

## Map Unit Description (MN)

Steele 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]

### Ad--Alluvial land, occasionally flooded

#### Alluvial land, occasionally flooded

*Extent:* 90 percent of the unit

*Landform(s):* flood plains

*Slope gradient:* 0 to 2 percent

*Parent material:* alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* occasional

*Ponding:* none

*Drainage class:* 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:* 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 25 in	silty clay loam	moderate	5.04 to 5.54 in	6.1 to 7.3
AC,Cg1 -- 25 to 54 in	loam	moderate	5.75 to 6.32 in	6.1 to 7.3
Cg2 -- 54 to 60 in	sandy loam	moderately rapid	0.77 to 1.00 in	6.1 to 7.8

### Af--Alluvial land, frequently flooded

#### Alluvial land, frequently flooded

*Extent:* 90 percent of the unit

*Landform(s):* flood plains

*Slope gradient:* 0 to 2 percent

*Parent material:* alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* frequent

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 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 -- 0 to 12 in	silty clay loam	moderate	2.36 to 2.60 in	6.1 to 7.3
A2 -- 12 to 30 in	loam	moderate	3.62 to 3.98 in	6.1 to 7.3
A3 -- 30 to 55 in	stratified fine sandy loam to loam	moderate	5.04 to 5.54 in	6.1 to 7.3
AB,Bg -- 55 to 80 in	fine sandy loam	moderately rapid	3.22 to 4.22 in	6.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Bc--Biscay loam

#### Biscay

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 4L

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .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,A -- 0 to 16 in	loam	moderate	3.23 to 3.55 in	6.1 to 7.8
Bg -- 16 to 32 in	loam	moderate	2.68 to 2.99 in	6.6 to 7.8
2Cg1 -- 32 to 36 in	coarse sand	moderately rapid	0.43 to 0.67 in	6.6 to 7.8
2Cg2 -- 36 to 60 in	coarse sand	rapid	0.48 to 0.96 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### Bd--Biscay loam, depressional

#### Biscay, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 4L

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 24 in	loam	moderate	4.80 to 5.28 in	6.1 to 7.8
Bg -- 24 to 30 in	sandy clay loam	moderate	1.00 to 1.12 in	6.6 to 7.8
2Cg1 -- 30 to 36 in	coarse sand	moderately rapid	0.65 to 1.00 in	6.6 to 7.8
2Cg2 -- 36 to 60 in	coarse sand	rapid	0.48 to 0.96 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### BIA--Bixby loam, 0 to 2 percent slopes

#### Bixby

*Extent:* 85 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 2s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

#### *Representative soil profile:*

	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.26 to 1.50 in	5.6 to 6.5
Bt -- 8 to 25 in	clay loam	moderate	2.43 to 3.12 in	5.1 to 6.0
2Bt,2C -- 25 to 60 in	sand	rapid	0.69 to 1.39 in	6.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### BIB--Bixby loam, 2 to 6 percent slopes

#### Bixby

*Extent:* 85 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.26 to 1.50 in	5.6 to 6.5
Bt -- 8 to 25 in	clay loam	moderate	2.43 to 3.12 in	5.1 to 6.0
2Bt,2C -- 25 to 60 in	sand	rapid	0.69 to 1.39 in	6.1 to 7.8

#### Kato

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

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### BIB--Bixby loam, 2 to 6 percent slopes

#### Udolpho

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*Hydrologic group:*

*Potential for frost action:*

*Representative soil profile:*

*Texture*

*Permeability*

*Available water  
capacity*

*pH*

## Map Unit Description (MN)

Steele County, Minnesota

### BIB2--Bixby loam, 2 to 6 percent slopes, eroded

#### Bixby, eroded

*Extent:* 85 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.26 to 1.50 in	5.6 to 6.5
Bt -- 8 to 23 in	clay loam	moderate	2.09 to 2.69 in	5.1 to 6.0
2Bt,2C -- 23 to 60 in	sand	rapid	0.74 to 1.48 in	6.1 to 7.8

#### Kato

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### BIB2--Bixby loam, 2 to 6 percent slopes, eroded

#### Udolpho

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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### BIC2--Bixby loam, 6 to 12 percent slopes, eroded

#### Bixby, eroded

*Extent:* 85 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.26 to 1.50 in	5.6 to 6.5
Bt -- 8 to 23 in	clay loam	moderate	2.09 to 2.69 in	5.1 to 6.0
2Bt,2C -- 23 to 60 in	sand	rapid	0.74 to 1.48 in	6.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### BID2--Bixby loam, 12 to 18 percent slopes, eroded

#### Bixby, eroded

*Extent:* 85 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 12 to 18 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.26 to 1.50 in	5.6 to 6.5
Bt -- 8 to 23 in	clay loam	moderate	2.09 to 2.69 in	5.1 to 6.0
2Bt,2C -- 23 to 60 in	sand	rapid	0.74 to 1.48 in	6.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### BoB2--Blooming silt loam, 2 to 6 percent slopes, eroded

#### Blooming, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loess over loamy 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)* .37

*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	silt loam	moderate	1.89 to 2.36 in	5.6 to 6.5
Bt --	8 to 19 in	silt loam	moderate	1.98 to 2.43 in	5.6 to 6.5
2Bt --	19 to 48 in	sandy clay loam	moderate	4.66 to 5.54 in	5.1 to 7.3
2C --	48 to 60 in	loam	moderate	2.01 to 2.24 in	6.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### BoC2--Blooming silt loam, 6 to 14 percent slopes, eroded

#### Blooming, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 14 percent

*Parent material:* loess over loamy 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)* .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	silt loam	moderate	1.89 to 2.36 in	5.6 to 6.5
Bt -- 8 to 19 in	silt loam	moderate	1.98 to 2.43 in	5.6 to 6.5
2Bt -- 19 to 48 in	sandy clay loam	moderate	4.66 to 5.54 in	5.1 to 7.3
2C -- 48 to 60 in	loam	moderate	2.01 to 2.24 in	6.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### BuB--Burnsville sandy loam, 2 to 6 percent slopes

#### Burnsville

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly 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):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	sandy loam	moderately rapid	0.71 to 1.13 in	5.6 to 7.3
Bt -- 7 to 24 in	coarse sandy loam	moderately rapid	2.03 to 2.37 in	5.6 to 7.3
2Bw,2C -- 24 to 60 in	gravelly coarse sand	rapid	0.72 to 1.43 in	6.6 to 8.4

#### Kato

*Extent:* 2 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### BuB--Burnsville sandy loam, 2 to 6 percent slopes

#### Udolpho

*Extent:* 1 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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### BuC--Burnsville sandy loam, 6 to 12 percent slopes

#### Burnsville

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly 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):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	sandy loam	moderately rapid	0.71 to 1.13 in	5.6 to 7.3
Bt -- 7 to 24 in	coarse sandy loam	moderately rapid	2.03 to 2.37 in	5.6 to 7.3
2Bw,2C -- 24 to 60 in	gravelly coarse sand	rapid	0.72 to 1.43 in	6.6 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### Ca--Calco silty clay loam, very wet

#### Calco, very wet

*Extent:* 90 percent of the unit

*Landform(s):* flood plains

*Slope gradient:* 0 to 1 percent

*Parent material:* silty alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* frequent

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 4L

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*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>
A -- 0 to 36 in	silty clay loam	moderate	7.52 to 8.24 in	7.4 to 8.4
Bg -- 36 to 46 in	silty clay loam	moderate	2.15 to 2.35 in	7.4 to 8.4
Cg -- 46 to 60 in	silty clay loam	moderate	2.48 to 2.76 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### Cc--Canisteo silty clay loam

#### Canisteo

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy 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):* 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,A -- 0 to 20 in	silty clay loam	moderate	3.61 to 4.42 in	7.4 to 8.4
Bg1 -- 20 to 24 in	clay loam	moderate	0.59 to 0.75 in	7.4 to 8.4
Bg2 -- 24 to 31 in	clay loam	moderate	0.85 to 1.28 in	7.4 to 8.4
Cg -- 31 to 60 in	clay loam	moderate	4.02 to 4.60 in	7.4 to 8.4

#### Maxcreek

*Extent:* 5 percent of the unit

*Landform(s):* drainageways, swales

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### Cd--Canisteo silty clay loam, depressional

#### Canisteo, depressional

*Extent:* 85 percent of the unit

*Landform(s):* depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* loamy 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)* .28

*Land capability, nonirrigated* 3w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	silty clay loam	moderate	2.34 to 2.86 in	7.4 to 8.4
Bg1 -- 13 to 24 in	clay loam	moderate	1.65 to 2.09 in	7.4 to 8.4
Bg2 -- 24 to 31 in	clay loam	moderate	0.85 to 1.28 in	7.4 to 8.4
Cg -- 31 to 60 in	clay loam	moderate	4.02 to 4.60 in	7.4 to 8.4

#### Maxcreek

*Extent:* 5 percent of the unit

*Landform(s):* swales

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### Ce--Canisteo clay loam

#### Canisteo

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy 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):* 4L

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	clay loam	moderate	2.34 to 2.86 in	7.4 to 8.4
Bg1 -- 13 to 24 in	clay loam	moderate	1.65 to 2.09 in	7.4 to 8.4
Bg2 -- 24 to 31 in	clay loam	moderate	0.85 to 1.28 in	7.4 to 8.4
Cg -- 31 to 60 in	clay loam	moderate	4.02 to 4.60 in	7.4 to 8.4

#### Webster

*Extent:* 10 percent of the unit

*Landform(s):* flats

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### Cf--Canisteo clay loam, depressional

#### Canisteo, depressional

*Extent:* 85 percent of the unit

*Landform(s):* depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* loamy 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)* .24

*Land capability, nonirrigated* 3w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	clay loam	moderate	2.34 to 2.86 in	7.4 to 8.4
Bg1 -- 13 to 24 in	clay loam	moderate	1.65 to 2.09 in	7.4 to 8.4
Bg2 -- 24 to 31 in	clay loam	moderate	0.85 to 1.28 in	7.4 to 8.4
Cg -- 31 to 60 in	clay loam	moderate	4.02 to 4.60 in	7.4 to 8.4

#### Glencoe, depressional

*Extent:* 10 percent of the unit

*Landform(s):* depressions

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### ChD--Chelsea loamy fine sand, 2 to 18 percent slopes

#### Chelsea

*Extent:* 90 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 18 percent

*Parent material:* eolian sands

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .05

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loamy fine sand	rapid	0.79 to 1.18 in	5.6 to 7.3
Bw,C -- 8 to 60 in	sand	rapid	3.12 to 4.16 in	5.1 to 6.5

### CkB2--Clarion sandy loam, 2 to 6 percent slopes, eroded

#### Clarion, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy 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,A -- 0 to 11 in	sandy loam	moderate	2.20 to 2.43 in	5.6 to 7.3
Bw,BC -- 11 to 36 in	loam	moderate	4.22 to 4.71 in	5.6 to 7.8
C -- 36 to 60 in	loam	moderate	4.08 to 4.56 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### CIB--Clarion loam, 2 to 6 percent slopes

#### Clarion

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy 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 11 in	loam	moderate	2.20 to 2.43 in	5.6 to 7.3
Bw,BC -- 11 to 36 in	loam	moderate	4.22 to 4.71 in	5.6 to 7.8
C -- 36 to 60 in	loam	moderate	4.08 to 4.56 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

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### CIB--Clarion loam, 2 to 6 percent slopes

#### Glencoe

*Extent:* 5 percent of the unit

*Landform(s):* depressions

*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:* yes

*Hydrologic group:*

*Potential for frost action:*

*Representative soil profile:*

*Texture*

*Permeability*

*Available water  
capacity*

*pH*

## Map Unit Description (MN)

Steele County, Minnesota

### CIB2--Clarion loam, 2 to 6 percent slopes, eroded

#### Clarion, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy 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)* .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,A -- 0 to 11 in	loam	moderate	2.20 to 2.43 in	5.6 to 7.3
Bw,BC -- 11 to 36 in	loam	moderate	4.22 to 4.71 in	5.6 to 7.8
C -- 36 to 60 in	loam	moderate	4.08 to 4.56 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

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### CIB2--Clarion loam, 2 to 6 percent slopes, eroded

#### Glencoe

*Extent:* 5 percent of the unit

*Landform(s):* depressions

*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:* yes

*Hydrologic group:*

*Potential for frost action:*

*Representative soil profile:*

*Texture*

*Permeability*

*Available water  
capacity*

*pH*

## Map Unit Description (MN)

Steele County, Minnesota

### CIC2--Clarion loam, 6 to 12 percent slopes, eroded

#### Clarion, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	5.6 to 7.3
Bw,BC -- 9 to 32 in	loam	moderate	3.88 to 4.34 in	5.6 to 7.3
C -- 32 to 60 in	loam	moderate	4.75 to 5.31 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

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### CIC2--Clarion loam, 6 to 12 percent slopes, eroded

#### Glencoe

*Extent:* 5 percent of the unit

*Landform(s):* depressions

*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:* yes

*Hydrologic group:*

*Potential for frost action:*

*Representative soil profile:*

*Texture*

*Permeability*

*Available water  
capacity*

*pH*

## Map Unit Description (MN)

Steele County, Minnesota

### CsC2--Clarion-Storden complex, 6 to 12 percent slopes, eroded

#### Clarion, eroded

*Extent:* 50 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	5.6 to 7.3
Bw,BC -- 9 to 32 in	loam	moderate	3.88 to 4.34 in	5.6 to 7.3
C -- 32 to 60 in	loam	moderate	4.75 to 5.31 in	7.4 to 8.4

#### Storden

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy 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	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 19 in	loam	moderate	1.77 to 2.24 in	7.4 to 8.4
C -- 19 to 60 in	loam	moderate	6.14 to 7.78 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### CsD2--Clarion-Storden complex, 12 to 18 percent slopes, eroded

#### Clarion, eroded

*Extent:* 50 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 12 to 18 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	5.6 to 7.3
Bw,BC -- 9 to 32 in	loam	moderate	3.88 to 4.34 in	5.6 to 7.3
C -- 32 to 60 in	loam	moderate	4.75 to 5.31 in	7.4 to 8.4

#### Storden

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 12 to 18 percent

*Parent material:* loamy 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	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 19 in	loam	moderate	1.77 to 2.24 in	7.4 to 8.4
C -- 19 to 60 in	loam	moderate	6.14 to 7.78 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### Ct--Colo silty clay loam, occasionally flooded

#### Colo, occasionally flooded

*Extent:* 90 percent of the unit

*Landform(s):* flood plains

*Slope gradient:* 0 to 1 percent

*Parent material:* loamy alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* occasional

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1 -- 0 to 14 in	silty clay loam	moderate	2.98 to 3.26 in	5.6 to 7.3
A2,ACg -- 14 to 37 in	clay loam	moderate	4.11 to 4.57 in	5.6 to 7.3
Cg -- 37 to 60 in	loam	moderate	4.11 to 4.57 in	6.1 to 7.3

### Cu--Colo silty clay loam, frequently flooded

#### Colo, frequently flooded

*Extent:* 90 percent of the unit

*Landform(s):* flood plains

*Slope gradient:* 0 to 1 percent

*Parent material:* loamy alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* frequent

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 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 -- 0 to 14 in	silty clay loam	moderate	2.98 to 3.26 in	5.6 to 7.3
A2,ACg -- 14 to 37 in	clay loam	moderate	4.11 to 4.57 in	5.6 to 7.3
Cg -- 37 to 60 in	loam	moderate	4.11 to 4.57 in	6.1 to 7.3

## Map Unit Description (MN)

Steele County, Minnesota

### DaA--Dakota sandy loam, 0 to 2 percent slopes

#### Dakota

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 2s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

#### Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A --	0 to 13 in	sandy loam	moderate	1.56 to 2.34 in	5.1 to 7.3
Bt,BC --	13 to 29 in	loam	moderate	2.42 to 3.07 in	5.1 to 7.3
2BC --	29 to 36 in	loamy sand	moderately rapid	0.13 to 0.94 in	5.1 to 7.3
2C --	36 to 60 in	stratified coarse sand to fine sand	rapid	0.48 to 2.40 in	5.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### DaB--Dakota sandy loam, 2 to 6 percent slopes

#### Dakota

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	sandy loam	moderate	1.56 to 2.34 in	5.1 to 7.3
Bt,BC -- 13 to 29 in	loam	moderate	2.42 to 3.07 in	5.1 to 7.3
2BC -- 29 to 36 in	loamy sand	moderately rapid	0.13 to 0.94 in	5.1 to 7.3
2C -- 36 to 60 in	stratified coarse sand to fine sand	rapid	0.48 to 2.40 in	5.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### DaC--Dakota sandy loam, 6 to 14 percent slopes

#### Dakota

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 6 to 14 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

#### Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A --	0 to 13 in	sandy loam	moderate	1.56 to 2.34 in	5.1 to 7.3
Bt,BC --	13 to 29 in	loam	moderate	2.42 to 3.07 in	5.1 to 7.3
2BC --	29 to 36 in	loamy sand	moderately rapid	0.13 to 0.94 in	5.1 to 7.3
2C --	36 to 60 in	stratified coarse sand to fine sand	rapid	0.48 to 2.40 in	5.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### DkA--Dakota loam, 0 to 2 percent slopes

#### Dakota

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 2s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

#### Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A --	0 to 13 in	loam	moderate	2.60 to 2.86 in	5.1 to 7.3
Bt,BC --	13 to 29 in	loam	moderate	2.42 to 3.07 in	5.1 to 7.3
2BC --	29 to 36 in	loamy sand	moderately rapid	0.13 to 0.94 in	5.1 to 7.3
2C --	36 to 60 in	stratified coarse sand to fine sand	rapid	0.48 to 2.40 in	5.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### DkB--Dakota loam, 2 to 6 percent slopes

#### Dakota

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

#### Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A --	0 to 13 in	loam	moderate	2.60 to 2.86 in	5.1 to 7.3
Bt,BC --	13 to 29 in	loam	moderate	2.42 to 3.07 in	5.1 to 7.3
2BC --	29 to 36 in	loamy sand	moderately rapid	0.13 to 0.94 in	5.1 to 7.3
2C --	36 to 60 in	stratified coarse sand to fine sand	rapid	0.48 to 2.40 in	5.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### DtA--Dickinson sandy loam, terrace, 0 to 2 percent slopes

#### Dickinson, terrace

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* moderate

*Representative soil profile:*

	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	sandy loam	moderately rapid	1.80 to 2.24 in	5.6 to 7.3
Bw1 -- 15 to 22 in	sandy loam	moderately rapid	0.85 to 1.06 in	5.1 to 6.5
Bw2,BC -- 22 to 45 in	loamy sand	rapid	1.83 to 2.28 in	5.1 to 6.5
C -- 45 to 60 in	sand	rapid	0.30 to 0.60 in	5.6 to 7.3

#### Biscay

*Extent:* 3 percent of the unit

*Landform(s):* drainageways

*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:* yes

*Hydrologic group:*

*Potential for frost action:*

*Representative soil profile:*

	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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## Map Unit Description (MN)

Steele County, Minnesota

### DtA--Dickinson sandy loam, terrace, 0 to 2 percent slopes

#### Hanska

*Extent:* 3 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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### DtB--Dickinson sandy loam, terrace, 2 to 6 percent slopes

#### Dickinson, terrace

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	sandy loam	moderately rapid	1.80 to 2.24 in	5.6 to 7.3
Bw1 -- 15 to 22 in	sandy loam	moderately rapid	0.85 to 1.06 in	5.1 to 6.5
Bw2,BC -- 22 to 45 in	loamy sand	rapid	1.83 to 2.28 in	5.1 to 6.5
C -- 45 to 60 in	sand	rapid	0.30 to 0.60 in	5.6 to 7.3

## Map Unit Description (MN)

Steele County, Minnesota

### Du--Dundas silt loam

#### Dundas

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy 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)* .43

*Land capability, nonirrigated* 2w

*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 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
E,Bt -- 8 to 37 in	clay loam	moderately slow	4.37 to 5.54 in	5.1 to 7.3
C -- 37 to 60 in	loam	moderately slow	3.20 to 4.34 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### EaA--Estherville sandy loam, 0 to 2 percent slopes

#### Estherville

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy 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* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
Bw -- 13 to 17 in	sandy loam	moderately rapid	0.51 to 0.71 in	5.6 to 7.3
BC,2C -- 17 to 60 in	very gravelly coarse sand	rapid	0.86 to 1.72 in	6.6 to 8.4

#### Biscay

*Extent:* 3 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### EaA--Estherville sandy loam, 0 to 2 percent slopes

#### Hanska

*Extent:* 3 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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### EaB--Estherville sandy loam, 2 to 6 percent slopes

#### Estherville

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy 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* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
Bw -- 13 to 17 in	sandy loam	moderately rapid	0.51 to 0.71 in	5.6 to 7.3
BC,2C -- 17 to 60 in	very gravelly coarse sand	rapid	0.86 to 1.72 in	6.6 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### EaC--Estherville sandy loam, 6 to 12 percent slopes

#### Estherville

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy glaciofluvial deposits over sandy 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,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
Bw -- 13 to 17 in	sandy loam	moderately rapid	0.51 to 0.71 in	5.6 to 7.3
BC,2C -- 17 to 60 in	gravelly coarse sand	rapid	0.86 to 1.72 in	6.6 to 8.4

### EaD--Estherville sandy loam, 12 to 18 percent slopes

#### Estherville

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 12 to 18 percent

*Parent material:* loamy glaciofluvial deposits over sandy 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* 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>
Ap,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
Bw -- 13 to 17 in	sandy loam	moderately rapid	0.51 to 0.71 in	5.6 to 7.3
BC,2C -- 17 to 60 in	gravelly coarse sand	rapid	0.86 to 1.72 in	6.6 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### Gc--Glencoe clay loam

#### Glencoe, ponded

*Extent:* 85 percent of the unit

*Landform(s):* depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 17 in	clay loam	moderate	3.05 to 3.72 in	6.1 to 7.8
AB -- 17 to 25 in	clay loam	moderate	1.49 to 1.82 in	6.1 to 7.8
Bg -- 25 to 38 in	clay loam	moderate	1.89 to 2.39 in	6.6 to 7.8
Cg -- 38 to 60 in	clay loam	moderate	3.31 to 4.19 in	6.6 to 7.8

### GP--Gravel pits

#### Pits, gravel

*Extent:* 100 percent of the unit

*Landform(s):* outwash plains, terraces

*Slope gradient:*

*Parent material:* sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:*

*Ponding:*

*Drainage class:*

*Soil loss tolerance (T factor):*

*Wind erodibility group (WEG):*

*Wind erodibility index (WEI):*

*Kw factor (surface layer)*

*Land capability, nonirrigated*

*Hydric soil:*

*Hydrologic group:*

*Potential for frost action:*

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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## Map Unit Description (MN)

Steele County, Minnesota

### Hk--Hanska loam

#### Hanska

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 2

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

#### *Representative soil profile:*

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A --	0 to 10 in	loam	moderately rapid	1.97 to 2.17 in	6.1 to 7.8
AB,Bw --	10 to 19 in	sandy loam	moderately rapid	0.91 to 1.18 in	6.1 to 7.3
Bg --	19 to 30 in	loamy sand	rapid	0.88 to 1.10 in	6.1 to 7.8
C --	30 to 60 in	sand	rapid	0.90 to 1.50 in	6.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Hm--Havana silt loam

#### Havana

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* loess over loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .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,A	-- 0 to 12 in	silt loam	moderate	2.60 to 2.83 in	5.6 to 6.5
Bt	-- 12 to 19 in	silty clay loam	moderately slow	1.06 to 1.35 in	5.6 to 6.5
2Btg	-- 19 to 50 in	clay loam	moderately slow	5.29 to 5.91 in	5.1 to 7.3
2C	-- 50 to 60 in	loam	moderate	1.67 to 1.87 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### HnB2--Hayden sandy loam, 2 to 6 percent slopes, eroded

#### Hayden, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* 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 10 in	sandy loam	moderately rapid	1.38 to 1.77 in	5.6 to 7.3
E,Bt -- 10 to 44 in	clay loam	moderate	5.14 to 6.51 in	5.1 to 7.3
C -- 44 to 60 in	loam	moderate	2.20 to 2.99 in	7.4 to 8.4

#### poorly drained soils

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### HnC2--Hayden sandy loam, 6 to 12 percent slopes, eroded

#### Hayden, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* 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 10 in	sandy loam	moderately rapid	1.38 to 1.77 in	5.6 to 7.3
E,Bt -- 10 to 44 in	clay loam	moderate	5.14 to 6.51 in	5.1 to 7.3
C -- 44 to 60 in	loam	moderate	2.20 to 2.99 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### HoB--Hayden loam, 2 to 6 percent slopes

#### Hayden

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy 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)* .43

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
E,Bt -- 10 to 44 in	clay loam	moderate	5.14 to 6.51 in	5.1 to 7.3
C -- 44 to 60 in	loam	moderate	2.20 to 2.99 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* depressions, drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### HoB2--Hayden loam, 2 to 6 percent slopes, eroded

#### Hayden, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy 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)* .43

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
E,Bt -- 10 to 44 in	clay loam	moderate	5.14 to 6.51 in	5.1 to 7.3
C -- 44 to 60 in	loam	moderate	2.20 to 2.99 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* depressions, drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### HoC--Hayden loam, 6 to 12 percent slopes

#### Hayden

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy 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)* .43

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
E,Bt -- 10 to 44 in	clay loam	moderate	5.14 to 6.51 in	5.1 to 7.3
C -- 44 to 60 in	loam	moderate	2.20 to 2.99 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* depressions, drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### HoC2--Hayden loam, 6 to 12 percent slopes, eroded

#### Hayden, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy 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)* .43

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
E,Bt -- 10 to 36 in	clay loam	moderate	3.90 to 4.94 in	5.1 to 7.3
C -- 36 to 60 in	loam	moderate	3.36 to 4.56 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* depressions, drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### HoD--Hayden loam, 12 to 18 percent slopes

#### Hayden

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 12 to 18 percent

*Parent material:* loamy 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)* .43

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
E,Bt -- 10 to 36 in	clay loam	moderate	3.90 to 4.94 in	5.1 to 7.3
C -- 36 to 60 in	loam	moderate	3.36 to 4.56 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* depressions, drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### HoD2--Hayden loam, 12 to 18 percent slopes, eroded

#### Hayden, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 12 to 18 percent

*Parent material:* loamy 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)* .43

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
E,Bt -- 10 to 36 in	clay loam	moderate	3.90 to 4.94 in	5.1 to 7.3
C -- 36 to 60 in	loam	moderate	3.36 to 4.56 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### Hs--Hayfield silt loam

#### Hayfield

*Extent:* 85 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 2s

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

#### *Representative soil profile:*

		<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	5.6 to 6.5
E --	8 to 11 in	silt loam	moderate	0.60 to 0.72 in	5.6 to 6.5
BA,Bt,2BC --	11 to 38 in	clay loam	moderate	4.55 to 5.89 in	5.1 to 6.0
3C --	38 to 60 in	sand	very rapid	0.44 to 0.88 in	5.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Kc--Kato silty clay loam

#### Kato

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* silty glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .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,AB -- 0 to 21 in	silty clay loam	moderate	3.76 to 5.01 in	6.1 to 7.8
Bg -- 21 to 31 in	silt loam	moderate	1.84 to 2.25 in	5.1 to 7.3
2Bg -- 31 to 35 in	loam	moderately rapid	0.35 to 0.75 in	5.1 to 7.3
2Cg -- 35 to 60 in	coarse sand	rapid	0.50 to 1.74 in	6.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Kd--Kato silty clay loam, swales

#### Kato, swales

*Extent:* 90 percent of the unit

*Landform(s):* depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* silty glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*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,AB -- 0 to 21 in	silty clay loam	moderate	3.76 to 5.01 in	6.1 to 7.8
Bg -- 21 to 31 in	silt loam	moderate	1.84 to 2.25 in	5.1 to 7.3
2Bg -- 31 to 35 in	loam	rapid	0.35 to 0.75 in	5.1 to 7.3
2Cg -- 35 to 60 in	coarse sand	rapid	0.50 to 1.74 in	6.1 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Ke--Kato silty clay loam, calcareous variant

#### Kato, calcareous variant

*Extent:* 90 percent of the unit

*Landform(s):* rims on depressions

*Slope gradient:* 0 to 2 percent

*Parent material:* silty glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 4L

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	silty clay loam	moderate	2.73 to 2.99 in	7.4 to 7.8
AB -- 13 to 20 in	silty clay loam	moderate	1.49 to 1.63 in	7.4 to 7.8
Bg -- 20 to 32 in	silty clay loam	moderate	2.13 to 2.36 in	6.6 to 7.8
2Bg -- 32 to 36 in	loam	moderate	0.71 to 0.79 in	6.6 to 7.8
2Cg -- 36 to 60 in	coarse sand	rapid	0.48 to 1.68 in	6.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Kf--Kato silty clay loam, calcareous variant, depressional

#### Kato, calcareous variant, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* silty glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 4L

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 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 13 in	silty clay loam	moderate	2.73 to 2.99 in	7.4 to 7.8
AB -- 13 to 20 in	silty clay loam	moderate	1.49 to 1.63 in	7.4 to 7.8
Bg -- 20 to 32 in	silty clay loam	moderate	2.13 to 2.36 in	6.6 to 7.8
2Bg -- 32 to 36 in	loam	moderate	0.71 to 0.79 in	6.6 to 7.8
2Cg -- 36 to 60 in	coarse sand	rapid	0.48 to 1.68 in	6.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### KkB2--Kilkenny clay loam, 2 to 6 percent slopes, eroded

#### Kilkenny, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* clayey till over loamy 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/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	clay loam	moderately slow	1.67 to 1.87 in	5.6 to 6.5
Bt -- 10 to 48 in	clay loam	moderately slow	5.73 to 7.26 in	4.5 to 6.5
C -- 48 to 60 in	clay loam	moderate	1.65 to 1.89 in	5.6 to 7.8

#### Shields

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### KkC2--Kilkenny clay loam, 6 to 12 percent slopes, eroded

#### Kilkenny, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* clayey till over loamy 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/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	clay loam	moderately slow	1.67 to 1.87 in	5.6 to 6.5
Bt -- 10 to 48 in	clay loam	moderately slow	5.73 to 7.26 in	4.5 to 6.5
C -- 48 to 60 in	clay loam	moderate	1.65 to 1.89 in	5.6 to 7.8

#### Marna

*Extent:* 5 percent of the unit

*Landform(s):* swales

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### KkC2--Kilkenny clay loam, 6 to 12 percent slopes, eroded

#### Glencoe

*Extent:* 5 percent of the unit

*Landform(s):* depressions

*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:* yes

*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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### La--Lake beaches

#### Beach, lake

*Extent:* 90 percent of the unit

*Landform(s):* beaches

*Slope gradient:* 0 to 1 percent

*Parent material:* beach sand 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):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .17

*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 6 in	mucky loamy fine sand	moderately rapid	2.07 to 2.66 in	6.1 to 7.8
Bg -- 6 to 27 in	sand	rapid	1.06 to 2.55 in	6.1 to 7.8
2Cg -- 27 to 80 in	loam	moderate	7.91 to 10.02 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### LcB--Lamont sandy loam, 2 to 6 percent slopes

#### Lamont

*Extent:* 90 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* eolian deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	sandy loam	moderately rapid	1.13 to 1.28 in	5.1 to 7.3
E --	7 to 10 in	sandy loam	moderately rapid	0.39 to 0.44 in	5.1 to 7.3
Bt --	10 to 23 in	loam	moderately rapid	1.82 to 2.08 in	5.1 to 7.3
2C --	23 to 60 in	sand	rapid	3.33 to 4.07 in	5.1 to 6.5

## Map Unit Description (MN)

Steele County, Minnesota

### LcC--Lamont sandy loam, 6 to 12 percent slopes

#### Lamont

*Extent:* 90 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* eolian deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* 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 7 in	sandy loam	moderately rapid	1.13 to 1.28 in	5.1 to 7.3
E -- 7 to 10 in	sandy loam	moderately rapid	0.39 to 0.44 in	5.1 to 7.3
Bt -- 10 to 23 in	loam	moderately rapid	1.82 to 2.08 in	5.1 to 7.3
2C -- 23 to 60 in	sand	rapid	3.33 to 4.07 in	5.1 to 6.5

## Map Unit Description (MN)

Steele County, Minnesota

### LcD--Lamont sandy loam, 12 to 18 percent slopes

#### Lamont

*Extent:* 90 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 12 to 18 percent

*Parent material:* eolian deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 6e

*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 7 in	sandy loam	moderately rapid	1.13 to 1.28 in	5.1 to 7.3
E -- 7 to 10 in	sandy loam	moderately rapid	0.39 to 0.44 in	5.1 to 7.3
Bt -- 10 to 23 in	loam	moderately rapid	1.82 to 2.08 in	5.1 to 7.3
2C -- 23 to 60 in	sand	rapid	3.33 to 4.07 in	5.1 to 6.5

## Map Unit Description (MN)

Steele County, Minnesota

### Ld--Lemond loam

#### Lemond

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 4L

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* 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,A,AB -- 0 to 19 in	loam	moderately rapid	3.78 to 4.16 in	7.4 to 8.4
Bg -- 19 to 28 in	sandy loam	moderately rapid	0.91 to 1.18 in	7.4 to 8.4
BCg,2Cg -- 28 to 60 in	sand	rapid	1.59 to 2.23 in	7.4 to 8.4

#### Hanska

*Extent:* 5 percent of the unit

*Landform(s):* depressions

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LeB--Lerdal silty clay loam, 2 to 6 percent slopes

#### Lerdal

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* clayey till over loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .37

*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 7 in	silty clay loam	moderate	1.28 to 1.56 in	5.6 to 6.5
Bt -- 7 to 44 in	clay	slow	4.81 to 7.03 in	4.5 to 6.0
C -- 44 to 60 in	clay loam	moderately slow	2.20 to 2.99 in	6.6 to 7.8

#### Shields

*Extent:* 5 percent of the unit

*Landform(s):* swales

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LeB2--Lerdal silty clay loam, 2 to 6 percent slopes, eroded

#### Lerdal, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* clayey till over loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .37

*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 7 in	silty clay loam	moderate	1.28 to 1.56 in	5.6 to 6.5
Bt -- 7 to 44 in	clay	slow	4.81 to 7.03 in	4.5 to 6.0
C -- 44 to 60 in	clay loam	moderately slow	2.20 to 2.99 in	6.6 to 7.8

#### Shields

*Extent:* 5 percent of the unit

*Landform(s):* swales

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LIB--Lester loam, 2 to 6 percent slopes

#### Lester

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 5 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt -- 10 to 40 in	clay loam	moderate	4.55 to 5.76 in	5.6 to 7.3
C -- 40 to 60 in	loam	moderate	2.76 to 3.54 in	7.4 to 7.8

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* swales

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LIB2--Lester loam, 2 to 6 percent slopes, eroded

#### Lester, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 5 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt -- 10 to 40 in	clay loam	moderate	4.55 to 5.76 in	5.6 to 7.3
C -- 40 to 60 in	loam	moderate	2.76 to 3.54 in	7.4 to 7.8

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* swales

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LIC--Lester loam, 6 to 12 percent slopes

#### Lester

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy 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)* .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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt -- 10 to 40 in	clay loam	moderate	4.55 to 5.76 in	5.1 to 7.3
C -- 40 to 60 in	loam	moderate	2.76 to 3.74 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* swales

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LIC2--Lester loam, 6 to 12 percent slopes, eroded

#### Lester, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy 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)* .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 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 35 in	clay loam	moderate	4.07 to 5.16 in	5.1 to 7.3
C -- 35 to 60 in	loam	moderate	3.47 to 4.71 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* swales

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LID2--Lester loam, 12 to 18 percent slopes, eroded

#### Lester, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 12 to 18 percent

*Parent material:* loamy 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)* .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	5.6 to 7.3
Bt -- 8 to 35 in	clay loam	moderate	4.07 to 5.16 in	5.1 to 7.3
C -- 35 to 60 in	loam	moderate	3.47 to 4.71 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LmB2--Lester-Estherville-Storden complex, 2 to 6 percent slopes, eroded

#### Lester, eroded

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 35 in	clay loam	moderate	4.07 to 5.16 in	5.6 to 7.3
C -- 35 to 60 in	loam	moderate	3.47 to 4.46 in	7.4 to 7.8

#### Estherville, eroded

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy 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* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
Bw -- 13 to 17 in	sandy loam	moderately rapid	0.51 to 0.71 in	5.6 to 7.3
BC,2C -- 17 to 60 in	gravelly coarse sand	rapid	0.86 to 1.72 in	6.6 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### LmB2--Lester-Estherville-Storden complex, 2 to 6 percent slopes, eroded

#### Storden

*Extent:* 20 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy 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* 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 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 19 in	loam	moderate	1.77 to 2.24 in	7.4 to 8.4
C -- 19 to 60 in	loam	moderate	6.14 to 7.78 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LmD2--Lester-Estherville-Storden complex, 6 to 18 percent slopes, eroded

#### Lester, eroded

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 18 percent

*Parent material:* loamy 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)* .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	5.6 to 7.3
Bt -- 8 to 35 in	clay loam	moderate	4.07 to 5.16 in	5.1 to 7.3
C -- 35 to 60 in	loam	moderate	3.47 to 4.71 in	7.4 to 8.4

#### Estherville, eroded

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 18 percent

*Parent material:* loamy glaciofluvial deposits over sandy 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* 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>
Ap,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
Bw -- 13 to 17 in	sandy loam	moderately rapid	0.51 to 0.71 in	5.6 to 7.3
BC,2C -- 17 to 60 in	gravelly coarse sand	rapid	0.86 to 1.72 in	6.6 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### LmD2--Lester-Estherville-Storden complex, 6 to 18 percent slopes, eroded

#### Storden

*Extent:* 20 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 18 percent

*Parent material:* loamy 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	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 19 in	loam	moderate	1.77 to 2.24 in	7.4 to 8.4
C -- 19 to 60 in	loam	moderate	6.14 to 7.78 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LnE--Lester and Hayden loams, 18 to 25 percent slopes

#### Lester

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 18 to 25 percent

*Parent material:* loamy 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)* .32

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt -- 10 to 35 in	clay loam	moderate	3.78 to 4.79 in	5.1 to 7.3
C -- 35 to 60 in	loam	moderate	3.47 to 4.71 in	7.4 to 8.4

#### Hayden

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 18 to 25 percent

*Parent material:* loamy 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)* .43

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt -- 10 to 36 in	clay loam	moderate	3.90 to 4.94 in	5.1 to 7.3
C -- 36 to 60 in	loam	moderate	3.36 to 4.56 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

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### LnE--Lester and Hayden loams, 18 to 25 percent slopes

#### Hamel

*Extent:* 3 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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#### Webster

*Extent:* 2 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LnF--Lester and Hayden loams, 25 to 35 percent slopes

#### Lester

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 25 to 35 percent

*Parent material:* loamy 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)* .32

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt -- 10 to 35 in	clay loam	moderate	3.78 to 4.79 in	5.1 to 7.3
C -- 35 to 60 in	loam	moderate	3.47 to 4.71 in	7.4 to 8.4

#### Hayden

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 25 to 35 percent

*Parent material:* loamy 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)* .43

*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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt -- 10 to 36 in	clay loam	moderate	3.90 to 4.94 in	5.1 to 7.3
C -- 36 to 60 in	loam	moderate	3.36 to 4.56 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### LoC2--Lester-Storden complex, 6 to 12 percent slopes, eroded

#### Lester, eroded

*Extent:* 50 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy 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)* .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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt -- 10 to 35 in	clay loam	moderate	3.78 to 4.79 in	5.1 to 7.3
C -- 35 to 60 in	loam	moderate	3.47 to 4.71 in	7.4 to 8.4

#### Storden

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy 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	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 19 in	loam	moderate	1.77 to 2.24 in	7.4 to 8.4
C -- 19 to 60 in	loam	moderate	6.14 to 7.78 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

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### LoC2--Lester-Storden complex, 6 to 12 percent slopes, eroded

#### Hamel

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*Hydrologic group:*

*Potential for frost action:*

*Representative soil profile:*

*Texture*

*Permeability*

*Available water  
capacity*

*pH*

## Map Unit Description (MN)

Steele County, Minnesota

### LoD2--Lester-Storden complex, 12 to 18 percent slopes, eroded

#### Lester, eroded

*Extent:* 50 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 12 to 18 percent

*Parent material:* loamy 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)* .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 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt -- 10 to 35 in	clay loam	moderate	3.78 to 4.79 in	5.1 to 7.3
C -- 35 to 60 in	loam	moderate	3.47 to 4.71 in	7.4 to 8.4

#### Storden

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 12 to 18 percent

*Parent material:* loamy 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	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 19 in	loam	moderate	1.77 to 2.24 in	7.4 to 8.4
C -- 19 to 60 in	loam	moderate	6.14 to 7.78 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

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### LoD2--Lester-Storden complex, 12 to 18 percent slopes, eroded

#### Hamel

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*Hydrologic group:*

*Potential for frost action:*

*Representative soil profile:*

*Texture*

*Permeability*

*Available water  
capacity*

*pH*

## Map Unit Description (MN)

Steele County, Minnesota

### LuA--Le Sueur clay loam, 0 to 2 percent slopes

#### Le Sueur

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy 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)* .17

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 10 in	clay loam	moderate	1.67 to 1.97 in	5.6 to 7.3
Bt -- 10 to 43 in	clay loam	moderate	4.96 to 6.28 in	5.1 to 7.3
C -- 43 to 60 in	loam	moderate	2.54 to 3.22 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LuB--Le Sueur clay loam, 2 to 4 percent slopes

#### Le Sueur

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 4 percent

*Parent material:* loamy 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)* .17

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 10 in	clay loam	moderate	1.67 to 1.97 in	5.6 to 7.3
Bt -- 10 to 43 in	clay loam	moderate	4.96 to 6.28 in	5.1 to 7.3
C -- 43 to 60 in	loam	moderate	2.54 to 3.22 in	7.4 to 8.4

#### Webster

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### LuB--Le Sueur clay loam, 2 to 4 percent slopes

#### Glencoe

*Extent:* 2 percent of the unit

*Landform(s):* depressions

*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:* yes

*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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### Ly--Lura silty clay loam

#### Lura, depressional

*Extent:* 85 percent of the unit

*Landform(s):* depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* clayey lacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .32

*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,A -- 0 to 32 in	silty clay loam	slow	5.74 to 7.02 in	6.1 to 7.8
Bg -- 32 to 48 in	silty clay	slow	2.26 to 2.74 in	6.1 to 7.3
Cg -- 48 to 60 in	silty clay	moderately slow	1.30 to 2.24 in	6.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### M-W--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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### Ma--Madelia silty clay loam

#### Madelia

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* silty lacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .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 3.87 in	6.1 to 7.3
Bg -- 16 to 34 in	silty clay loam	moderate	2.83 to 3.90 in	6.6 to 7.8
Cg1 -- 34 to 48 in	silty clay loam	moderate	2.27 to 3.12 in	7.4 to 8.4
Cg2 -- 48 to 60 in	silt loam	moderate	2.01 to 2.24 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### Mc--Marna silty clay loam

#### Marna

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* clayey lacustrine deposits over loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 16 in	silty clay loam	slow	2.91 to 3.55 in	6.1 to 7.3
Bg -- 16 to 28 in	silty clay	slow	1.54 to 1.89 in	6.1 to 7.3
2Cg -- 28 to 60 in	clay loam	moderate	4.46 to 6.06 in	6.6 to 8.4

### Mh--Marsh

#### Marsh, ponded

*Extent:* 90 percent of the unit

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

*Slope gradient:* 0 to 1 percent

*Parent material:* coprogenous liminic material 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:* 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 29 in	muck	moderately rapid	10.06 to 12.93 in	5.6 to 7.3
C -- 29 to 60 in	muck	slow	5.60 to 7.46 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### Mm--Maxcreek silty clay loam

#### Maxcreek

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* silty lacustrine deposits over loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .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 3.55 in	6.1 to 7.3
Bg -- 16 to 29 in	silty clay loam	moderate	2.60 to 2.86 in	6.1 to 7.3
BCg -- 29 to 39 in	loam	moderate	1.67 to 1.87 in	6.6 to 7.8
2Cg -- 39 to 60 in	loam	moderate	3.55 to 3.96 in	7.4 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Mn--Maxcreek silty clay loam, swales

#### Maxcreek, swales

*Extent:* 85 percent of the unit

*Landform(s):* swales on flats

*Slope gradient:* 0 to 1 percent

*Parent material:* silty lacustrine deposits over loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .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 21 in	silty clay loam	moderate	3.76 to 4.59 in	6.1 to 7.3
Bg -- 21 to 30 in	silty clay loam	moderate	1.81 to 1.99 in	6.1 to 7.3
BCg -- 30 to 41 in	loam	moderate	1.87 to 2.09 in	6.6 to 7.8
2Cg -- 41 to 60 in	loam	moderate	3.21 to 3.59 in	7.4 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Mo--Mayer loam

#### Mayer

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 4L

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .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,A -- 0 to 20 in	loam	moderate	4.02 to 4.42 in	7.4 to 8.4
Bg,BCg -- 20 to 36 in	sandy clay loam	moderate	2.52 to 2.99 in	7.4 to 8.4
2Cg -- 36 to 60 in	coarse sand	rapid	0.48 to 0.96 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### MrA--Merton silt loam, 0 to 2 percent slopes

#### Merton

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* loess over loamy 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)* .32

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
BA,Bw -- 13 to 21 in	silt loam	moderate	1.57 to 1.73 in	5.6 to 7.3
2Bw,2BC,2C -- 21 to 60 in	loam	moderate	6.63 to 7.41 in	5.6 to 7.8

#### Maxcreek

*Extent:* 10 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### MrB--Merton silt loam, 2 to 4 percent slopes

#### Merton

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 4 percent

*Parent material:* loess over loamy 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)* .32

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
BA,Bw -- 13 to 21 in	silt loam	moderate	1.57 to 1.73 in	5.6 to 7.3
2Bw,2BC,2C -- 21 to 60 in	loam	moderate	6.63 to 7.41 in	5.6 to 7.8

#### Maxcreek

*Extent:* 10 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### MsA--Moland silt loam, 0 to 2 percent slopes

#### Moland

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* loess over loamy 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)* .32

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
BA,Bw -- 13 to 24 in	silt loam	moderate	2.20 to 2.43 in	5.6 to 6.5
2Bw,2BC -- 24 to 37 in	loam	moderate	2.21 to 2.47 in	5.6 to 7.3
2C -- 37 to 60 in	loam	moderate	3.88 to 4.34 in	6.6 to 7.8

#### Maxcreek

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### MsB--Moland silt loam, 2 to 6 percent slopes

#### Moland

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* loess over loamy 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)* .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,A -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
BA,Bw -- 13 to 24 in	silt loam	moderate	2.20 to 2.43 in	5.6 to 6.5
2Bw,2BC -- 24 to 37 in	loam	moderate	2.21 to 2.47 in	5.6 to 7.3
2C -- 37 to 60 in	loam	moderate	3.88 to 4.34 in	6.6 to 7.8

#### Maxcreek

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### MsB2--Moland silt loam, 2 to 8 percent slopes, eroded

#### Moland, eroded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 8 percent

*Parent material:* loess over loamy 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)* .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,A -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
BA,Bw -- 13 to 24 in	silt loam	moderate	2.20 to 2.43 in	5.6 to 6.5
2Bw,2BC -- 24 to 37 in	loam	moderate	2.21 to 2.47 in	5.6 to 7.3
2C -- 37 to 60 in	loam	moderate	3.88 to 4.34 in	6.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Mu--Muck

#### Muck, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions

*Slope gradient:* 0 to 2 percent

*Parent material:* herbaceous organic material over coprogenic material

*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* 3w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

*Representative soil profile:*

	<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 4.07 in	
Oa -- 9 to 30 in	muck	moderately rapid	7.30 to 9.39 in	
Lco -- 30 to 60 in	coprogenous earth	slow	5.39 to 7.18 in	

## Map Unit Description (MN)

Steele County, Minnesota

### Mv--Muck, calcareous

#### Muck, calcareous, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions

*Slope gradient:* 0 to 2 percent

*Parent material:* herbaceous organic material over loamy glaciofluvial deposits

*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* 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>
Oa -- 0 to 22 in	muck	moderately rapid	7.72 to 10.58 in	
A -- 22 to 34 in	mucky silt loam	moderate	2.60 to 3.07 in	
Cg1 -- 34 to 47 in	silt loam	moderate	2.34 to 2.86 in	
Cg2 -- 47 to 60 in	loam	moderate	1.95 to 2.47 in	

## Map Unit Description (MN)

Steele County, Minnesota

### Mw--Muck, sandy substratum

#### Muck, sandy substratum, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions

*Slope gradient:* 0 to 2 percent

*Parent material:* herbaceous organic material over loamy glaciofluvial deposits

*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* 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>
Oa -- 0 to 27 in	muck	moderately rapid	9.37 to 12.05 in	
A -- 27 to 35 in	mucky silt loam	moderately rapid	1.07 to 1.65 in	
Cg1 -- 35 to 39 in	silt loam	moderately rapid	0.51 to 0.79 in	
Cg2 -- 39 to 80 in	sand	rapid	1.23 to 4.09 in	

## Map Unit Description (MN)

Steele County, Minnesota

### My--Muck, loamy substratum

#### Muck, loamy substratum, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions

*Slope gradient:* 0 to 2 percent

*Parent material:* herbaceous organic material over loamy glaciofluvial deposits

*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* 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>
Oa -- 0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
A1 -- 26 to 36 in	mucky silt loam	moderate	2.17 to 2.56 in	
A2 -- 36 to 48 in	loam	moderate	2.20 to 2.69 in	
Cg -- 48 to 60 in	loam	moderate	1.77 to 2.24 in	

## Map Unit Description (MN)

Steele County, Minnesota

### NbA--Newry silt loam, 0 to 3 percent slopes

#### Newry

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 0 to 3 percent

*Parent material:* loess over loamy 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)* .37

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	silt loam	moderate	2.36 to 2.95 in	5.6 to 6.5
Bt -- 10 to 20 in	silt loam	moderate	1.84 to 2.15 in	5.1 to 6.5
2Bt,2BC -- 20 to 44 in	loam	moderate	4.08 to 4.56 in	5.6 to 7.3
2C -- 44 to 60 in	loam	moderate	2.68 to 2.99 in	6.6 to 7.8

#### Havana

*Extent:* 5 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### NcA--Nicollet clay loam, 0 to 2 percent slopes

#### Nicollet

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 16 in	clay loam	moderate	2.74 to 3.55 in	5.6 to 7.3
Bw -- 16 to 30 in	loam	moderate	2.07 to 2.62 in	5.6 to 7.8
C -- 30 to 60 in	loam	moderate	4.19 to 5.69 in	7.4 to 8.4

#### Webster

*Extent:* 10 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### NcB--Nicollet clay loam, 2 to 4 percent slopes

#### Nicollet

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 4 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 16 in	clay loam	moderate	2.74 to 3.55 in	5.6 to 7.3
Bw -- 16 to 30 in	loam	moderate	2.07 to 2.62 in	5.6 to 7.8
C -- 30 to 60 in	loam	moderate	4.19 to 5.69 in	7.4 to 8.4

#### Webster

*Extent:* 10 percent of the unit

*Landform(s):* drainageways

*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:* yes

*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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## Map Unit Description (MN)

Steele County, Minnesota

### Qu--Quarry

#### Quarry, lime

*Extent:* 100 percent of the unit

*Landform(s):* outwash plains, terraces

*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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### SaE--Salida gravelly loamy sand, 12 to 25 percent slopes

#### Salida

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 12 to 25 percent

*Parent material:* sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 7s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	gravelly loamy sand	rapid	0.71 to 0.87 in	6.1 to 8.4
Bw -- 8 to 14 in	gravelly loamy sand	very rapid	0.13 to 0.25 in	7.4 to 8.4
C -- 14 to 60 in	very gravelly coarse sand	very rapid	0.91 to 1.83 in	7.4 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### Sh--Shields silty clay loam

#### Shields

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 3 percent

*Parent material:* clayey lacustrine deposits over loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .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 8 in	silty clay loam	moderate	1.42 to 1.73 in	5.6 to 6.5
Btg,BCg --	8 to 41 in	silty clay	slow	3.31 to 5.29 in	4.5 to 6.5
C --	41 to 60 in	silty clay loam	moderate	2.08 to 3.59 in	7.4 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### SkB--Sparta-Dickinson complex, 2 to 6 percent slopes

#### Sparta

*Extent:* 50 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 18 in	loamy fine sand	moderately rapid	1.63 to 2.17 in	5.1 to 7.3
Bw,BC -- 18 to 36 in	loamy fine sand	rapid	0.89 to 1.95 in	5.1 to 7.3
C -- 36 to 60 in	fine sand	rapid	0.96 to 1.68 in	5.1 to 7.8

#### Dickinson

*Extent:* 30 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	sandy loam	moderately rapid	1.80 to 2.24 in	5.6 to 7.3
Bw1 -- 15 to 22 in	sandy loam	moderately rapid	0.85 to 1.06 in	5.1 to 6.5
Bw2,BC -- 22 to 45 in	loamy sand	rapid	1.83 to 2.28 in	5.1 to 6.5
C -- 45 to 60 in	sand	rapid	0.30 to 0.60 in	5.6 to 7.3

## Map Unit Description (MN)

Steele County, Minnesota

### SkC--Sparta-Dickinson complex, 6 to 12 percent slopes

#### Sparta

*Extent:* 50 percent of the unit  
*Landform(s):* outwash plains  
*Slope gradient:* 6 to 12 percent  
*Parent material:* sandy outwash  
*Restrictive feature(s):* greater than 60 inches  
*Flooding:* none  
*Ponding:* none  
*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5  
*Wind erodibility group (WEG):* 2  
*Wind erodibility index (WEI):* 134  
*Kw factor (surface layer)* .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,A -- 0 to 18 in	loamy fine sand	moderately rapid	1.63 to 2.17 in	5.1 to 7.3
Bw,BC -- 18 to 36 in	loamy fine sand	rapid	0.89 to 1.95 in	5.1 to 7.3
C -- 36 to 60 in	fine sand	rapid	0.96 to 1.68 in	5.1 to 7.8

#### Dickinson

*Extent:* 30 percent of the unit  
*Landform(s):* outwash plains  
*Slope gradient:* 6 to 12 percent  
*Parent material:* loamy glaciofluvial deposits over sandy outwash  
*Restrictive feature(s):* greater than 60 inches  
*Flooding:* none  
*Ponding:* none  
*Drainage class:* well drained

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

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	sandy loam	moderately rapid	1.80 to 2.24 in	5.6 to 7.3
Bw1 -- 15 to 22 in	sandy loam	moderately rapid	0.85 to 1.06 in	5.1 to 6.5
Bw2,BC -- 22 to 45 in	loamy sand	rapid	1.83 to 2.28 in	5.1 to 6.5
C -- 45 to 60 in	sand	rapid	0.30 to 0.60 in	5.6 to 7.3

## Map Unit Description (MN)

Steele County, Minnesota

### SkE--Sparta-Dickinson complex, 12 to 25 percent slopes

#### Sparta

*Extent:* 50 percent of the unit  
*Landform(s):* outwash plains  
*Slope gradient:* 12 to 25 percent  
*Parent material:* sandy outwash  
*Restrictive feature(s):* greater than 60 inches  
*Flooding:* none  
*Ponding:* none  
*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5  
*Wind erodibility group (WEG):* 2  
*Wind erodibility index (WEI):* 134  
*Kw factor (surface layer)* .24  
*Land capability, nonirrigated* 7s  
*Hydric soil:* no  
*Hydrologic group:* A  
*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 18 in	loamy fine sand	moderately rapid	1.63 to 2.17 in	5.1 to 7.3
Bw -- 18 to 36 in	loamy fine sand	rapid	0.89 to 1.95 in	5.1 to 7.3
C -- 36 to 60 in	fine sand	rapid	0.96 to 1.68 in	5.1 to 7.8

#### Dickinson

*Extent:* 30 percent of the unit  
*Landform(s):* outwash plains  
*Slope gradient:* 12 to 25 percent  
*Parent material:* sandy outwash  
*Restrictive feature(s):* greater than 60 inches  
*Flooding:* none  
*Ponding:* none  
*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3  
*Wind erodibility group (WEG):* 3  
*Wind erodibility index (WEI):* 86  
*Kw factor (surface layer)* .20  
*Land capability, nonirrigated* 6e  
*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>
A -- 0 to 15 in	sandy loam	moderately rapid	1.80 to 2.24 in	5.6 to 7.3
Bw1 -- 15 to 22 in	sandy loam	moderately rapid	0.85 to 1.06 in	5.1 to 6.5
Bw2,BC -- 22 to 45 in	loamy sand	rapid	1.83 to 2.28 in	5.1 to 6.5
C -- 45 to 60 in	sand	rapid	0.30 to 0.60 in	5.6 to 7.3

## Map Unit Description (MN)

Steele County, Minnesota

### Ta--Talcot clay loam

#### Talcot

*Extent:* 85 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 4L

*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,A -- 0 to 23 in	clay loam	moderate	4.11 to 5.02 in	7.4 to 8.4
Bg -- 23 to 38 in	sandy clay loam	moderate	2.54 to 2.99 in	7.4 to 8.4
2Cg -- 38 to 60 in	stratified gravelly coarse sand to loamy sand	rapid	0.44 to 0.88 in	7.4 to 8.4

### Te--Spillville, occasionally flooded

#### Terril, occasionally flooded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* occasional

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 2w

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 54 in	loam	moderate	10.25 to 11.33 in	5.6 to 7.3
Cg -- 54 to 60 in	loam	moderately rapid	0.89 to 1.06 in	5.6 to 7.3

## Map Unit Description (MN)

Steele County, Minnesota

### Tf--Spillville, frequently flooded

#### Terril, frequently flooded

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 0 to 5 percent

*Parent material:* alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* frequent

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 5w

*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,A -- 0 to 54 in	loam	moderate	10.25 to 11.33 in	5.6 to 7.3
Cg -- 54 to 60 in	loam	moderately rapid	0.89 to 1.06 in	5.6 to 7.3

### Ud--Udolpho silt loam

#### Udolpho

*Extent:* 85 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .37

*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	silt loam	moderate	1.81 to 2.17 in	5.6 to 7.3
E,Btg -- 9 to 30 in	silt loam	moderate	3.34 to 4.59 in	5.1 to 6.5
BCg -- 30 to 34 in	loam	moderate	0.63 to 0.87 in	5.1 to 6.5
2BCg,2Cg -- 34 to 60 in	gravelly coarse sand	rapid	0.52 to 2.08 in	5.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

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### 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:*

*Representative soil profile:*

*Texture*

*Permeability*

*Available water  
capacity*

*pH*

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## Map Unit Description (MN)

Steele County, Minnesota

### WaA--Wadena loam, 0 to 2 percent slopes

#### Wadena

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 2s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

*Representative soil profile:*

	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 17 in	loam	moderate	3.39 to 3.72 in	6.1 to 7.3
Bw,BC -- 17 to 33 in	loam	moderate	2.26 to 3.07 in	5.6 to 7.3
2C -- 33 to 60 in	stratified gravelly coarse sand to sand	very rapid	0.54 to 1.07 in	6.6 to 8.4

#### Biscay

*Extent:* 2 percent of the unit

*Landform(s):* drainageways

*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:* yes

*Hydrologic group:*

*Potential for frost action:*

*Representative soil profile:*

	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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## Map Unit Description (MN)

Steele County, Minnesota

### WaB--Wadena loam, 2 to 6 percent slopes

#### Wadena

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

#### *Representative soil profile:*

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A --	0 to 17 in	loam	moderate	3.39 to 3.72 in	6.1 to 7.3
Bw,BC --	17 to 33 in	loam	moderate	2.26 to 3.07 in	5.6 to 7.3
2C --	33 to 60 in	stratified gravelly coarse sand to sand	very rapid	0.54 to 1.07 in	6.6 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### WaC2--Wadena loam, 6 to 12 percent slopes, eroded

#### Wadena, eroded

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 6 to 12 percent

*Parent material:* loamy glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

#### Representative soil profile:

		<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	6.1 to 7.3
Bw,BC --	10 to 30 in	loam	moderate	2.81 to 3.81 in	5.6 to 7.3
2C --	30 to 60 in	stratified gravelly coarse sand to sand	very rapid	0.60 to 1.20 in	6.6 to 8.4

## Map Unit Description (MN)

Steele County, Minnesota

### WgA--Waukegan silt loam, 0 to 2 percent slopes

#### Waukegan

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* silty glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 2s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
Bw,BC -- 13 to 38 in	silt loam	moderate	4.96 to 5.46 in	5.1 to 7.3
2C -- 38 to 60 in	gravelly coarse sand	rapid	0.44 to 0.88 in	5.6 to 7.8

### WgB--Waukegan silt loam, 2 to 6 percent slopes

#### Waukegan

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* silty glaciofluvial deposits over sandy and gravelly outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 7.3
Bw,BC -- 13 to 38 in	silt loam	moderate	4.96 to 5.46 in	5.1 to 7.3
2C -- 38 to 60 in	gravelly coarse sand	rapid	0.44 to 0.88 in	5.6 to 7.8

## Map Unit Description (MN)

Steele County, Minnesota

### Wt--Webster clay loam

#### Webster

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* loamy till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 20 in	clay loam	moderate	3.81 to 4.22 in	6.6 to 7.3
Bg -- 20 to 28 in	clay loam	moderate	1.26 to 1.42 in	6.6 to 7.8
Cg -- 28 to 60 in	clay loam	moderate	4.46 to 6.06 in	7.4 to 8.4

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.