

Major Land Resource Area 107X Iowa and Missouri Deep Loess Hills

Accessed: 06/18/2026

Ecological site keys

MLRA 107A Key to Provisional Ecological Sites

I. Uplands

A. Summits, Shoulder & Backslopes

1 Loess ... R107XA201IA – Loess Upland Prairie

2 Calcareous till

i. Slopes $\geq 20\%$... R107XA202IA – Calcareous Till Upland Prairie

ii. Slopes $\geq 20\%$

a. South and West aspects ... R107XA203IA – Calcareous Till Exposed Backslope Prairie

b. North and East aspects ... R107XA204IA – Calcareous Till Protected Backslope Savanna

3 Loamy sediments ... R107XA205IA – Loamy Sediment Upland Prairie

4 Outwash (including ≥ 40 inches (100 cm) loess over outwash) ... R107XA206IA – Outwash Upland Prairie

5 Eolian sands ... R107XA207IA – Sandy Dry Prairie

B. Upland Flats & Depressions, slopes 0-2%

1 Ponded ... R107XA208IA – Ponded Upland Depression Sedge Meadow

2 Not ponded

i. Drainageway ... R107XA210IA – Wet Upland Drainageway Prairie

ii. not as above ... R107XA209IA – Wet Upland Sedge Meadow

II. Not as above

A. Valley footslope, colluvial parent material ... R107XA211IA – Footslope Prairie

B. Stream terrace ... R107XA212IA – Stream Terrace Prairie

C. Floodplain

1 Frequently flooded, depth to water table > 18 inches (45 cm), and located within the Little Sioux River floodplain ...

F107XA213IA – Loamy Floodplain Forest

2 Not as above

i. Deep to water table (≥ 30 cm), Somewhat Poorly to Moderately Well drained ... R107XA214IA – Loamy Floodplain Prairie

ii. Shallow to water table (<12 inches (30 cm)), Poorly to Very Poorly drained ... R107XA215IA – Wet
Floodplain Sedge Meadow

MLRA 107B Key to Provisional Ecological Sites

I. Sites located on an upland on a summit, shoulder, or backslope

A. Loess parent material

1 Carbonates at or near the surface

i. Slopes ? 15 percent ... R107XB012MO – Calcareous Loess Upland Prairie

ii. Slopes ? 15 percent

a. North and East Aspects ... R107XB013MO – Calcareous Loess Protected Backslope
Savanna

b. South and West Aspects ... R107XB006MO – Calcareous Loess Exposed Backslope
Prairie

2 Carbonates below cambic

i. Slopes < 15% ... F107XB009MO – Calcareous Loess Upland Woodland

ii. Slopes > 15%

a. North and East Aspects ... F107XB010MO – Calcareous Loess Protected Backslope
Forest

b. South and West Aspects ... F107XB011MO – Calcareous Loess Exposed Backslope
Woodland

3 No Carbonates

i. Lower Clay (<30%)

a. Slopes < 15% ... R107XB002MO – Deep Loess Upland Prairie

b. Slopes > 15%

1 North and East Aspects ... F107XB004MO – Deep Loess Protected Backslope
Woodland

2 South and West Aspects ... R107XB003MO – Deep Loess Exposed Backslope Savanna

ii. Higher Clay (>30%)

a. All slopes ... R107XB007MO – Loess Upland Prairie

B. Till parent material

1 Carbonates at/near surface

i. All slopes ... R107XB027IA – Calcareous Till Upland Prairie

C. Sands parent material ... R107XB030IA – Sandy Dune Prairie

II. Sites located on an upland on a depression, drainageways, or footslope

A. Loess

- 1 Depression** ... R107XB022IA – Wet Upland Depression Prairie
- 2 Drainageway** ... R107XB024IA – Wet Upland Drainageway Prairie
- 3 Foothlope** ... R107XB008MO – Loamy Foothlope Savanna

B. Skeletal

- 1 Foothlope** ... F107XB005MO – Talus Foothlope Forest

III. Sites located on a lowland on a stream terrace or floodplain

A. Stream Terrace

- 1 Moderately Well to Well drained** ... R107XB020MO – Loamy Terrace Savanna
- 2 Somewhat Poorly to Poorly drained**
 - i. Clayey soils with silty clay loam, silty clay or clay surface textures** ... R107XB021MO – Wet Terrace Savanna
 - ii. Loamy soils with silt loam surface texture** ... R107XB014MO – Wet Loess High Terrace Savanna

B. Floodplain

- 1 Ponded** ... R107XB018MO – Ponded Floodplain Marsh
- 2 Not Ponded**
 - i. Adjacent to stream channel**
 - a. Sandy, coarse-loamy** ... F107XB015MO – Sandy/Loamy Floodplain Forest
 - b. Loamy, fine-loamy, fine-silty** ... F107XB016MO – Loamy Floodplain Forest
 - c. Clayey** ... F107XB017MO – Clayey Floodplain Forest
 - ii. Not adjacent to stream channel**
 - a. Moderately Well drained, Loamy** ... R107XB025IA – Loamy Floodplain Prairie
 - b. Somewhat Poorly to Poorly, Clayey** ... R107XB019MO – Wet Floodplain Prairie
 - c. Somewhat Poorly, Coarse-silty, Fine-silty** ... F107XB026MO – Wet Floodplain Woodland
 - d. Salt/gypsum** ... R107XB023IA – Natric Floodplain Prairie