

Major Land Resource Area 091X

Wisconsin and Minnesota Sandy Outwash

Accessed: 06/17/2026

Ecological site keys

MLRA 91 Key

LOWLANDS Lowlands (floodplains, depressions and flats, and organic soils)

I. Organic soil and has a Histic epipedon or is a Histosol (>20 cm of organic soil materials)

- a. Soil pH is below 4.5 ... F091XY001WI – Poor Fen
- b. Soil pH is above 4.5 ... F091XY002WI – Mucky Swamp

II. Mineral soil (Histic epipedon or Histosol absent)

- a. Site is located in a floodplain ... F091XY003WI – Floodplain
- b. Site is located on a terrace ... F091XY004WI – Terrace
- c. Site is not located in a floodplain or on a terrace
 - i. Soil is very poorly or poorly drained
 - 1 Soil is sandy to loamy in texture ... F091XY005WI – Wet Sandy and Loamy Lowland
 - 2 Soil is clayey in texture ... F091XY006WI – Wet Clayey Lowland
 - ii. Soil is somewhat poorly drained
 - 1 Soil is sandy to loamy textured ... F091XY007WI – Moist Sandy and Loamy Lowland
 - 2 Soil is clayey textured ... F091XY008WI – Moist Clayey Lowland

UPLANDS (footslopes, backslopes, shoulders, and summits)

I. Site is moderately well, well, or somewhat excessively drained

- a. Soil is dominated by sandy textures
 - i. Argillic horizon is present ... F091XY009WI – Alfic Sandy Upland
 - ii. Spodic horizon is present ... F091XY010WI – Acidic Sandy Upland
 - iii. No argillic or spodic horizon is present ... F091XY011WI – Sandy Upland
- b. Soil is dominated by loamy textures ... F091XY012WI – Loamy Upland
- c. Soil is dominated by clayey textures ... F091XY013WI – Clayey Upland

II. Site is excessively drained

- a. Spodic horizon present ... F091XY014WI – Acidic Dry Upland
- b. No spodic horizon present ... F091XY015WI – Dry Upland