to 4 in	loam	moderate	0.79 to 0.94 in	5.6 to 7.3
E -- 4 to 9 in	fine sandy loam	moderate	0.82 to 1.23 in	5.6 to 7.3
Btg1,Btg2 -- 9 to 25 in	clay	slow	1.61 to 3.07 in	5.6 to 7.3
Btkg -- 25 to 60 in	clay loam	moderately slow	4.85 to 6.58 in	7.4 to 8.4
Bkg...Cg1 -- 60 to 80 in	clay loam	moderately slow	2.81 to 3.81 in	7.4 to 8.4

791--Winterfield loamy fine sand, occasionally flooded

Winterfield, occasionally flooded

Extent: 90 percent of the unit

Landform(s): flats on flood plains, rises on flood plains

Slope gradient: 1 to 3 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): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated 4w

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 6 in	loamy fine sand	rapid	0.59 to 0.71 in	5.6 to 7.8
C1...C6 -- 6 to 80 in	stratified gravelly sand to loamy fine sand	rapid	2.96 to 7.40 in	5.6 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

827B--Heimdal-Esmond complex, 2 to 6 percent slopes

Heimdal

Extent: 60 percent of the unit

Landform(s): hillslopes on 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): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .32

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,Bw1 -- 0 to 14 in	loam	moderate	2.83 to 3.12 in	6.1 to 7.3
Bw2 -- 14 to 22 in	loam	moderate	0.94 to 1.50 in	6.1 to 7.8
Bk -- 22 to 33 in	fine sandy loam	moderate	1.21 to 2.09 in	7.4 to 8.4
C1...C3 -- 33 to 80 in	fine sandy loam	moderate	5.15 to 7.50 in	7.4 to 8.4

Esmond

Extent: 30 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 3 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): 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: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	7.4 to 8.4
Bk -- 8 to 22 in	loam	moderate	1.98 to 3.12 in	7.4 to 8.4
C1...C3 -- 22 to 80 in	fine sandy loam	moderate	6.37 to 9.26 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

827C2--Heimdal-Esmond complex, 6 to 12 percent slopes, eroded

Heimdal, eroded

Extent: 50 percent of the unit

Landform(s): hillslopes on 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): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .32

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	1.81 to 1.99 in	6.1 to 7.3
Bw1,Bw2 -- 9 to 30 in	loam	moderate	2.50 to 3.96 in	6.1 to 7.8
Bk...C3 -- 30 to 80 in	fine sandy loam	moderate	5.50 to 8.00 in	7.4 to 8.4

Esmond, eroded

Extent: 40 percent of the unit

Landform(s): hillslopes on 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): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

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	1.81 to 1.99 in	7.4 to 8.4
Bk -- 9 to 18 in	loam	moderate	1.27 to 1.99 in	7.4 to 8.4
C1...C3 -- 18 to 80 in	fine sandy loam	moderate	6.80 to 9.89 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

908--Bearden-Fargo complex

Bearden

Extent: 50 percent of the unit

Landform(s): flats on lake plains, rises on lake plains

Slope gradient: 0 to 2 percent

Parent material: lacustrine

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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2s

Hydric soil: no

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 -- 0 to 10 in	silty clay loam	moderately slow	1.67 to 2.26 in	7.4 to 8.4
Bk1,Bk2 -- 10 to 17 in	silty clay loam	moderately slow	1.13 to 1.56 in	7.4 to 8.4
C1 -- 17 to 26 in	silt loam	moderately slow	1.45 to 1.99 in	7.4 to 8.4
C2...C4 -- 26 to 80 in	silty clay loam	slow	8.63 to 11.87 in	7.4 to 8.4

Fargo

Extent: 40 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

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 -- 0 to 10 in	silty clay	slow	1.48 to 1.77 in	6.6 to 7.8
Bssg -- 10 to 21 in	clay	slow	1.54 to 1.87 in	6.6 to 8.4
Cg1...Cg4 -- 21 to 80 in	silty clay	slow	8.27 to 10.04 in	7.9 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

935--Hegne-Fargo complex

Hegne

Extent: 50 percent of the unit

Landform(s): flats on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/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>
Ap -- 0 to 9 in	silty clay	slow	1.27 to 1.54 in	7.4 to 8.4
ABk -- 9 to 15 in	silty clay	slow	0.77 to 0.94 in	7.4 to 8.4
Bkss -- 15 to 25 in	silty clay	slow	0.92 to 1.64 in	7.4 to 8.4
C1...C4 -- 25 to 80 in	silty clay	slow	4.38 to 7.66 in	7.4 to 8.4

Fargo

Extent: 40 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

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 -- 0 to 10 in	silty clay	slow	1.48 to 1.77 in	6.6 to 7.8
Bssg -- 10 to 19 in	clay	slow	1.27 to 1.54 in	6.6 to 8.4
Cg1...Cg4 -- 19 to 80 in	silty clay	slow	8.54 to 10.37 in	7.9 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

967B--Waukon-Langhei complex, 2 to 6 percent slopes

Waukon

Extent: 65 percent of the unit

Landform(s): hillslopes on 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): 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 -- 0 to 6 in	loam	moderate	1.18 to 1.42 in	6.1 to 7.3
E...Bt2 -- 6 to 16 in	clay loam	moderate	1.54 to 1.94 in	6.1 to 8.4
Bk1...C2 -- 16 to 80 in	loam	moderate	9.57 to 12.12 in	7.4 to 8.4

Langhei

Extent: 25 percent of the unit

Landform(s): hillslopes on 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): 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: moderate

<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	1.20 to 1.56 in	6.6 to 8.4
Bk -- 7 to 19 in	loam	moderate	1.77 to 2.24 in	7.9 to 8.4
Bck...C3 -- 19 to 80 in	loam	moderate	9.15 to 11.59 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

967C2--Waukon-Langhei complex, 6 to 12 percent slopes, eroded

Waukon, eroded

Extent: 60 percent of the unit

Landform(s): hillslopes on 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): 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 -- 0 to 6 in	loam	moderate	1.18 to 1.42 in	6.1 to 7.3
E...Bt2 -- 6 to 16 in	clay loam	moderate	1.54 to 1.94 in	6.1 to 8.4
Bk1...C2 -- 16 to 80 in	loam	moderate	9.57 to 12.12 in	7.4 to 8.4

Langhei, eroded

Extent: 30 percent of the unit

Landform(s): hillslopes on 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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

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 7 in	loam	moderate	1.20 to 1.56 in	6.6 to 8.4
Bk -- 7 to 19 in	loam	moderate	1.77 to 2.24 in	7.9 to 8.4
Bck...C3 -- 19 to 80 in	loam	moderate	9.15 to 11.59 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

979D2--Langhei-Waukon complex, 12 to 20 percent slopes, eroded

Langhei, eroded

Extent: 55 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 12 to 20 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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

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 7 in	loam	moderate	1.20 to 1.56 in	6.6 to 8.4
Bk -- 7 to 19 in	loam	moderate	1.77 to 2.24 in	7.9 to 8.4
Bck...C3 -- 19 to 80 in	loam	moderate	9.15 to 11.59 in	7.4 to 8.4

Waukon, eroded

Extent: 35 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 12 to 20 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): 5

Wind erodibility index (WEI): 56

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>
A -- 0 to 6 in	loam	moderate	1.18 to 1.42 in	6.1 to 7.3
E...Bt2 -- 6 to 16 in	clay loam	moderate	1.54 to 1.94 in	6.1 to 8.4
Bk1...C2 -- 16 to 80 in	loam	moderate	9.57 to 12.12 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1006--Fluvaquents-Haploborolls complex, 0 to 30 percent slopes

Fluvaquents, very frequently flooded

Extent: 45 percent of the unit

Landform(s): flats on flood plains, swales on flood plains

Slope gradient: 0 to 2 percent

Parent material: recent alluvium

Restrictive feature(s): greater than 60 inches

Flooding: very frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .37

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>
A -- 0 to 24 in	very fine sandy loam	rapid	3.84 to 5.76 in	6.6 to 7.8
Cg...C"g -- 24 to 80 in	stratified loamy sand to silt loam	rapid	2.24 to 11.18 in	6.6 to 7.8

Haploborolls, rarely flooded

Extent: 45 percent of the unit

Landform(s): hillslopes on flood plains

Slope gradient: 2 to 30 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: rare

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) .28

Land capability, nonirrigated 6e

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 13 in	clay loam	moderate	2.21 to 2.86 in	6.6 to 7.8
C -- 13 to 80 in	clay loam	moderate	9.37 to 13.39 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1030--Pits, gravel-udipsamments complex

Pits, gravel

Extent: 60 percent of the unit
Landform(s): moraines, outwash plains, terraces
Slope gradient: 1 to 50 percent
Parent material: outwash
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: 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>
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Udipsamments

Extent: 30 percent of the unit
Landform(s): moraines, outwash plains, terraces
Slope gradient: 1 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): 1
Wind erodibility index (WEI): 220
Kw factor (surface layer) .02
Land capability, nonirrigated 8s
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 14 in	sand	rapid	0.71 to 1.42 in	6.6 to 7.3
C1 -- 14 to 60 in	sand	rapid	2.28 to 3.65 in	6.6 to 7.3
C2 -- 60 to 80 in	coarse sand	very rapid	0.60 to 1.00 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1113--Haslie, Seelyeville, and Cathro soils, ponded

Haslie, ponded

Extent: 30 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines, depressions on outwash plains

Slope gradient: 0 to 1 percent

Parent material: organic and coprogenous earth

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .02

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>
Oa1 -- 0 to 8 in	muck	moderately rapid	2.76 to 3.78 in	
Oa2 -- 8 to 34 in	muck	moderately rapid	9.09 to 12.47 in	
Cg1...Cg3 -- 34 to 80 in	coprogenous earth	slow	8.29 to 11.06 in	

Seelyeville, ponded

Extent: 30 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines, depressions on outwash plains

Slope gradient: 0 to 1 percent

Parent material: organic

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .02

Land capability, nonirrigated 8w

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 30 in	muck	moderately rapid	10.47 to 13.46 in	
Oa2...Cg -- 30 to 80 in	muck	moderately rapid	17.50 to 22.50 in	

Map Unit Description (MN)

Polk County, Minnesota

1113--Haslie, Seelyeville, and Cathro soils, ponded

Cathro, ponded

Extent: 30 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines, depressions on outwash plains

Slope gradient: 0 to 1 percent

Parent material: organic over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .02

Land capability, nonirrigated 8w

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>
Oa1,Oa2 -- 0 to 34 in	muck	moderately rapid	15.24 to 18.62 in	
A...Cg3 -- 34 to 80 in	loam	moderate	5.07 to 10.13 in	

1117--Hedman loam

Hedman

Extent: 90 percent of the unit

Landform(s): flats on moraines, swales on moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 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 11 in	loam	moderate	2.20 to 2.43 in	6.6 to 7.8
Bkg -- 11 to 20 in	fine sandy loam	moderate	1.18 to 1.81 in	7.4 to 8.4
Cg1...Cg4 -- 20 to 80 in	fine sandy loam	moderate	7.78 to 11.97 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1119--Nielsville silty clay loam

Nielsville

Extent: 90 percent of the unit

Landform(s): flats on lake plains

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 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 -- 0 to 9 in	silty clay loam	moderately slow	1.81 to 1.99 in	7.4 to 8.4
Bkg1,Bkg2 -- 9 to 28 in	silty clay loam	moderately slow	3.02 to 3.78 in	7.4 to 8.4
Cg1 -- 28 to 45 in	silty clay loam	moderately slow	2.54 to 3.39 in	7.4 to 8.4
2Cg2,2Cg3 -- 45 to 80 in	clay	very slow	3.15 to 5.61 in	7.4 to 8.4

1121--Hedman loam, depressional

Hedman, depressional

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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

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 9 in	loam	moderate	1.81 to 1.99 in	6.6 to 7.8
Bkg -- 9 to 15 in	fine sandy loam	moderate	0.77 to 1.12 in	7.4 to 8.4
Cg1...Cg4 -- 15 to 80 in	fine sandy loam	moderate	8.44 to 12.34 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1122--Nielsville-Perella complex

Nielsville

Extent: 50 percent of the unit

Landform(s): flats on lake plains

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

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 -- 0 to 11 in	silty clay loam	moderately slow	2.20 to 2.43 in	7.4 to 8.4
Bkg1,Bkg2 -- 11 to 33 in	silty clay loam	moderately slow	3.53 to 4.41 in	7.4 to 8.4
Cg1 -- 33 to 44 in	silty clay loam	moderately slow	1.65 to 2.20 in	7.4 to 8.4
2Cg2,2Cg3 -- 44 to 80 in	clay	very slow	3.22 to 5.73 in	7.4 to 8.4

Perella

Extent: 40 percent of the unit

Landform(s): swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 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 -- 0 to 9 in	silty clay loam	moderate	1.63 to 2.08 in	6.6 to 7.8
Bg -- 9 to 21 in	silty clay loam	moderate	1.77 to 2.60 in	6.6 to 7.8
Bkg1...Cg2 -- 21 to 80 in	silty clay loam	moderate	9.45 to 12.99 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1142--Hedman-Fram complex

Hedman

Extent: 50 percent of the unit

Landform(s): flats on moraines, swales on moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 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 10 in	loam	moderate	1.97 to 2.17 in	6.6 to 7.8
Bkg -- 10 to 18 in	fine sandy loam	moderate	1.07 to 1.65 in	7.4 to 8.4
Cg1...Cg4 -- 18 to 80 in	fine sandy loam	moderate	8.04 to 12.36 in	7.4 to 8.4

Fram

Extent: 40 percent of the unit

Landform(s): flats on moraines, rises on 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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

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 10 in	loam	moderate	1.97 to 2.17 in	7.4 to 8.4
Bk -- 10 to 22 in	loam	moderate	1.59 to 2.44 in	7.4 to 8.4
C1...C3 -- 22 to 80 in	loam	moderate	7.52 to 11.57 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1144--Strathcona and Kratka soils, depressional

Strathcona, depressional

Extent: 45 percent of the unit

Landform(s): depressions on lake plains

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine over 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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

Land capability, nonirrigated 6w

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 -- 0 to 6 in	mucky fine sandy loam	rapid	1.18 to 1.77 in	7.4 to 8.4
Bkg -- 6 to 19 in	fine sandy loam	moderately rapid	1.17 to 2.21 in	7.4 to 8.4
Cg1 -- 19 to 29 in	fine sand	rapid	0.51 to 1.23 in	7.4 to 8.4
2Cg2...2Cg4 -- 29 to 80 in	loam	moderate	7.62 to 9.65 in	7.4 to 8.4

Kratka, depressional

Extent: 45 percent of the unit

Landform(s): depressions on lake plains

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine over 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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 6w

Hydric soil: yes

Hydrologic group: B/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>
Ap -- 0 to 14 in	mucky fine sandy loam	rapid	2.83 to 4.25 in	6.6 to 7.8
Bw,Bg -- 14 to 34 in	loamy fine sand	rapid	1.18 to 2.17 in	6.6 to 7.8
2Cg1...2Cg4 -- 34 to 80 in	loam	moderate	6.91 to 8.75 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1152B--Sugarbush loamy sand, 1 to 8 percent slopes

Sugarbush

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines, hillslopes on outwash plains

Slope gradient: 1 to 8 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) .17

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 4 in	loamy sand	rapid	0.39 to 0.47 in	5.6 to 7.3
E --	4 to 10 in	loamy sand	rapid	0.53 to 0.65 in	5.6 to 7.3
Bt1,Bt2 --	10 to 20 in	coarse sandy loam	moderately rapid	1.23 to 1.54 in	5.6 to 7.3
2Bw...2C3 --	20 to 80 in	gravelly sand	very rapid	1.20 to 3.59 in	5.6 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1152C--Sugarbush loamy sand, 8 to 15 percent slopes

Sugarbush

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines, hillslopes on outwash plains

Slope gradient: 8 to 15 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) .17

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

Representative soil profile:

		<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	5.6 to 7.3
E --	5 to 10 in	loamy sand	rapid	0.43 to 0.52 in	5.6 to 7.3
Bt1,Bt2 --	10 to 18 in	coarse sandy loam	moderately rapid	0.99 to 1.24 in	5.6 to 7.3
2Bw...2C3 --	18 to 80 in	gravelly sand	very rapid	1.24 to 3.71 in	5.6 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1152E--Sugarbush loamy sand, 15 to 30 percent slopes

Sugarbush

Extent: 90 percent of the unit

Landform(s): hillslopes on moraines, hillslopes on outwash plains

Slope gradient: 15 to 30 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) .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 --	0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.6 to 7.3
E --	5 to 12 in	loamy sand	rapid	0.60 to 0.74 in	5.6 to 7.3
Bt1,Bt2 --	12 to 18 in	coarse sandy loam	moderately rapid	0.76 to 0.94 in	5.6 to 7.3
2Bw...2C3 --	18 to 80 in	gravelly sand	very rapid	1.24 to 3.71 in	5.6 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1233D--Esmond-Heimdal complex, 12 to 20 percent slopes, eroded

Esmond, eroded

Extent: 60 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 12 to 20 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): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

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>
A -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk...C3 -- 7 to 80 in	fine sandy loam	moderate	8.01 to 11.65 in	7.4 to 8.4

Heimdal, eroded

Extent: 30 percent of the unit

Landform(s): hillslopes on moraines

Slope gradient: 12 to 20 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): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .32

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 8 in	loam	moderate	1.57 to 1.73 in	6.1 to 7.3
Bw1,Bw2 -- 8 to 15 in	loam	moderate	0.85 to 1.35 in	6.1 to 7.8
Bk -- 15 to 30 in	fine sandy loam	moderate	1.65 to 2.84 in	7.4 to 8.4
C1...C3 -- 30 to 80 in	fine sandy loam	moderate	5.50 to 8.00 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1264--Ulen loamy fine sand

Ulen

Extent: 90 percent of the unit

Landform(s): rises on lake plains

Slope gradient: 0 to 3 percent

Parent material: glaciolacustrine

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): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .17

Land capability, nonirrigated 3s

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>
Ap -- 0 to 10 in	loamy fine sand	rapid	0.98 to 1.18 in	7.4 to 8.4
Bk -- 10 to 20 in	loamy fine sand	moderately rapid	0.92 to 1.74 in	7.4 to 8.4
C1 -- 20 to 36 in	fine sand	rapid	0.79 to 1.26 in	7.4 to 8.4
C2...C4 -- 36 to 80 in	fine sand	rapid	2.20 to 3.53 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1278--Rosewood-Venlo complex

Rosewood

Extent: 50 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 4w

Hydric soil: yes

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>
Ap -- 0 to 10 in	fine sandy loam	moderately rapid	1.57 to 1.77 in	7.4 to 8.4
Bk -- 10 to 17 in	fine sandy loam	moderately rapid	0.64 to 1.20 in	7.4 to 8.4
Cg1 -- 17 to 30 in	fine sand	rapid	0.65 to 1.04 in	7.4 to 8.4
Cg2...Cg4 -- 30 to 80 in	sand	rapid	1.00 to 3.50 in	7.4 to 8.4

Venlo

Extent: 40 percent of the unit

Landform(s): depressions on lake plains

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine

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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated 4w

Hydric soil: yes

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>
Ap -- 0 to 15 in	fine sandy loam	rapid	1.94 to 2.69 in	6.1 to 7.3
Cg1...Cg6 -- 15 to 80 in	fine sand	rapid	3.90 to 6.50 in	6.6 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1279--Vallers-Hamerly complex

Vallers

Extent: 50 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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: 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 -- 0 to 10 in	loam	moderate	1.97 to 2.17 in	7.4 to 8.4
Bkg1,Bkg2 -- 10 to 22 in	clay loam	moderate	1.83 to 2.32 in	7.4 to 8.4
Cg1,Cg2 -- 22 to 80 in	clay loam	moderate	8.68 to 11.00 in	7.4 to 8.4

Hamerly

Extent: 40 percent of the unit

Landform(s): flats on lake plains, rises on lake plains

Slope gradient: 0 to 2 percent

Parent material: 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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

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 -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	6.6 to 8.4
Bk -- 9 to 22 in	loam	moderate	1.95 to 2.47 in	7.4 to 8.4
C1...C4 -- 22 to 80 in	loam	moderate	8.68 to 11.00 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1280--Gunclub silty clay loam

Gunclub

Extent: 90 percent of the unit

Landform(s): flats on lake plains, rises on lake plains

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2s

Hydric soil: no

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 -- 0 to 9 in	silty clay loam	moderately slow	1.81 to 1.99 in	7.4 to 8.4
Bk1,Bk2 -- 9 to 34 in	silty clay loam	moderately slow	3.97 to 4.96 in	7.4 to 8.4
Cg1 -- 34 to 54 in	silty clay loam	moderately slow	3.01 to 4.02 in	7.4 to 8.4
2Cg2,2Cg3 -- 54 to 80 in	clay	very slow	2.34 to 4.16 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1283--Reis-Clearwater complex

Reis

Extent: 50 percent of the unit
Landform(s): flats on lake plains
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): 4
Wind erodibility index (WEI): 86
Kw factor (surface layer) .15
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/Bk -- 0 to 17 in	clay	slow	2.20 to 2.88 in	7.4 to 8.4
Bkss1...Bkg -- 17 to 42 in	clay	slow	3.28 to 4.28 in	7.4 to 8.4
Cg1 -- 42 to 60 in	clay	slow	1.59 to 3.37 in	7.4 to 8.4
Cg2,C -- 60 to 80 in	clay	slow	1.81 to 3.81 in	7.4 to 8.4

Clearwater

Extent: 40 percent of the unit
Landform(s): flats on lake plains, swales on lake plains
Slope gradient: 0 to 2 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: occasional
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
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 -- 0 to 10 in	clay	slow	1.28 to 1.67 in	6.6 to 7.8
Bssg1,Bssg2 -- 10 to 27 in	clay	slow	1.69 to 3.22 in	7.4 to 8.4
Cg1...Cg3 -- 27 to 80 in	clay	slow	4.78 to 10.10 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1297--Augsburg very fine sandy loam

Augsburg

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

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 -- 0 to 12 in	very fine sandy loam	moderately rapid	2.36 to 2.72 in	7.4 to 8.4
BAk,Bk -- 12 to 25 in	very fine sandy loam	moderately rapid	2.28 to 2.94 in	7.4 to 8.4
Bg1 -- 25 to 39 in	very fine sandy loam	moderately rapid	2.28 to 2.94 in	7.4 to 8.4
2Bg2...2Cg2 -- 39 to 80 in	clay	slow	3.72 to 7.85 in	7.4 to 8.4

1299--Borup very fine sandy loam

Borup

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 2 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2w

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>
Ap -- 0 to 10 in	very fine sandy loam	moderately rapid	1.97 to 2.26 in	7.4 to 8.4
Bkg -- 10 to 22 in	very fine sandy loam	moderately rapid	2.07 to 2.69 in	7.4 to 8.4
Cg1...Cg4 -- 22 to 80 in	very fine sand	rapid	4.63 to 12.73 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1304A--Glyndon very fine sandy loam, 0 to 2 percent slopes

Glyndon

<i>Extent:</i> 90 percent of the unit	<i>Soil loss tolerance (T factor):</i> 5
<i>Landform(s):</i> flats on lake plains	<i>Wind erodibility group (WEG):</i> 3
<i>Slope gradient:</i> 0 to 2 percent	<i>Wind erodibility index (WEI):</i> 86
<i>Parent material:</i> glaciolacustrine	<i>Kw factor (surface layer)</i> .28
<i>Restrictive feature(s):</i> greater than 60 inches	<i>Land capability, nonirrigated</i> 2s
<i>Flooding:</i> none	<i>Hydric soil:</i> no
<i>Ponding:</i> none	<i>Hydrologic group:</i> A/D
<i>Drainage class:</i> moderately well drained	<i>Potential for frost action:</i> 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	very fine sandy loam	moderately rapid	1.57 to 1.81 in	7.4 to 8.4
Bk1...Bk4 -- 8 to 35 in	very fine sandy loam	moderately rapid	4.62 to 5.98 in	7.4 to 8.4
C1...C3 -- 35 to 80 in	loamy very fine sand	moderately rapid	3.59 to 9.87 in	7.4 to 8.4

1304B--Glyndon very fine sandy loam, 2 to 6 percent slopes

Glyndon

<i>Extent:</i> 90 percent of the unit	<i>Soil loss tolerance (T factor):</i> 5
<i>Landform(s):</i> rises on lake plains	<i>Wind erodibility group (WEG):</i> 3
<i>Slope gradient:</i> 2 to 6 percent	<i>Wind erodibility index (WEI):</i> 86
<i>Parent material:</i> glaciolacustrine	<i>Kw factor (surface layer)</i> .28
<i>Restrictive feature(s):</i> greater than 60 inches	<i>Land capability, nonirrigated</i> 2e
<i>Flooding:</i> none	<i>Hydric soil:</i> no
<i>Ponding:</i> none	<i>Hydrologic group:</i> A/D
<i>Drainage class:</i> moderately well drained	<i>Potential for frost action:</i> high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	very fine sandy loam	moderately rapid	1.97 to 2.26 in	7.4 to 8.4
Bk1...Bk4 -- 10 to 32 in	very fine sandy loam	moderately rapid	3.75 to 4.85 in	7.4 to 8.4
C1...C3 -- 32 to 80 in	loamy very fine sand	moderately rapid	3.84 to 10.57 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1315A--Wheatville very fine sandy loam, 0 to 2 percent slopes

Wheatville

<i>Extent:</i> 90 percent of the unit	<i>Soil loss tolerance (T factor):</i> 4
<i>Landform(s):</i> flats on lake plains, rises on lake plains	<i>Wind erodibility group (WEG):</i> 3
<i>Slope gradient:</i> 0 to 2 percent	<i>Wind erodibility index (WEI):</i> 86
<i>Parent material:</i> glaciolacustrine	<i>Kw factor (surface layer)</i> .32
<i>Restrictive feature(s):</i> greater than 60 inches	<i>Land capability, nonirrigated</i> 2s
<i>Flooding:</i> none	<i>Hydric soil:</i> no
<i>Ponding:</i> none	<i>Hydrologic group:</i> C/D
<i>Drainage class:</i> somewhat poorly drained	<i>Potential for frost action:</i> 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	very fine sandy loam	moderately rapid	1.63 to 1.99 in	7.4 to 8.4
Bk1,Bk2 -- 9 to 31 in	very fine sandy loam	moderately rapid	3.75 to 4.85 in	7.4 to 8.4
2Cg1...2Cg4 -- 31 to 80 in	silty clay	slow	4.39 to 9.28 in	7.4 to 8.4

1323B--LaDelle silt loam, 0 to 3 percent slopes, occasionally flooded

LaDelle, occasionally flooded

<i>Extent:</i> 90 percent of the unit	<i>Soil loss tolerance (T factor):</i> 5
<i>Landform(s):</i> rises on flood plains	<i>Wind erodibility group (WEG):</i> 6
<i>Slope gradient:</i> 0 to 3 percent	<i>Wind erodibility index (WEI):</i> 48
<i>Parent material:</i> alluvium	<i>Kw factor (surface layer)</i> .28
<i>Restrictive feature(s):</i> greater than 60 inches	<i>Land capability, nonirrigated</i> 1
<i>Flooding:</i> occasional	<i>Hydric soil:</i> no
<i>Ponding:</i> none	<i>Hydrologic group:</i> C
<i>Drainage class:</i> moderately well drained	<i>Potential for frost action:</i> high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap...Bk -- 0 to 29 in	silt loam	moderate	5.83 to 6.41 in	6.1 to 7.8
Akb...B'k2 -- 29 to 69 in	silty clay loam	moderate	7.16 to 8.75 in	7.4 to 8.4
C -- 69 to 80 in	stratified silt loam to clay loam	moderate	1.32 to 2.43 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1325--Bowstring-Fluvaquents complex, frequently flooded

Bowstring, frequently flooded

<p><i>Extent:</i> 45 percent of the unit</p> <p><i>Landform(s):</i> flats on flood plains</p> <p><i>Slope gradient:</i> 0 to 1 percent</p> <p><i>Parent material:</i> organic and alluvium</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> frequent</p> <p><i>Ponding:</i> frequent</p> <p><i>Drainage class:</i> very poorly drained</p>	<p><i>Soil loss tolerance (T factor):</i> 1</p> <p><i>Wind erodibility group (WEG):</i> 2</p> <p><i>Wind erodibility index (WEI):</i> 134</p> <p><i>Kw factor (surface layer)</i> .02</p> <p><i>Land capability, nonirrigated</i> 6w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> A/D</p> <p><i>Potential for frost action:</i> high</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1...C -- 0 to 20 in	muck	moderately rapid	7.17 to 9.21 in	
Oa'...C''' -- 20 to 80 in	stratified muck to fine sand	rapid	4.76 to 8.32 in	

Fluvaquents, frequently flooded

<p><i>Extent:</i> 45 percent of the unit</p> <p><i>Landform(s):</i> flats on flood plains</p> <p><i>Slope gradient:</i> 0 to 2 percent</p> <p><i>Parent material:</i> alluvium</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> very frequent</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> 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> 6w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> A/D</p> <p><i>Potential for frost action:</i> high</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 11 in	fine sandy loam	rapid	1.76 to 2.65 in	6.6 to 7.8
Cg...C''g -- 11 to 80 in	stratified loamy sand to silt loam	rapid	2.76 to 13.78 in	6.6 to 7.8

Map Unit Description (MN)

Polk County, Minnesota

1356--Water, miscellaneous

Water, miscellaneous

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>
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1422--Northwood muck, marl subsoil

Northwood, marl subsoil

Extent: 90 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic over glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

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: 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>
Oa -- 0 to 14 in	muck	moderately rapid	4.96 to 6.38 in	6.6 to 7.8
Oma -- 14 to 29 in	marl	moderately slow	2.69 to 3.29 in	7.4 to 8.4
Bg -- 29 to 35 in	fine sand	moderately rapid	0.35 to 0.65 in	6.6 to 7.8
2Cg1...2Cg3 -- 35 to 80 in	loam	moderate	6.28 to 8.53 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1866--Colvin-Perella complex

Colvin

Extent: 50 percent of the unit

Landform(s): flats on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 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 -- 0 to 10 in	silty clay loam	moderately slow	1.97 to 2.17 in	6.6 to 8.4
Bk1,Bk2 -- 10 to 20 in	silty clay loam	moderately slow	1.64 to 2.05 in	7.4 to 9.0
C1...C3 -- 20 to 80 in	silty clay loam	moderate	8.98 to 11.97 in	7.4 to 8.4

Perella

Extent: 40 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 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 16 in	silty clay loam	moderate	2.91 to 3.71 in	6.6 to 7.8
Bg -- 16 to 23 in	silty clay loam	moderate	1.00 to 1.47 in	6.6 to 7.8
Bkg1...Cg2 -- 23 to 80 in	silty clay loam	moderate	9.13 to 12.56 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1871--Fargo silty clay, swales

Fargo, swales

Extent: 90 percent of the unit

Landform(s): depressions on lake plains, swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: rare

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3w

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 -- 0 to 10 in	silty clay	slow	1.48 to 1.77 in	6.6 to 7.8
Bssg -- 10 to 21 in	clay	slow	1.54 to 1.87 in	6.6 to 8.4
Cg1...Cg4 -- 21 to 80 in	clay	slow	8.27 to 10.04 in	7.9 to 8.4

1874--Radium loamy sand

Radium

Extent: 90 percent of the unit

Landform(s): rises on beach ridges

Slope gradient: 0 to 3 percent

Parent material: beach deposits

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): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .15

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 14 in	loamy sand	rapid	0.85 to 1.70 in	6.1 to 7.8
Bw -- 14 to 32 in	gravelly sand	rapid	0.53 to 1.42 in	6.6 to 8.4
C1 -- 32 to 46 in	sand	very rapid	0.28 to 0.71 in	7.4 to 8.4
C2...C4 -- 46 to 80 in	gravelly coarse sand	rapid	1.02 to 3.05 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1878--Hamre muck

Hamre

Extent: 90 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic over till

Restrictive feature(s): greater than 60 inches

Flooding: none

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: 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>
Oa -- 0 to 10 in	muck	moderately rapid	3.44 to 4.72 in	5.1 to 7.8
A -- 10 to 16 in	mucky sandy clay loam	moderate	1.07 to 1.39 in	5.1 to 7.8
Cg1...Cg4 -- 16 to 80 in	loam	moderate	9.57 to 12.12 in	7.4 to 8.4

1879--Seelyeville muck, calcareous, 0 to 3 percent slopes

Seelyeville, calcareous

Extent: 90 percent of the unit

Landform(s): depressions on lake plains, fens on lake plains, depressions on moraines, fens on moraines

Slope gradient: 0 to 3 percent

Parent material: organic

Restrictive feature(s): greater than 60 inches

Flooding: none

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 12 in	muck	moderately rapid	4.13 to 5.31 in	
Oa2...Cg -- 12 to 80 in	muck	moderately rapid	23.84 to 30.65 in	

Map Unit Description (MN)

Polk County, Minnesota

1882--Rosewood, Strathcona, and Berner soils, seepy

Rosewood, seepy

Extent: 30 percent of the unit

Landform(s): fens on beach ridges

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly 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 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>
A -- 0 to 13 in	fine sandy loam	moderately rapid	1.69 to 2.34 in	7.9 to 8.4
Bk -- 13 to 18 in	fine sandy loam	moderately rapid	0.56 to 0.77 in	7.9 to 8.4
Cg1...Cg4 -- 18 to 80 in	sand	rapid	3.09 to 4.94 in	7.4 to 8.4

Strathcona, seepy

Extent: 30 percent of the unit

Landform(s): fens on beach ridges

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine over 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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

Land capability, nonirrigated 6w

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>
A -- 0 to 14 in	fine sandy loam	moderately rapid	1.98 to 2.41 in	7.4 to 8.4
Bkg -- 14 to 26 in	loamy fine sand	rapid	0.59 to 1.30 in	7.4 to 8.4
Cg1 -- 26 to 36 in	fine sand	rapid	0.49 to 0.89 in	7.4 to 8.4
2Cg2...2Cg4 -- 36 to 80 in	fine sandy loam	moderate	6.17 to 7.94 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1882--Rosewood, Strathcona, and Berner soils, seepy

Berner, seepy

Extent: 30 percent of the unit

Landform(s): fens on beach ridges

Slope gradient: 0 to 1 percent

Parent material: organic over glaciolacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

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 20 in	muck	moderately rapid	7.03 to 9.64 in	
A -- 20 to 26 in	sandy loam	moderately rapid	0.59 to 1.00 in	
Bg -- 26 to 40 in	sand	rapid	0.71 to 1.42 in	
2Cg1...2Cg3 -- 40 to 80 in	fine sandy loam	moderate	5.57 to 8.75 in	

Map Unit Description (MN)

Polk County, Minnesota

1916--Lindaas silty clay loam

Lindaas

Extent: 90 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: 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 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 --	0 to 9 in	silty clay loam	moderately rapid	1.63 to 2.08 in	6.6 to 7.3
Bt1...Bt3 --	9 to 29 in	silty clay	slow	2.76 to 3.35 in	6.6 to 7.8
Bk --	29 to 40 in	silty clay loam	moderate	1.71 to 2.51 in	7.4 to 8.4
Cg1,Cg2 --	40 to 80 in	silty clay loam	moderate	3.18 to 8.75 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1963--Bearden-Colvin complex

Bearden

Extent: 50 percent of the unit

Landform(s): flats on lake plains, rises on lake plains

Slope gradient: 0 to 2 percent

Parent material: lacustrine

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): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2s

Hydric soil: no

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 -- 0 to 10 in	silty clay loam	moderately slow	1.67 to 2.26 in	7.4 to 8.4
Bk1,Bk2 -- 10 to 18 in	silty clay loam	moderately slow	1.32 to 1.82 in	7.4 to 8.4
C1 -- 18 to 30 in	silty clay loam	moderately slow	1.89 to 2.60 in	7.4 to 8.4
C2...C4 -- 30 to 80 in	silty clay loam	slow	8.00 to 11.00 in	7.4 to 8.4

Colvin

Extent: 40 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 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 -- 0 to 10 in	silty clay loam	moderately slow	1.97 to 2.17 in	6.6 to 8.4
Bk1,Bk2 -- 10 to 19 in	silty clay loam	moderately slow	1.45 to 1.81 in	7.4 to 8.4
C1...C3 -- 19 to 80 in	silty clay loam	moderate	9.15 to 12.20 in	7.4 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

1964--Colvin-Fargo complex

Colvin

Extent: 50 percent of the unit

Landform(s): flats on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly 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 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 -- 0 to 10 in	silty clay loam	moderately slow	1.97 to 2.17 in	6.6 to 8.4
Bk1,Bk2 -- 10 to 22 in	silty clay loam	moderately slow	1.95 to 2.44 in	7.4 to 8.4
C1...C3 -- 22 to 80 in	silty clay loam	moderate	8.68 to 11.57 in	7.4 to 8.4

Fargo

Extent: 40 percent of the unit

Landform(s): flats on lake plains, swales on lake plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: occasional

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

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 -- 0 to 9 in	silty clay	slow	1.36 to 1.63 in	6.6 to 7.8
Bssg -- 9 to 30 in	clay	slow	2.92 to 3.55 in	6.6 to 8.4
Cg1...Cg4 -- 30 to 80 in	silty clay	slow	7.00 to 8.50 in	7.9 to 8.4

Map Unit Description (MN)

Polk County, Minnesota

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>
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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.