

Nontechnical Soil Descriptions  
Leelanau County, Michigan

Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units, shown in the NonTechnical Descriptions report. These descriptions are written in terminology that Non-technical users of soil survey information can understand. Nontechnical soil descriptions are a powerful tool for creating reports. These high quality, easy to read reports can be generated by conservation planners and other NRCS employees for distribution to land users. Soil map unit descriptions and National Soil Information System records are the basis for these descriptions.

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Ah Adrian-Houghton Mucks

Adrian soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is very poorly drained. The slowest permeability is rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. It is in the nonirrigated land capability classification 6w.

Houghton soil makes up 40 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is very poorly drained. It has a very high available water capacity and a low shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. It is in the nonirrigated land capability classification 6w.

AlC Alcona Sandy Loam, 6 To 12 Percent Slopes

Alcona soil makes up 85 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 3e.

ArA Alcona-Richter Sandy Loams, 0 To 2 Percent Slopes

Alcona soil makes up 55 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is moderately well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. It is in the nonirrigated land capability classification 2s.

Richter soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 20 percent calcium carbonate. It is in the nonirrigated land capability classification 2w.

ArB Alcona-Richter Sandy Loams, 2 To 6 Percent Slopes

Alcona soil makes up 65 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is moderately well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. It is in the nonirrigated land capability classification 2e.

Nontechnical Soil Descriptions--Continued

Richter soil makes up 25 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 20 percent calcium carbonate. It is in the nonirrigated land capability classification 2e.

AsC Alpena Gravelly Sandy Loam, 0 To 12 Percent Slopes

Alpena soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is excessively drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6s.

AuA Au Gres-Kalkaska Sands, 0 To 4 Percent Slopes

Au Gres soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is somewhat poorly drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. It is in the nonirrigated land capability classification 4w.

Kalkaska soil makes up 35 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 4s.

Ba Bach Loam

Bach soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

DkD Deer Park Sand, 6 To 18 Percent Slopes

Deer Park soil makes up 95 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 7s.

DkF Deer Park Sand, 18 To 45 Percent Slopes

Deer Park soil makes up 95 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 7s.

Nontechnical Soil Descriptions--Continued

DrB Deer Park-Roscommon Sands, 0 To 6 Percent Slopes

Deer Park soil makes up 70 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 7s.

Roscommon soil makes up 25 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is poorly drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 10 percent calcium carbonate. It is in the nonirrigated land capability classification 6w.

DtB Detour Sandy Loam, 0 To 6 Percent Slopes

Detour soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is high. This soil is somewhat poorly drained. The slowest permeability is very slow. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 15 inches. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 6w.

EaB East Lake Loamy Sand, 0 To 6 Percent Slopes

East Lake soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 4s.

EaC East Lake Loamy Sand, 6 To 12 Percent Slopes

East Lake soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6s.

EaD East Lake Loamy Sand, 12 To 18 Percent Slopes

East Lake soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6s.

EaE East Lake Loamy Sand, 18 To 25 Percent Slopes

East Lake soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 7s.

Nontechnical Soil Descriptions--Continued

EdB Eastport Sand, 0 To 6 Percent Slopes

Eastport soil makes up 93 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6s.

Em Edwards Muck-Marl Beds Complex

Edwards soil makes up 70 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is very poorly drained. It has a very high available water capacity and a low shrink swell potential. This soil is frequently flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. It is in the nonirrigated land capability classification 6w.

EnA Emmet-Leelanau Complex, 0 To 2 Percent Slopes

Emmet soil makes up 60 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 2s.

EnB Emmet-Leelanau Complex, 2 To 6 Percent Slopes

Emmet soil makes up 60 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 2e.

Leelanau soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 3s.

EnC Emmet-Leelanau Complex, 6 To 12 Percent Slopes

Emmet soil makes up 60 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 3e.

Leelanau soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 3e.

## Nontechnical Soil Descriptions--Continued

## EnD Emmet-Leelanau Complex, 12 To 18 Percent Slopes

Emmet soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

Leelanau soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 4e.

## EnE Emmet-Leelanau Complex, 18 To 25 Percent Slopes

Emmet soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

Leelanau soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6e.

## EnE2 Emmet-Leelanau Complex, 18 To 25 Percent Slopes, Eroded

Emmet soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

Leelanau soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6e.

## EnF Emmet-Leelanau Complex, 25 To 50 Percent Slopes

Emmet soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 7e.

Leelanau soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 7e.

Nontechnical Soil Descriptions--Continued

EnF2 Emmet-Leelanau Complex, 25 To 50 Percent Slopes, Eroded

Emmet soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 7e.

Leelanau soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 7e.

EoC Emmet-Mancelona Gravelly Sandy Loams, 4 To 12 Percent Slopes

Emmet soil makes up 70 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 3e.

Mancelona soil makes up 25 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification .

EoD Emmet-Mancelona Gravelly Sandy Loams, 12 To 18 Percent Slopes

Emmet soil makes up 60 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

Mancelona soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

EoE Emmet-Mancelona Gravelly Sandy Loams, 18 To 35 Percent Slopes

Emmet soil makes up 60 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 7e.

Mancelona soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 7e.

Nontechnical Soil Descriptions--Continued

EsA Emmet-Omena Sandy Loams, 0 To 2 Percent Slopes

Emmet soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 2s.

Omena soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 2s.

EsB Emmet-Omena Sandy Loams, 2 To 6 Percent Slopes

Emmet soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 2e.

Omena soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 2e.

EsC Emmet-Omena Sandy Loams, 6 To 12 Percent Slopes

Emmet soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 3e.

Omena soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 3e.

EsD Emmet-Omena Sandy Loams, 12 To 18 Percent Slopes

Emmet soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

Omena soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

Nontechnical Soil Descriptions--Continued

EsE Emmet-Omena Sandy Loams, 18 To 25 Percent Slopes

Emmet soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

Omena soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is high. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

EsF Emmet-Omena Sandy Loams, 25 To 50 Percent Slopes

Emmet soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 7e.

Omena soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is high. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 7e.

Hm Hettinger-Muck Complex

Hettinger soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is very poorly drained. The slowest permeability is slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

Ht Hettinger-Tonkey Loams

Hettinger soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is poorly drained. The slowest permeability is slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

Tonkey soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 10 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

Ie Iosco-Epoufette Loamy Sands

Iosco soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 3w.

Epoufette soil makes up 25 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is poorly drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

KaB Kalkaska Sand, 0 To 6 Percent Slopes

Kalkaska soil makes up 85 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 4s.

KaC Kalkaska Sand, 6 To 12 Percent Slopes

Kalkaska soil makes up 85 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6s.

KaD Kalkaska Sand, 12 To 18 Percent Slopes

Kalkaska soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6s.

KaE Kalkaska Sand, 18 To 25 Percent Slopes

Kalkaska soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 7s.

KaF Kalkaska Sand, 25 To 45 Percent Slopes

Kalkaska soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 7s.

KeB Kalkaska-East Lake Loamy Sands, 0 To 6 Percent Slopes

Kalkaska soil makes up 55 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 4s.

East Lake soil makes up 35 percent of the map unit. This map unit is in the Western Michigan and

Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 4s.

#### KmB Kiva-Mancelona Gravelly Sandy Loams, 2 To 6 Percent Slopes

Kiva soil makes up 65 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 3s.

Mancelona soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification .

#### KmC Kiva-Mancelona Gravelly Sandy Loams, 6 To 12 Percent Slopes

Kiva soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

Mancelona soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification .

#### KmD Kiva-Mancelona Gravelly Sandy Loams, 12 To 18 Percent Slopes

Kiva soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

Mancelona soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

#### KmE Kiva-Mancelona Gravelly Sandy Loams, 18 To 25 Percent Slopes

Kiva soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is high. This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

#### Nontechnical Soil Descriptions--Continued

Mancelona soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil

is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

#### LlB Leelanau-East Lake Loamy Sands, 0 To 6 Percent Slopes

Leelanau soil makes up 60 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 3s.

East Lake soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 4s.

#### LlC Leelanau-East Lake Loamy Sands, 6 To 12 Percent Slopes

Leelanau soil makes up 65 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 3e.

East Lake soil makes up 25 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6s.

#### LlD Leelanau-East Lake Loamy Sands, 12 To 18 Percent Slopes

Leelanau soil makes up 65 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 4e.

East Lake soil makes up 25 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6s.

#### LlE Leelanau-East Lake Loamy Sands, 18 To 25 Percent Slopes

Leelanau soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6e.

#### Nontechnical Soil Descriptions--Continued

East Lake soil makes up 35 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water

capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 7s.

#### LlF Leelanau-East Lake Loamy Sands, 25 To 45 Percent Slopes

Leelanau soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 7e.

East Lake soil makes up 35 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 7s.

#### Lm Lupton-Markey Mucks

Lupton soil makes up 60 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is very poorly drained. It has a very high available water capacity and a low shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. It is in the nonirrigated land capability classification 6w.

Markey soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is very poorly drained. The slowest permeability is rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 5 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

#### MdB Mancelona Sandy Loam, 0 To 6 Percent Slopes

Mancelona soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 3s.

#### MdC Mancelona Sandy Loam, 6 To 12 Percent Slopes

Mancelona soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 3e.

#### Nontechnical Soil Descriptions--Continued

#### MlB Mancelona-East Lake Loamy Sands, 0 To 6 Percent Slopes

Mancelona soil makes up 60 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil

is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 3s.

East Lake soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 4s.

#### M1C Mancelona-East Lake Loamy Sands, 6 To 12 Percent Slopes

Mancelona soil makes up 55 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 3e.

East Lake soil makes up 35 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6s.

#### M1D Mancelona-East Lake Loamy Sands, 12 To 18 Percent Slopes

Mancelona soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

East Lake soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6s.

#### M1E Mancelona-East Lake Loamy Sands, 18 To 25 Percent Slopes

Mancelona soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

East Lake soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 7s.

#### Nontechnical Soil Descriptions--Continued

#### M1F Mancelona-East Lake Loamy Sands, 25 To 45 Percent Slopes

Mancelona soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low

available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 7e.

East Lake soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification 7s.

MrB Mancelona-Richter Gravelly Sandy Loams, 0 To 6 Percent Slopes

Mancelona soil makes up 70 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 25 percent calcium carbonate. It is in the nonirrigated land capability classification .

Richter soil makes up 25 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 20 percent calcium carbonate. It is in the nonirrigated land capability classification 2e.

NsB Nester Silt Loam, 2 To 6 Percent Slopes

Nester soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is high. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 2e.

NsC Nester Silt Loam, 6 To 12 Percent Slopes

Nester soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very high. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 3e.

NsD Nester Silt Loam, 12 To 18 Percent Slopes

Nester soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very high. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 4e.

Nontechnical Soil Descriptions--Continued

NsE Nester Silt Loam, 18 To 25 Percent Slopes

Nester soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very high. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal

high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

NsF Nester Silt Loam, 25 To 50 Percent Slopes

Nester soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very high. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 7e.

NtF3 Nester Silty Clay Loam, 20 To 50 Percent Slopes, Severely Eroded

Nester soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very high. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 7e.

RaA Richter-Alcona Sandy Loams, 0 To 2 Percent Slopes

Richter soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 20 percent calcium carbonate. It is in the nonirrigated land capability classification 2w.

Alcona soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 2s.

RaB Richter-Alcona Sandy Loams, 2 To 6 Percent Slopes

Richter soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 20 percent calcium carbonate. It is in the nonirrigated land capability classification 2e.

Alcona soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 2e.

Nontechnical Soil Descriptions--Continued

Rm Roscommon Sand-Markey Muck

Roscommon soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is negligible. This soil is very poorly drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 10

percent calcium carbonate. It is in the nonirrigated land capability classification 6w.

Markey soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is very poorly drained. The slowest permeability is rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 5 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

#### SnB Sanilac Silt Loam, 0 To 6 Percent Slopes

Sanilac soil makes up 90 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 18 inches. The soil contains a maximum amount of 20 percent calcium carbonate. It is in the nonirrigated land capability classification 2e.

#### TmA Tonkey-Munuscong-Iosco Sandy Loams, 0 To 2 Percent Slopes

Tonkey soil makes up 40 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 10 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

Munuscong soil makes up 25 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is poorly drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

Iosco soil makes up 25 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 3w.

#### TmB Tonkey-Munuscong-Iosco Sandy Loams, 2 To 6 Percent Slopes

Tonkey soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 10 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

Munuscong soil makes up 30 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is medium. This soil is somewhat poorly drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 5w.

#### Nontechnical Soil Descriptions--Continued

Iosco soil makes up 20 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. This soil is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 30 percent calcium carbonate. It is in the nonirrigated land capability classification 3w.

#### WkC Wallace-Kalkaska Sands, 2 To 12 Percent Slopes

Wallace soil makes up 50 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is low. The soil is 6 to 15 inches deep to undefined. This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6s.

Kalkaska soil makes up 45 percent of the map unit. This map unit is in the Western Michigan and Northeastern Wisconsin Fruit Belt Major Land Resource Area. The runoff class is very low. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6s.