

Map Unit Description (MN)

Houston 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]

8A--Sparta loamy sand, 0 to 6 percent slopes

Sparta

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 0 to 6 percent

Parent material: sandy alluvium

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) .15

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 20 in	loamy sand	moderately rapid	1.81 to 2.41 in	5.1 to 7.3
BA,Bw -- 20 to 38 in	loamy sand	rapid	0.89 to 1.95 in	5.1 to 7.3
C1,C2 -- 38 to 60 in	sand	rapid	0.88 to 1.54 in	5.1 to 7.8

11C--Sogn silt loam, 2 to 12 percent slopes

Sogn

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 2 to 12 percent

Parent material: loess over limestone

Restrictive feature(s): lithic bedrock at 4 to 20 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 14 in	silt loam	moderate	2.41 to 3.12 in	6.1 to 8.4
R -- 14 to 18 in	unweathered bedrock	moderately slow	0.00 to 0.00 in	

Map Unit Description (MN)

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16--Arenzville silt loam

Arenzville, occasionally flooded

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 3 percent

Parent material: silty alluvium over loamy 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): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 2w

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,C -- 0 to 32 in	silt loam	moderate	6.38 to 7.65 in	5.6 to 7.8
Ab1 -- 32 to 46 in	loam	moderate	2.55 to 3.12 in	5.6 to 7.8
Ab2,C' -- 46 to 60 in	loam	moderate	2.76 to 3.03 in	5.6 to 7.8

Newalbin

Extent: 2 percent of the unit

Landform(s): swales on flood plains

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)

Houston County, Minnesota

18--Comfrey silt loam, occasionally flooded

Comfrey, occasionally flooded

Extent: 85 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 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) .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>
A1 -- 0 to 8 in	silt loam	moderate	1.57 to 1.89 in	6.6 to 7.8
C1,Ab1,Ab2 -- 8 to 29 in	loam	moderate	3.40 to 4.25 in	6.6 to 7.8
Bwb,Cg1,Cg2 - 29 to 60 in	loam	moderate	4.61 to 5.83 in	6.6 to 8.4

25--Becker sandy loam

Becker, rarely flooded

Extent: 85 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: loamy alluvium over sandy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: rare

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) .17

Land capability, nonirrigated: 2s

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,A1 -- 0 to 22 in	sandy loam	moderately rapid	3.53 to 4.41 in	5.6 to 7.3
A2 -- 22 to 28 in	sandy loam	moderately rapid	0.89 to 1.18 in	5.6 to 7.3
2Bw -- 28 to 34 in	loamy sand	rapid	0.30 to 0.59 in	6.1 to 7.8
2C1,2C2 -- 34 to 60 in	sand	rapid	0.52 to 1.82 in	6.1 to 7.8

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27B--Dickinson sandy loam, 1 to 6 percent slopes

Dickinson

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 1 to 6 percent

Parent material: loamy 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) .17

Land capability, nonirrigated: 2e

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,AB -- 0 to 22 in	sandy loam	moderately rapid	2.65 to 3.31 in	5.6 to 7.3
Bw -- 22 to 34 in	sandy loam	moderately rapid	1.42 to 1.77 in	5.1 to 6.5
BC -- 34 to 37 in	loamy sand	rapid	0.25 to 0.31 in	5.1 to 6.5
C -- 37 to 60 in	sand	rapid	0.46 to 0.91 in	5.6 to 7.3

76A--Bertrand silt loam, 0 to 2 percent slopes

Bertrand

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 0 to 2 percent

Parent material: silty and loamy alluvium over sandy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	5.6 to 7.3
BA,Bt1-Bt4 -- 9 to 49 in	silt loam	moderate	7.16 to 8.75 in	5.1 to 6.5
2BC,2Bt,2C -- 49 to 60 in	sand	rapid	0.55 to 0.99 in	5.1 to 6.5

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76B--Bertrand silt loam, 2 to 6 percent slopes

Bertrand

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 2 to 6 percent

Parent material: silty and loamy alluvium over sandy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	5.6 to 7.3
BA,Bt1-Bt4 -- 9 to 49 in	silt loam	moderate	7.16 to 8.75 in	5.1 to 6.5
2BC,2Bt,2C -- 49 to 60 in	sand	rapid	0.55 to 0.99 in	5.1 to 6.5

Map Unit Description (MN)

Houston County, Minnesota

79B--Billett sandy loam, 1 to 6 percent slopes

Billett

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 1 to 6 percent

Parent material: loamy alluvium over sandy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	sandy loam	moderately rapid	1.27 to 1.45 in	5.6 to 7.8
BA -- 9 to 14 in	sandy loam	moderately rapid	0.67 to 0.77 in	5.6 to 7.8
Bt1,Bt2 -- 14 to 30 in	sandy loam	moderately rapid	1.57 to 2.36 in	5.1 to 7.3
2BC -- 30 to 36 in	sand	moderately rapid	0.30 to 0.71 in	5.6 to 7.3
2C -- 36 to 60 in	sand	rapid	0.48 to 2.40 in	5.1 to 7.8

Map Unit Description (MN)

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79C--Billett sandy loam, 6 to 12 percent slopes

Billett

Extent: 85 percent of the unit

Landform(s): terraces

Slope gradient: 6 to 12 percent

Parent material: loamy alluvium over sandy alluvium

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 -- 0 to 9 in	sandy loam	moderately rapid	1.27 to 1.45 in	5.6 to 7.8
BA -- 9 to 14 in	sandy loam	moderately rapid	0.67 to 0.77 in	5.6 to 7.8
Bt1,Bt2 -- 14 to 30 in	sandy loam	moderately rapid	1.57 to 2.36 in	5.1 to 7.3
2BC -- 30 to 36 in	sand	moderately rapid	0.30 to 0.71 in	5.6 to 7.3
2C -- 36 to 60 in	sand	rapid	0.48 to 2.40 in	5.1 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

81F--Boone sand, rocky, 20 to 70 percent slopes

Boone, rocky

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 20 to 70 percent

Parent material: sandy residuum

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

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 1

Wind erodibility index (WEI): 220

Kw factor (surface layer) .02

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sand	rapid	0.22 to 0.31 in	
C1,C2 -- 3 to 34 in	sand	rapid	0.92 to 3.69 in	
Cr -- 34 to 60 in	weathered bedrock	moderate		

103A--Seaton silt loam, 1 to 3 percent slopes

Seaton

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 1 to 3 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	5.6 to 7.3
Bt,BC1,BC2 -- 9 to 60 in	silt loam	moderate	10.16 to 11.17 in	4.5 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

103B--Seaton silt loam, 3 to 6 percent slopes

Seaton

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 3 to 6 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	5.6 to 7.3
Bt,BC1,BC2 -- 9 to 60 in	silt loam	moderate	10.16 to 11.17 in	4.5 to 7.3

103C2--Seaton silt loam, 6 to 12 percent slopes, eroded

Seaton, eroded

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
Bt,BC1 -- 8 to 43 in	silt loam	moderate	7.01 to 7.71 in	4.5 to 7.3
BC2 -- 43 to 60 in	silt loam	moderate	3.39 to 3.72 in	5.6 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

103D2--Seaton silt loam, 12 to 20 percent slopes, eroded

Seaton, eroded

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.56 to 1.70 in	5.6 to 7.3
Bt,BC1 -- 7 to 55 in	silt loam	moderate	9.61 to 10.57 in	4.5 to 7.3
BC2 -- 55 to 60 in	silt loam	moderate	0.94 to 1.04 in	5.6 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

131B--Massbach silt loam, 3 to 6 percent slopes

Massbach

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 3 to 6 percent

Parent material: loess over residuum from shale

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

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,BA,Bt1 -- 0 to 29 in	silt loam	moderate	6.41 to 6.99 in	5.6 to 7.3
Bt2 -- 29 to 37 in	silty clay loam	moderate	1.42 to 1.57 in	5.6 to 7.3
2Bt3 -- 37 to 45 in	silty clay	slow	0.87 to 1.42 in	6.1 to 7.8
2Cr -- 45 to 60 in	weathered bedrock	slow		

Poorly drained soils

Extent: 1 percent of the unit

Landform(s): seeps on benches

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)

Houston County, Minnesota

131C--Massbach silt loam, 6 to 12 percent slopes

Massbach

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess over residuum from shale

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

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,BA,Bt1 -- 0 to 29 in	silt loam	moderate	6.41 to 6.99 in	5.6 to 7.3
Bt2 -- 29 to 37 in	silty clay loam	moderate	1.42 to 1.57 in	5.6 to 7.3
2Bt3 -- 37 to 45 in	silty clay	slow	0.87 to 1.42 in	6.1 to 7.8
2Cr -- 45 to 60 in	weathered bedrock	slow		

Poorly drained soils

Extent: 1 percent of the unit

Landform(s): seeps on benches

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)

Houston County, Minnesota

136--Madelia silt loam

Madelia

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 1 to 2 percent

Parent material: loess over silty alluvium

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,AB -- 0 to 23 in	silt loam	moderate	4.11 to 5.48 in	6.1 to 7.3
Bg,BCg -- 23 to 46 in	silt loam	moderate	3.72 to 5.11 in	6.6 to 7.8
Cg -- 46 to 60 in	silt loam	moderate	2.20 to 3.03 in	7.4 to 8.4

143E2--Eleva loam, 20 to 30 percent slopes, eroded

Eleva, eroded

Extent: 85 percent of the unit

Landform(s): valleys

Slope gradient: 20 to 30 percent

Parent material: sandy residuum

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

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loam	moderate	0.50 to 0.69 in	3.6 to 7.3
E,Bt1,Bt2 -- 3 to 31 in	sandy loam	moderately rapid	2.52 to 5.31 in	
Cr -- 31 to 60 in	weathered bedrock	moderate		

Map Unit Description (MN)

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143F--Eleva sandy loam, 30 to 45 percent slopes

Eleva

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 30 to 45 percent

Parent material: sandy residuum

Restrictive feature(s): paralithic bedrock at 20 to 40 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: 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 3 in	sandy loam	moderately rapid	0.31 to 0.57 in	3.6 to 7.3
E,Bt1,Bt2 -- 3 to 31 in	sandy loam	moderately rapid	2.52 to 5.31 in	
Cr -- 31 to 60 in	weathered bedrock	moderate		

177B--Gotham loamy sand, 2 to 10 percent slopes

Gotham

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 2 to 10 percent

Parent material: sandy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .20

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 9 in	loamy sand	rapid	0.91 to 1.09 in	5.6 to 7.3
E,BA,Bt -- 9 to 32 in	loamy sand	rapid	1.37 to 2.51 in	5.1 to 7.3
C -- 32 to 60 in	sand	rapid	1.40 to 2.80 in	5.1 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

194--Huntsville silt loam, occasionally flooded

Huntsville, occasionally flooded

Extent: 85 percent of the unit

Landform(s): valleys

Slope gradient: 0 to 2 percent

Parent material: silty alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

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: 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1,A2 -- 0 to 33 in	silt loam	moderate	7.28 to 7.94 in	5.6 to 7.8
C1,C2 -- 33 to 55 in	silt loam	moderate	4.41 to 4.85 in	5.6 to 7.8
C3 -- 55 to 60 in	silt loam	moderate	0.80 to 0.99 in	5.6 to 7.8

Newalbin

Extent: 3 percent of the unit

Landform(s): swales on flood plains

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)

Houston County, Minnesota

194--Huntsville silt loam, occasionally flooded

Comfrey

Extent: 2 percent of the unit

Landform(s): swales on flood plains

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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216B--Lamont fine sandy loam, 1 to 6 percent slopes

Lamont

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 1 to 6 percent

Parent material: loamy alluvium

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: 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 9 in	fine sandy loam	moderately rapid	1.45 to 1.63 in	5.1 to 7.3
BA,Bt,BC -- 9 to 53 in	fine sandy loam	moderately rapid	6.17 to 7.06 in	5.1 to 7.3
C -- 53 to 60 in	fine sandy loam	rapid	0.60 to 0.74 in	5.1 to 6.5

Map Unit Description (MN)

Houston County, Minnesota

244B--Lilah sandy loam, 2 to 6 percent slopes

Lilah

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 2 to 6 percent

Parent material: loamy alluvium over gravel and sand

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	sandy loam	moderately rapid	1.00 to 1.18 in	5.1 to 7.3
BA,Bt1 -- 9 to 19 in	sandy loam	very rapid	0.20 to 0.39 in	
2Bt2,2Bt3,2C -- 19 to 60 in	gravelly sand	very rapid	0.82 to 1.64 in	

Map Unit Description (MN)

Houston County, Minnesota

250--Kennebec silt loam, occasionally flooded

Kennebec, occasionally flooded

Extent: 85 percent of the unit

Landform(s): valleys

Slope gradient: 0 to 1 percent

Parent material: silty 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) .32

Land capability, nonirrigated: 2w

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1,A2,A3 --	0 to 48 in silt loam	moderate	10.57 to 11.53 in	5.6 to 7.3
C --	48 to 60 in silt loam	moderate	2.36 to 2.60 in	6.1 to 7.3

Colo

Extent: 3 percent of the unit

Landform(s): depressions on flood plains

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)

Houston County, Minnesota

250--Kennebec silt loam, occasionally flooded

Moundprairie

Extent: 2 percent of the unit

Landform(s): depressions on flood plains

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)

Houston County, Minnesota

273--Muscatine silt loam

Muscatine

Extent: 90 percent of the unit

Landform(s): drainageways

Slope gradient: 1 to 3 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .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,AB -- 0 to 15 in	silt loam	moderate	3.29 to 3.59 in	5.1 to 7.3
Bt1,Bt2,BC -- 15 to 56 in	silty clay loam	moderate	7.37 to 8.19 in	5.1 to 7.3
C -- 56 to 60 in	silt loam	moderate	0.71 to 0.79 in	6.6 to 7.8

Madelia

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)

Houston County, Minnesota

283B--Plainfield sand, 0 to 6 percent slopes

Plainfield

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 0 to 6 percent

Parent material: sand

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 1

Wind erodibility index (WEI): 220

Kw factor (surface layer) .02

Land capability, nonirrigated: 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 4 in	sand	rapid	0.16 to 0.35 in	5.1 to 7.3
BA,Bw -- 4 to 28 in	sand	rapid	0.96 to 1.68 in	4.5 to 6.5
C -- 28 to 60 in	sand	rapid	0.96 to 2.23 in	4.5 to 6.5

283C--Plainfield sand, 6 to 12 percent slopes

Plainfield

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 6 to 12 percent

Parent material: sand

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 1

Wind erodibility index (WEI): 220

Kw factor (surface layer) .02

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 4 in	sand	rapid	0.16 to 0.35 in	5.1 to 7.3
BA,Bw -- 4 to 28 in	sand	rapid	0.96 to 1.68 in	4.5 to 6.5
C -- 28 to 60 in	sand	rapid	0.96 to 2.23 in	4.5 to 6.5

Map Unit Description (MN)

Houston County, Minnesota

283D--Plainfield sand, 12 to 25 percent slopes

Plainfield

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 12 to 25 percent

Parent material: sand

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 1

Wind erodibility index (WEI): 220

Kw factor (surface layer) .02

Land capability, nonirrigated: 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 4 in	sand	rapid	0.16 to 0.35 in	5.1 to 7.3
BA,Bw -- 4 to 28 in	sand	rapid	0.96 to 1.68 in	4.5 to 6.5
C -- 28 to 60 in	sand	rapid	0.96 to 2.23 in	4.5 to 6.5

283F--Plainfield sand, 25 to 50 percent slopes

Plainfield

Extent: 90 percent of the unit

Landform(s): terraces, valleys

Slope gradient: 25 to 50 percent

Parent material: sand

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 1

Wind erodibility index (WEI): 220

Kw factor (surface layer) .02

Land capability, nonirrigated: 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 4 in	sand	rapid	0.16 to 0.35 in	5.1 to 7.3
BA,Bw -- 4 to 28 in	sand	rapid	0.96 to 1.68 in	4.5 to 6.5
C -- 28 to 60 in	sand	rapid	0.96 to 2.23 in	4.5 to 6.5

Map Unit Description (MN)

Houston County, Minnesota

285A--Port Byron silt loam, 1 to 3 percent slopes

Port Byron

Extent: 90 percent of the unit

Landform(s): drainageways

Slope gradient: 1 to 3 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.1 to 8.4
BA,Bw,Bt -- 13 to 49 in	silt loam	moderate	7.17 to 7.88 in	5.6 to 7.3
BC -- 49 to 60 in	silt loam	moderate	2.20 to 2.43 in	5.6 to 8.4

285B--Port Byron silt loam, 3 to 6 percent slopes

Port Byron

Extent: 90 percent of the unit

Landform(s): drainageways

Slope gradient: 3 to 6 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.1 to 8.4
BA,Bw,Bt -- 13 to 49 in	silt loam	moderate	7.17 to 7.88 in	5.6 to 7.3
BC -- 49 to 60 in	silt loam	moderate	2.20 to 2.43 in	5.6 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

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

Port Byron

Extent: 90 percent of the unit

Landform(s): drainageways

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 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: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.1 to 8.4
BA,Bw,Bt -- 13 to 49 in	silt loam	moderate	7.17 to 7.88 in	5.6 to 7.3
BC -- 49 to 60 in	silt loam	moderate	2.20 to 2.43 in	5.6 to 8.4

298--Richwood silt loam

Richwood

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 0 to 2 percent

Parent material: silty alluvium over sandy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 14 in	silt loam	moderate	3.12 to 3.40 in	5.6 to 7.3
BA,Bt1,Bt2 -- 14 to 42 in	silt loam	moderate	5.03 to 6.15 in	5.6 to 7.3
2Bt3 -- 42 to 45 in	sandy loam	moderately rapid	0.25 to 0.61 in	5.6 to 7.3
2C -- 45 to 60 in	sand	rapid	0.75 to 1.05 in	6.1 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

301B--Lindstrom silt loam, 1 to 6 percent slopes

Lindstrom

Extent: 85 percent of the unit

Landform(s): drainageways

Slope gradient: 1 to 6 percent

Parent material: loess over colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.42 to 1.56 in	5.6 to 7.3
A -- 7 to 27 in	silt loam	moderate	4.33 to 5.12 in	5.6 to 7.3
BA,Bw,Bt -- 27 to 60 in	silt loam	moderate	6.61 to 7.28 in	5.6 to 7.3

301C--Lindstrom silt loam, 6 to 12 percent slopes

Lindstrom

Extent: 85 percent of the unit

Landform(s): drainageways

Slope gradient: 6 to 12 percent

Parent material: loess over colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.42 to 1.56 in	5.6 to 7.3
A -- 7 to 27 in	silt loam	moderate	4.33 to 5.12 in	5.6 to 7.3
BA,Bw,Bt -- 27 to 60 in	silt loam	moderate	6.61 to 7.28 in	5.6 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

312B--Shullsburg silt loam, 1 to 6 percent slopes

Shullsburg

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 1 to 6 percent

Parent material: loess over residuum from shale

Restrictive feature(s): paralithic bedrock at 20 to 40 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) .32

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.81 to 2.17 in	5.6 to 7.3
Bt1,2Bt2 -- 9 to 22 in	silty clay loam	moderately slow	2.34 to 2.86 in	5.6 to 7.3
2Cr -- 22 to 60 in	weathered bedrock	slow		

PD soils

Extent: 1 percent of the unit

Landform(s): seeps on benches

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)

Houston County, Minnesota

312C--Shullsburg silt loam, 6 to 12 percent slopes

Shullsburg

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess over residuum from shale

Restrictive feature(s): paralithic bedrock at 20 to 40 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) .32

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.81 to 2.17 in	5.6 to 7.3
Bt1,2Bt2 -- 9 to 22 in	silty clay loam	moderately slow	2.34 to 2.86 in	5.6 to 7.3
2Cr -- 22 to 60 in	weathered bedrock	slow		

Poorly drained soils

Extent: 1 percent of the unit

Landform(s): seeps on benches

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)

Houston County, Minnesota

322D2--Timula silt loam, 12 to 20 percent slopes, eroded

Timula, eroded

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 12 to 20 percent

Parent material: silty alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	silt loam	moderate	1.97 to 2.36 in	6.1 to 7.8
Bw,BC,C -- 10 to 60 in	silt loam	moderate	9.00 to 10.00 in	7.4 to 8.4

Newalbin

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)

Houston County, Minnesota

322E--Timula silt loam, 20 to 40 percent slopes

Timula

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 20 to 40 percent

Parent material: silty alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	silt loam	moderate	1.97 to 2.36 in	6.1 to 7.8
Bw,BC,C -- 10 to 60 in	silt loam	moderate	9.00 to 10.00 in	7.4 to 8.4

Newalbin

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)

Houston County, Minnesota

388C2--Seaton silt loam, valleys, 6 to 12 percent slopes, eroded

Seaton, valleys, eroded

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
Bt,BC1 -- 8 to 48 in	silt loam	moderate	8.03 to 8.83 in	4.5 to 7.3
BC2 -- 48 to 60 in	silt loam	moderate	2.36 to 2.60 in	5.6 to 8.4

388D2--Seaton silt loam, valleys, 12 to 20 percent slopes, eroded

Seaton, valleys, eroded

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 12 to 20 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	5.6 to 7.3
Bt,BC1 -- 9 to 52 in	silt loam	moderate	8.58 to 9.44 in	4.5 to 7.3
BC2 -- 52 to 60 in	silt loam	moderate	1.57 to 1.73 in	5.6 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

388E--Seaton loam, valleys, 20 to 30 percent slopes

Seaton, valleys

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 20 to 30 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.99 to 2.17 in	5.6 to 7.3
Bt,BC1,BC2 -- 9 to 60 in	silt loam	moderate	10.16 to 11.17 in	4.5 to 7.3

388F--Seaton loam, valleys, 30 to 45 percent slopes

Seaton, valleys

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 30 to 45 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.99 to 2.17 in	5.6 to 7.3
Bt,BC1,BC2 -- 9 to 60 in	silt loam	moderate	10.16 to 11.17 in	4.5 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

401B--Mt. Carroll silt loam, 3 to 6 percent slopes

Mt. Carroll

Extent: 85 percent of the unit

Landform(s): hills

Slope gradient: 3 to 6 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
BA -- 8 to 14 in	silt loam	moderate	1.26 to 1.39 in	5.6 to 7.3
Bt1,Bt2,BC -- 14 to 52 in	silt loam	moderate	7.56 to 8.31 in	5.1 to 7.3
C -- 52 to 60 in	silt loam	moderate	1.57 to 1.73 in	5.6 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

401C--Mt. Carroll silt loam, 6 to 12 percent slopes

Mt. Carroll

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
BA -- 8 to 14 in	silt loam	moderate	1.26 to 1.39 in	5.6 to 7.3
Bt1,Bt2,BC -- 14 to 52 in	silt loam	moderate	7.56 to 8.31 in	5.1 to 7.3
C -- 52 to 60 in	silt loam	moderate	1.57 to 1.73 in	5.6 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

401D--Mt. Carroll silt loam, 12 to 20 percent slopes

Mt. Carroll

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
BA -- 8 to 14 in	silt loam	moderate	1.26 to 1.39 in	5.6 to 7.3
Bt1,Bt2,BC -- 14 to 52 in	silt loam	moderate	7.56 to 8.31 in	5.1 to 7.3
C -- 52 to 60 in	silt loam	moderate	1.57 to 1.73 in	5.6 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

455A--Festina silt loam, 0 to 2 percent slopes

Festina

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 0 to 2 percent

Parent material: silty alluvium

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: 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
BA,Bt -- 8 to 36 in	silt loam	moderate	5.59 to 6.15 in	5.1 to 6.0
BC -- 36 to 60 in	silt loam	moderate	4.80 to 5.28 in	5.1 to 6.5

Walford

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)

Houston County, Minnesota

455A--Festina silt loam, 0 to 2 percent slopes

Walford Variant

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:

Texture

Permeability

*Available water
capacity*

pH

Map Unit Description (MN)

Houston County, Minnesota

455B--Festina silt loam, 2 to 6 percent slopes

Festina

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 2 to 6 percent

Parent material: silty alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
BA,Bt -- 8 to 36 in	silt loam	moderate	5.59 to 6.15 in	5.1 to 6.0
BC -- 36 to 60 in	silt loam	moderate	4.80 to 5.28 in	5.1 to 6.5

Walford

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)

Houston County, Minnesota

455B--Festina silt loam, 2 to 6 percent slopes

Walford Variant

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>

455C2--Festina silt loam, 6 to 12 percent slopes, eroded

Festina, eroded

Extent: 90 percent of the unit

Landform(s): terraces

Slope gradient: 6 to 12 percent

Parent material: silty alluvium

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: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	silt loam	moderate	1.30 to 1.42 in	5.6 to 7.3
BA,Bt -- 6 to 30 in	silt loam	moderate	4.80 to 5.28 in	5.1 to 6.0
BC -- 30 to 60 in	silt loam	moderate	5.98 to 6.58 in	5.1 to 6.5

Map Unit Description (MN)

Houston County, Minnesota

457E--Lacrescent flaggy silt loam, 20 to 35 percent slopes

Lacrescent

Extent: 85 percent of the unit

Landform(s): valleys

Slope gradient: 20 to 35 percent

Parent material: loess or loess and loamy colluvium over loamy-skeletal colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 7

Wind erodibility index (WEI): 38

Kw factor (surface layer) .17

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 17 in	flaggy silt loam	moderate	2.54 to 3.72 in	6.6 to 7.3
2Bw -- 17 to 28 in	channery silt loam	moderately rapid	0.66 to 0.99 in	6.6 to 7.3
2C -- 28 to 60 in	very flaggy loam	moderately rapid	1.59 to 2.55 in	7.4 to 7.8

457G--Lacrescent cobbly silty clay loam, 45 to 70 percent slopes

Lacrescent

Extent: 85 percent of the unit

Landform(s): valleys

Slope gradient: 45 to 70 percent

Parent material: loess or loess and loamy colluvium over loamy-skeletal colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 7

Wind erodibility index (WEI): 38

Kw factor (surface layer) .15

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,AB -- 0 to 17 in	cobbly silty clay loam	moderate	2.54 to 3.72 in	6.6 to 7.3
2Bw -- 17 to 28 in	cobbly silt loam	moderately rapid	0.66 to 0.99 in	6.6 to 7.3
2C -- 28 to 60 in	very cobbly silt loam	moderately rapid	1.59 to 2.55 in	7.4 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

463--Minneiska fine sandy loam, occasionally flooded

Minneiska, occasionally flooded

Extent: 85 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: loamy alluvium over loamy to sandy sediment

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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated: 2w

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 10 in fine sandy loam	moderately rapid	1.48 to 1.77 in	7.4 to 8.4
C,2Ab --	10 to 60 in stratified sand to silt loam	moderately rapid	6.50 to 9.00 in	7.4 to 8.4

Kalmarville

Extent: 3 percent of the unit

Landform(s): swales on flood plains

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)

Houston County, Minnesota

463--Minneiska fine sandy loam, occasionally flooded

Moundprairie

Extent: 2 percent of the unit

Landform(s): swales on flood plains

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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471--Root silt loam

Root, frequently flooded

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 1 to 4 percent

Parent material: silty alluvium over loamy-skeletal alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

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 12 in	silt loam	moderate	2.36 to 2.83 in	6.6 to 7.8
2C1,2C2 -- 12 to 60 in	very cobbly sandy loam	very rapid	0.48 to 0.96 in	7.4 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

476B--Frankville silt loam, 3 to 6 percent slopes

Frankville

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 3 to 6 percent

Parent material: loess over clayey residuum and clayey-skeletal residuum from limestone

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

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 8 in	silt loam	moderate	1.65 to 1.81 in	6.6 to 7.3
AB,Bt1,Bt2 --	8 to 28 in	silt loam	moderate	3.61 to 4.02 in	5.6 to 6.5
2Bt3,2Bt4 --	28 to 48 in	very flaggy silty clay	slow	2.41 to 3.01 in	6.1 to 7.3
2R --	48 to 60 in	unweathered bedrock	impermeable		

Map Unit Description (MN)

Houston County, Minnesota

476C2--Frankville silt loam, 6 to 12 percent slopes, eroded

Frankville, eroded

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess over clayey residuum and clayey-skeletal residuum from limestone

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

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

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	1.65 to 1.81 in	6.6 to 7.3
AB,Bt1,Bt2 --	8 to 28 in	silt loam	moderate	3.61 to 4.02 in	5.6 to 6.5
2Bt3 --	28 to 35 in	clay	slow	0.85 to 1.06 in	6.1 to 7.3
2R --	35 to 60 in	unweathered bedrock	slow		

Map Unit Description (MN)

Houston County, Minnesota

476D--Frankville silt loam, 12 to 20 percent slopes

Frankville

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: loess over clayey residuum and clayey-skeletal residuum from limestone

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

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 8 in	silt loam	moderate	1.65 to 1.81 in	6.6 to 7.3
AB,Bt1,Bt2 --	8 to 28 in	silt loam	moderate	3.61 to 4.02 in	5.6 to 6.5
2Bt3 --	28 to 35 in	clay	slow	0.85 to 1.06 in	6.1 to 7.3
2R --	35 to 60 in	unweathered bedrock	slow		

Map Unit Description (MN)

Houston County, Minnesota

477--Littleton silt loam

Littleton

Extent: 85 percent of the unit

Landform(s): terraces

Slope gradient: 1 to 4 percent

Parent material: silty alluvium

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: 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 39 in	silt loam	moderate	7.80 to 9.35 in	5.6 to 7.8
Bw -- 39 to 53 in	silt loam	moderate	3.12 to 3.40 in	5.6 to 7.8
BC -- 53 to 60 in	silty clay loam	moderate	1.34 to 1.47 in	5.6 to 7.8

Walford Variant

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)

Houston County, Minnesota

484D--Eyota sandy loam, 12 to 20 percent slopes

Eyota

Extent: 85 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: colluvium from loess and sandstone

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 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>
A1,A2 -- 0 to 38 in	sandy loam	moderately rapid	4.91 to 6.05 in	5.1 to 7.3
2BA,2Bt -- 38 to 60 in	silt loam	moderately rapid	2.65 to 3.09 in	4.5 to 6.5

488G--Brodale cobbly fine sandy loam, rocky, 45 to 70 percent slopes

Brodale, rocky

Extent: 85 percent of the unit

Landform(s): valleys

Slope gradient: 45 to 70 percent

Parent material: loamy-skeletal colluvium

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

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .10

Land capability, nonirrigated: 7s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 12 in	cobbly fine sandy loam	moderate	0.71 to 1.42 in	6.6 to 8.4
C1,C2,C3 -- 12 to 60 in	very cobbly loam	moderately rapid	1.92 to 4.32 in	7.4 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

492B--Nasset silt loam, 3 to 6 percent slopes

Nasset

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 3 to 6 percent

Parent material: silty mantle over clayey and clayey-skeletal residuum from limestone

Restrictive feature(s): lithic bedrock at 40 to 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: 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	1.65 to 1.81 in	5.1 to 7.3
BA,Bt1-Bt3	-- 8 to 45 in	silt loam	moderate	6.66 to 7.40 in	5.1 to 6.5
2Bt4	-- 45 to 54 in	silty clay	slow	1.09 to 1.36 in	6.6 to 7.3
2Bt5	-- 54 to 60 in	very flaggy silty clay	impermeable		6.6 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

492C--Nasset silt loam, 6 to 12 percent slopes

Nasset

Extent: 85 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: silty mantle over clayey and clayey-skeletal residuum from limestone

Restrictive feature(s): lithic bedrock at 40 to 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: 3e

Hydric soil: no

Hydrologic group: B

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	1.65 to 1.81 in	5.1 to 7.3
BA,Bt --	8 to 45 in	silt loam	moderate	6.66 to 7.40 in	5.1 to 6.5
2Bt4 --	45 to 54 in	very flaggy clay	slow	1.09 to 1.36 in	6.6 to 7.3
2Bt5 --	54 to 60 in	very flaggy silty clay	impermeable		6.6 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

500C2--Edmund silt loam, 4 to 12 percent slopes, eroded

Edmund, eroded

Extent: 85 percent of the unit

Landform(s): hills

Slope gradient: 4 to 12 percent

Parent material: loess over clayey and clayey-skeletal residuum from limestone

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

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: D

Potential for frost action: moderate

Representative soil profile:

	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.45 to 2.17 in	5.6 to 7.8
BA -- 9 to 14 in	silt loam	moderate	0.82 to 1.18 in	5.6 to 7.8
2Bt1,2Bt2 -- 14 to 36 in	very flaggy silty clay	slow	1.52 to 2.81 in	5.6 to 7.8
3R -- 36 to 40 in	unweathered bedrock	moderate		

Map Unit Description (MN)

Houston County, Minnesota

500D2--Edmund silt loam, 12 to 20 percent slopes, eroded

Edmund, eroded

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: loess over clayey and clayey-skeletal residuum from limestone

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

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated: 6e

Hydric soil: no

Hydrologic group: D

Potential for frost action: moderate

Representative soil profile:

	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.45 to 2.17 in	5.6 to 7.8
BA -- 9 to 14 in	silty clay loam	moderate	0.82 to 1.18 in	5.6 to 7.8
2Bt1,2Bt2 -- 14 to 36 in	very flaggy silty clay	slow	1.52 to 2.81 in	5.6 to 7.8
3R -- 36 to 40 in	weathered bedrock	moderate		

Map Unit Description (MN)

Houston County, Minnesota

518--Kalmarville silty clay loam, occasionally flooded

Kalmarville, occasionally flooded

Extent: 85 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 1 percent

Parent material: sandy and loamy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

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) .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>
A1 -- 0 to 10 in	silty clay loam	moderate	1.97 to 2.36 in	6.6 to 7.8
A2,A3,A4 -- 10 to 27 in	fine sandy loam	moderately rapid	2.20 to 3.05 in	6.6 to 7.8
C -- 27 to 60 in	loamy fine sand	rapid	1.98 to 2.98 in	6.6 to 7.8

522--Boots mucky peat

Boots, frequently flooded, ponded

Extent: 85 percent of the unit

Landform(s): flood plains, terraces

Slope gradient: 0 to 2 percent

Parent material: organic material

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .02

Land capability, nonirrigated: 8w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oe1,Oe2 -- 0 to 60 in	mucky peat	rapid	20.94 to 26.93 in	

Map Unit Description (MN)

Houston County, Minnesota

576--Newalbin silt loam

Newalbin, occasionally flooded

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 0 to 2 percent

Parent material: silty alluvial sediment over buried loamy soil

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): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

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 8 in	silt loam	moderate	1.57 to 1.89 in	6.1 to 7.3
Cg -- 8 to 57 in	silt loam	moderate	8.37 to 10.83 in	6.1 to 7.3
2Ab -- 57 to 60 in	fine sandy loam	moderate	0.47 to 0.61 in	6.1 to 7.8

577--Newalbin silt loam, channeled

Newalbin, channeled, occasionally flooded

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 0 to 2 percent

Parent material: silty alluvial sediment over buried loamy soil

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): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

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 3 in	silt loam	moderate	0.63 to 0.76 in	6.1 to 7.3
Cg -- 3 to 57 in	silt loam	moderate	9.17 to 11.87 in	6.1 to 7.3
2Ab -- 57 to 60 in	fine sandy loam	moderate	0.47 to 0.61 in	6.1 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

578--Newalbin silt loam, depressional

Newalbin, depressional, occasionally flood, ponded

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 0 to 1 percent

Parent material: silty alluvial sediment over buried loamy soil

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 8w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 3 in	silt loam	moderate	0.63 to 0.76 in	6.1 to 7.3
Cg --	3 to 57 in	silt loam	moderate	9.17 to 11.87 in	6.1 to 7.3
2Ab --	57 to 60 in	silty clay loam	moderate	0.47 to 0.61 in	6.1 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

580B--Blackhammer-Southridge silt loams, 3 to 6 percent slopes

Blackhammer

Extent: 45 percent of the unit

Landform(s): hills

Slope gradient: 3 to 6 percent

Parent material: loess over stratified loamy and sandy sediment over sandstone or limestone

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: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.56 to 1.70 in	5.6 to 7.3
BA,Bt1 -- 7 to 27 in	silt loam	moderate	3.94 to 4.33 in	5.1 to 6.5
2Bt2 -- 27 to 60 in	stratified sandy loam to gravelly sandy clay	moderate	2.65 to 5.29 in	5.1 to 6.0

Southridge

Extent: 30 percent of the unit

Landform(s): hills

Slope gradient: 3 to 6 percent

Parent material: loess over clayey erosional sediment or residuum from dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
BA,Bt1 -- 8 to 33 in	silt loam	moderate	5.04 to 5.54 in	4.5 to 6.5
2Bt2 -- 33 to 60 in	clay	slow	2.41 to 3.48 in	

Map Unit Description (MN)

Houston County, Minnesota

580C2--Blackhammer-Southridge silt loams, 6 to 12 percent slopes, eroded

Blackhammer, eroded

Extent: 45 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess over stratified loamy and sandy sediment over sandstone or limestone

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.56 to 1.70 in	5.6 to 7.3
BA,Bt1 -- 7 to 27 in	silt loam	moderate	3.94 to 4.33 in	5.1 to 6.5
2Bt2 -- 27 to 60 in	stratified sandy loam to gravelly sandy clay	moderate	2.65 to 5.29 in	5.1 to 6.0

Southridge, eroded

Extent: 30 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess over clayey erosional sediment or residuum from dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
BA,Bt1 -- 8 to 33 in	silt loam	moderate	5.04 to 5.54 in	4.5 to 6.5
2Bt2 -- 33 to 60 in	clay	slow	2.41 to 3.48 in	

Map Unit Description (MN)

Houston County, Minnesota

580D2--Blackhammer-Southridge silt loams, 12 to 20 percent slopes, eroded

Blackhammer, eroded

Extent: 45 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: loess over stratified loamy and sandy erosional sediment over sandstone or limestone

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: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.56 to 1.70 in	5.6 to 7.3
BA,Bt1 -- 7 to 27 in	silt loam	moderate	3.94 to 4.33 in	5.1 to 6.5
2Bt2 -- 27 to 60 in	stratified sandy loam to gravelly sandy clay	moderate	2.65 to 5.29 in	5.1 to 6.0

Southridge, eroded

Extent: 35 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: loess over clayey erosional sediment or residuum from dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
BA,Bt1 -- 8 to 33 in	silt loam	moderate	5.04 to 5.54 in	4.5 to 6.5
2Bt2 -- 33 to 60 in	clay	slow	2.41 to 3.48 in	

Map Unit Description (MN)

Houston County, Minnesota

584F--Lamoille-Dorerton silt loams, 30 to 45 percent slopes

Lamoille

Extent: 55 percent of the unit

Landform(s): valleys

Slope gradient: 30 to 45 percent

Parent material: loess over clayey erosional sediment and loamy-skeletal colluvium from dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	silt loam	moderate	0.87 to 0.94 in	6.1 to 7.3
E, BE, 2Bt1 -- 4 to 27 in	silt loam	moderately slow	2.74 to 3.65 in	5.1 to 6.0
3Bt2 -- 27 to 37 in	cobbly clay loam	moderately slow	0.72 to 1.64 in	5.6 to 7.3
3C -- 37 to 60 in	very cobbly loam	moderately rapid	1.37 to 2.74 in	7.4 to 8.4

Dorerton

Extent: 35 percent of the unit

Landform(s): valleys

Slope gradient: 30 to 45 percent

Parent material: loess over loamy-skeletal colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	silt loam	moderate	0.63 to 0.76 in	5.1 to 7.3
E, Bt1 -- 3 to 11 in	silt loam	moderate	1.34 to 1.50 in	5.1 to 7.3
2Bt2, 2Bt3 -- 11 to 25 in	cobbly loam	moderate	1.13 to 1.98 in	5.6 to 7.3
2C -- 25 to 60 in	very cobbly loam	moderately rapid	1.04 to 3.12 in	7.4 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

585C--Newhouse-Valton silt loams, 6 to 12 percent slopes

Newhouse

Extent: 60 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess over stratified loamy erosional sediment from sandstone, shale, or dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	5.6 to 7.3
BA,Bt1,Bt2 -- 9 to 25 in	silt loam	moderate	3.23 to 3.55 in	5.1 to 7.3
2Bt3 -- 25 to 60 in	stratified sandy loam to clay loam	moderate	2.77 to 5.54 in	5.1 to 6.0

Valton

Extent: 35 percent of the unit

Landform(s): hills

Slope gradient: 6 to 12 percent

Parent material: loess over clayey erosional sediment or residuum from dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.36 to 2.17 in	5.1 to 7.3
AB,Bt1,Bt2 -- 9 to 33 in	silt loam	moderate	2.88 to 5.28 in	5.1 to 7.3
2Bt3 -- 33 to 60 in	clay	slow	1.07 to 2.94 in	

Map Unit Description (MN)

Houston County, Minnesota

585D--Newhouse-Valton silt loams, 12 to 20 percent slopes

Newhouse

<i>Extent:</i> 45 percent of the unit	<i>Soil loss tolerance (T factor):</i> 5
<i>Landform(s):</i> hills	<i>Wind erodibility group (WEG):</i> 5
<i>Slope gradient:</i> 12 to 20 percent	<i>Wind erodibility index (WEI):</i> 56
<i>Parent material:</i> loess over stratified loamy erosional sediment from sandstone, shale, or dolomite	<i>Kw factor (surface layer)</i> .37
<i>Restrictive feature(s):</i> greater than 60 inches	<i>Land capability, nonirrigated:</i> 4e
<i>Flooding:</i> none	<i>Hydric soil:</i> no
<i>Ponding:</i> none	<i>Hydrologic group:</i> B
<i>Drainage class:</i> well drained	<i>Potential for frost action:</i> high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	5.6 to 7.3
BA,Bt1,Bt2 -- 9 to 25 in	silt loam	moderate	3.23 to 3.55 in	5.1 to 7.3
2Bt3 -- 25 to 60 in	stratified sandy loam to clay loam	moderate	2.77 to 5.54 in	5.1 to 6.0

Valton

<i>Extent:</i> 35 percent of the unit	<i>Soil loss tolerance (T factor):</i> 4
<i>Landform(s):</i> hills	<i>Wind erodibility group (WEG):</i> 5
<i>Slope gradient:</i> 12 to 20 percent	<i>Wind erodibility index (WEI):</i> 56
<i>Parent material:</i> loess over clayey erosional sediment or residuum from dolomite	<i>Kw factor (surface layer)</i> .43
<i>Restrictive feature(s):</i> greater than 60 inches	<i>Land capability, nonirrigated:</i> 4e
<i>Flooding:</i> none	<i>Hydric soil:</i> no
<i>Ponding:</i> none	<i>Hydrologic group:</i> C
<i>Drainage class:</i> well drained	<i>Potential for frost action:</i> high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.36 to 2.17 in	5.1 to 7.3
AB,Bt1,Bt2 -- 9 to 33 in	silt loam	moderate	2.88 to 5.28 in	5.1 to 7.3
2Bt3 -- 33 to 60 in	clay	slow	1.07 to 2.94 in	

Map Unit Description (MN)

Houston County, Minnesota

586C2--Nodine-Rollingstone silt loams, 4 to 12 percent slopes, eroded

Nodine, eroded

Extent: 45 percent of the unit

Landform(s): hills

Slope gradient: 4 to 12 percent

Parent material: loess over stratified loamy erosional sediment over sandstone or dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.56 to 1.70 in	5.6 to 7.3
BA -- 7 to 10 in	silt loam	moderate	0.61 to 0.66 in	5.1 to 6.5
2Bt -- 10 to 60 in	stratified loamy sand to clay	moderate	4.00 to 8.00 in	5.1 to 6.0

Rollingstone, eroded

Extent: 40 percent of the unit

Landform(s): hills

Slope gradient: 4 to 12 percent

Parent material: loess over clayey erosional sediment or residuum from dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	silt loam	moderate	1.30 to 1.42 in	5.6 to 7.3
BA -- 6 to 13 in	silt loam	moderate	1.56 to 1.70 in	5.1 to 6.5
2Bt -- 13 to 60 in	channery clay	slow	4.22 to 6.56 in	

Map Unit Description (MN)

Houston County, Minnesota

586D2--Nodine-Rollingstone silt loams, 12 to 20 percent slopes, eroded

Nodine, eroded

Extent: 55 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: loess over stratified loamy erosional sediment over sandstone or dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.56 to 1.70 in	5.6 to 7.3
BA -- 7 to 10 in	silt loam	moderate	0.61 to 0.66 in	5.1 to 6.5
2Bt -- 10 to 60 in	stratified loamy sand to clay	moderate	4.00 to 8.00 in	5.1 to 6.0

Rollingstone, eroded

Extent: 35 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: loess over clayey erosional sediment or residuum from dolomite

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	silt loam	moderate	1.30 to 1.42 in	5.6 to 7.3
BA -- 6 to 13 in	silt loam	moderate	1.56 to 1.70 in	5.1 to 6.5
2Bt -- 13 to 60 in	cherty clay	slow	4.22 to 6.56 in	

Map Unit Description (MN)

Houston County, Minnesota

592E--Lamoille-Elbaville silt loams, 20 to 30 percent slopes

Lamoille

Extent: 60 percent of the unit

Landform(s): hills

Slope gradient: 20 to 30 percent

Parent material: loess over clayey erosional sediment and loamy-skeletal colluvium from dolomite

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: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	silt loam	moderate	0.87 to 0.94 in	6.1 to 7.3
E, BE, 2Bt1 -- 4 to 27 in	clay	moderately slow	2.74 to 3.65 in	5.1 to 6.0
3Bt2 -- 27 to 37 in	clay loam	moderately slow	0.72 to 1.64 in	5.6 to 7.3
3C -- 37 to 60 in	cobbly loam	moderately rapid	1.37 to 2.74 in	7.4 to 8.4

Elbaville

Extent: 25 percent of the unit

Landform(s): hills

Slope gradient: 20 to 30 percent

Parent material: loess and loamy colluvium over loamy-skeletal colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	silt loam	moderate	1.02 to 1.23 in	5.6 to 7.3
E, B/E, Bw -- 5 to 22 in	silt loam	moderately slow	2.71 to 3.22 in	5.1 to 7.3
2Bt2 -- 22 to 31 in	silt loam	moderately slow	1.18 to 1.45 in	5.6 to 7.3
3C1, 3C2 -- 31 to 60 in	cobbly loam	moderately rapid	1.72 to 2.87 in	7.4 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

593F--Elbaville silt loam, 30 to 45 percent slopes

Elbaville

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 30 to 45 percent

Parent material: loess and loamy colluvium over loamy-skeletal colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: C

Potential for frost action: low

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 5 in	silt loam	moderate	1.02 to 1.23 in	5.6 to 7.3
E,B/E,Bw --	5 to 22 in	silt loam	moderately slow	2.71 to 3.22 in	5.1 to 7.3
2Bt2 --	22 to 31 in	silt loam	moderately slow	1.18 to 1.45 in	5.6 to 7.3
3C1,3C2 --	31 to 60 in	cobbly loam	moderately rapid	1.72 to 2.87 in	7.4 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

598B--Beavercreek-Arenzville complex, 1 to 12 percent slopes

Beavercreek, very rarely flooded

Extent: 70 percent of the unit

Landform(s): alluvial fans, valleys

Slope gradient: 1 to 12 percent

Parent material: loamy alluvium over loamy-skeletal alluvium

Restrictive feature(s): greater than 60 inches

Flooding: very rare

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: 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	fine sandy loam	moderately rapid	0.77 to 1.02 in	6.1 to 7.3
C1 -- 5 to 12 in	stratified fine sand to silt loam	moderately rapid	0.94 to 1.20 in	6.1 to 7.3
2C2 -- 12 to 60 in	stratified sand to cobbly silt loam	moderately rapid	1.92 to 3.84 in	6.6 to 7.8

Arenzville, very rarely flooded

Extent: 20 percent of the unit

Landform(s): alluvial fans, valleys

Slope gradient: 1 to 6 percent

Parent material: silty alluvium over loamy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: very rare

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 2w

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	silt loam	moderate	1.97 to 2.36 in	5.6 to 7.8
C,Ab1 -- 10 to 46 in	loam	moderate	6.52 to 7.97 in	5.6 to 7.8
Ab2,C' -- 46 to 60 in	loam	moderate	2.76 to 3.03 in	5.6 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

598B--Beavercreek-Arenzville complex, 1 to 12 percent slopes

Root

<p><i>Extent:</i> 5 percent of the unit</p> <p><i>Landform(s):</i> channels on alluvial fans</p> <p><i>Slope gradient:</i></p> <p><i>Parent material:</i></p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i></p> <p><i>Ponding:</i></p> <p><i>Drainage class:</i></p>	<p><i>Soil loss tolerance (T factor):</i></p> <p><i>Wind erodibility group (WEG):</i></p> <p><i>Wind erodibility index (WEI):</i></p> <p><i>Kw factor (surface layer)</i></p> <p><i>Land capability, nonirrigated:</i></p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i></p> <p><i>Potential for frost action:</i></p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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599E2--Norden silt loam, 15 to 30 percent slopes, eroded

Norden, eroded

<p><i>Extent:</i> 85 percent of the unit</p> <p><i>Landform(s):</i> hills</p> <p><i>Slope gradient:</i> 15 to 30 percent</p> <p><i>Parent material:</i> residuum or erosional sediment from sandstone</p> <p><i>Restrictive feature(s):</i> paralithic bedrock at 20 to 40 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> well drained</p>	<p><i>Soil loss tolerance (T factor):</i> 3</p> <p><i>Wind erodibility group (WEG):</i> 5</p> <p><i>Wind erodibility index (WEI):</i> 56</p> <p><i>Kw factor (surface layer)</i> .49</p> <p><i>Land capability, nonirrigated:</i> 6e</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> C</p> <p><i>Potential for frost action:</i> moderate</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 5 in	silt loam	moderate	1.02 to 1.23 in	5.1 to 7.3
Bt1-Bt3,BC -- 5 to 30 in	loam	moderate	3.72 to 4.96 in	5.1 to 7.3
Cr -- 30 to 60 in	weathered bedrock	moderate		

Map Unit Description (MN)

Houston County, Minnesota

599F--Norden silt loam, 30 to 45 percent slopes

Norden

Extent: 85 percent of the unit

Landform(s): hills

Slope gradient: 30 to 45 percent

Parent material: residuum or erosional sediment from sandstone

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

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 5 in	silt loam	moderate	1.02 to 1.23 in	5.1 to 7.3
Bt1-Bt3,BC -- 5 to 30 in	loam	moderate	3.72 to 4.96 in	5.1 to 7.3
Cr -- 30 to 60 in	weathered bedrock	moderate		

601D2--Council fine sandy loam, 12 to 20 percent slopes, eroded

Council, eroded

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 12 to 20 percent

Parent material: loamy colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

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>
A -- 0 to 3 in	fine sandy loam	moderate	0.35 to 0.57 in	4.5 to 7.3
E1,E2,Bt,BC -- 3 to 54 in	loam	moderate	7.11 to 11.17 in	4.5 to 6.5
C -- 54 to 60 in	silt loam	moderate	0.71 to 1.18 in	5.1 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

601E--Council sandy loam, 20 to 30 percent slopes

Council

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 20 to 30 percent

Parent material: loamy colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

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 3 in	fine sandy loam	moderate	0.35 to 0.57 in	4.5 to 7.3
E1,E2,Bt,BC -- 3 to 54 in	loam	moderate	7.11 to 11.17 in	4.5 to 6.5
C -- 54 to 60 in	silt loam	moderate	0.71 to 1.18 in	5.1 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

604--Huntsville-Beavercreek silt loams, channeled

Huntsville, channeled, occasionally flooded

Extent: 65 percent of the unit

Landform(s): valleys

Slope gradient: 0 to 3 percent

Parent material: silty alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

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: 2w

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1,A2 -- 0 to 33 in	silt loam	moderate	7.28 to 7.94 in	5.6 to 7.8
C1-C3 -- 33 to 60 in	silt loam	moderate	5.35 to 5.89 in	5.6 to 7.8

Beavercreek, channeled, frequently flooded

Extent: 20 percent of the unit

Landform(s): valleys

Slope gradient: 1 to 6 percent

Parent material: loamy alluvium over loamy-skeletal alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 5w

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	silt loam	moderately rapid	1.02 to 1.13 in	6.1 to 7.3
C1 -- 5 to 12 in	stratified fine sand to cobbly silt loam	moderately rapid	0.94 to 1.20 in	6.1 to 7.3
2C2 -- 12 to 60 in	stratified very cobbly sand to very cobbly silt loam	moderately rapid	1.92 to 3.84 in	6.6 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

604--Huntsville-Beavercreek silt loams, channeled

Root

Extent: 10 percent of the unit

Landform(s): channels on flood plains

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>

Newalbin

Extent: 5 percent of the unit

Landform(s): swales on flood plains

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>

Map Unit Description (MN)

Houston County, Minnesota

605D2--La Farge silt loam, 12 to 20 percent slopes, eroded

La Farge, eroded

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: loess over loamy residuum or erosional sediment from sandstone

Restrictive feature(s): paralithic bedrock at 24 to 40 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.56 to 1.70 in	4.5 to 7.3
BA,Bt1,Bt2 -- 7 to 33 in	silt loam	moderate	4.68 to 5.72 in	4.5 to 6.5
2Bt3 -- 33 to 43 in	loam	moderate	1.48 to 1.87 in	4.5 to 6.5
2Cr -- 43 to 60 in	weathered bedrock	moderate		

606--Shiloh silty clay, ponded

Shiloh, frequently flooded, ponded

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 1 percent

Parent material: silty and clayey alluvial sediment

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 8w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 25 in	silty clay	moderately slow	3.02 to 4.54 in	6.1 to 7.3
Cg -- 25 to 60 in	silty clay loam	moderately slow	3.81 to 6.24 in	6.1 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

608--Rawles silt loam, occasionally flooded

Rawles, occasionally flooded

Extent: 85 percent of the unit

Landform(s): terraces

Slope gradient: 0 to 2 percent

Parent material: calcareous alluvial sediment

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .43

Land capability, nonirrigated: 2w

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 9 in silt loam	moderate	1.90 to 2.08 in	6.6 to 8.4
C,Ab,C' --	9 to 60 in silty clay loam	moderate	9.65 to 10.67 in	6.1 to 7.8

Moundprairie

Extent: 5 percent of the unit

Landform(s): swales on flood plains

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)

Houston County, Minnesota

879B--Newalbin-Palms complex, 2 to 8 percent slopes

Newalbin, frequently flooded, ponded

Extent: 65 percent of the unit

Landform(s): valleys

Slope gradient: 2 to 4 percent

Parent material: silty alluvial sediment over buried loamy soil

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .49

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 3 in	silt loam	moderate	0.63 to 0.76 in	6.1 to 7.3
Cg -- 3 to 43 in	silt loam	moderate	6.76 to 8.75 in	6.1 to 7.3
2Ab -- 43 to 60 in	muck	moderately rapid	5.08 to 8.13 in	6.1 to 7.8

Palms, frequently flooded, ponded

Extent: 30 percent of the unit

Landform(s): valleys

Slope gradient: 2 to 8 percent

Parent material: organic material

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .02

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>
Oa1 -- 0 to 10 in	muck	moderately rapid	3.44 to 4.72 in	
Oa2 -- 10 to 35 in	muck	moderately rapid	8.82 to 12.09 in	
2A -- 35 to 60 in	silt loam	moderate	4.46 to 5.46 in	

Map Unit Description (MN)

Houston County, Minnesota

1010--Riverwash

Riverwash, frequently flooded

Extent: 95 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 4 percent

Parent material: alluvial sediments

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: somewhat poorly drained

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>

Comfrey

Extent: 5 percent of the unit

Landform(s): swales on flood plains

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>

Map Unit Description (MN)

Houston County, Minnesota

1013--Pits, quarries

Pits, quarries

Extent: 100 percent of the unit

Landform(s): terraces

Slope gradient: 0 to 60 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil:

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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1016--Udorthents, loamy

Udorthents, loamy

Extent: 100 percent of the unit

Landform(s): hills

Slope gradient: 0 to 20 percent

Parent material: variable soil material

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) .55

Land capability, nonirrigated:

Hydric soil:

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>
C -- 0 to 60 in	silt loam	moderately rapid	4.79 to 8.38 in	6.6 to 9.0

Map Unit Description (MN)

Houston County, Minnesota

1812--Terril loam, sandy substratum

Terril, sandy substratum, occasionally flooded

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 1 to 4 percent

Parent material: loamy and sandy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 4

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

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	6.1 to 7.3
A1,A2,A3,Bw -- 8 to 46 in	loam	moderate	6.11 to 6.87 in	6.1 to 7.3
2BC,2C -- 46 to 60 in	loamy sand	rapid	0.69 to 0.96 in	6.1 to 8.4

Comfrey

Extent: 2 percent of the unit

Landform(s): swales on flood plains

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)

Houston County, Minnesota

1822B--Abscota variant sand, 2 to 6 percent slopes

Abscota, variant, rarely flooded

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 2 to 6 percent

Parent material: sandy and loamy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: rare

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 1

Wind erodibility index (WEI): 220

Kw factor (surface layer) .05

Land capability, nonirrigated: 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sand	rapid	0.22 to 0.31 in	6.6 to 7.8
C -- 3 to 60 in	stratified sand to silt loam	rapid	3.97 to 5.67 in	6.6 to 7.8

PD sandy soils

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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Map Unit Description (MN)

Houston County, Minnesota

1830--Eitzen silt loam, occasionally flooded

Eitzen, occasionally flooded

Extent: 85 percent of the unit

Landform(s): drainageways

Slope gradient: 1 to 3 percent

Parent material: silty alluvium over a buried soil

Restrictive feature(s): greater than 60 inches

Flooding: occasional

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: 2w

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
C,Ab1,Ab2 -- 8 to 48 in	silt loam	moderate	8.03 to 8.83 in	5.1 to 6.5
Btb1,Btb2 -- 48 to 60 in	loam	moderate	2.13 to 2.36 in	5.1 to 6.0

1838--Colo silt loam, overwash

Colo, overwash, occasionally flooded

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 0 to 2 percent

Parent material: silty 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 -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
C1,Ab,Bwb -- 8 to 40 in	silty clay loam	moderate	5.81 to 6.46 in	5.6 to 7.3
Cg1,Cg2 -- 40 to 60 in	silty clay loam	moderate	3.54 to 3.94 in	6.1 to 7.3

Map Unit Description (MN)

Houston County, Minnesota

1847--Kalmarville fine sandy loam, channeled

Kalmarville, channeled, frequently flooded

Extent: 85 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 1 percent

Parent material: sandy and loamy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly 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: 5w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 10 in	fine sandy loam	moderately rapid	1.28 to 1.77 in	6.6 to 7.8
A2,A3,A4 -- 10 to 27 in	fine sandy loam	moderately rapid	2.20 to 3.05 in	6.6 to 7.8
C -- 27 to 60 in	loamy sand	rapid	1.98 to 2.98 in	6.6 to 7.8

1856D--Plainfield loamy fine sand, loamy substratum, 12 to 25 percent slopes

Plainfield, loamy substratum

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 12 to 25 percent

Parent material: sand

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .28

Land capability, nonirrigated: 6s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loamy fine sand	moderately rapid	0.72 to 1.00 in	4.5 to 7.3
BA,Bw -- 9 to 38 in	loamy fine sand	rapid	1.46 to 2.04 in	4.5 to 6.5
C -- 38 to 60 in	sandy loam	moderate	2.81 to 3.90 in	5.1 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

1856E--Plainfield loamy fine sand, loamy substratum, 25 to 50 percent slopes

Plainfield, loamy substratum

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 25 to 50 percent

Parent material: sand

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .28

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 7 in	loamy fine sand	moderately rapid	0.57 to 0.78 in	4.5 to 7.3
BA,Bw -- 7 to 38 in	loamy fine sand	rapid	1.56 to 2.18 in	4.5 to 6.5
C -- 38 to 60 in	sandy loam	moderate	2.81 to 3.90 in	5.1 to 8.4

1857B--Eitzen silt loam, channeled, 1 to 6 percent slopes

Eitzen, channeled, occasionally flooded

Extent: 85 percent of the unit

Landform(s): drainageways

Slope gradient: 1 to 6 percent

Parent material: silty alluvium over a buried soil

Restrictive feature(s): greater than 60 inches

Flooding: occasional

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: 5w

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.73 to 1.89 in	5.6 to 7.3
C,Ab1,Ab2 -- 8 to 48 in	silt loam	moderate	8.03 to 8.83 in	5.1 to 6.5
Btb1,Btb2 -- 48 to 60 in	silt loam	moderate	2.13 to 2.36 in	5.1 to 6.0

Map Unit Description (MN)

Houston County, Minnesota

1858F--Timula-Lamont complex, 40 to 70 percent slopes

Timula

Extent: 70 percent of the unit

Landform(s): terraces

Slope gradient: 40 to 70 percent

Parent material: silty alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .49

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	silt loam	moderate	1.97 to 2.36 in	6.1 to 7.8
Bw,BC,C -- 10 to 60 in	silt loam	moderate	9.00 to 10.00 in	7.4 to 8.4

Lamont

Extent: 20 percent of the unit

Landform(s): terraces

Slope gradient: 40 to 70 percent

Parent material: loamy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 7e

Hydric soil: no

Hydrologic group: 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 9 in	sandy loam	moderately rapid	1.45 to 1.63 in	5.1 to 7.3
BA,Bt1,Bt2 -- 9 to 37 in	fine sandy loam	moderately rapid	3.91 to 4.47 in	5.1 to 7.3
BC,C -- 37 to 60 in	fine sandy loam	rapid	2.06 to 2.51 in	5.1 to 6.5

Map Unit Description (MN)

Houston County, Minnesota

1858F--Timula-Lamont complex, 40 to 70 percent slopes

Newalbin

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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1860--Comfrey silty clay loam, channeled

Comfrey, channeled, frequently flooded

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 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) .24

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>
A1 -- 0 to 8 in	silty clay loam	moderate	1.42 to 1.73 in	6.6 to 7.8
A2,A3 -- 8 to 29 in	clay loam	moderate	3.40 to 4.25 in	6.6 to 7.8
Cg1,Cg2 -- 29 to 60 in	loam	moderate	4.61 to 5.83 in	6.6 to 8.4

Map Unit Description (MN)

Houston County, Minnesota

1861B--Chaseburg silt loam, channeled, 2 to 6 percent slopes

Chaseburg, channeled, frequently flooded

Extent: 90 percent of the unit

Landform(s): valleys

Slope gradient: 2 to 6 percent

Parent material: silty alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

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: 5w

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	silt loam	moderate	1.56 to 1.70 in	6.1 to 7.8
C1,C2,Ab -- 7 to 60 in	silt loam	moderate	9.50 to 11.61 in	5.6 to 7.8

1862--Zwingle variant silty clay

Zwingle, variant

Extent: 85 percent of the unit

Landform(s): terraces

Slope gradient: 0 to 2 percent

Parent material: clayey lacustrine sediment over stratified alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated: 3w

Hydric soil: yes

Hydrologic group: D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	silty clay	moderately slow	0.89 to 1.06 in	5.1 to 7.3
BA,Bt1,Bt2 -- 6 to 47 in	clay	impermeable	4.09 to 5.73 in	
C -- 47 to 60 in	stratified silt loam to silty clay	slow	1.95 to 2.34 in	5.6 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

1885--Abscota loamy sand, occasionally flooded

Abscota, occasionally flooded

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: sandy 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): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .10

Land capability, nonirrigated: 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	loamy sand	rapid	0.79 to 0.94 in	6.1 to 7.3
C1 -- 8 to 60 in	sand	rapid	2.60 to 5.72 in	6.1 to 7.8
C2 -- 60 to 64 in	sand	rapid	0.20 to 0.28 in	6.1 to 8.4

PD soils

Extent: 2 percent of the unit

Landform(s): swales on flood plains

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)

Houston County, Minnesota

1886--Minneiska variant loamy fine sand

Minneiska, variant, rarely flooded

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 3 percent

Parent material: loamy alluvium over loamy to sandy sediment

Restrictive feature(s): greater than 60 inches

Flooding: rare

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .28

Land capability, nonirrigated: 3w

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 9 in	loamy fine sand	rapid	0.54 to 0.91 in	7.4 to 7.8
C -- 9 to 29 in	stratified fine sand to silt loam	rapid	1.00 to 2.01 in	7.4 to 7.8
2Ab -- 29 to 60 in	loam	moderate	4.30 to 6.14 in	6.6 to 7.8

1888--Moundprairie silty clay loam, occasionally flooded

Moundprairie, occasionally flooded

Extent: 90 percent of the unit

Landform(s): drainageways, flood plains

Slope gradient: 0 to 1 percent

Parent material: calcareous silty 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 -- 0 to 10 in	silty clay loam	moderate	1.77 to 2.17 in	7.4 to 7.8
Cg -- 10 to 40 in	silt loam	moderate	5.46 to 6.67 in	7.4 to 7.8
Ab1,Ab2 -- 40 to 60 in	silty clay loam	moderate	3.15 to 4.33 in	6.6 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

1889--Moundprairie silty clay loam, depressional

Moundprairie, depressional, occasionally flooded

Extent: 90 percent of the unit

Landform(s): drainageways, flood plains

Slope gradient: 0 to 1 percent

Parent material: calcareous silty alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

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: 7w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	silty clay loam	moderate	1.77 to 2.17 in	7.4 to 7.8
Cg -- 10 to 40 in	silt loam	moderate	5.46 to 6.67 in	7.4 to 7.8
Ab1,Ab2 -- 40 to 60 in	silty clay loam	moderate	3.15 to 4.33 in	6.6 to 7.8

1890--Walford silt loam

Walford

Extent: 90 percent of the unit

Landform(s): drainageways, terraces

Slope gradient: 0 to 1 percent

Parent material: silty alluvium

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) .43

Land capability, nonirrigated: 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.90 to 2.08 in	5.6 to 7.3
Bg -- 9 to 18 in	silt loam	moderate	1.81 to 1.99 in	5.1 to 7.3
Btg1,Btg2 -- 18 to 34 in	silty clay loam	moderately slow	2.83 to 3.15 in	5.1 to 6.0
BCg,Cg -- 34 to 60 in	silt loam	moderate	5.20 to 5.72 in	5.6 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

1893C--Beavercreek variant silt loam, 3 to 8 percent slopes

Beavercreek, variant, very rarely flooded

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 3 to 8 percent

Parent material: silty to loamy alluvium

Restrictive feature(s): greater than 60 inches

Flooding: very rare

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .32

Land capability, nonirrigated: 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 15 in	silt loam	moderate	2.69 to 3.29 in	6.1 to 7.3
Ab1,Ab2 -- 15 to 30 in	loam	moderate	2.24 to 2.54 in	6.1 to 7.3
2Ab3,2Ab4 -- 30 to 60 in	cobbly loam	moderately rapid	1.80 to 3.59 in	6.6 to 7.8

Map Unit Description (MN)

Houston County, Minnesota

1898F--Etter-Brodale complex, rocky, 25 to 50 percent slopes

Etter, rocky

Extent: 60 percent of the unit

Landform(s): hills

Slope gradient: 25 to 45 percent

Parent material: loess and sandstone residuum

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated: 8e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 8 in	sandy loam	moderately rapid	1.26 to 1.42 in	5.6 to 7.3
Bw -- 8 to 17 in	sandy loam	moderate	1.09 to 1.72 in	4.5 to 7.3
2BC -- 17 to 21 in	loamy sand	rapid	0.31 to 0.39 in	4.5 to 7.3
2C -- 21 to 60 in	fine sand	rapid	1.95 to 3.90 in	4.5 to 8.4

Brodale, rocky

Extent: 25 percent of the unit

Landform(s): hills

Slope gradient: 25 to 50 percent

Parent material: loamy-skeletal colluvium

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

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .32

Land capability, nonirrigated: 8s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 12 in	loam	moderate	0.71 to 1.42 in	6.6 to 8.4
C1,C2 -- 12 to 40 in	flaggy silt loam	moderately rapid	1.13 to 2.55 in	7.4 to 8.4
Cr -- 40 to 44 in	unweathered bedrock	rapid		

Map Unit Description (MN)

Houston County, Minnesota

1906D--Lindstrom loam, 12 to 20 percent slopes

Lindstrom

Extent: 90 percent of the unit

Landform(s): hills

Slope gradient: 12 to 20 percent

Parent material: silty loess and colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated: 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
A -- 7 to 27 in	loam	moderate	4.33 to 5.12 in	5.6 to 7.3
BA,Bw,Bt -- 27 to 60 in	silt loam	moderate	6.61 to 7.28 in	5.6 to 7.3

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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Map Unit Description (MN)

Houston County, Minnesota

W--Water

Water

Extent: 100 percent of the unit

Landform(s):

Slope gradient:

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil:

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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This report provides a semitabular listing of some soil and site properties and interpretations that are valuable in communicating the concept of a map unit. The report also provides easy access to the commonly used conservation planning information in one place. The major soil components in each map unit are displayed. Minor components may be displayed if they are included in the database and are selected at the time the report is generated.