Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
AgB:	6s		Not prime farmland		Potentially highly erodible land
Alpena		Ga		No	
AgD:	6s		Not prime farmland		Potentially highly erodible land
Alpena		Ga		No	
AgF:	7s		Not prime farmland		Highly erodible land
Alpena		Ga		No	
Ak:	7s		Not prime farmland		Not highly erodible land
Alpena		Ga		No	
Kiva		4a		No	
East Lake		5a		No	
An:	5w		Prime farmland if drained		Not highly erodible land
Angelica		2.5c		Yes	
Ensley		3c		Yes	
ArA:	4w		Not prime farmland		Not highly erodible land
Au Gres		5b		No	
AuA:	4w		Not prime farmland		Not highly erodible land
Au Gres, loamy substratum		5b		No	
BaB:	3e		Farmland of local importance		Not highly erodible land
Barker		None assigned		No	
BaC:	3e		Farmland of local importance		Potentially highly erodible land
Barker		None assigned		No	
BaE:	6e		Not prime farmland		Potentially highly erodible land
Barker		None assigned		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
BcB:	3e		Farmland of local importance		Not highly erodible land
Barker Variant		None assigned		No	
BdA:	2w		Prime farmland if drained		Not highly erodible land
Belding		3/2b		No	
Breckenridge		3/2c		Yes	
Be:	5w		Farmland of local importance		Not highly erodible land
Bergland		0c		Yes	
Sims		1.5c		Yes	
BkB:	3s		Farmland of local importance		Potentially highly erodible land
Blue Lake		4a		No	
Kalkaska		5a		No	
BkC:	4e		Farmland of local importance		Potentially highly erodible land
Blue Lake		4a		No	
Kalkaska		5a		No	
BlB:	3s		Farmland of local importance		Not highly erodible land
Blue Lake		4a		No	
BlC:	3e		Farmland of local importance		Not highly erodible land
Blue Lake		4a		No	
BlD:	4e		Not prime farmland		Potentially highly erodible land
Blue Lake		4a		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
BlF:	7e		Not prime farmland		Potentially highly erodible land
Blue Lake		4a		No	
Bv:	5w		Farmland of local importance		Not highly erodible land
Brevort		4/2c		Yes	
BwB:	2e		Prime farmland if drained		Not highly erodible land
Brimely		2.5b-s		No	
By:	5w		Prime farmland if drained		Not highly erodible land
Burce		2.5c-s		Yes	
Ca:	6w		Not prime farmland		Not highly erodible land
Carbondale		Mc		Yes	
Cc:	6w		Not prime farmland		Not highly erodible land
Cathro		M/3c		Yes	
CkB:	2e		Prime farmland if drained		Potentially highly erodible land
Charlevoix		3b		No	
Kawkawlin		1.5b		No	
CmB:	2e		Prime farmland if drained		Not highly erodible land
Charlevoix		3b		No	
Mackinac		2.5b		No	
CnB:	3e		Prime farmland if drained		Not highly erodible land
Charlevoix		3b		No	
Mackinac		2.5b		No	
CrA:	4s		Not prime farmland		Not highly erodible land
Croswell		5a		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
DdB:	7s		Not prime farmland		Potentially highly erodible land
Deer Park		5.3a		No	
Dune Land		None assigned		Unranked	
DdC:	7s		Not prime farmland		Potentially highly erodible land
Deer Park		5.3a		No	
Dune Land		None assigned		Unranked	
DdE:	7s		Not prime farmland		Potentially highly erodible land
Deer Park		5.3a		No	
Dune Land		None assigned		Unranked	
DeB:	6w		Not prime farmland		Not highly erodible land
Detour		Gbc		No	
EaB:	4s		Not prime farmland		Not highly erodible land
East Lake		5a		No	
EaC:	6s		Not prime farmland		Potentially highly erodible land
East Lake		5a		No	
EdB:	6s		Not prime farmland		Not highly erodible land
Eastport		5.3a		No	
EdC:	6s		Not prime farmland		Not highly erodible land
Eastport		5.3a		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
Ee:	5w		Farmland of local importance		Not highly erodible land
Edmore		4c		Yes	
Ek:	6w		Farmland of local importance		Not highly erodible land
Edwards		M/mc		Yes	
ElB:	2e		Farmland of local importance		Potentially highly erodible land
Emmet		3a		No	
Leelanau		4a		No	
ElC:	4e		Farmland of local importance		Potentially highly erodible land
Emmet		3a		No	
Leelanau		4a		No	
ElE:	6e		Not prime farmland		Highly erodible land
Emmet		3a		No	
Leelanau		4a		No	
EmA:	2s		All areas are prime farmland		Not highly erodible land
Emmet		3a		No	
EmB:	2e		All areas are prime farmland		Not highly erodible land
Emmet		3a		No	
EmC:	3e		Farmland of local importance		Potentially highly erodible land
Emmet		3a		No	
EmD:	4e		Farmland of local importance		Potentially highly erodible land
Emmet		3a		No	
EmE:	6e		Not prime farmland		Highly erodible land
Emmet		3a		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
EnB:	2e		All areas are prime farmland		Not highly erodible land
Emmet		3a		No	
Leelanau		4a		No	
EnC:	3e		Farmland of local importance		Potentially highly erodible land
Emmet		3a		No	
Leelanau		4a		No	
EnD:	4e		Farmland of local importance		Potentially highly erodible land
Emmet		3a		No	
Leelanau		4a		No	
EnE:	6e		Not prime farmland		Highly erodible land
Emmet		3a		No	
Leelanau		4a		No	
EnF:	7e		Not prime farmland		Highly erodible land
Emmet		3a		No	
Leelanau		4a		No	
EoA:	2s		All areas are prime farmland		Not highly erodible land
Emmet		3a		No	
Onaway		2.5a		No	
EoB:	2e		All areas are prime farmland		Not highly erodible land
Emmet		3a		No	
Onaway		2.5a		No	
EoC:	3e		Farmland of local importance		Potentially highly erodible land
Emmet		3a		No	
Onaway		2.5a		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
EoD:	4e		Farmland of local importance		Potentially highly erodible land
Emmet		3a		No	
Onaway		2.5a		No	
EoE:	6e		Not prime farmland		Highly erodible land
Emmet		3a		No	
Onaway		2.5a		No	
EoF:	7e		Not prime farmland		Highly erodible land
Emmet		3a		No	
Onaway		2.5a		No	
Ep:	5w		Farmland of local importance		Not highly erodible land
Epoufette		4c		Yes	
GlB:	3w		Farmland of local importance		Not highly erodible land
Gladwin		4b		No	
Gr:	7w		Not prime farmland		Not highly erodible land
Greenwood		Mc-a		Yes	
Hs:	5w		Not prime farmland		Not highly erodible land
Hessel		Gbc		Yes	
IlB:	3w		Prime farmland if drained		Not highly erodible land
Iosco		4/2b		No	
JoC:	3s		Not prime farmland		Potentially highly erodible land
Johnswood		Ga		No	
KaB:	4s		Not prime farmland		Not highly erodible land
Kalkaska		5a		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
KaC:	6s		Not prime farmland		Not highly erodible land
Kalkaska		5a		No	
KaD:	6s		Not prime farmland		Potentially highly erodible land
Kalkaska		5a		No	
KaE:	7s		Not prime farmland		Potentially highly erodible land
Kalkaska		5a		No	
KaF:	7s		Not prime farmland		Highly erodible land
Kalkaska		5a		No	
KlB:	4s		Not prime farmland		Potentially highly erodible land
Kalkaska		5a		No	
Leelanau		4a		No	
KlC:	6s		Not prime farmland		Potentially highly erodible land
Kalkaska		5a		No	
Leelanau		4a		No	
KlE:	7s		Not prime farmland		Potentially highly erodible land
Kalkaska		5a		No	
Leelanau		4a		No	
KnC:	2e		Prime farmland if drained		Not highly erodible land
Kawkawlin		1.5b		No	
Kr:	6w		Not prime farmland		Not highly erodible land
Kerston		L-Mc		Yes	
Lb:	---		Not prime farmland		None assigned
Lake Beaches		None assigned		Unranked	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
LdB:	3s		Farmland of local importance		Not highly erodible land
Leelanau		4a		No	
LdC:	3e		Farmland of local importance		Potentially highly erodible land
Leelanau		4a		No	
LdD:	4e		Not prime farmland		Potentially highly erodible land
Leelanau		4a		No	
LdE:	6e		Not prime farmland		Potentially highly erodible land
Leelanau		4a		No	
LdF:	7e		Not prime farmland		Highly erodible land
Leelanau		4a		No	
LeB:	3s		Farmland of local importance		Potentially highly erodible land
Leelanau		4a		No	
Emmet		3a		No	
LeC:	4e		Farmland of local importance		Potentially highly erodible land
Leelanau		4a		No	
Emmet		3a		No	
LeE:	6e		Not prime farmland		Potentially highly erodible land
Leelanau		4a		No	
Emmet		3a		No	
LrB:	3s		Farmland of local importance		Not highly erodible land
Leelanau		4a		No	
Rubicon		5.3a		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
LrC:	3e		Farmland of local importance		Potentially highly erodible land
Leelanau		4a		No	
Rubicon		5.3a		No	
LrD:	4e		Not prime farmland		Potentially highly erodible land
Leelanau		4a		No	
Rubicon		5.3a		No	
LrE:	6e		Not prime farmland		Potentially highly erodible land
Leelanau		4a		No	
Rubicon		5.3a		No	
LrF:	7e		Not prime farmland		Highly erodible land
Leelanau		4a		No	
Rubicon		5.3a		No	
Ls:	6w		Not prime farmland		Not highly erodible land
Linwood		M/3c		Yes	
Lt:	6w		Not prime farmland		Not highly erodible land
Lupton		Mc		Yes	
Lu:	6w		Not prime farmland		Not highly erodible land
Lupton		Mc		Yes	
Cathro		M/3c		Yes	
Ma:	---		Not prime farmland		None assigned
Made Land		None assigned		Unranked	
McB:	3s		Farmland of local importance		Not highly erodible land
Mancelona		4a		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
McC:	3e		Farmland of local importance		Potentially highly erodible land
Mancelona		4a		No	
McD:	4e		Not prime farmland		Potentially highly erodible land
Mancelona		4a		No	
McE:	6e		Not prime farmland		Highly erodible land
Mancelona		4a		No	
McF:	7e		Not prime farmland		Highly erodible land
Mancelona		4a		No	
MeB:	3s		Farmland of local importance		Potentially highly erodible land
Mancelona		4a		No	
East Lake		5a		No	
MeC:	4e		Not prime farmland		Potentially highly erodible land
Mancelona		4a		No	
East Lake		5a		No	
MeE:	6e		Not prime farmland		Highly erodible land
Mancelona		4a		No	
East Lake		5a		No	
Mk:	5w		Not prime farmland		Not highly erodible land
Markey		M/4c		Yes	
MnB:	3s		Farmland of local importance		Not highly erodible land
Menominee		4/2a		No	
MnC:	3e		Farmland of local importance		Potentially highly erodible land
Menominee		4/2a		No	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
Mu:	5w		Prime farmland if drained		Not highly erodible land
Munuscong		3/1c		Yes	
NeB:	2e		All areas are prime farmland		Potentially highly erodible land
Nester		1.5a		No	
Emmet		3a		No	
NeC:	4e		Farmland of local importance		Highly erodible land
Nester		1.5a		No	
Emmet		3a		No	
NeE:	6e		Not prime farmland		Highly erodible land
Nester		1.5a		No	
Emmet		3a		No	
NsB:	2e		All areas are prime farmland		Not highly erodible land
Nester		1.5a		No	
NsC:	3e		Farmland of local importance		Potentially highly erodible land
Nester		1.5a		No	
NsD:	4e		Farmland of local importance		Highly erodible land
Nester		1.5a		No	
NsE:	7e		Not prime farmland		Highly erodible land
Nester		1.5a		No	
OtB:	3w		Farmland of local importance		Not highly erodible land
Otisco		4b		No	
Rc:	6w		Not prime farmland		Not highly erodible land
Roscommon		5c		Yes	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
RdB:	6s		Not prime farmland		Not highly erodible land
Rubicon		5.3a		No	
RdC:	6s		Not prime farmland		Potentially highly erodible land
Rubicon		5.3a		No	
RdE:	7s		Not prime farmland		Potentially highly erodible land
Rubicon		5.3a		No	
RoB:	4s		Not prime farmland		Not highly erodible land
Rubicon, loamy substratum		5.3a		No	
RrB:	3w		Farmland of local importance		Not highly erodible land
Rudyard		0b		No	
Ru:	7w		Not prime farmland		Not highly erodible land
Ruse		Rbc		Yes	
SaB:	4w		Not prime farmland		Not highly erodible land
Saugatuck		5b-h		No	
St:	---		Not prime farmland		Not highly erodible land
Stony Land		None assigned		Unranked	
SuB:	6s		Not prime farmland		Not highly erodible land
Summerville		Ra		No	
Ta:	6w		Not prime farmland		Not highly erodible land
Tawas		M/4c		Yes	
TC:	6w		Not prime farmland		Not highly erodible land
Tawas		M/4c		Yes	
Carbondale		Mc		Yes	

Interpretive Groups
Charlevoix County, Michigan

Map symbol and soil name	Land capability classification	Michigan soil management group	Prime farmland	Hydric	HEL
UbB:	3s		All areas are prime farmland		Not highly erodible land
Leelanau		4a		No	
UbC:	3e		Farmland of local importance		Potentially highly erodible land
Ubly		3/2a		No	
W:	---		Not prime farmland		None assigned
Water		None assigned		Unranked	
WaC:	6s		Not prime farmland		Potentially highly erodible land
Wallace		5a-h		No	
Wr:	7w		Not prime farmland		Not highly erodible land
Warners		M/mc		Yes	
Wt:	---		Not prime farmland		None assigned
Wet Alluvial Land		None assigned		Yes	

Interpretative Groups--Continued

ENDNOTE--INTERPRETATIVE GROUPS

LAND CAPABILITY CLASSIFICATION

The land capability classification system is used to show, in a general way, the suitability of soils for cropland. It is a three-category interpretative system. The two highest categories, class and subclass, give broad perspective of the suitability of map units for certain crops or pasture. These categories indicate the degree and kinds of limitations for these uses. The system evaluates soils for mechanized farming systems that produce the more common cultivated field crops, such as corn, small grains, soybeans, and hay.

Capability Class

The highest category of the system is the capability class. The capability classes are groups of soils that have the same general suitability for the broad kinds of use common on farms and ranches. There are eight classes designated by Roman numerals I through VIII.

Classes I, II, III, and IV are suitable for mechanized production of common field crops if properly managed, and for production of pasture and woodland. The degree of limitation for production of cultivated crops increases progressively for class I to class IV. Limitations may affect production as well as the risk of permanent soil deterioration, as by erosion.

Classes V, VI, and VII are generally not suited to mechanized production of common field crops without special management, but are suitable for permanent cover such as grasses and trees. The severity of the soil limitations for crops increases from class V to class VII. Areas in class VIII are generally not suitable for crops, pasture, or wood products without management that is impractical. Class VIII areas may have potential for other uses, such as recreation or wildlife habitat.

Capability Subclass

The subclass identifies the dominant kind of limitation in the class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, IIe. The letter e shows that the main limitation is risk of erosion unless a close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class I because the soils of this class have few limitations. The soils in class V are subject to little or no erosion, but they have other limitations that restrict their use mainly to pasture, woodland, wildlife habitat, or recreation. Class V contains only the subclasses indicated by w, s, or c.

MICHIGAN SOIL MANAGEMENT GROUP

Mapping unit names in soil surveys identify the predominant soil series and their subdivisions. Soil series are similar in thickness, arrangement of horizons and other physical, chemical and biological properties. Each series is named for a town or geographical feature located near the place where the soil series was first recognized.

Soil series may be grouped according to dominant texture of the profile and natural drainage conditions. These groups are called soil management groups and are designated systematically by numbers and letters. This makes it easier to remember their significant properties--which affect various land uses.

Soil Texture

Texture refers to the proportion of sand, silt and clay present in a soil sample. It does not include the organic matter or gravel and coarser particles.

Interpretative Groups--Continued

Soils can be separated into mineral and organic soils on the basis of parent material. Mineral soils are given a number based on the dominant profile texture as follows: 0 - fine clay, more than 60% clay; 1 - clay, 40 to 60% clay; 1.5 - clay loam and silty clay loam; 2.5 - loam and silt loam; 3 - sandy loam; 4 - loamy sand; and 5 - sand. Some soil mapping units are identified as having soils with banded substrata. These soils have thin, finer textured bands or layers below 40 inches. These banded substrata are not included in the soil management unit concept but may be important for adsorption of materials and holding plant available water.

Because of significant differences in available water-holding capacities, the sands are further subdivided based on the subsoil development or organic matter, aluminum and iron accumulations in the B horizon; 5.0 for sands with strong subsoil development (Bhs horizon present), large organic matter, aluminum and iron accumulations; 5.3 for sands with medium subsoil development (Bs horizon present); and 5.7 for sands with weak or no subsoil development (Bw or Bs does not qualify for spodic horizon), little or no organic matter, aluminum and iron accumulations. Some mapping units are identified as having sandy soils with dark subsoils. These soils have more organic matter, aluminum, and iron than typical for the soil series and should be assigned to a group with more development, for example. Grattan sand, dark subsoil, would be assigned to the 5.0 group rather than the 5.3 group which Grattan is normally assigned.

The dominant profile texture is the texture of which most of the upper five feet of soil is composed. For example, a soil with the following horizons: Ap - 0 to 7 inches, loamy sand; A - 7 to 14 inches, loamy sand; Clg - 14 to 35 inches, sand; and C2g - 43 to 60 inches, sand, has a dominant profile texture of sand, 5. The soil has 46 inches of sand and only 14 inches of loamy sand.

Soils developed from uniform parent materials are represented by one number. Soils developed from two-storied parent materials or with contrasting textures in their profiles are represented by fractions. The numerator represents the texture of the upper story and the denominator the lower story. For example, 3/1 represents soils with 14-40 inches of sandy loam over clay. Several soils have been mapped with loamy to clayey substrata. These finer textured, contrasting substrata occur between 40 and 60 inches in sandy soils. Most of these soils would be assigned a 5/2 symbol, such as, Pipestone fine sand, loamy substratum, and Plainfield loamy sand, loamy substratum.

Soils which are very gravelly or stony throughout their profile are indicated by a capital G. Alluvial or lowland soils having stratified materials and subject to flooding are preceded by a capital L. Soils which are less than 20 inches to bedrock are indicated by a capital R.
Soils having 10 to 40 inches of soil material over bedrock are subdivided by characteristics of overlying materials as the numerator of a fraction (Table 2): 2/R - loam over bedrock; 3/R - sandy loam over bedrock; and 4/R - loamy sand or sand over bedrock.

Organic soils are indicated by a capital M for muck or peat. Thin (16 to 51 inches) organic soils are subdivided by characteristics of underlying mineral materials: M/1 - muck over clay; M/3 - muck over marl; and M/R - muck over bedrock. Thick (greater than 51 inches) organic soils are given only the symbol M.

Natural Drainage

Lower case (small) letters are used to indicate natural drainage conditions: (a) well and moderately well drained; (b) somewhat poorly drained and (c) poorly and very poorly drained. Natural soil drainage is related to water table depth and the length of time during the year that the water table is in contact with part of the soil profile. The letters follow the numbers or capital letters of the dominant profile texture in the soil management group symbol.

The somewhat poorly drained, poorly drained, and very poorly drained gravelly or stony soils, are combined into one soil management group, Gbc . The drainage classes of the shallow and very shallow bedrock soils are similarly combined. The somewhat poorly and poorly drained alluvial soils are also combined, but drainage is indicated by c, for example L-2c.

Well drained soils have water tables below 40 inches and commonly below 60 inches.
Moderately well drained soils have water tables between 30 and 40 inches for a relatively short time usually during spring. Somewhat poorly drained soils have water tables near the surface sometime during the year, usually in winter and spring. During summer these soils may have water tables below 60 inches.
Poorly drained soils have water tables near the surface much of the year, but during the summer they usually are lower in the profile and may be below 5 feet.

Interpretative Groups--Continued

Other soil profile characteristics important to land use planning are indicated by adding a dash and a second lower case letter to the number for the dominant profile texture and lower case letter for natural drainage. The characteristics used are:

a indicates soils with very strongly acid (pH less than 4.5) subsoils
c indicates calcareous or limey conditions within 10 inches of the surface
d indicates dense or compact subsoils
f indicates the presence of a fragipan which is a dense, brittle horizon
h indicates hardened or cemented subsoils (ortstein)
s indicates stratification with fine sands and silts.

If a soil has two or more other important profile characteristics, two or more letters follow the dash. For example, the 2.5b-cs includes soils with a dominant profile texture of loam or silt loam that are somewhat poorly drained, calcareous within 10 inches of the surface, and stratified with fine sands and silts.

PRIME FARMLAND

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (the land could be cropland, pastureland, forest land, or other land, but not urban built-up land or water). It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods.

In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt content, and few or no rocks. They are permeable to water and air. Prime farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.

Soils that have limitations, such as a high water table or flooding, may qualify as prime farmland if these limitations are overcome by such measures as drainage or flood control.

The following are guidelines that are used to place a soil mapping unit into the Farmlands of Local Importance:

1. For prime farmland soils slopes of 6 to 18 percent are included.
2. For non-prime farmland soils slopes of 0 to 12 percent are included.
3. For Histosols (organic soils) the following are included :
   a. mesic, not frigid
   b. euic, not dysic
   c. non-alluvial
   d. non-shallow to bedrock
4. The following are criteria for shallow to bedrock mineral soils:
   a. 20 to 40 inches and not less than 20 inches
   b. 0 to 6 percent slopes
   c. only well drained
5. Skeletal families, except those with few corase fragments on the surface are excluded.
6. Very stony or extremely stoney soils are excluded.
7. Soils with fragipans at depths greater than 20 inches are included.
8. The following soils having greater than 3 inches of available water capacity to 40 inches are included:
   a. Somewhat poorly drained sands with loamy sand surfaces are included.
   b. Poorly drained sands with loamy sand surfaces and mollic or umbric epipedons are included.
   c. Gravelly sand above a depth of 40 inches having less than 3 inches of Available water capacity are excluded.
9. Alluvial soils with occasional flooding or less are included.
10. Sands with a loamy material from 40 to 60 inches are included.
11. Very fine clays are included.

Interpretative Groups--Continued

HYDRIC SOIL CLASSIFICATION

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 1995).
These criteria are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 1998) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 1998).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

A map unit component that is a classified a hydric soil if it meets one or more of the criteria based on saturation, flooding or ponding. The Interpretative Group Table lists whether a soil is hydric or not, but does not list the hydric soil criteria that it meets. This information is available at the NRCS Field Offices.

Map units that are made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

HIGHLY ERODIBLE LAND CLASSIFICATION

The basis for identifying highly erodible land is the erodibility index of a soil map unit. The erodibility index of a soil is determined by dividing the potential erodibility for each soil by the soil loss tolerance (T) value established for the soil. The T value represents the maximum annual rate of soil erosion that could take place without causing a decline in long-term productivity. A soil map unit with an erodibility index of 8 or more is a highly erodible soil map unit.

Water Erosion

Potential erodibility for sheet and rill erosion is estimated by multiplying the following factors of the Universal Soil Loss Equation (USLE)

1. rainfall and runoff factor (R)
2. susceptibility of the soil to water erosion (K)
3. combined effects of slope length and steepness (LS)

The erodibility index for sheet and rill erosion is represented by the formula RKLS/T. A soil map unit is highly erodible if the LS factor for the shortest length and minimum percent of slope is used and the RKLS/T value equals or exceeds 8.

A soil map unit is potentially highly erodible if: (1) the RKLS/T value using the minimum LS factor is less than 8 and (2) the RKLS/T value using the maximum LS factor is equal to or greater than 8.

Interpretative Groups--Continued

Wind Erosion

Potential erodibility from wind erosion is estimated by multiplying the following factors of the Wind Erosion Equation (WEQ).

1. climatic characterization of windspeed and surface soil moisture (C)
2. the susceptibility of the soil to wind erosion (I)

The erodibility index for wind erosion is represented by the formula CI/T. A soil map unit is highly erodible if the CI/T value equals or exceeds 8.