

Major Land Resource Area 103X

Central Iowa and Minnesota Till Prairies

Accessed: 06/18/2026

Ecological site keys

MLRA 103X

I. Sites located in an upland position

A. sites located on summits, shoulders, and backslopes

1 Outwash and glaciofluvial sediments

- i. **Loamy capped Mollisols** ... R103XY003MN – Sandy Upland Prairies
- ii. **Loamy capped Argiudolls** ... R103XY019MN – Sandy Upland Savannas
- iii. **Big Woods** ... F103XY024MN – Sandy Upland Forests

2 Loamy glacial till

- i. **Calcareous** ... R103XY002MN – Calcareous Upland Prairies
- ii. **Not Calcareous**
 - a. **Typic/Oxyaquic Mollisols** ... R103XY004MN – Loamy Upland Prairies
 - b. **Argiudolls** ... R103XY020MN – Loamy Upland Savannas
 - c. **Big Woods** ... F103XY025MN – Loamy Upland Forests

3 Fine lacustrine and fine glacial till

- i. **Fine family Mollisols** ... R103XY005MN – Clayey Upland Prairies
- ii. **Fine family Big Woods** ... F103XY026MN – Clayey Upland Forests
- iii. **Fine family Argiudolls** ... R103XY021MN – Clayey Upland Savannas

B. Sites located on footslopes and toeslopes

1 Drainageways

i. Flooded

- a. **P drained (0+'' depth to wet layer)** ... R103XY012MN – Wet Footslope/Drainageway Prairies
- b. **SWP-W drained (12+'' depth to wet layer)** ... R103XY011MN – Footslope/Drainageway Prairies

ii. Not flooded (Big Woods)

- a. **SWP-P drained (0+'' depth to wet layer)** ... F103XY030MN – Wet Footslope/Drainageway Forests
- b. **SWP-W drained (12+'' depth to wet layer)** ... F103XY029MN – Footslope/Drainageway Forests

2 Rims ... R103XY009MN – Calcareous Rim Prairies

3 Depressions

i. Ponded

a. Organic soil

- 1) **Herbaceous peat ... R103XY016MN – Organic Marsh**
- 2) **Limnic sediment ... R103XY018MN – Shallow Lakes**
- 3) **Big Woods ... R103XY017MN – Organic Wet Meadow/Carr**

b. Mineral soils

- 1) **recharge hydrology ... R103XY014MN – Recharge Depressions**
- 2) **Discharge hydrology**
 - a) **Prairie region ... R103XY015MN – Depressional Marsh**
 - b) **Big Woods ... F103XY036MN – Depressional Wet Forests**

ii. Not ponded

a. Outwash and glaciofluvial sediments ... R103XY007MN – Sandy Wet Prairies

b. Loamy glacial till

- 1) **Typic Endoaquolls ... R103XY001MN – Loamy Wet Prairies**
- 2) **Typic Argiaquolls ... R103XY022MN – Loamy Wet Savannas**
- 3) **Big Woods ... F103XY027MN – Loamy Wet Forests**

c. Fine lacustrine sediments and fine glacial till

- 1) **Big Woods ... F103XY028MN – Clayey Wet Forests**
- 2) **Vertic Argiaquolls ... R103XY023MN – Clayey Wet Savannas**
- 3) **Vertic Endoaquolls ... R103XY008MN – Clayey Wet Prairies**

II. Sites located in a lowland position

A. Bedrock-controlled terraces

- 1 **Flooded ... R103XY010MN – Bedrock Controlled Wet Prairies**
- 2 **Not flooded ... R103XY006MN – Bedrock Controlled Upland Prairies**

B. Floodplains

1 Ponded only (groundwater discharge) ... R103XY013MN – Calcareous Fens

2 Ponded and Flooded

- i. **Organic soils ... R103XY035MN – Organic Floodplain Marsh**
- ii. **Mineral soils ... R103XY034MN – Floodplain Marsh**

3 Flooded only

- i. **Clayey alluvium, VP-P drained ... F103XY033MN – Wet Floodplains**
- ii. **Loamy alluvium, SWP-MW drained ... F103XY032MN – Loamy Floodplains**
- iii. **Sandy alluvium, MW-EW drained ... F103XY031MN – Sandy Floodplains**