Marshall County, South Dakota
Nontechnical Soil Descriptions

AaA − Aastad Loam, 0 To 2 Percent Slopes

AaA AASTAD LOAM, 0 TO 2 PERCENT SLOPES − The Aastad series consists of very deep, moderately well drained soils that formed in calcareous loamy glacial till on till plains and ground moraines. These soils have moderately slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE.

AbA − Aberdeen−Exline Silty Clay Loams, 0 To 2 Percent Slopes

AbA ABERDEEN−EXLINE SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES − The Aberdeen series consists of very deep, moderately well drained soils formed in glacial lacustrine sediments on lake plains. Permeability is slow in the solum and moderate to slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
AbA ABERDEEN−EXLINE SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES − The Exline series consists of very deep, somewhat poorly drained or moderately well drained soils formed in lacustrine and alluvial deposits on lake plains and terraces. These soils have very slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

Ar − Arveson Fine Sandy Loam

Ar ARVESON FINE SANDY LOAM − The Arveson series consists of very deep, poorly and very poorly drained soils that formed mostly in loamy glacial lacustrine or outwash sediments on glacial lake and outwash plains. These soils have moderate or moderately rapid permeability in the upper part and rapid in the lower part. This soil has moderate available water capacity and high organic matter content. Flooding is RARE.

AsE − Arvilla−Sioux Loams, 9 To 25 Percent Slopes

AsE ARVILLA−SIOUX LOAMS, 9 TO 25 PERCENT SLOPES − The Arvilla series consists of very deep, somewhat excessively drained soils formed in moderately coarse textured glacial outwash and the underlying sand and gravel on glacial lake beaches, stream valley terraces and outwash plains. These soils have moderately rapid permeability in the upper part and rapid or very rapid permeability in the underlying material. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.
AsE ARVILLA−SIOUX LOAMS, 9 TO 25 PERCENT SLOPES − The Sioux series consists of excessively drained soils formed in sand and gravel on outwash plains, terraces, and eskers. They are very shallow over gravelly sand. Permeability is rapid or very rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

Ba − Bearden Silt Loam

Ba BEARDEN SILT LOAM − The Bearden series consists of very deep, somewhat poorly and moderately well drained, moderately to slowly permeable soils that formed in calcareous silt loam and silty clay loam lacustrine sediments. These soils are on glacial lake plains. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

BdA − Bearden−Tonka Silt Loams, 0 To 3 Percent Slopes

BdA BEARDEN−TONKA SILT LOAMS, 0 TO 3 PERCENT SLOPES − The Tonka series consists of very deep, poorly drained, slowly permeable soils that formed in local alluvium over glacial till or glaciolacustrine deposits. These soils are in closed basins and depressions on glacial till and glacial lake plains. This soil has high available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.

Be − Marysland−Divide Loams

Be MARYSLAND−DIVIDE LOAMS − The Marysland series consists of very deep, poorly and very poorly drained soils that formed in glacial lacustrine or outwash sediments which consists of a 20 to 40 inch loamy mantle over sandy or sandy−skeletal sediments. These soils are on stream terraces, outwash channels, outwash plains, and lacustrine plains. They have moderate permeability in the upper part and rapid permeability in the underlying material. This soil has low available water capacity and organic matter content. Flooding is OCCAS.
Be MARYSLAND−DIVIDE LOAMS − The Divide series consists of very deep, somewhat poorly or moderately well drained soils that formed in loamy sediment over sand and gravel. Permeability is moderate over rapid or very rapid. These soils are on slightly depressed areas in outwash plains, terraces and interbeach areas. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

BfA − Beotia Silt Loam, 0 To 2 Percent Slopes

BfA BEOTIA SILT LOAM, 0 TO 2 PERCENT SLOPES − The Beotia series consists of very deep, well drained or moderately well drained soils formed in silty glaciolacustrine deposits on lake plains. Permeability is moderate in the solum and moderate to slow in the underlying material. This soil has high available water capacity and high organic matter content. Flooding is NONE.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

BfB – Beotia Silt Loam, 2 To 6 Percent Slopes

BfB BEOTIA SILT LOAM, 2 TO 6 PERCENT SLOPES – The Beotia series consists of very deep, well drained or moderately well drained soils formed in silty glaciolacustrine deposits on lake plains. Permeability is moderate in the solum and moderate to slow in the underlying material. This soil has high available water capacity and high organic matter content. Flooding is NONE.

BkE – Buse–Forman Loams, 9 To 21 Percent Slopes

BkE BUSE–FORMAN LOAMS, 9 TO 21 PERCENT SLOPES – The Buse series consists of very deep, well drained soils that formed in loamy glacial till on moraines. These soils have moderate and moderately slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
BkE BUSE–FORMAN LOAMS, 9 TO 21 PERCENT SLOPES – The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.

BkF – Buse–Forman Loams, 21 To 40 Percent Slopes

BkF BUSE–FORMAN LOAMS, 21 TO 40 PERCENT SLOPES – The Buse series consists of very deep, well drained soils that formed in loamy glacial till on moraines. These soils have moderate and moderately slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
BkF BUSE–FORMAN LOAMS, 21 TO 40 PERCENT SLOPES – The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.

BmF – Buse–Forman Stony Complex, 9 To 40 Percent Slopes

BmF BUSE–FORMAN STONY COMPLEX, 9 TO 40 PERCENT SLOPES – The Buse series consists of very deep, well drained soils that formed in loamy glacial till on moraines. These soils have moderate and moderately slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
BmF BUSE–FORMAN STONY COMPLEX, 9 TO 40 PERCENT SLOPES – The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.

BsE – Buse–Sioux Complex, 15 To 21 Percent Slopes

BsE BUSE–SIOUX COMPLEX, 15 TO 21 PERCENT SLOPES – The Buse series consists of very deep, well drained soils that formed in loamy glacial till on moraines. These soils have moderate and moderately slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
BsE BUSE–SIOUX COMPLEX, 15 TO 21 PERCENT SLOPES – The Sioux series consists of excessively drained soils formed in sand and gravel on outwash plains, terraces, and eskers. They are very shallow over gravelly sand. Permeability is rapid or very rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

BtE – Buse–Sioux Stony Complex, 9 To 40 Percent Slopes

BtE BUSE–SIOUX STONY COMPLEX, 9 TO 40 PERCENT SLOPES – The Buse series consists of very deep, well drained soils that formed in loamy glacial till on moraines. These soils have moderate and moderately slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

Co – Colvin Silty Clay Loam

Co COLVIN SILTY CLAY LOAM – The Colvin series consists of very deep, poorly and very poorly drained, moderately slow or moderately permeable soils formed in silt loam and silty clay loam sediments. These soils are in concave shallow swales and depressions on glacial lake plains, in outwash channels, on stream terraces and in drainageways on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.

Do – Castlewood Silty Clay

Do CASTLEWOOD SILTY CLAY – The Castlewood series consists of deep, poorly drained soils formed in clayey alluvium on floodplains. Permeability is slow. This soil has high available water capacity and high organic matter content. Flooding is OCCAS.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

EdB – Edgeley Loam, 2 To 6 Percent Slopes

EdB EDGELEY LOAM, 2 TO 6 PERCENT SLOPES – The Edgeley series consists of moderately deep, well drained, moderately permeable soils that formed in colluvium, till, or glaciofluvial deposits overlying soft shale bedrock, or material weathered from shale bedrock. These soils are on till plains, glaciofluvial plains, or in stream valleys. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

EdC – Edgeley Loam, 6 To 9 Percent Slopes

EdC EDGELEY LOAM, 6 TO 9 PERCENT SLOPES – The Edgeley series consists of moderately deep, well drained, moderately permeable soils that formed in colluvium, till, or glaciofluvial deposits overlying soft shale bedrock, or material weathered from shale bedrock. These soils are on till plains, glaciofluvial plains, or in stream valleys. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

EdD – Edgeley Loam, 9 To 15 Percent Slopes

EdD EDGELEY LOAM, 9 TO 15 PERCENT SLOPES – The Edgeley series consists of moderately deep, well drained, moderately permeable soils that formed in colluvium, till, or glaciofluvial deposits overlying soft shale bedrock, or material weathered from shale bedrock. These soils are on till plains, glaciofluvial plains, or in stream valleys. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

EmA – Embden Fine Sandy Loam, 0 To 2 Percent Slopes

EmA EMBDEN FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES – The Embden series consists of very deep, well or moderately well drained, moderately rapidly permeable soils that formed in glaciofluvial and glaciolacustrine deposits. These soils are on lake, delta, and outwash plains. This soil has moderate available water capacity and high organic matter content. Flooding is NONE.

EmB – Embden Fine Sandy Loam, 2 To 6 Percent Slopes

EmB EMBDEN FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES – The Embden series consists of very deep, well or moderately well drained, moderately rapidly permeable soils that formed in glaciofluvial and glaciolacustrine deposits. These soils are on lake, delta, and outwash plains. This soil has moderate available water capacity and high organic matter content. Flooding is NONE.

EnC – Embden–Buse Complex, 2 To 9 Percent Slopes

EnC EMBDEN–BUSE COMPLEX, 2 TO 9 PERCENT SLOPES – The Embden series consists of very deep, well or moderately well drained, moderately rapidly permeable soils that formed in glaciofluvial and glaciolacustrine deposits. These soils are on lake, delta, and outwash plains. This soil has moderate available water capacity and high organic matter content. Flooding is NONE.
EnC EMBDEN–BUSE COMPLEX, 2 TO 9 PERCENT SLOPES – The Buse series consists of very deep, well drained soils that formed in loamy glacial till on moraines. These soils have moderate and moderately slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

EsA – Estelline Silt Loam, 0 To 2 Percent Slopes

EsA ESTELLINE SILT LOAM, 0 TO 2 PERCENT SLOPES – The Estelline series consists of deep, well drained soils formed in silty materials overlying sand and gravel on stream terraces and outwash plains. Permeability is moderate in the solum and rapid in the sand and gravel. This soil has moderate available water capacity and high organic matter content. Flooding is NONE.

ExA – Exline–Aberdeen Silty Clay Loams, 0 To 2 Percent Slopes

ExA EXLINE–ABERDEEN SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES – The Exline series consists of very deep, somewhat poorly drained or moderately well drained soils formed in lacustrine and alluvial deposits on lake plains and terraces. These soils have very slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
ExA EXLINE–ABERDEEN SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES – The Aberdeen series consists of very deep, moderately well drained soils formed in glacial lacustrine sediments on lake plains. Permeability is slow in the solum and moderate to slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

FoA – Fordville Loam, 0 To 2 Percent Slopes

FoA FORDVILLE LOAM, 0 TO 2 PERCENT SLOPES – The Fordville series consists of very deep, well drained soils formed in loamy sediments that are moderately deep over sand and gravel on outwash plains, terraces, and flood plains. Permeability is moderate in the solum and rapid in the underlying sand and gravel. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

FoB – Fordville Loam, 2 To 6 Percent Slopes

FoB FORDVILLE LOAM, 2 TO 6 PERCENT SLOPES – The Fordville series consists of very deep, well drained soils formed in loamy sediments that are moderately deep over sand and gravel on outwash plains, terraces, and flood plains. Permeability is moderate in the solum and rapid in the underlying sand and gravel. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

FrA – Forman–Aastad Loams, 0 To 2 Percent Slopes

FrA FORMAN–AASTAD LOAMS, 0 TO 2 PERCENT SLOPES – The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.
FrA FORMAN–AASTAD LOAMS, 0 TO 2 PERCENT SLOPES – The Aastad series consists of very deep, moderately well drained soils that formed in calcareous loamy glacial till on till plains and ground moraines. These soils have moderately slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE.

FrB – Forman–Aastad Loams, 2 To 6 Percent Slopes

FrB FORMAN–AASTAD LOAMS, 2 TO 6 PERCENT SLOPES – The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.
FrB FORMAN–AASTAD LOAMS, 2 TO 6 PERCENT SLOPES – The Aastad series consists of very deep, moderately well drained soils that formed in calcareous loamy glacial till on till plains and ground moraines. These soils have moderately slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE.

FrC – Forman–Aastad Loams, 6 To 9 Percent Slopes

FrC FORMAN–AASTAD LOAMS, 6 TO 9 PERCENT SLOPES – The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.
FrC FORMAN–AASTAD LOAMS, 6 TO 9 PERCENT SLOPES – The Aastad series consists of very deep, moderately well drained soils that formed in calcareous loamy glacial till on till plains and ground moraines. These soils have moderately slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE.

FrD – Forman–Aastad Loams, 9 To 15 Percent Slopes

FrD FORMAN–AASTAD LOAMS, 9 TO 15 PERCENT SLOPES – The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.
FrD FORMAN–AASTAD LOAMS, 9 TO 15 PERCENT SLOPES – The Aastad series consists of very deep, moderately well drained soils that formed in calcareous loamy glacial till on till plains and ground moraines. These soils have moderately slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE.

FsC2 – Forman–Buse Loams, 6 To 9 Percent Slopes, Eroded

FsC2 FORMAN–BUSE LOAMS, 6 TO 9 PERCENT SLOPES, ERODED – The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.
FsC2 FORMAN–BUSE LOAMS, 6 TO 9 PERCENT SLOPES, ERODED – The Buse series consists of very deep, well drained soils that formed in loamy glacial till on moraines. These soils have moderate and moderately slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

FsE − Forman−Buse Loams, 15 To 25 Percent Slopes

FsE FORMAN−BUSE LOAMS, 15 TO 25 PERCENT SLOPES − The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.
FsE FORMAN−BUSE LOAMS, 15 TO 25 PERCENT SLOPES − The Buse series consists of very deep, well drained soils that formed in loamy glacial till on moraines. These soils have moderate and moderately slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

FtD − Forman−Buse Stony Complex, 6 To 21 Percent Slopes

FtD FORMAN−BUSE STONY COMPLEX, 6 TO 21 PERCENT SLOPES − The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.

FxC − Forman−Poinsett Complex, 6 To 9 Percent Slopes

FxC FORMAN−POINSETT COMPLEX, 6 TO 9 PERCENT SLOPES − The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.
FxC FORMAN−POINSETT COMPLEX, 6 TO 9 PERCENT SLOPES − The Poinsett series consists of very deep, well drained soils formed in silty glacial drift on uplands. Permeability is moderate. This soil has high available water capacity and high organic matter content. Flooding is NONE.

FxD − Forman−Poinsett Complex, 9 To 15 Percent Slopes

FxD FORMAN−POINSETT COMPLEX, 9 TO 15 PERCENT SLOPES − The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.
FxD FORMAN−POINSETT COMPLEX, 9 TO 15 PERCENT SLOPES − The Poinsett series consists of very deep, well drained soils formed in silty glacial drift on uplands. Permeability is moderate. This soil has high available water capacity and high organic matter content. Flooding is NONE.

GbB − Great Bend Silt Loam, 2 To 6 Percent Slopes

GbB GREAT BEND SILT LOAM, 2 TO 6 PERCENT SLOPES − The Great Bend series consists of very deep, well drained soils formed in glaciolacustrine sediments on lake plains. Permeability is moderate in the solum and moderate to slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

GdA − Great Bend−Beotia Silt Loams, 0 To 2 Percent Slopes

GdA GREAT BEND−BEOTIA SILT LOAMS, 0 TO 2 PERCENT SLOPES − The Great Bend series consists of very deep, well drained soils formed in glaciolacustrine sediments on lake plains. Permeability is moderate in the solum and moderate to slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
GdA GREAT BEND−BEOTIA SILT LOAMS, 0 TO 2 PERCENT SLOPES − The Beotia series consists of very deep, well drained or moderately well drained soils formed in silty glaciolacustrine deposits on lake plains. Permeability is moderate in the solum and moderate to slow in the underlying material. This soil has high available water capacity and high organic matter content. Flooding is NONE.

GeB − Great Bend−Zell Silt Loams, 2 To 6 Percent Slopes

GeB GREAT BEND−ZELL SILT LOAMS, 2 TO 6 PERCENT SLOPES − The Great Bend series consists of very deep, well drained soils formed in glaciolacustrine sediments on lake plains. Permeability is moderate in the solum and moderate to slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
GeB GREAT BEND−ZELL SILT LOAMS, 2 TO 6 PERCENT SLOPES − The Zell series consists of very deep, well drained moderately permeable soils formed in glaciolacustrine sediments. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

GeC − Great Bend−Zell Silt Loams, 6 To 9 Percent Slopes

GeC GREAT BEND−ZELL SILT LOAMS, 6 TO 9 PERCENT SLOPES − The Great Bend series consists of very deep, well drained soils formed in glaciolacustrine sediments on lake plains. Permeability is moderate in the solum and moderate to slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
GeC GREAT BEND−ZELL SILT LOAMS, 6 TO 9 PERCENT SLOPES − The Zell series consists of very deep, well drained moderately permeable soils formed in glaciolacustrine sediments. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

Ha − Hamar Loamy Fine Sand

Ha HAMAR LOAMY FINE SAND − The Hamar series consists of very deep, poorly or somewhat poorly drained soils formed in eolian sand in upland swales and depressions. Permeability is rapid or moderately rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

Hd − Hamar Fine Sandy Loam

Hd HAMAR FINE SANDY LOAM − The Hamar series consists of very deep, poorly or somewhat poorly drained soils formed in eolian sand in upland swales and depressions. Permeability is rapid or moderately rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

HeA − Harmony−Aberdeen Silty Clay Loams, 0 To 2 Percent Slopes

HeA HARMONY−ABERDEEN SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES − The Harmony series consists of very deep, moderately well drained soils formed in lacustrine sediments on lake plains. Permeability is moderately slow in the solum and slow to moderate in the underlying material. This soil has high available water capacity and high organic matter content. Flooding is NONE.
HeA HARMONY−ABERDEEN SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES − The Aberdeen series consists of very deep, moderately well drained soils formed in glacial lacustrine sediments on lake plains. Permeability is slow in the solum and moderate to slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

HfA − Hecla Loamy Fine Sand, 0 To 3 Percent Slopes

HfA HECLA LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES − The Hecla series consists of deep, moderately well drained soils formed in sandy sediments on lake plains and glacial outwash plains. Permeability is moderately rapid or rapid. This soil has low available water capacity and low organic matter content. Flooding is NONE.

HhA − Hecla−Hamar Loamy Fine Sands, 0 To 3 Percent Slopes

HhA HECLA−HAMAR LOAMY FINE SANDS, 0 TO 3 PERCENT SLOPES − The Hecla series consists of deep, moderately well drained soils formed in sandy sediments on lake plains and glacial outwash plains. Permeability is moderately rapid or rapid. This soil has low available water capacity and low organic matter content. Flooding is NONE.
HhA HECLA−HAMAR LOAMY FINE SANDS, 0 TO 3 PERCENT SLOPES − The Hamar series consists of very deep, poorly or somewhat poorly drained soils formed in eolian sand in upland swales and depressions. Permeability is rapid or moderately rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

HvB2 − Hecla−Venlo Complex, 0 To 6 Percent Slopes, Eroded

HvB2 HECLA−VENLO COMPLEX, 0 TO 6 PERCENT SLOPES, ERODED − The Hecla series consists of deep, moderately well drained soils formed in sandy sediments on lake plains and glacial outwash plains. Permeability is moderately rapid or rapid. This soil has low available water capacity and low organic matter content. Flooding is NONE.
HvB2 HECLA−VENLO COMPLEX, 0 TO 6 PERCENT SLOPES, ERODED − The Venlo series consists of very deep, very poorly drained, rapidly permeable soils that formed in glaciofluvial or glaciolacustrine deposits. These soils are in low, basins and swales on delta, outwash and lake plains. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

KbE − Kloten−Buse Complex, 15 To 40 Percent Slopes

KbE KLOTEN−BUSE COMPLEX, 15 TO 40 PERCENT SLOPES − The Kloten series consists of shallow, well drained, moderately permeable soils that formed in glacial till overlying shale bedrock or material weathered from shale bedrock. These soils are on gently sloping to very steep valley side slopes and upland. This soil has very low available water capacity and moderate organic matter content. Flooding is NONE.
KbE KLOTEN−BUSE COMPLEX, 15 TO 40 PERCENT SLOPES − The Buse series consists of very deep, well drained soils that formed in loamy glacial till on moraines. These soils have moderate and moderately slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

KnA – Kranzburg Silt Loam, 0 To 2 Percent Slopes

KnA KRANZBURG SILT LOAM, 0 TO 2 PERCENT SLOPES – The Kranzburg series consists of very deep, well drained soils formed in silty glacial drift and the underlying glacial till on uplands. Permeability is moderately slow. This soil has high available water capacity and high organic matter content. Flooding is NONE.

KnB – Kranzburg Silt Loam, 2 To 6 Percent Slopes

KnB KRANZBURG SILT LOAM, 2 TO 6 PERCENT SLOPES – The Kranzburg series consists of very deep, well drained soils formed in silty glacial drift and the underlying glacial till on uplands. Permeability is moderately slow. This soil has high available water capacity and high organic matter content. Flooding is NONE.

KnC2 – Kranzburg Silt Loam, 6 To 9 Percent Slopes, Eroded

KnC2 KRANZBURG SILT LOAM, 6 TO 9 PERCENT SLOPES, ERODED – The Kranzburg series consists of very deep, well drained soils formed in silty glacial drift and the underlying glacial till on uplands. Permeability is moderately slow. This soil has high available water capacity and high organic matter content. Flooding is NONE.

KrA – Kranzburg–Aberdeen Silt Loams, 0 To 2 Percent Slopes

KrA KRANZBURG–ABERDEEN SILT LOAMS, 0 TO 2 PERCENT SLOPES – The Kranzburg series consists of very deep, well drained soils formed in silty glacial drift and the underlying glacial till on uplands. Permeability is moderately slow. This soil has high available water capacity and high organic matter content. Flooding is NONE.
KrA KRANZBURG–ABERDEEN SILT LOAMS, 0 TO 2 PERCENT SLOPES – The Aberdeen series consists of very deep, moderately well drained soils formed in glacial lacustrine sediments on lake plains. Permeability is slow in the solum and moderate to slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

KrB – Kranzburg–Aberdeen Silt Loams, 2 To 6 Percent Slopes

KrB KRANZBURG–ABERDEEN SILT LOAMS, 2 TO 6 PERCENT SLOPES – The Kranzburg series consists of very deep, well drained soils formed in silty glacial drift and the underlying glacial till on uplands. Permeability is moderately slow. This soil has high available water capacity and high organic matter content. Flooding is NONE.
KrB KRANZBURG–ABERDEEN SILT LOAMS, 2 TO 6 PERCENT SLOPES – The Aberdeen series consists of very deep, moderately well drained soils formed in glacial lacustrine sediments on lake plains. Permeability is slow in the solum and moderate to slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

La – Lamoure Silty Clay Loam

La LAMOURE SILTY CLAY LOAM – The Lamoure series consists of very deep, somewhat poorly drained or poorly drained soils formed in silty alluvium on flood plains. Permeability is moderate or moderately slow. This soil has high available water capacity and high organic matter content. Flooding is OCCAS.

Lo – Lamoure Silty Clay Loam, Channeled

Lo LAMOURE SILTY CLAY LOAM, CHANNELED – The Lamoure series consists of very deep, somewhat poorly drained or poorly drained soils formed in silty alluvium on flood plains. Permeability is moderate or moderately slow. This soil has high available water capacity and high organic matter content. Flooding is FREQ.

Lu – Ludden Silty Clay

Lu LUDDEN SILTY CLAY – The Ludden series consists of deep, poorly or very poorly drained, slowly permeable soils that formed in clayey alluvium. These soils are on bottom lands of streams. This soil has high available water capacity and high organic matter content. Flooding is FREQ. Ponding duration is LONG.

MaB – Maddock Loamy Fine Sand, 2 To 6 Percent Slopes

MaB MADDOCK LOAMY FINE SAND, 2 TO 6 PERCENT SLOPES – The Maddock series consists of very deep, well drained or somewhat excessively drained, rapidly permeable soils that formed in fine sands deposited by wind or water. These soils are on sandy glaciolacustrine or glaciofluvial, outwash and delta plains. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

MaD − Maddock Loamy Fine Sand, 6 To 15 Percent Slopes

MaD MADDOCK LOAMY FINE SAND, 6 TO 15 PERCENT SLOPES − The Maddock series consists of very deep, well drained or somewhat excessively drained, rapidly permeable soils that formed in fine sands deposited by wind or water. These soils are on sandy glaciolacustrine or glaciofluvial, outwash and delta plains. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

Mr − Southam Silty Clay Loam

Mr SOUTHAM SILTY CLAY LOAM − The Southam series consists of deep, very poorly drained, slowly permeable soils that formed in local alluvial sediments from glacial drift. These soils are in basins and depressions on glacial till plains, glacial moraines, and glaciolacustrine plains. This soil has high available water capacity and organic matter content. Flooding is NONE. Ponding duration is VERY LONG.

Od − Oldham Silty Clay Loam

Od OLDHAM SILTY CLAY LOAM − The Oldham series consists of very deep, poorly drained and very poorly drained soils formed in clayey local alluvium in upland basins and depressions. Permeability is slow or moderately slow. This soil has high available water capacity and high organic matter content. Flooding is NONE.

Oh − Oldham Silty Clay Loam, Saline

Oh OLDHAM SILTY CLAY LOAM, SALINE − The Oldham series consists of very deep, poorly drained and very poorly drained soils formed in clayey local alluvium in upland basins and depressions. Permeability is slow or moderately slow. This soil has high available water capacity and high organic matter content. Flooding is NONE.

Pa − Parnell Silty Clay Loam

Pa PARNELL SILTY CLAY LOAM − The Parnell series consists of very deep, very poorly drained and poorly drained soils that formed in clayey water−sorted sediments from glacial drift in depressions, swales and drainageways on glacial moraines. These soils have slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.

PeA − Peever Clay Loam, 0 To 2 Percent Slopes

PeA PEEVER CLAY LOAM, 0 TO 2 PERCENT SLOPES − The Peever series consists of deep, well drained soils on uplands. Permeability is moderately slow or slow. These soils form in fine textured glacial till. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

PeB − Peever Clay Loam, 2 To 6 Percent Slopes

PeB PEEVER CLAY LOAM, 2 TO 6 PERCENT SLOPES − The Peever series consists of deep, well drained soils on uplands. Permeability is moderately slow or slow. These soils form in fine textured glacial till. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

PeC − Peever Clay Loam, 6 To 9 Percent Slopes

PeC PEEVER CLAY LOAM, 6 TO 9 PERCENT SLOPES − The Peever series consists of deep, well drained soils on uplands. Permeability is moderately slow or slow. These soils form in fine textured glacial till. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

PhA − Peever−Hamerly Complex, 0 To 2 Percent Slopes

PhA PEEVER−HAMERLY COMPLEX, 0 TO 2 PERCENT SLOPES − The Peever series consists of deep, well drained soils on uplands. Permeability is moderately slow or slow. These soils form in fine textured glacial till. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.
PhA PEEVER−HAMERLY COMPLEX, 0 TO 2 PERCENT SLOPES − The Hamerly series consists of very deep, somewhat poorly or moderately well drained soils that formed in calcareous loamy glacial till. Permeability is moderate in the upper horizons and moderate or moderately slow in the lower horizons. These soils are on flats on till−floored lake plains and on convex slopes surrounding shallow depressions and on slight rises on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.

Pm − Playmoor Silty Clay Loam

Pm PLAYMOOR SILTY CLAY LOAM − The Playmoor series consists of deep, poorly drained soils formed in alluvium on flood plains. Permeability is moderate or moderately slow. This soil has high available water capacity and high organic matter content. Flooding is FREQ.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

PoB – Poinsett–Forman Complex, 2 To 6 Percent Slopes

PoB POINSETT–FORMAN COMPLEX, 2 TO 6 PERCENT SLOPES – The Poinsett series consists of very deep, well drained soils formed in silty glacial drift on uplands. Permeability is moderate. This soil has high available water capacity and high organic matter content. Flooding is NONE.
PoB POINSETT–FORMAN COMPLEX, 2 TO 6 PERCENT SLOPES – The Forman series consists of deep, well drained, moderately slowly permeable soils formed in calcareous till. These soils are on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.

PwA – Poinsett–Waubay Silty Clay Loams, 0 To 2 Percent Slopes

PwA POINSETT–WAUBAY SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES – The Poinsett series consists of very deep, well drained soils formed in silty glacial drift on uplands. Permeability is moderate. This soil has high available water capacity and high organic matter content. Flooding is NONE.
PwA POINSETT–WAUBAY SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES – The Waubay series consists of very deep, moderately well drained soils formed in local silty glaciofluvial deposits on flats or footslopes, in slight depressions and in swales. These soils have moderate permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE.

PwB – Poinsett–Waubay Silty Clay Loams, 2 To 6 Percent Slopes

PwB POINSETT–WAUBAY SILTY CLAY LOAMS, 2 TO 6 PERCENT SLOPES – The Poinsett series consists of very deep, well drained soils formed in silty glacial drift on uplands. Permeability is moderate. This soil has high available water capacity and high organic matter content. Flooding is NONE.
PwB POINSETT–WAUBAY SILTY CLAY LOAMS, 2 TO 6 PERCENT SLOPES – The Waubay series consists of very deep, moderately well drained soils formed in local silty glaciofluvial deposits on flats or footslopes, in slight depressions and in swales. These soils have moderate permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE.

RfA – Renshaw–Fordville Loams, 0 To 3 Percent Slopes

RfA RENSHAW–FORDVILLE LOAMS, 0 TO 3 PERCENT SLOPES – The Renshaw series consists of very deep, somewhat excessively drained soils formed in loamy sediments and the underlying sand and gravel on outwash plains, terraces, and flood plains. Permeability is rapid or very rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.
RfA RENSHAW–FORDVILLE LOAMS, 0 TO 3 PERCENT SLOPES – The Fordville series consists of very deep, well drained soils formed in loamy sediments that are moderately deep over sand and gravel on outwash plains, terraces, and flood plains. Permeability is moderate in the solum and rapid in the underlying sand and gravel. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

RfB – Renshaw–Fordville Loams, 3 To 6 Percent Slopes

RfB RENSHAW–FORDVILLE LOAMS, 3 TO 6 PERCENT SLOPES – The Renshaw series consists of very deep, somewhat excessively drained soils formed in loamy sediments and the underlying sand and gravel on outwash plains, terraces, and flood plains. Permeability is rapid or very rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.
RfB RENSHAW–FORDVILLE LOAMS, 3 TO 6 PERCENT SLOPES – The Fordville series consists of very deep, well drained soils formed in loamy sediments that are moderately deep over sand and gravel on outwash plains, terraces, and flood plains. Permeability is moderate in the solum and rapid in the underlying sand and gravel. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

RfC – Renshaw–Fordville Loams, 6 To 9 Percent Slopes

RfC RENSHAW–FORDVILLE LOAMS, 6 TO 9 PERCENT SLOPES – The Renshaw series consists of very deep, somewhat excessively drained soils formed in loamy sediments and the underlying sand and gravel on outwash plains, terraces, and flood plains. Permeability is rapid or very rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.
RfC RENSHAW–FORDVILLE LOAMS, 6 TO 9 PERCENT SLOPES – The Fordville series consists of very deep, well drained soils formed in loamy sediments that are moderately deep over sand and gravel on outwash plains, terraces, and flood plains. Permeability is moderate in the solum and rapid in the underlying sand and gravel. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

Sa − Minnewaukan Loamy Sand

Sa MINNEWAUKAN LOAMY SAND − The Minnewaukan series consists of very deep, poorly drained, rapidly permeable soils that formed in calcareous sorted sands. These soils are on beaches and basins of current and glacial lakes. This soil has low available water capacity and moderate organic matter content. Flooding is OCCAS. Ponding duration is LONG.

SdD2 − Serden Fine Sand, 6 To 21 Percent Slopes, Eroded

SdD2 SERDEN FINE SAND, 6 TO 21 PERCENT SLOPES, ERODED − The Serden series consists of deep, excessively drained, rapidly permeable soils that formed in wind worked fine and medium sand. These soils are on lacustrine and outwash plains. This soil has low available water capacity and low organic matter content. Flooding is NONE.

SeB − Serden−Venlo Complex, 0 To 6 Percent Slopes

SeB SERDEN−VENLO COMPLEX, 0 TO 6 PERCENT SLOPES − The Serden series consists of deep, excessively drained, rapidly permeable soils that formed in wind worked fine and medium sand. These soils are on lacustrine and outwash plains. This soil has low available water capacity and low organic matter content. Flooding is NONE.
SeB SERDEN−VENLO COMPLEX, 0 TO 6 PERCENT SLOPES − The Venlo series consists of very deep, very poorly drained, rapidly permeable soils that formed in glaciofluvial or glaciolacustrine deposits. These soils are in low, basins and swales on delta, outwash and lake plains. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

ShD − Sieche Loam, 6 To 15 Percent Slopes

ShD SIECHE LOAM, 6 TO 15 PERCENT SLOPES − The Sieche series consists of deep, well drained soils formed in glacial till on steep or very steep uplands. These soils have moderately slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE.

ShF − Sieche Loam, 21 To 50 Percent Slopes

ShF SIECHE LOAM, 21 TO 50 PERCENT SLOPES − The Sieche series consists of deep, well drained soils formed in glacial till on steep or very steep uplands. These soils have moderately slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE.

SkA − Sinai Silty Clay, 0 To 3 Percent Slopes

SkA SINAI SILTY CLAY, 0 TO 3 PERCENT SLOPES − The Sinai series consists of very deep, moderately well drained and well drained soils formed in glaciolacustrine sediments on uplands. Permeability is slow or very slow. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

SkB − Sinai Silty Clay, 3 To 6 Percent Slopes

SkB SINAI SILTY CLAY, 3 TO 6 PERCENT SLOPES − The Sinai series consists of very deep, moderately well drained and well drained soils formed in glaciolacustrine sediments on uplands. Permeability is slow or very slow. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

SkC − Sinai Silty Clay, 6 To 9 Percent Slopes

SkC SINAI SILTY CLAY, 6 TO 9 PERCENT SLOPES − The Sinai series consists of very deep, moderately well drained and well drained soils formed in glaciolacustrine sediments on uplands. Permeability is slow or very slow. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

SmE − Sioux−Arvilla Loams, 15 To 40 Percent Slopes

SmE SIOUX−ARVILLA LOAMS, 15 TO 40 PERCENT SLOPES − The Arvilla series consists of very deep, somewhat excessively drained soils formed in moderately coarse textured glacial outwash and the underlying sand and gravel on glacial lake beaches, stream valley terraces and outwash plains. These soils have moderately rapid permeability in the upper part and rapid or very rapid permeability in the underlying material. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.
SmE SIOUX−ARVILLA LOAMS, 15 TO 40 PERCENT SLOPES − The Sioux series consists of excessively drained soils formed in sand and gravel on outwash plains, terraces, and eskers. They are very shallow over gravelly sand. Permeability is rapid or very rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

Su – Stirum–Ulen Fine Sandy Loams

Su STIRUM–ULEN FINE SANDY LOAMS – The Stirum series consists of very deep, poorly drained and very poorly drained soils on outwash plains, deltas, lake plains, floodplains and adjacent to current lakes. Permeability is moderately slow in the Btn horizon and moderate to rapid below the Btn horizon. These soils formed in glaciofluvial deposits, glaciolacustrine deposits or alluvium. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE. Ponding duration is LONG.
Su STIRUM–ULEN FINE SANDY LOAMS – The Ulen series consists of very deep, somewhat poorly drained and moderately well drained soils that formed in sandy glaciolacustrine deposits on glacial lake plains. Permeability is rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

SwA – Swenoda Fine Sandy Loam, 0 To 2 Percent Slopes

SwA SWENODA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES – The Swenoda series consists of very deep, well drained and moderately well drained soils formed in loamy sediments underlain by silty and loamy sediments on uplands. Permeability is moderately rapid in the upper part and moderate or moderately slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

SwB – Swenoda Fine Sandy Loam, 2 To 6 Percent Slopes

SwB SWENODA FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES – The Swenoda series consists of very deep, well drained and moderately well drained soils formed in loamy sediments underlain by silty and loamy sediments on uplands. Permeability is moderately rapid in the upper part and moderate or moderately slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

SxA – Swenoda–Larson Complex, 0 To 2 Percent Slopes

SxA SWENODA–LARSON COMPLEX, 0 TO 2 PERCENT SLOPES – The Swenoda series consists of very deep, well drained and moderately well drained soils formed in loamy sediments underlain by silty and loamy sediments on uplands. Permeability is moderately rapid in the upper part and moderate or moderately slow in the underlying material. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
SxA SWENODA–LARSON COMPLEX, 0 TO 2 PERCENT SLOPES – The Larson series consists of very deep, moderately well and somewhat poorly drained soils that formed in calcareous glacial till. Permeability is slow in the Bt horizon and moderately slow or moderate in the C horizons. These soils are on till plains and have slopes ranging from 0 to 6 percent. This soil has moderate available water capacity and high organic matter content. Flooding is NONE.

To – Tonka Silt Loam

To TONKA SILT LOAM – The Tonka series consists of very deep, poorly drained, slowly permeable soils that formed in local alluvium over glacial till or glaciolacustrine deposits. These soils are in closed basins and depressions on glacial till and glacial lake plains. This soil has high available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.

Uf – Ulen Fine Sandy Loam

Uf ULEN FINE SANDY LOAM – The Ulen series consists of very deep, somewhat poorly drained and moderately well drained soils that formed in sandy glaciolacustrine deposits on glacial lake plains. Permeability is rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

Us – Ulen–Stirum Fine Sandy Loams

Us ULEN–STIRUM FINE SANDY LOAMS – The Ulen series consists of very deep, somewhat poorly drained and moderately well drained soils that formed in sandy glaciolacustrine deposits on glacial lake plains. Permeability is rapid. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.
Us ULEN–STIRUM FINE SANDY LOAMS – The Stirum series consists of very deep, poorly drained and very poorly drained soils on outwash plains, deltas, lake plains, floodplains and adjacent to current lakes. Permeability is moderately slow in the Btn horizon and moderate to rapid below the Btn horizon. These soils formed in glaciofluvial deposits, glaciolacustrine deposits or alluvium. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE. Ponding duration is LONG.

Va – Vallers Loam

Va VALLERS LOAM – The Vallers series consists of deep, poorly drained soils that formed in calcareous loamy glacial till on glacial moraines. These soils have moderately slow permeability. This soil has high available water capacity and high organic matter content. Flooding is RARE.

Marshall County, South Dakota
Non Technical Soil Descriptions--Continued

Wa – Rauville Silty Clay Loam

Wa RAUVILLE SILTY CLAY LOAM – The Rauville series consists of deep, very poorly drained soils formed in alluvium on flats and bottom lands. Permeability is moderate or moderately slow in the upperpart and moderately rapid in the underlying sand and gravel. This soil has high available water capacity and high organic matter content. Flooding is FREQ.