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Natural
Resources
Conservation
Service

In cooperation with United States Department of Agriculture, Forest Service; National Park Service; Missouri Department of Natural Resources; University of Missouri, Agricultural Experiment Station; Missouri Department of Conservation; U.S. Army Corps of Engineers; and Reynolds County Soil and Water Conservation District

Soil Survey of Reynolds County, Missouri



How To Use This Soil Survey

General Soil Map

The general soil map, which is a color map, shows the survey area divided into groups of associated soils called general soil map units. This map is useful in planning the use and management of large areas.

To find information about your area of interest, locate that area on the map, identify the name of the map unit in the area on the color-coded map legend, then refer to the section **General Soil Map Units** for a general description of the soils in your area.

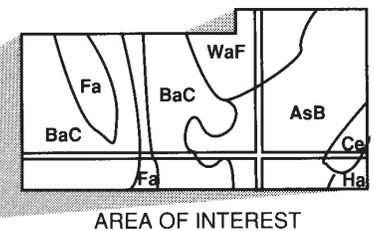
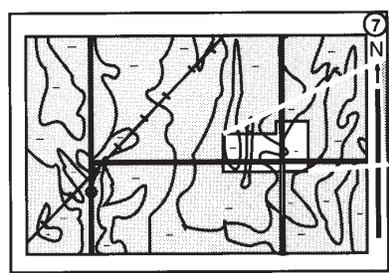
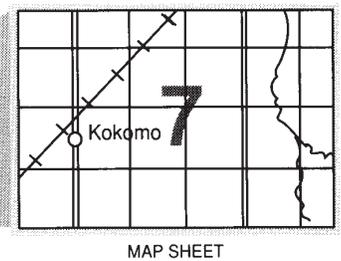
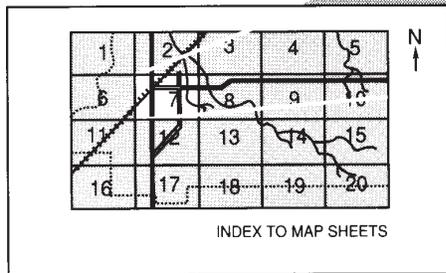
Detailed Soil Maps

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



NOTE: Map unit symbols in a soil survey may consist only of numbers or letters, or they may be a combination of numbers and letters.

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 2001. Soil names and descriptions were approved in 2002. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2002. This survey was made cooperatively by the Natural Resources Conservation Service; the United States Department of Agriculture, Forest Service; the National Park Service; the Missouri Department of Natural Resources; the University of Missouri, Agricultural Experiment Station; the Missouri Department of Conservation; the U.S. Army Corps of Engineers; and the Reynolds County Soil and Water Conservation District. The survey is part of the technical assistance furnished to the Reynolds County Soil and Water Conservation District. The Missouri Department of Natural Resources provided financial assistance.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

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Cover: The East Fork of the Black River flows adjacent to a rhyolite bluff in an area of Taumsauk-Irondale-Rock outcrop complex, 15 to 45 percent slopes, extremely stony.

Additional information about the Nation's natural resources is available on the Natural Resources Conservation Service homepage on the World Wide Web. The address is <http://www.nrcs.usda.gov>.

Contents

How To Use This Soil Survey	i
Foreword	vii
General Nature of the County	1
Physiography, Relief, and Drainage	1
History and Development	1
Agriculture	2
Climate	2
How This Survey Was Made	2
General Soil Map Units	5
1. Clarksville-Scholten-Poynor Association	5
2. Alred-Rueter-Gepp Association	6
3. Relfe-Tilk-Secesh-Taterhill Association	7
4. Coulstone-Scholten-Bendavis Association	8
5. Irondale-Killarney-Taumsauk Association	8
6. Tonti-Hogcreek-Scholten Association	8
Detailed Soil Map Units	11
73042—Niangua-Bardley complex, 15 to 50 percent slopes, extremely stony	12
73055—Alred-Rueter complex, 15 to 35 percent slopes, very stony	12
73139—Poynor-Clarksville-Scholten complex, 8 to 15 percent slopes, stony	13
73140—Clarksville-Scholten complex, 15 to 45 percent slopes, very stony	14
73143—Courtois silt loam, 3 to 8 percent slopes	15
73144—Courtois silt loam, 8 to 15 percent slopes	15
73147—Fourche silt loam, 3 to 8 percent slopes	15
73155—Gasconade-Rock outcrop complex, 3 to 35 percent slopes	15
73156—Alred-Gepp complex, 8 to 15 percent slopes, stony	16
73157—Captina silt loam, 3 to 8 percent slopes	16
73159—Yelton silt loam, 3 to 8 percent slopes ...	17
73197—Viburnum silt loam, 3 to 8 percent slopes	17
73222—Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded	17
73223—Coulstone-Bender complex, 15 to 50 percent slopes, very stony	17
73269—Brussels-Gasconade-Rock outcrop complex, 30 to 90 percent slopes, very bouldery	18
73290—Gatewood-Aaron complex, 3 to 8 percent slopes	18
73291—Gatewood-Aaron complex, 8 to 15 percent slopes, severely eroded	19
73295—Taterhill silt loam, 3 to 8 percent slopes	19
73298—Tonti-Hogcreek complex, 3 to 8 percent slopes	20
73310—Scholten-Bendavis-Poynor complex, 1 to 8 percent slopes	20
73311—Scholten-Bendavis-Poynor complex, 8 to 15 percent slopes	21
73333—Taterhill silt loam, 1 to 3 percent slopes	21
73334—Horneybuck silt loam, 3 to 8 percent slopes	22
73335—Hobson-Rueter complex, 3 to 8 percent slopes	22
73336—Rueter-Gepp complex, bench, 8 to 15 percent slopes	22
73337—Tonti-Portia complex, 3 to 8 percent slopes	23
73338—Portia-Hobson complex, 8 to 15 percent slopes	23
73339—Arkana-Gepp complex, 8 to 15 percent slopes, rocky, stony	24
73340—Rueter-Gepp complex, 8 to 15 percent slopes, stony	24
73341—Gepp-Arkana complex, 15 to 55 percent slopes, rocky	25
73342—Alred-Arkana complex, 8 to 15 percent slopes, rocky	25
74636—Lecoma loam, 3 to 8 percent slopes	25
74637—Lecoma loam, 8 to 15 percent slopes	26
74643—Lecoma silt loam, 1 to 3 percent slopes	26
74644—Deible silt loam, 1 to 3 percent slopes	26
74646—Cornwall silt loam, 3 to 8 percent slopes	27

74648—Aslinger silt loam, 3 to 8 percent slopes	28	75464—Cedargap gravelly loam, 0 to 3 percent slopes, rarely flooded	35
74649—Aslinger-Waben complex, 3 to 15 percent slopes	28	75465—Raftville-Gabriel complex, 0 to 3 percent slopes, rarely flooded	36
74651—Waben gravelly silt loam, 3 to 8 percent slopes	28	75466—Midco very gravelly loam, 0 to 3 percent slopes, occasionally flooded	36
74658—Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded	29	75470—Farewell gravelly silt loam, 0 to 3 percent slopes, rarely flooded	36
74679—Higdon silt loam, 0 to 3 percent slopes, rarely flooded	29	77000—Killarney-Frenchmill complex, 15 to 45 percent slopes, rubbly	37
74680—Moniteau silt loam, 0 to 3 percent slopes, rarely flooded	29	77003—Delassus gravelly silt loam, 8 to 15 percent slopes, very bouldery	37
75381—Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded	30	77004—Irondale gravelly silt loam, 15 to 35 percent slopes, rocky, extremely bouldery ...	38
75394—Relfe gravelly sandy loam, 0 to 3 percent slopes, rarely flooded	30	77007—Taumsauk-Irondale-Rock outcrop complex, 15 to 45 percent slopes, extremely stony	38
75395—Jamesfin silt loam, 0 to 3 percent slopes, occasionally flooded	30	77009—Trackler silt loam, 3 to 8 percent slopes	38
75408—Secesh silt loam, 0 to 3 percent slopes, rarely flooded	31	77011—Taumsauk-Irondale-Rock outcrop complex, 3 to 15 percent slopes, very stony	39
75409—Relfe sandy loam, 0 to 3 percent slopes, occasionally flooded	31	77012—Mudlick-Irondale-Killarney complex, 15 to 45 percent slopes, extremely bouldery, rocky	39
75411—Tilk very gravelly sandy loam, 0 to 3 percent slopes, rarely flooded	31	77013—Mudlick very cobbly silt loam, 8 to 15 percent slopes, very stony, rocky	40
75416—Gladden loam, 0 to 3 percent slopes, occasionally flooded	32	99001—Water	40
75417—Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded	32	99006—Psamments, 1 to 8 percent slopes	40
75426—Gabriel silt loam, 0 to 3 percent slopes, rarely flooded	32	99007—Dam	41
75428—Tilk, occasionally flooded-Cornwall-Poynor complex, 3 to 15 percent slopes	33	99010—Pits and Dumps	41
75429—Tilk-Secesh complex, 0 to 3 percent slopes, occasionally flooded	33	99013—Riverwash, frequently flooded	41
75430—Wideman fine sandy loam, 0 to 3 percent slopes, occasionally flooded	34	Use and Management of the Soils	43
75432—Batcave-Farewell complex, 0 to 3 percent slopes, frequently flooded	34	Interpretive Ratings	43
75451—Gladden silt loam, 0 to 3 percent slopes, occasionally flooded	34	Rating Class Terms	43
75462—Huzzah sandy loam, 0 to 3 percent slopes, occasionally flooded	35	Numerical Ratings	43
75463—Huzzah sandy loam, 0 to 3 percent slopes, rarely flooded	35	Crops and Pasture	43
		Prime Farmland	45
		Yields per Acre	47
		Land Capability Classification	47
		Pasture and Hayland Suitability Groups	48
		Forest Productivity and Management	49
		Windbreaks and Environmental Plantings	52
		Recreation	52

Wildlife Habitat	55	Horneybuck Series	104
Engineering	58	Huzzah Series	105
Building Site Development	58	Irondale Series	106
Sanitary Facilities	60	Jamesfin Series	107
Construction Materials and Excavating	62	Killarney Series	108
Water Management	63	Lecoma Series	109
Waste Management	64	Midco Series	110
Soil Properties	67	Moniteau Series	111
Engineering Index Properties	67	Mudlick Series	112
Physical Properties	68	Niangua Series	114
Chemical Properties	69	Portia Series	114
Water Features	70	Poynor Series	116
Soil Features	71	Raftville Series	117
Classification of the Soils	73	Relfe Series	117
Soil Series and Their Morphology	73	Rueter Series	118
Aaron Series	73	Sandbur Series	119
Alred Series	74	Scholten Series	120
Arkana Series	75	Secesh Series	121
Aslinger Series	76	Splitlimb Series	122
Bardley Series	77	Taterhill Series	123
Batcave Series	78	Taumsauk Series	124
Bearthicket Series	79	Tilk Series	125
Bendavis Series	80	Tonti Series	126
Bender Series	81	Trackler Series	127
Brussels Series	82	Viburnum Series	129
Captina Series	83	Waben Series	130
Cedargap Series	84	Wideman Series	131
Clarksville Series	85	Yelton Series	131
Cornwall Series	86	Zanoni Series	133
Coulstone Series	87	Formation of the Soils	135
Courtois Series	89	References	139
Deible Series	90	Glossary	141
Delassus Series	91	Tables	157
Farewell Series	92	Table 1.—Temperature and Precipitation	158
Fourche Series	94	Table 2.—Freeze Dates in Spring and Fall	159
Frenchmill Series	95	Table 3.—Growing Season	159
Gabriel Series	97	Table 4.—Acreage and Proportionate Extent	
Gasconade Series	98	of the Soils	160
Gatewood Series	98	Table 5.—Land Capability and Yields per	
Gepp Series	99	Acre of Crops	162
Gladden Series	100	Table 6.—Pasture and Hayland Groups and	
Higdon Series	101	Yields per Acre of Hay and Pasture	167
Hobson Series	102	Table 7.—Forestland Productivity	172
Hogcreek Series	103	Table 8a.—Forestland Management	183

Table 8b.—Forestland Management	202	Table 15.—Water Management	362
Table 9.—Windbreaks and Environmental Plantings	221	Table 16.—Waste Management.....	382
Table 10.—Recreational Site Development	237	Table 17.—Engineering Index Properties	404
Table 11a.—Wildlife Habitat	257	Table 18.—Physical Properties of the Soils	428
Table 11b.—Wildlife Habitat	278	Table 19.—Chemical Properties of the Soils	444
Table 12.—Building Site Development	297	Table 20.—Water Features	456
Table 13.—Sanitary Facilities	318	Table 21.—Soil Features	493
Table 14.—Construction Materials and Excavating	340	Table 22.—Classification of the Soils	499

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Foreword

This soil survey contains information that affects land use planning in this survey area. It contains predictions of soil behavior for selected land uses. The survey also highlights soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

This soil survey is designed for many different users. Farmers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. Broad areas of soils are shown on the general soil map. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

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Soil Survey of Reynolds County, Missouri

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United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with the United States Department of Agriculture, Forest Service; the Missouri Department of Natural Resources; the University of Missouri, Agricultural Experiment Station; the Missouri Department of Conservation; the U.S. Army Corps of Engineers; and the Reynolds County Soil and Water Conservation District

REYNOLDS COUNTY is in southeastern Missouri, about 80 miles south of St. Louis and 80 miles west of the Mississippi River (fig. 1). It is bordered on the east by Iron and Wayne Counties, on the south by Carter County, on the west by Shannon and Dent Counties, and on the north by Dent and Iron Counties. The total area of the county is 521,043 acres, or about 814 square miles. Centerville is the county seat. The population of the county was 6,689 in 2000.

This soil survey updates the survey of Reynolds County published in 1921 (USDA, 1921). It provides additional information and has larger maps, which show the soils in greater detail.

General Nature of the County

This section provides general information about the county. It describes physiography, relief, and drainage; history and development; agriculture; and climate.

Physiography, Relief, and Drainage

Reynolds County is within the Ozark Plateau physiographic province. This province is further subdivided into the St. Francois Mountains on the eastern side of the county and the Salem Plateau on the western side of the county.

The St. Francois Mountains are part of an igneous uplift that began about 1.5 billions years ago. The Salem Plateau in this survey area is underlain by rock of Cambrian age, about 550 million years old. This Cambrian rock is the oldest sedimentary rock in Missouri.

The highest elevation in the county, 1,656 feet, occurs at the top of Profit Mountain. The lowest elevation, about 500 feet, occurs at the point where the Black River drains into Wayne County, near the Clearwater Dam. Local relief in the mountains generally is 300 to 400 feet. The Salem Plateau is a distinct regional base level that is about 300 to 400 feet below the higher mountain peaks. Local relief on the Salem Plateau averages about 200 feet.

One major drainage system flows out of the southeast side of the county. The Black River drainage system drains the St. Francois Mountains and the western part of the Salem Plateau.

History and Development

Reynolds County was organized in 1845. It is an area of rugged beauty near the geologic center of the Ozark Highland. The county was formerly part of Ripley County, which was formed in 1831, and part of Wayne County, which was formed in 1818. It was also



Figure 1.—Location of Reynolds County in Missouri.

previously part of Washington County and part of St. Genevieve County.

The courthouse has burned twice. The first time was in December 1863, when the Confederate Army burned it. A new courthouse was built in the fall of 1867 on the original foundation. This courthouse was burned in late November 1871. All records were destroyed both times. Temporary quarters also burned on May 27, 1872, while a new “fireproof” courthouse was being built. Few early official records are available for Reynolds County.

Agriculture

Clearing of the forests began in the early 1800s when the first European settlements were established in the river valleys and on some of the broader ridges. Several decades ago, significant acreages of corn and wheat were grown in the county. At the present time, a very small acreage in the county is devoted to annual crops. The cleared land is used to produce grass or grass and legume mixtures for pasture and hay. Nearly all of the pasture and hay is consumed by beef cattle. Most of the farmers in the county supplement their income with off-farm employment.

Nearly 70 percent of the county is used for timber production. The harvesting of saw logs, primarily oak, is an important segment of the local economy. Many of the logs are processed locally into ties and pallet lumber.

Climate

Table 1 gives data on temperature and precipitation for the survey area as recorded at Clearwater Dam in the period 1961 to 1990. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on length of the growing season.

In winter, the average temperature is 33.8 degrees F and the average daily minimum temperature is 22.4 degrees. The lowest temperature on record, which occurred on January 24, 1963, is -19 degrees. In summer, the average temperature is 76 degrees and the average daily maximum temperature is 88.8 degrees. The highest recorded temperature, which occurred on July 13, 1980, is 110 degrees.

Growing degree days are shown in table 1. They are equivalent to “heat units.” During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (50 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is 44.34 inches. Of this total, 25.66 inches, or about 58 percent, usually falls in April through October. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 5.95 inches on December 3, 1982. Thunderstorms occur on about 46 days each year, and most occur between May and August.

The average seasonal snowfall is 7 inches. The greatest snow depth at any one time during the period of record was 13 inches recorded on March 17, 1970. The heaviest 1-day snowfall on record is 12 inches recorded on February 16, 1993. On the average, 11 days of the year have at least 1 inch of snow on the ground. The number of such days varies greatly from year to year.

The average relative humidity in midafternoon is about 59 percent. Humidity is higher at night, and the average at dawn is about 83 percent. The sun shines 67 percent of the time possible in summer and 49 percent in winter. The prevailing wind is from the south between May and November and from the northwest the rest of the year. Average windspeed is highest, 11 miles per hour, from January to April.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area.

The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each

taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

General Soil Map Units

The general soil map in this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage. These broad areas are called associations. Each association on the general soil map is a unique natural landscape. Typically, it consists of one or more major soils or miscellaneous areas and some minor soils or miscellaneous areas. It is named for the major soils or miscellaneous areas. The components of one association can occur in another but in a different pattern.

The general soil map can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

Because of its small scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. The soils in any one association differ from place to place in slope, depth, drainage, and other characteristics that affect management.

1. Clarksville-Scholten-Poynor Association (fig. 2)

Composition

Extent of the association in the survey area: 38 percent

Extent of the components in the association:

Clarksville and similar soils—47 percent

Scholten and similar soils—32 percent

Poynor and similar soils—11 percent

Soils of minor extent—10 percent

Soils of Minor Extent

- Tilk; Cornwall; very deep, fine-loamy soils; clayey soils

Landscape (fig. 3)

Clarksville—narrow, rounded hills

Scholten—narrow, rounded hills

Poynor—narrow, rounded hills

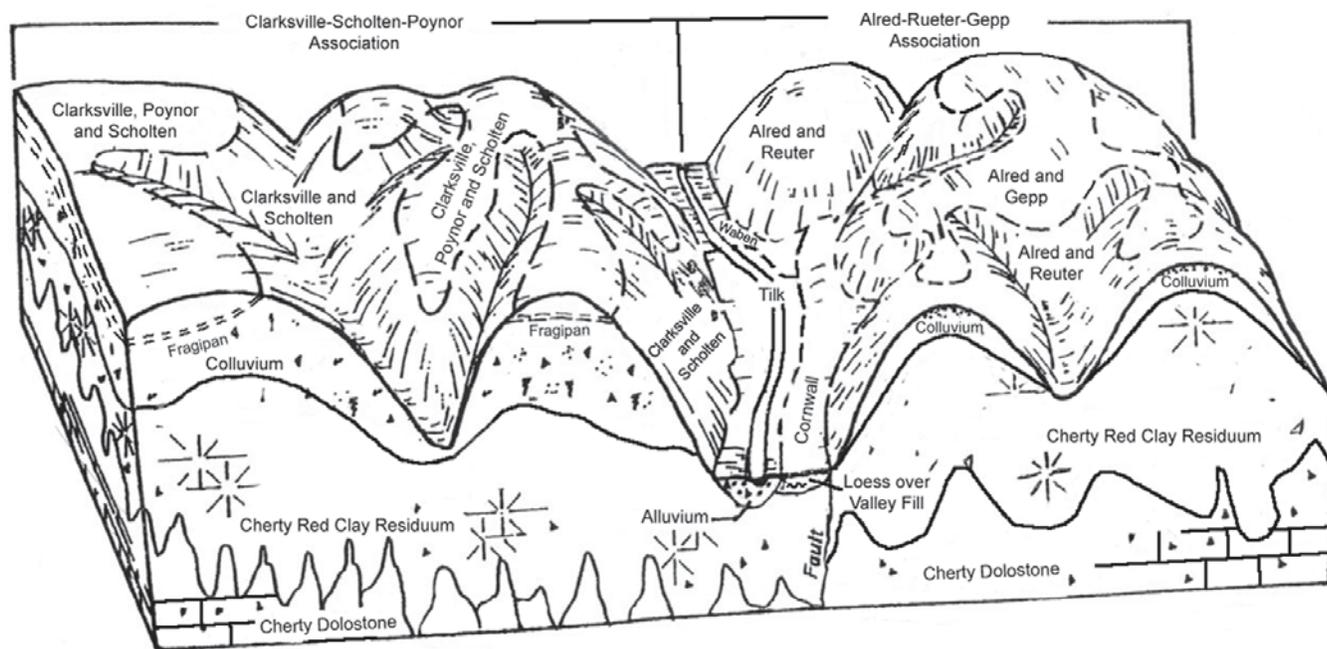


Figure 2.—Typical pattern of soils and parent material in the Clarksville-Scholten-Poynor and Alred-Rueter-Gepp associations.



Figure 3.—A typical landscape in an area of the Clarksville-Scholten-Poynor association.

Parent Material

Clarksville—gravelly colluvium derived from cherty dolostone

Scholten—gravelly colluvium derived from cherty dolostone

Poynor—gravelly colluvium over clayey residuum derived from cherty dolostone

Slope Range

- 8 to 45 percent

Major Land Uses

- Woodland; some pasture and hayland

2. Alred-Rueter-Gepp Association (fig. 2)

Composition

Extent of the association in the survey area: 26 percent

Extent of the components in the association:

Alred and similar soils—42 percent

Rueter and similar soils—32 percent

Gepp and similar soils—6 percent

Soils of minor extent—20 percent

Soils of Minor Extent

- Arkana, Bardley, Cornwall, Hobson, Niangua, Tilk, and Waben

Landscape

Alred—narrow, rounded hills
 Rueter—narrow, rounded hills and structural benches
 Gepp—narrow, rounded hills and structural benches

Parent Material

Alred—colluvium over residuum derived from cherty dolostone
 Rueter—gravelly colluvium over gravelly residuum derived from dolostone
 Gepp—clayey residuum derived from dolostone

Slope Range

- 8 to 35 percent

Major Land Uses

- Woodland; some pasture and hayland

3. Relfe-Tilk-Secesh-Taterhill Association (fig. 4)

Composition

Extent of the association in the survey area: 15 percent

Extent of the components in the association:

- Relfe and similar soils—30 percent
- Tilk and similar soils—24 percent
- Secesh and similar soils—13 percent
- Taterhill and similar soils—6 percent
- Components of minor extent—27 percent

Components of Minor Extent

- Bearthicket, Batcave, Farewell, Gladden, Higdon, Kaintuck, Sandbur, and Wideman soils; riverwash; water areas

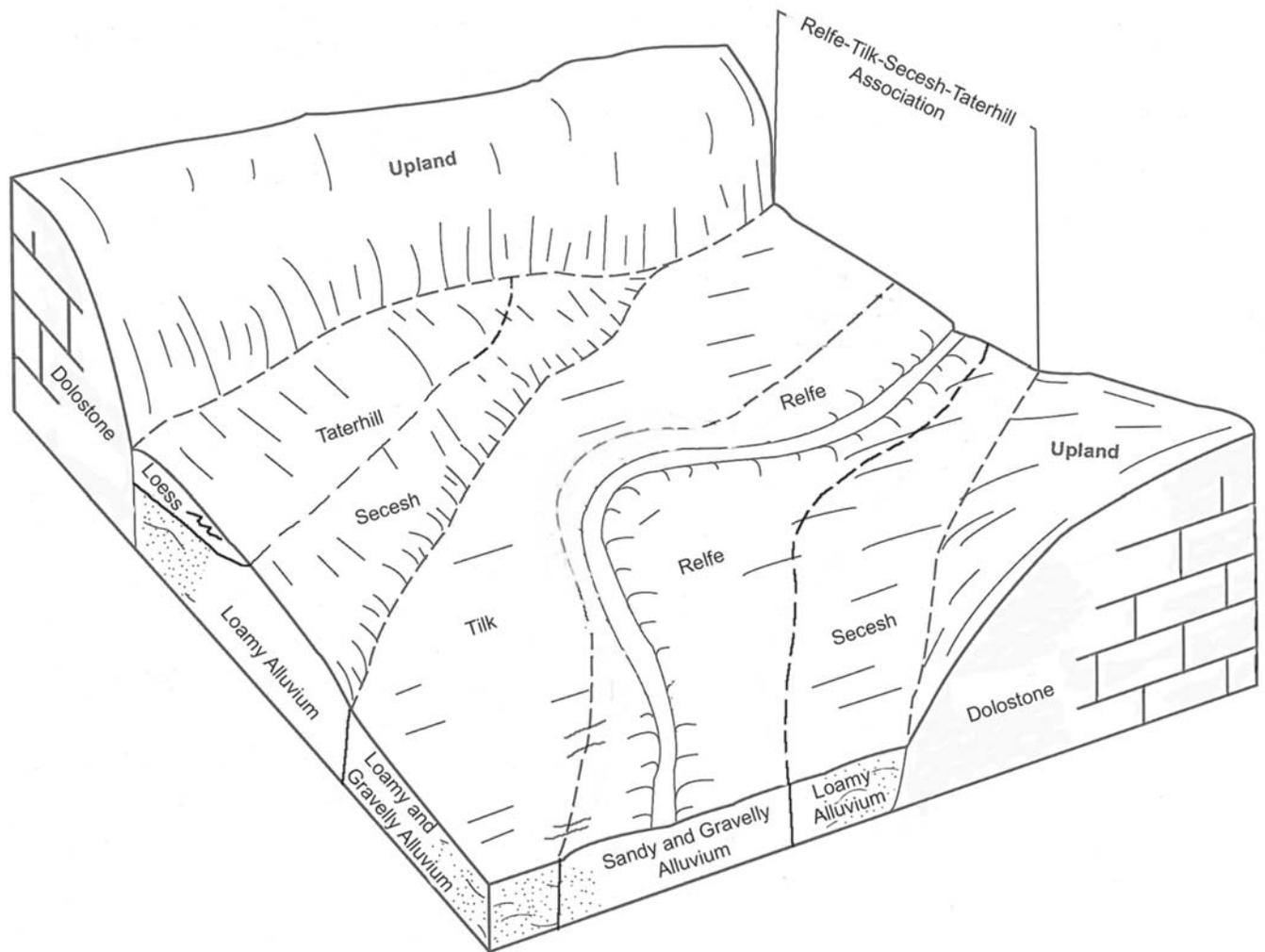


Figure 4.—Typical pattern of soils and parent material in the Relfe-Tilk-Secesh-Taterhill association.

Landscape

Relfe—flood plains and low stream terraces
 Tilk—low stream terraces
 Secesh—low stream terraces
 Taterhill—footslopes and high stream terraces

Parent Material

Relfe—sandy and gravelly alluvium
 Tilk—loamy and sandy alluvial sediments with a high content of rock fragments
 Secesh—about 2 feet of loamy material and the underlying cherty residuum or alluvium from dolostone
 Taterhill—silty sediments derived mainly from loess and the underlying valley fill materials

Slope Range

- 0 to 8 percent

Major Land Uses

- Pasture, hayland, and cropland

4. Coulstone-Scholten-Bendavis Association

Composition

Extent of the association in the survey area: 14 percent

Extent of the components in the association:

Coulstone and similar soils—26 percent
 Scholten and similar soils—22 percent
 Bendavis and similar soils—14 percent
 Soils of minor extent—38 percent

Soils of Minor Extent

- Bender, Captina, Poynor, and Viburnum

Landscape

Coulstone—hills
 Scholten—hills
 Bendavis—hills

Parent Material

Coulstone—colluvium and residuum derived from sandstone with lenses of cherty dolostone
 Scholten—gravelly colluvium derived from cherty dolostone
 Bendavis—gravelly slope alluvium

Slope Range

- 3 to 15 percent

Major Land Uses

- Woodland; some pasture and hayland

5. Irondale-Killarney-Taumsauk Association (fig. 5)

Composition

Extent of the association in the survey area: 4 percent

Extent of the components in the association:

Irondale and similar soils—40 percent
 Killarney and similar soils—20 percent
 Taumsauk and similar soils—14 percent
 Components of minor extent—26 percent

Components of Minor Extent

- Delassus, Mudlick, and Trackler soils and Rock outcrop

Landscape (fig. 6)

Irondale—upper and middle slopes of mountains
 Killarney—middle and lower slopes of mountains
 Taumsauk—upper and middle slopes of mountains

Parent Material

Irondale—residuum derived from rhyolite or other fine-grained igneous rock
 Killarney—gravelly colluvium derived from loess and rhyolite or granite
 Taumsauk—residuum derived from fine-grained igneous rocks

Slope Range

- 8 to 45 percent

Major Land Uses

- Woodland

6. Tonti-Hogcreek-Scholten Association

Composition

Extent of the association in the survey area: 3 percent

Extent of the components in the association:

Tonti and similar soils—43 percent
 Hogcreek and similar soils—29 percent
 Scholten and similar soils—18 percent
 Soils of minor extent—10 percent

Soils of Minor Extent

- Captina, Poynor, and Viburnum

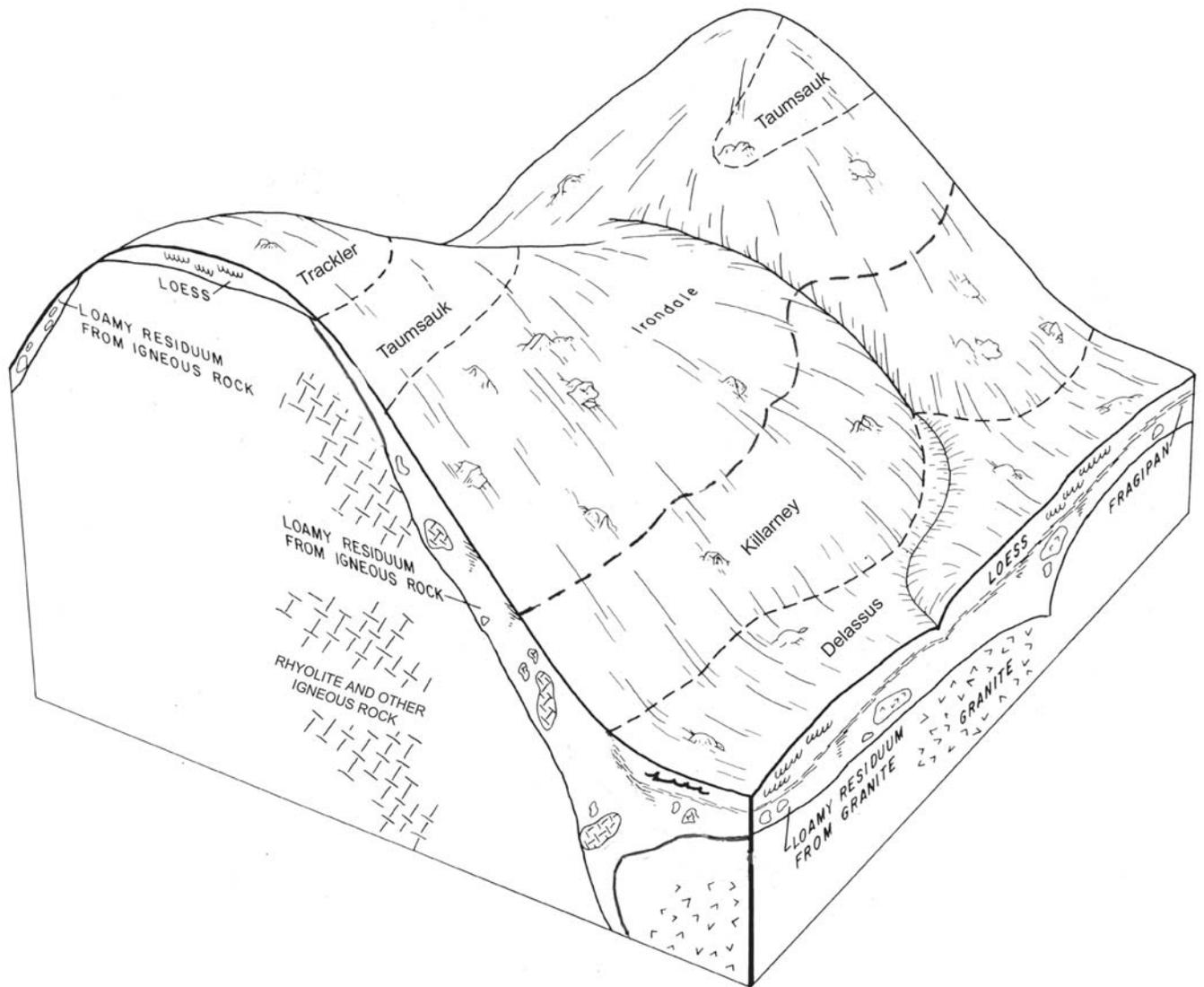


Figure 5.—Typical pattern of soils and parent material in the Irondale-Killarney-Taumsauk association.

Landscape

- Tonti—summits of hills
- Hogcreek—summits of hills
- Scholten—summits and shoulders of hills

Parent Material

- Tonti—loess over gravelly colluvium over clayey residuum derived from dolostone
- Hogcreek—loess over gravelly colluvium

Scholten—gravelly colluvium derived from cherty dolostone

Slope Range

- 3 to 15 percent

Major Land Uses

- Woodland; some pasture and hayland



Figure 6.—The East Fork of the Black River flows through boulders in an area of the Irondale-Killarney-Taumsauk association.

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to

make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Waben gravelly silt loam, 3 to 8 percent slopes, is a phase of the Waben series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are called complexes. A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Gatewood-Aaron complex, 3 to 8 percent slopes, is an example.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Riverwash, frequently flooded, is an example.

Table 4 lists the map units in this survey area. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils.

73042—Niangua-Bardley complex, 15 to 50 percent slopes, extremely stony

Setting

Landform: Hills

Position on the landform: Backslopes

Parent material: Gravelly colluvium over clayey residuum derived from dolostone

Map Unit Composition

Niangua and similar soils—60 percent

Bardley and similar soils—30 percent

Components of minor extent—10 percent

- Rock outcrop
- Gasconade soils
- Goss soils
- Rueter soils

Typical Profile

Niangua

A—0 to 3 inches; very gravelly silt loam

E—3 to 14 inches; very gravelly silt loam

2Bt—14 to 52 inches; gravelly clay

2R—52 inches; dolostone bedrock

Bardley

A—0 to 4 inches; very gravelly silt loam

E—4 to 8 inches; extremely gravelly sandy loam

2Bt—8 to 27 inches; clay

2R—27 inches; dolostone bedrock

Soil Properties and Qualities

Depth to bedrock: Niangua—deep (40 to 60 inches);

Bardley—moderately deep (20 to 40 inches)

Drainage class: Well drained

Permeability: Niangua—moderately slow (0.2 to 0.6 inch per hour); Bardley—moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Niangua—low (3 to 6 inches);

Bardley—very low (0 to 3 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Flooding: None

Depth to water table: More than 60 inches

73055—Alred-Rueter complex, 15 to 35 percent slopes, very stony

Setting

Landform: Alred—hills; Rueter—hills, structural benches (fig. 7)

Position on the landform: Alred—backslopes, shoulders; Rueter—backslopes

Parent material: Alred—colluvium over residuum derived from cherty dolostone; Rueter—gravelly colluvium over gravelly residuum derived from dolostone

Map Unit Composition

Alred and similar soils—45 percent

Rueter and similar soils—35 percent

Components of minor extent—20 percent

- Gepp soils
- Very deep, clayey-skeletal soils
- Very deep, fine-loamy soils
- Coulstone soils

Typical Profile

Alred

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 7 inches; very gravelly silt loam

E—7 to 11 inches; very gravelly silt loam

Bt—11 to 30 inches; very gravelly silt loam

2Bt—30 to 80 inches; cobbly clay

Rueter

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 4 inches; very gravelly silt loam

E—4 to 17 inches; gravelly silt loam

Bt—17 to 32 inches; very gravelly silt loam

2Bt—32 to 43 inches; very gravelly silty clay

3Bt—43 to 71 inches; very cobbly clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Alred—well drained; Rueter—somewhat excessively drained

Permeability: Alred—moderately slow (0.2 to 0.6 inch per hour); Rueter—moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Low (3 to 6 inches)

Shrink-swell potential: Moderate (3 to 6 percent)



Figure 7.—A mixture of hardwoods and shortleaf pine in an area of Alred-Rueter complex, 15 to 35 percent slopes, very stony.

Flooding: None

Depth to water table: More than 60 inches

73139—Poynor-Clarksville-Scholten complex, 8 to 15 percent slopes, stony

Setting

Landform: Hills

Position on the landform: Poynor—summits, shoulders, backslopes, footslopes; Clarksville—backslopes,

shoulders; Scholten—summits, shoulders, backslopes

Parent material: Poynor—gravelly colluvium over clayey residuum derived from dolostone; Clarksville—gravelly colluvium and clayey residuum derived from cherty dolostone; Scholten—gravelly colluvium derived from cherty dolostone

Map Unit Composition

Poynor and similar soils—35 percent

Clarksville and similar soils—32 percent
Scholten and similar soils—15 percent
Components of minor extent—18 percent

- Very deep, fine-loamy soils
- Tonti soils
- Viburnum soils
- Very deep, clayey-skeletal soils

Typical Profile

Poynor

Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 4 inches; gravelly silt loam
E—4 to 13 inches; very gravelly silt loam
Bt—13 to 24 inches; extremely gravelly silt loam
2Bt—24 to 80 inches; gravelly clay

Clarksville

Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 5 inches; gravelly silt loam
E—5 to 8 inches; gravelly silt loam
Bt—8 to 18 inches; very gravelly loam
2Bt—18 to 42 inches; very gravelly clay loam
3Bt—42 to 65 inches; clay

Scholten

Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 3 inches; gravelly silt loam
E—3 to 8 inches; gravelly silt loam
Bt—8 to 17 inches; very gravelly silty clay loam
2Btx—17 to 41 inches; very gravelly silt loam
3Bt—41 to 80 inches; gravelly clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Poynor—well drained; Clarksville—somewhat excessively drained; Scholten—moderately well drained

Permeability: Poynor—moderately slow (0.2 to 0.6 inch per hour); Clarksville—moderate (0.6 inch to 2.0 inches per hour); Scholten—moderate (0.6 inch to 2.0 inches per hour) above the fragipan, very slow (less than 0.06 inch per hour) in the fragipan, and moderately rapid (2 to 6 inches per hour) below the fragipan

Available water capacity: Poynor and Clarksville—low (3 to 6 inches); Scholten—very low (0 to 3 inches)

Shrink-swell potential: Poynor—moderate (3 to 6 percent); Clarksville and Scholten—low (0 to 3 percent)

Flooding: None

Depth to water table: Poynor and Clarksville—more than 60 inches; Scholten—13 to 28 inches

73140—Clarksville-Scholten complex, 15 to 45 percent slopes, very stony

Setting

Landform: Hills

Position on the landform: Clarksville—shoulders, backslopes; Scholten—summits, shoulders, backslopes

Parent material: Gravelly colluvium derived from cherty dolostone

Map Unit Composition

Clarksville and similar soils—50 percent
Scholten and similar soils—30 percent
Components of minor extent—20 percent

- Very deep, clayey soils
- Poynor soils
- Very deep, fine-loamy soils
- Tilk soils

Typical Profile

Clarksville

Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 6 inches; gravelly silt loam
E—6 to 13 inches; gravelly silt loam
Bt—13 to 21 inches; very gravelly silt loam
2Bt—21 to 43 inches; extremely gravelly clay loam
3Bt—43 to 66 inches; very gravelly clay

Scholten

Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 6 inches; very gravelly silt loam
E—6 to 13 inches; very gravelly silt loam
Bt—13 to 34 inches; extremely gravelly clay loam
2Btx—34 to 58 inches; very gravelly loam
3Bt—58 to 80 inches; very gravelly clay

Soil Properties and Qualities

Depth to bedrock: Very deep

Drainage class: Clarksville—somewhat excessively drained; Scholten—moderately well drained

Permeability: Clarksville—moderate (0.6 inch to 2.0 inches per hour); Scholten—moderate (0.6 inch to 2.0 inches per hour) above the fragipan, very slow (less than 0.06 inch per hour) in the fragipan, and moderately rapid (2 to 6 inches per hour) below the fragipan

Available water capacity: Low (3 to 6 inches)

Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: Clarksville—more than 60 inches; Scholten—14 to 35 inches

73143—Courtois silt loam, 3 to 8 percent slopes**Setting**

Landform: Basins

Position on the landform: Summits

Parent material: Loess over clayey residuum derived from dolostone

Map Unit Composition

Courtois and similar soils—85 percent
Components of minor extent—15 percent

- Fourche soils
- Very deep, clayey-skeletal soils
- Wet, seepy areas
- Rock outcrop

Typical Profile

Ap—0 to 7 inches; silt loam

Bt—7 to 15 inches; silty clay loam

2Bt—15 to 32 inches; silty clay

3Bt—32 to 80 inches; gravelly clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Moderate (6 to 9 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Flooding: None

Depth to water table: More than 60 inches

73144—Courtois silt loam, 8 to 15 percent slopes**Setting**

Landform: Basins

Position on the landform: Shoulders

Parent material: Loess over clayey residuum derived from dolostone

Map Unit Composition

Courtois and similar soils—85 percent
Components of minor extent—15 percent

- Very deep, clayey-skeletal soils
- Gepp soils
- Moderately deep, clayey soils
- Wet, seepy areas
- Rock outcrop

Typical Profile

Ap—0 to 7 inches; silt loam

Bt—7 to 15 inches; silty clay loam

2Bt—15 to 32 inches; silty clay

3Bt—32 to 80 inches; gravelly clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Moderate (6 to 9 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Flooding: None

Depth to water table: More than 60 inches

73147—Fourche silt loam, 3 to 8 percent slopes**Setting**

Landform: Hills

Position on the landform: Footslopes

Parent material: Loess and the underlying residuum derived from dolostone

Map Unit Composition

Fourche and similar soils—90 percent
Components of minor extent—10 percent

- Crider soils
- Higdon soils
- Nicholson soils

Typical Profile

Ap—0 to 6 inches; silt loam

Bt—6 to 30 inches; silty clay loam

2Bt/E—30 to 54 inches; silty clay loam

3Bt—54 to 66 inches; clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Moderately well drained

Permeability: Moderately slow (0.2 to 0.6 inch per hour)

Available water capacity: High (9 to 12 inches)

Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: 24 to 36 inches

73155—Gasconade-Rock outcrop complex, 3 to 35 percent slopes**Setting**

Landform: Hills

Position on the landform: Backslopes, shoulders

Parent material: Residuum derived from dolostone

Map Unit Composition

Gasconade and similar soils—60 percent
 Rock outcrop—30 percent
 Components of minor extent—10 percent

- Caneyville soils
- Gepp soils

Typical Profile

Gasconade

A—0 to 4 inches; silty clay
 Bw—4 to 13 inches; very gravelly clay
 R—13 inches; dolostone bedrock

Soil Properties and Qualities

Depth to bedrock: Gasconade—very shallow and shallow (4 to 20 inches)
Drainage class: Gasconade—somewhat excessively drained
Permeability: Gasconade—moderately slow (0.2 to 0.6 inch per hour)
Available water capacity: Gasconade—very low (0 to 3 inches)
Shrink-swell potential: Gasconade—moderate (3 to 6 percent)
Flooding: None
Depth to water table: More than 60 inches

73156—Alred-Gepp complex, 8 to 15 percent slopes, stony

Setting

Landform: Hills
Position on the landform: Alred—summits, shoulders; Gepp—summits, structural benches, backslopes
Parent material: Alred—gravelly colluvium over clayey residuum derived from cherty dolostone; Gepp—clayey residuum derived from dolostone

Map Unit Composition

Alred and similar soils—55 percent
 Gepp and similar soils—20 percent
 Components of minor extent—25 percent

- Clarksville soils
- Goss soils
- Moderately deep, loamy-skeletal soils
- Gasconade soils

Typical Profile

Alred

Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 6 inches; very gravelly silt loam
 E—6 to 11 inches; gravelly silt loam

Bt—11 to 31 inches; very gravelly silt loam
 2Bt—31 to 79 inches; clay

Gepp

Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 6 inches; very gravelly silt loam
 Bt1—6 to 12 inches; clay
 Bt2—12 to 67 inches; clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Alred—moderate (0.6 inch to 2.0 inches per hour) in the upper part and slow (0.06 to 0.2 inch per hour) in the lower part; Gepp—moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: Low (3 to 6 inches)
Shrink-swell potential: Moderate (3 to 6 percent)
Flooding: None
Depth to water table: More than 60 inches

73157—Captina silt loam, 3 to 8 percent slopes

Setting

Landform: Hills
Position on the landform: Summits
Parent material: Loess over colluvium and residuum derived from dolostone

Map Unit Composition

Captina and similar soils—90 percent
 Components of minor extent—10 percent

- Scholten soils
- Clarksville soils
- Very deep, fine-silty soils

Typical Profile

Ap—0 to 5 inches; silt loam
 Bt—5 to 25 inches; silty clay loam
 2Btx—25 to 31 inches; extremely gravelly silt loam
 3Bt—31 to 78 inches; gravelly clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Permeability: Moderate (0.6 inch to 2.0 inches per hour) in the upper part and slow (0.06 to 0.2 inch per hour) in the lower part
Available water capacity: Low (3 to 6 inches)
Shrink-swell potential: Moderate (3 to 6 percent)
Flooding: None
Depth to water table: 18 to 36 inches

73159—Yelton silt loam, 3 to 8 percent slopes**Setting**

Landform: Hills

Position on the landform: Footslopes

Parent material: Loess over colluvium derived from sandstone

Map Unit Composition

Yelton and similar soils—90 percent

Components of minor extent—10 percent

- Lily soils
- Lecomma soils
- Coulstone soils

Typical Profile

Ap—0 to 3 inches; silt loam

E—3 to 8 inches; silt loam

Bt—8 to 19 inches; silty clay loam

2Btx—19 to 38 inches; loam

3Bt—38 to 65 inches; sandy clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Moderately well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour) above the fragipan and slow (0.06 to 0.2 inch per hour) in the fragipan

Available water capacity: Low (3 to 6 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Flooding: None

Depth to water table: 18 to 24 inches

73197—Viburnum silt loam, 3 to 8 percent slopes**Setting**

Landform: Hills

Position on the landform: Summits

Parent material: Silty loess over clayey residuum

Map Unit Composition

Viburnum and similar soils—85 percent

Components of minor extent—15 percent

- Scholten soils
- Tonti soils
- Fanchon soils
- Splitlimb soils
- Hogcreek soils
- Bendavis soils

Typical Profile

Ap—0 to 6 inches; silt loam

Bt1—6 to 18 inches; gravelly silty clay loam

2Bt2—18 to 35 inches; gravelly silty clay

3Bt3—35 to 80 inches; gravelly clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Moderately well drained

Permeability: Moderately slow (0.2 to 0.6 inch per hour)

Available water capacity: Moderate (6 to 9 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Flooding: None

Depth to water table: 14 to 20 inches

73222—Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded**Setting**

Landform: Ridges

Position on the landform: Sinkholes

Parent material: Silty loess over silty colluvium

Map Unit Composition

Splitlimb and similar soils—80 percent

Components of minor extent—20 percent

- Lowassie soils
- Very deep, well drained soils

Typical Profile

Ap—0 to 10 inches; silt loam

Bt1—10 to 20 inches; silt loam

Bt2—20 to 29 inches; silt loam

2Bt3—29 to 80 inches; silty clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Permeability: Moderately slow (0.2 to 0.6 inch per hour)

Available water capacity: High (9 to 12 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Flooding: None

Depth to water table: 12 to 20 inches

Ponding frequency: Frequent

73223—Coulstone-Bender complex, 15 to 50 percent slopes, very stony**Setting**

Landform: Hills

Position on the landform: Backslopes

Parent material: Coulstone—colluvium and residuum

derived from interbedded sandstone and cherty dolostone; Bender—residuum derived from sandstone

Map Unit Composition

- Coulstone and similar soils—40 percent
 Bender and similar soils—25 percent
 Components of minor extent—35 percent
- Bendavis soils
 - Clarksville soils
 - Vertical bluffs
 - Rock outcrop

Typical Profile

Coulstone

- Oe—0 to 1 inch; moderately decomposed plant material
 A—1 to 6 inches; extremely cobbly sandy loam
 Bt1—6 to 29 inches; very cobbly sandy loam
 2Bt2—29 to 42 inches; very stony sandy clay loam
 3Bt3—42 to 80 inches; very stony clay loam

Bender

- Oe—0 to 1 inch; moderately decomposed plant material
 A—1 to 5 inches; extremely cobbly sandy loam
 Bt1—5 to 21 inches; extremely cobbly sandy loam
 Bt2—21 to 31 inches; extremely stony sandy loam
 2R—31 inches; sandstone bedrock

Soil Properties and Qualities

- Depth to bedrock:* Coulstone—very deep (more than 60 inches); Bender—moderately deep (20 to 40 inches)
Drainage class: Somewhat excessively drained
Permeability: Moderately rapid (2 to 6 inches per hour)
Available water capacity: Very low (0 to 3 inches)
Shrink-swell potential: Low (0 to 3 percent)
Flooding: None
Depth to water table: More than 60 inches

73269—Brussels-Gasconade-Rock outcrop complex, 30 to 90 percent slopes, very bouldery

Setting

- Landform:* Brussels—hills; Gasconade—hills
Position on the landform: Brussels—backslopes; Gasconade—backslopes, shoulders
Parent material: Brussels—gravelly colluvium over gravelly residuum derived from dolostone; Gasconade—gravelly residuum derived from dolostone

Map Unit Composition

- Brussels—40 percent
 Gasconade and similar soils—30 percent
 Rock outcrop—15 percent
 Components of minor extent—15 percent
- Bardley soils
 - Poynor soils
 - Goss soils
 - Vertical bluffs

Typical Profile

Brussels

- Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 10 inches; gravelly silty clay loam
 Bt1—10 to 49 inches; very gravelly silty clay loam
 Bt2—49 to 70 inches; gravelly silty clay loam

Gasconade

- A—0 to 9 inches; cobbly silty clay
 Bw—9 to 14 inches; very cobbly clay
 R—14 inches; dolostone bedrock

Soil Properties and Qualities

- Depth to bedrock:* Brussels—very deep (more than 60 inches); Gasconade—very shallow and shallow (4 to 20 inches)
Drainage class: Brussels—well drained; Gasconade—somewhat excessively drained
Permeability: Brussels and Gasconade—moderately slow (0.2 to 0.6 inch per hour)
Available water capacity: Brussels—low (3 to 6 inches); Gasconade—very low (0 to 3 inches)
Shrink-swell potential: Brussels and Gasconade—moderate (3 to 6 percent)
Flooding: None
Depth to water table: More than 60 inches

73290—Gatewood-Aaron complex, 3 to 8 percent slopes

Setting

- Landform:* Basins
Position on the landform: Gatewood—backslopes, summits; Aaron—shoulders
Parent material: Gatewood—loess over residuum derived from dolostone and shale; Aaron—loess over residuum derived from dolostone, shale, and siltstone

Map Unit Composition

- Gatewood and similar soils—55 percent
 Aaron and similar soils—35 percent

Components of minor extent—10 percent

- Courtois soils
- Gasconade soils

Typical Profile

Gatewood

Ap—0 to 3 inches; silt loam
E—3 to 7 inches; silt loam
2Bt—7 to 37 inches; clay
2R—37 inches; dolostone bedrock

Aaron

Ap—0 to 7 inches; silt loam
BE—7 to 12 inches; silt loam
Bt1—12 to 25 inches; silty clay loam
2Bt2—25 to 46 inches; clay
2R—46 inches; dolostone bedrock

Soil Properties and Qualities

Depth to bedrock: Gatewood—moderately deep (20 to 40 inches); Aaron—deep (40 to 60 inches)

Drainage class: Moderately well drained

Permeability: Slow (0.06 to 0.2 inch per hour)

Available water capacity: Gatewood—low (3 to 6 inches); Aaron—moderate (6 to 9 inches)

Shrink-swell potential: High (6 to 9 percent)

Flooding: None

Depth to water table: 18 to 36 inches

73291—Gatewood-Aaron complex, 8 to 15 percent slopes, severely eroded

Setting

Landform: Basins

Position on the landform: Backslopes

Parent material: Gatewood—loess over residuum derived from dolostone; Aaron—loess over residuum derived from interbedded dolostone, shale, and siltstone

Map Unit Composition

Gatewood and similar soils—60 percent

Aaron and similar soils—35 percent

Minor components—5 percent

- Courtois soils
- Gasconade soils

Typical Profile

Gatewood

Ap—0 to 1 inch; silt loam
2Bt—1 to 25 inches; clay

2Cr—25 to 36 inches; channery clay

2R—36 inches; bedrock

Aaron

Ap—0 to 2 inches; silt loam

Bt1—2 to 10 inches; silty clay loam

2Bt2—10 to 52 inches; clay

2R—52 inches; bedrock

Soil Properties and Qualities

Depth to bedrock: Gatewood—moderately deep (20 to 40 inches); Aaron—deep (40 to 60 inches)

Drainage class: Moderately well drained

Permeability: Slow (0.06 to 0.2 inch per hour)

Available water capacity: Gatewood—low (3 to 6 inches); Aaron—moderate (6 to 9 inches)

Shrink-swell potential: High (6 to 9 percent)

Flooding: None

Depth to water table: 18 to 36 inches

73295—Taterhill silt loam, 3 to 8 percent slopes

Setting

Landform: Hills

Position on the landform: Footslopes

Parent material: Silty colluvium derived from loess and the underlying valley fill materials

Map Unit Composition

Taterhill and similar soils—85 percent

Components of minor extent—15 percent

- Aslinger soils
- Tonti soils
- Poynor soils

Typical Profile

Ap—0 to 9 inches; silt loam

Bt1—9 to 30 inches; silt loam

2Bt2—30 to 80 inches; gravelly clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Moderate (6 to 9 inches)

Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: More than 60 inches

73298—Tonti-Hogcreek complex, 3 to 8 percent slopes

Setting

Landform: Hills

Position on the landform: Summits

Parent material: Tonti—loess over gravelly colluvium over clayey residuum derived from dolostone; Hogcreek—loess over gravelly colluvium

Map Unit Composition

Tonti and similar soils—60 percent
Hogcreek and similar soils—30 percent
Components of minor extent—10 percent

- Very deep, fine-loamy soils
- Scholten soils
- Bendavis soils

Typical Profile

Tonti

A—0 to 8 inches; silt loam
Bt—8 to 20 inches; gravelly silty clay loam
2Btx—20 to 34 inches; extremely gravelly silt loam
3Bt—34 to 80 inches; very gravelly clay

Hogcreek

Ap—0 to 5 inches; silt loam
Bt1—5 to 16 inches; silt loam
Bt2—16 to 22 inches; gravelly silty clay loam
2Btx—22 to 28 inches; extremely gravelly silt loam
3R—28 inches; sandstone bedrock

Soil Properties and Qualities

Depth to bedrock: Tonti—very deep (more than 60 inches); Hogcreek—moderately deep (20 to 40 inches)

Drainage class: Moderately well drained

Permeability: Tonti—slow (0.06 to 0.2 inch per hour); Hogcreek—moderate (0.6 inch to 2.0 inches per hour) above the fragipan and very slow (less than 0.06 inch per hour) in the fragipan

Available water capacity: Tonti—very low (0 to 3 inches); Hogcreek—low (3 to 6 inches)

Shrink-swell potential: Tonti—moderate (3 to 6 percent); Hogcreek—low (0 to 3 percent)

Flooding: None

Depth to water table: Tonti—18 to 30 inches; Hogcreek—16 to 32 inches

73310—Scholten-Bendavis-Poynor complex, 1 to 8 percent slopes

Setting

Landform: Hills

Position on the landform: Scholten—summits, shoulders, backslopes; Bendavis—summits, backslopes; Poynor—summits, shoulders, backslopes, footslopes

Parent material: Scholten—gravelly colluvium derived from cherty dolostone; Bendavis—gravelly colluvium; Poynor—gravelly colluvium over clayey residuum derived from dolostone

Map Unit Composition

Scholten and similar soils—30 percent
Bendavis and similar soils—25 percent
Poynor and similar soils—20 percent
Components of minor extent—25 percent

- Bender soils
- Hogcreek soils
- Yelton soils

Typical Profile

Scholten

Ap—0 to 7 inches; very gravelly silt loam
Bt—7 to 21 inches; very gravelly silt loam
2Btx—21 to 34 inches; extremely gravelly silt loam
3Bt—34 to 80 inches; gravelly clay

Bendavis

Ap—0 to 8 inches; gravelly silt loam
E—8 to 10 inches; very gravelly silt loam
Bt—10 to 31 inches; very gravelly silt loam
2R—31 inches; chert bedrock

Poynor

Ap—0 to 4 inches; very gravelly silt loam
E—4 to 10 inches; very gravelly silt loam
Bt1—10 to 28 inches; very gravelly silt loam
2Bt2—28 to 80 inches; gravelly clay

Soil Properties and Qualities

Depth to bedrock: Scholten and Poynor—very deep (more than 60 inches); Bendavis—moderately deep (20 to 40 inches)

Drainage class: Scholten and Bendavis—moderately well drained; Poynor—well drained

Permeability: Scholten—moderate (0.6 inch to 2 inches per hour) above the fragipan, very slow

(less than 0.06 inch per hour) in the fragipan, and moderately rapid (2 to 6 inches per hour) below the fragipan; Bendavis—moderate (0.6 inch to 2.0 inches per hour); Poynor—moderately slow (0.2 to 0.6 inch per hour)

Available water capacity: Scholten—very low (0 to 3 inches); Bendavis—low (3 to 6 inches); Poynor—moderate (6 to 9 inches)

Shrink-swell potential: Scholten and Poynor—moderate (3 to 6 percent); Bendavis—low (0 to 3 percent)

Flooding: None

Depth to water table: Scholten—16 to 26 inches; Bendavis—24 to 36 inches; Poynor—more than 60 inches

73311—Scholten-Bendavis-Poynor complex, 8 to 15 percent slopes

Setting

Landform: Hills

Position on the landform: Shoulders, backslopes

Parent material: Scholten and Poynor—gravelly colluvium over clayey residuum derived from dolostone; Bendavis—gravelly colluvium

Map Unit Composition

Scholten and similar soils—35 percent
Bendavis and similar soils—30 percent
Poynor and similar soils—25 percent
Components of minor extent—10 percent

- Tonti soils
- Hogcreek soils
- Clarksville soils

Typical Profile

Scholten

Ap—0 to 7 inches; very gravelly silt loam
Bt—7 to 21 inches; very gravelly silt loam
2Btx—21 to 34 inches; extremely gravelly silt loam
3Bt—34 to 80 inches; gravelly clay

Bendavis

A—0 to 5 inches; very gravelly silt loam
E—5 to 9 inches; very gravelly silt loam
Bt—9 to 25 inches; very gravelly silt loam
2R—25 inches; chert bedrock

Poynor

Ap—0 to 4 inches; very gravelly silt loam
E—4 to 10 inches; very gravelly silt loam
Bt1—10 to 28 inches; very gravelly silty clay loam
2Bt2—28 to 80 inches; clay

Soil Properties and Qualities

Depth to bedrock: Scholten and Poynor—very deep (more than 60 inches); Bendavis—moderately deep (20 to 40 inches)

Drainage class: Scholten and Bendavis—moderately well drained; Poynor—well drained

Permeability: Scholten—moderate (0.6 inch to 2 inches per hour) above the fragipan, very slow (less than 0.06 inch per hour) in the fragipan, and moderately rapid (2 to 6 inches per hour) below the fragipan; Bendavis—moderate (0.6 inch to 2.0 inches per hour); Poynor—moderately slow (0.2 to 0.6 inch per hour)

Available water capacity: Scholten—very low (0 to 3 inches); Bendavis and Poynor—low (3 to 6 inches)

Shrink-swell potential: Scholten and Poynor—moderate (3 to 6 percent); Bendavis—low (0 to 3 percent)

Flooding: None

Depth to water table: Scholten—16 to 26 inches; Bendavis—24 to 36 inches; Poynor—more than 60 inches

73333—Taterhill silt loam, 1 to 3 percent slopes

Setting

Landform: River valleys

Position on the landform: Footslopes, high stream terraces

Parent material: Silty colluvium derived mainly from loess and the underlying valley fill materials

Map Unit Composition

Taterhill and similar soils—85 percent
Components of minor extent—15 percent

Typical Profile

Ap—0 to 11 inches; silt loam
BA—11 to 15 inches; silt loam
Bt1—15 to 28 inches; silt loam
2Bt2—28 to 48 inches; very gravelly silty clay loam
2Bt3—48 to 80 inches; silty clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: High (9 to 12 inches)

Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: More than 60 inches

73334—Horneybuck silt loam, 3 to 8 percent slopes

Setting

Landform: Hills

Position on the landform: Footslopes

Parent material: Loamy colluvium

Map Unit Composition

Horneybuck and similar soils—90 percent

Components of minor extent—10 percent

- Aslinger soils
- Soils that have a very gravelly subsoil

Typical Profile

A—0 to 6 inches; silt loam

Bt1—6 to 26 inches; gravelly silt loam

2Bt2—26 to 37 inches; gravelly silty clay loam

2Bt3—37 to 60 inches; very gravelly silty clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Moderately well drained

Permeability: Moderately slow (0.2 to 0.6 inch per hour)

Available water capacity: High (9 to 12 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Flooding: None

Depth to water table: 18 to 30 inches

73335—Hobson-Rueter complex, 3 to 8 percent slopes

Setting

Landform: Hills, structural benches

Position on the landform: Hobson—summits, shoulders; Rueter—summits, backslopes

Parent material: Hobson—residuum derived from sandstone and cherty dolostone; Rueter—gravelly colluvium over gravelly residuum derived from dolostone

Map Unit Composition

Hobson and similar soils—50 percent

Rueter and similar soils—35 percent

Components of minor extent—15 percent

- Wilderness soils
- Gepp soils
- Portia soils

Typical Profile

Hobson

A—0 to 10 inches; silt loam

BE—10 to 16 inches; silt loam

Bt—16 to 32 inches; silt loam

2Btx—32 to 42 inches; very gravelly silt loam

3Bt—42 to 80 inches; very gravelly clay

Rueter

A—0 to 4 inches; very gravelly silt loam

E—4 to 17 inches; gravelly silt loam

Bt—17 to 32 inches; very gravelly silt loam

2Bt—32 to 43 inches; very gravelly silty clay

3Bt—43 to 71 inches; very cobbly clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Hobson—moderately well drained;

Rueter—somewhat excessively drained

Permeability: Hobson—moderate (0.6 inch to 2.0 inches per hour) above the fragipan and slow (0.06 to 0.2 inch per hour) in the fragipan;

Rueter—moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Hobson—moderate (6 to 9 inches); Rueter—low (3 to 6 inches)

Shrink-swell potential: Hobson—high (6 to 9 percent);

Rueter—moderate (3 to 6 percent)

Flooding: None

Depth to water table: Hobson—18 to 30 inches;

Rueter—more than 60 inches

73336—Rueter-Gepp complex, bench, 8 to 15 percent slopes

Setting

Landform: Rueter—structural benches; Gepp—hills

Position on the landform: Backslopes

Parent material: Rueter—gravelly colluvium over gravelly residuum derived from dolostone; Gepp—clayey residuum derived from dolostone

Map Unit Composition

Rueter and similar soils—50 percent

Gepp and similar soils—35 percent

Components of minor extent—15 percent

- Hobson soils
- Portia soils

Typical Profile

Rueter

A—0 to 5 inches; gravelly silt loam
 E—5 to 12 inches; gravelly silt loam
 Bt—12 to 24 inches; very gravelly silt loam
 2Bt—24 to 43 inches; very gravelly silty clay loam
 3Bt—43 to 80 inches; very cobbly clay

Gepp

A—0 to 5 inches; gravelly silt loam
 BA—5 to 10 inches; gravelly silt loam
 Bt—10 to 16 inches; gravelly clay
 2Bt—16 to 76 inches; clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Rueter—somewhat excessively drained; Gepp—well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Moderate (6 to 9 inches)

Shrink-swell potential: Rueter—low (0 to 3 percent);
 Gepp—moderate (3 to 6 percent)

Flooding: None

Depth to water table: More than 60 inches

73337—Tonti-Portia complex, 3 to 8 percent slopes

Setting

Landform: Hills, structural benches

Position on the landform: Summits

Parent material: Tonti—loess over gravelly colluvium over clayey residuum derived from dolostone;
 Portia—colluvium over residuum

Map Unit Composition

Tonti and similar soils—50 percent

Portia and similar soils—35 percent

Components of minor extent—15 percent

- Gepp soils
- Hogcreek soils
- Poynor soils

Typical Profile

Tonti

Ap—0 to 10 inches; silt loam
 Bt—10 to 25 inches; gravelly silty clay loam
 2Btx—25 to 36 inches; extremely gravelly silt loam
 3Bt—36 to 80 inches; very gravelly clay

Portia

A—0 to 6 inches; silt loam
 Bt1—6 to 16 inches; loam
 Bt2—16 to 21 inches; sandy clay loam
 2Bt3—21 to 31 inches; clay
 3Bt4—31 to 80 inches; clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Tonti—moderately well drained;
 Portia—well drained

Permeability: Tonti—slow (0.06 to 0.2 inch per hour);
 Portia—moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Tonti—low (3 to 6 inches);
 Portia—moderate (6 to 9 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Flooding: None

Depth to water table: Tonti—18 to 30 inches; Portia—more than 60 inches

73338—Portia-Hobson complex, 8 to 15 percent slopes

Setting

Landform: Structural benches, hills

Position on the landform: Shoulders

Parent material: Portia—colluvium over residuum;
 Hobson—colluvium derived from sandstone over clayey residuum derived from dolostone

Map Unit Composition

Portia and similar soils—50 percent

Hobson and similar soils—35 percent

Components of minor extent—15 percent

- Gepp soils
- Hogcreek soils
- Poynor soils

Typical Profile

Portia

A—0 to 6 inches; silt loam
 Bt1—6 to 16 inches; silt loam
 Bt2—16 to 21 inches; loam
 2Bt3—21 to 31 inches; clay
 3Bt4—31 to 80 inches; clay

Hobson

A—0 to 8 inches; silt loam
 BE—8 to 13 inches; silt loam
 Bt—13 to 27 inches; gravelly silty clay loam

2Btx—27 to 36 inches; very gravelly clay loam

3Bt—36 to 70 inches; gravelly clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Portia—well drained; Hobson—moderately well drained

Permeability: Portia—moderate (0.6 inch to 2.0 inches per hour); Hobson—moderate (0.6 inch to 2.0 inches per hour) above the fragipan and slow (0.06 to 0.2 inch per hour) in the fragipan

Available water capacity: Portia—moderate (6 to 9 inches); Hobson—low (3 to 6 inches)

Shrink-swell potential: Portia—moderate (3 to 6 percent); Hobson—high (6 to 9 percent)

Flooding: None

Depth to water table: Portia—more than 60 inches; Hobson—18 to 30 inches

73339—Arkana-Gepp complex, 8 to 15 percent slopes, rocky, stony

Setting

Landform: Hills

Position on the landform: Summits, backslopes

Parent material: Arkana—gravelly colluvium over clayey residuum derived from dolostone; Gepp—clayey residuum derived from dolostone

Map Unit Composition

Arkana and similar soils—50 percent

Gepp and similar soils—35 percent

Components of minor extent—15 percent

- Alred soils
- Bardley soils
- Gasconade soils

Typical Profile

Arkana

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 7 inches; very gravelly silt loam

Bt—7 to 12 inches; gravelly silty clay loam

2Bt—12 to 30 inches; clay

2R—30 inches; dolostone bedrock

Gepp

A—0 to 10 inches; very gravelly silt loam

Bt—10 to 19 inches; gravelly silty clay loam

2Bt—19 to 60 inches; clay

Soil Properties and Qualities

Depth to bedrock: Arkana—moderately deep (20 to 40 inches); Gepp—very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Arkana—very slow (less than 0.06 inch per hour); Gepp—moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Arkana—low (3 to 6 inches); Gepp—moderate (6 to 9 inches)

Shrink-swell potential: Arkana—high (6 to 9 percent); Gepp—moderate (3 to 6 percent)

Flooding: None

Depth to water table: More than 60 inches

73340—Rueter-Gepp complex, 8 to 15 percent slopes, stony

Setting

Landform: Hills

Position on the landform: Summits, backslopes

Parent material: Rueter—gravelly colluvium over gravelly residuum derived from dolostone; Gepp—clayey residuum derived from dolostone

Map Unit Composition

Rueter and similar soils—50 percent

Gepp and similar soils—35 percent

Components of minor extent—15 percent

- Alred soils
- Niangua soils
- Tonti soils

Typical Profile

Rueter

A—0 to 6 inches; very gravelly silt loam

E—6 to 10 inches; gravelly silt loam

Bt—10 to 28 inches; very gravelly silt loam

2Bt—28 to 42 inches; very gravelly clay

3Bt—42 to 80 inches; very cobbly clay

Gepp

A—0 to 4 inches; gravelly silt loam

BA—4 to 9 inches; very gravelly silt loam

Bt—9 to 17 inches; gravelly clay

2Bt—17 to 72 inches; clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Rueter—somewhat excessively drained; Gepp—well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Rueter—moderate (6 to 9 inches); Gepp—low (3 to 6 inches)

Shrink-swell potential: Rueter—low (0 to 3 percent); Gepp—moderate (3 to 6 percent)

Flooding: None

Depth to water table: More than 60 inches

73341—Gepp-Arkana complex, 15 to 55 percent slopes, rocky

Setting

Landform: Hills

Position on the landform: Summits, backslopes

Parent material: Gepp—clayey residuum derived from dolostone; Arkana—gravelly colluvium over clayey residuum derived from dolostone

Map Unit Composition

Gepp and similar soils—50 percent

Arkana and similar soils—35 percent

Components of minor extent—15 percent

- Alred soils
- Gasconade soils
- Rueter soils

Typical Profile

Gepp

A—0 to 4 inches; very gravelly silt loam

Bt—4 to 15 inches; silty clay

2Bt—15 to 68 inches; clay

Arkana

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 9 inches; very gravelly silt loam

Bt—9 to 14 inches; very gravelly clay

2Bt—14 to 29 inches; clay

2R—29 inches; dolostone bedrock

Soil Properties and Qualities

Depth to bedrock: Gepp—very deep (more than 60 inches); Arkana—moderately deep (20 to 40 inches)

Drainage class: Well drained

Permeability: Gepp—moderate (0.6 inch to 2.0 inches per hour); Arkana—very slow (less than 0.06 inch per hour)

Available water capacity: Low (3 to 6 inches)

Shrink-swell potential: Gepp—moderate (3 to 6 percent); Arkana—high (6 to 9 percent)

Flooding: None

Depth to water table: More than 60 inches

73342—Alred-Arkana complex, 8 to 15 percent slopes, rocky

Setting

Landform: Hills

Position on the landform: Summits

Parent material: Alred—colluvium over residuum derived from cherty dolostone; Arkana—gravelly colluvium over clayey residuum derived from dolostone

Map Unit Composition

Alred and similar soils—60 percent

Arkana and similar soils—35 percent

Components of minor extent—5 percent

- Clarksville soils
- Gepp soils

Typical Profile

Alred

A—0 to 8 inches; very gravelly silt loam

E—8 to 11 inches; gravelly silt loam

Bt—11 to 24 inches; very gravelly silt loam

2Bt—24 to 67 inches; cobbly clay

Arkana

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; very gravelly silt loam

Bt—5 to 17 inches; clay

2Bt—17 to 25 inches; clay

2R—25 inches; dolostone bedrock

Soil Properties and Qualities

Depth to bedrock: Alred—very deep (more than 60 inches); Arkana—moderately deep (20 to 40 inches)

Drainage class: Well drained

Permeability: Alred—moderate (0.6 inch to 2.0 inches per hour) in the upper part and moderately slow (0.2 to 0.6 inch per hour) in the lower part; Arkana—very slow (less than 0.06 inch per hour)

Available water capacity: Alred—low (3 to 6 inches); Arkana—very low (0 to 3 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Flooding: None

Depth to water table: More than 60 inches

74636—Lecoma loam, 3 to 8 percent slopes

Setting

Landform: Hills

Position on the landform: Structural benches

Parent material: Fine-loamy alluvium and loamy colluvium derived from sandstone

Map Unit Composition

Lecoma and similar soils—90 percent

Components of minor extent—10 percent

- Yelton soils
- Lily soils
- Coulstone soils

Typical Profile

Ap—0 to 9 inches; loam
 Bt1—9 to 31 inches; loam
 2Bt2—31 to 80 inches; clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: High (9 to 12 inches)
Shrink-swell potential: Moderate (3 to 6 percent)
Flooding: None
Depth to water table: More than 60 inches

74637—Lecoma loam, 8 to 15 percent slopes

Setting

Landform: Hills
Position on the landform: Structural benches
Parent material: Fine-loamy alluvium and loamy colluvium derived from sandstone

Map Unit Composition

Lecoma and similar soils—90 percent
 Components of minor extent—10 percent

- Bendavis soils
- Coulstone soils
- Yelton soils

Typical Profile

Ap—0 to 7 inches; loam
 Bt1—7 to 24 inches; loam
 2Bt2—24 to 80 inches; clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: High (9 to 12 inches)
Shrink-swell potential: Moderate (3 to 6 percent)
Flooding: None
Depth to water table: More than 60 inches

74643—Lecoma silt loam, 1 to 3 percent slopes

Setting

Landform: River valleys
Position on the landform: High stream terraces (fig. 8), strath terraces
Parent material: Loamy alluvium and loamy colluvium derived from sandstone

Map Unit Composition

Lecoma and similar soils—85 percent
 Components of minor extent—15 percent

- Taterhill soils
- Yelton soils
- Waben soils

Typical Profile

Ap—0 to 9 inches; silt loam
 Bt—9 to 24 inches; silt loam
 2Bt—24 to 80 inches; clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: High (9 to 12 inches)
Shrink-swell potential: Moderate (3 to 6 percent)
Flooding: None
Depth to water table: More than 60 inches

74644—Deible silt loam, 1 to 3 percent slopes

Setting

Landform: River valleys
Position on the landform: High stream terraces
Parent material: Loess over alluvium

Map Unit Composition

Deible and similar soils—90 percent
 Components of minor extent—10 percent

- Racoon soils
- Higdon soils

Typical Profile

Ap—0 to 7 inches; silt loam
 E—7 to 16 inches; silt loam



Figure 8.—Fescue in an area of Lecom silt loam, 1 to 3 percent slopes, on a high stream terrace. Areas on footslopes and on the flood plains along small streams are commonly used for pasture and hay. Courtois silt loam, 3 to 8 percent slopes, is on the footslopes in the background.

Btg—16 to 40 inches; silty clay loam

2Btg—40 to 65 inches; clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Poorly drained

Permeability: Very slow (less than 0.06 inch per hour)

Available water capacity: High (9 to 12 inches)

Shrink-swell potential: High (6 to 9 percent)

Flooding: None

Depth to water table: 0 to 12 inches

74646—Cornwall silt loam, 3 to 8 percent slopes

Setting

Landform: River valleys

Position on the landform: Footslopes, terraces

Parent material: Loess over valley fill material

Map Unit Composition

Cornwall and similar soils—90 percent

Components of minor extent—10 percent

- Marquand soils
- Tilk soils

Typical Profile

Ap—0 to 5 inches; silt loam
 Bt—5 to 17 inches; silty clay loam
 2Btx—17 to 39 inches; silt loam
 3Bt—39 to 60 inches; very gravelly silty clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Permeability: Moderately slow (0.2 to 0.6 inch per hour)
Available water capacity: Moderate (6 to 9 inches)
Shrink-swell potential: Low (0 to 3 percent)
Flooding: None
Depth to water table: 18 to 36 inches

74648—Aslinger silt loam, 3 to 8 percent slopes

Setting

Landform: Hills
Position on the landform: Footslopes
Parent material: Loamy colluvium over loamy and clayey alluvium

Map Unit Composition

Aslinger and similar soils—85 percent
 Components of minor extent—15 percent

- Cornwall soils
- Clarksville soils

Typical Profile

Ap—0 to 4 inches; silt loam
 AB—4 to 8 inches; silt loam
 Bt—8 to 21 inches; silt loam
 2Btx—21 to 29 inches; very gravelly silt loam
 3Bt—29 to 55 inches; very gravelly clay loam
 4Bt—55 to 70 inches; extremely cobbly clay

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Permeability: Moderately slow (0.2 to 0.6 inch per hour)
Available water capacity: Low (3 to 6 inches)
Shrink-swell potential: Low (0 to 3 percent)
Flooding: None
Depth to water table: 18 to 30 inches

74649—Aslinger-Waben complex, 3 to 15 percent slopes

Setting

Landform: Hills
Position on the landform: Footslopes
Parent material: Aslinger—loamy colluvium over loamy and clayey alluvium; Waben—loamy alluvium and loamy colluvium

Map Unit Composition

Aslinger and similar soils—70 percent
 Waben and similar soils—20 percent
 Components of minor extent—10 percent

- Marquand soils
- Clarksville soils

Typical Profile

Aslinger

Ap—0 to 3 inches; silt loam
 AB—3 to 8 inches; silt loam
 Bt—8 to 20 inches; silty clay loam
 2Btx—20 to 39 inches; gravelly silt loam
 3Bt—39 to 52 inches; gravelly loam
 4Bt—52 to 80 inches; gravelly clay

Waben

Ap—0 to 6 inches; gravelly silt loam
 Bt—6 to 15 inches; very gravelly silt loam
 2Bt—15 to 54 inches; very gravelly loam
 3Bt—54 to 80 inches; very gravelly clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Aslinger—moderately well drained; Waben—well drained
Permeability: Aslinger—moderately slow (0.2 to 0.6 inch per hour); Waben—moderately rapid (2 to 6 inches per hour)
Available water capacity: Low (3 to 6 inches)
Shrink-swell potential: Low (0 to 3 percent)
Flooding: None
Depth to water table: Aslinger—18 to 30 inches; Waben—more than 60 inches

74651—Waben gravelly silt loam, 3 to 8 percent slopes

Setting

Landform: Hills
Position on the landform: Footslopes

Parent material: Gravelly alluvium and gravelly colluvium

Map Unit Composition

Waben—90 percent

Components of minor extent—10 percent

- Brussels soils
- Lecomma soils
- Taterhill soils

Typical Profile

Ap—0 to 4 inches; gravelly silt loam

Bt1—4 to 22 inches; very gravelly silt loam

Bt2—22 to 47 inches; very gravelly silt loam

2Bt—47 to 80 inches; extremely gravelly clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Moderately rapid (2 to 6 inches per hour)

Available water capacity: Low (3 to 6 inches)

Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: More than 60 inches

74658—Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Loamy alluvium

Map Unit Composition

Zanoni and similar soils—70 percent

Components of minor extent—30 percent

- Secesh soils
- Tilk soils
- Relfe soils
- Wideman soils

Typical Profile

Ap—0 to 7 inches; fine sandy loam

Bt1—7 to 36 inches; fine sandy loam

Bt2—36 to 50 inches; sandy loam

2C—50 to 80 inches; stratified extremely gravelly loamy sand to gravelly loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Moderately rapid (2 to 6 inches per hour)

Available water capacity: Moderate (6 to 9 inches)

Shrink-swell potential: Low (0 to 3 percent)

Frequency of flooding: Rare (1 to 5 percent chance in any year)

Depth to water table: More than 60 inches

74679—Higdon silt loam, 0 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys

Position on the landform: Terraces

Parent material: Silty alluvium

Map Unit Composition

Higdon and similar soils—85 percent

Components of minor extent—15 percent

- Moniteau soils
- Bearthicket soils
- Deible soils
- Secesh soils

Typical Profile

Ap—0 to 7 inches; silt loam

E—7 to 13 inches; silt loam

Bt1—13 to 43 inches; silt loam

2Bt2—43 to 80 inches; silty clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Permeability: Moderately slow (0.2 to 0.6 inch per hour)

Available water capacity: High (9 to 12 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Frequency of flooding: Rare (1 to 5 percent chance in any year)

Depth to water table: 18 to 20 inches

74680—Moniteau silt loam, 0 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys

Position on the landform: Low stream terraces

Parent material: Silty alluvium

Map Unit Composition

Moniteau and similar soils—85 percent

Components of minor extent—15 percent

- Secesh soils
- Bearthicket soils

- Higdon soils
- Deible soils

Typical Profile

Ap—0 to 6 inches; silt loam
 Eg—6 to 15 inches; silt loam
 Btg1—15 to 52 inches; silty clay loam
 Btg2—52 to 78 inches; silt loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Poorly drained
Permeability: Moderately slow (0.2 to 0.6 inch per hour)
Available water capacity: High (9 to 12 inches)
Shrink-swell potential: Moderate (3 to 6 percent)
Frequency of flooding: Rare (1 to 5 percent chance in any year)
Depth to water table: 0 to 12 inches

75381—Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys
Position on the landform: Low stream terraces
Parent material: Silty alluvium

Map Unit Composition

Bearthicket and similar soils—85 percent
 Components of minor extent—15 percent

- Secesh soils
- Deible soils
- Marquand soils

Typical Profile

Ap—0 to 6 inches; silt loam
 AB—6 to 19 inches; silt loam
 Bt—19 to 45 inches; silt loam
 2BC—45 to 64 inches; loam
 2C—64 to 80 inches; coarse sandy loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: Very high (more than 12 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Rare (1 to 5 percent chance in any year)
Depth to water table: More than 60 inches

75394—Relfe gravelly sandy loam, 0 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys
Position on the landform: Flood plains
Parent material: Sandy and gravelly alluvium

Map Unit Composition

Relfe and similar soils—90 percent
 Components of minor extent—10 percent

- Farewell soils
- Sandbur soils
- Taterhill soils
- Cedargap soils
- Sand and gravel bars

Typical Profile

Ap—0 to 6 inches; gravelly sandy loam
 C—6 to 80 inches; stratified extremely cobbly coarse sand to very gravelly loamy sand

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Excessively drained
Permeability: Moderately rapid (2 to 6 inches per hour)
Available water capacity: Very low (0 to 3 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Rare (1 to 5 percent chance in any year)
Depth to water table: More than 60 inches

75395—Jamesfin silt loam, 0 to 3 percent slopes, occasionally flooded

Setting

Landform: River valleys
Position on the landform: Flood plains
Parent material: Fine-silty alluvium

Map Unit Composition

Jamesfin and similar soils—90 percent
 Components of minor extent—10 percent

- Higdon soils
- Gladden soils
- Wideman soils

Typical Profile

Ap—0 to 6 inches; silt loam
 A—6 to 15 inches; silt loam
 Bw—15 to 53 inches; silt loam
 BC—53 to 62 inches; loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: Very high (more than 12 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Occasional (5 to 50 percent chance in any year)
Depth to water table: 48 to 72 inches

75408—Secesh silt loam, 0 to 3 percent slopes, rarely flooded**Setting**

Landform: River valleys
Position on the landform: Low stream terraces
Parent material: About 2 feet of loamy alluvium over gravelly residuum or alluvium

Map Unit Composition

Secesh and similar soils—90 percent
 Components of minor extent—10 percent

- Relfe soils
- Bearthicket soils
- Tilk soils
- Gladden soils

Typical Profile

Ap—0 to 4 inches; silt loam
 AB—4 to 10 inches; silt loam
 Bt1—10 to 26 inches; gravelly silt loam
 Bt2—26 to 36 inches; gravelly loam
 2Bt—36 to 80 inches; very gravelly coarse sandy loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: Moderate (6 to 9 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Rare (1 to 5 percent chance in any year)
Depth to water table: More than 60 inches

75409—Relfe sandy loam, 0 to 3 percent slopes, occasionally flooded**Setting**

Landform: River valleys
Position on the landform: Flood plains
Parent material: Sandy and gravelly alluvium

Map Unit Composition

Relfe and similar soils—90 percent
 Components of minor extent—10 percent

- Gladden soils
- Wideman soils
- Gravel bars

Typical Profile

Ap—0 to 7 inches; sandy loam
 C—7 to 64 inches; extremely gravelly sand

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Excessively drained
Permeability: Moderately rapid (2 to 6 inches per hour)
Available water capacity: Low (3 to 6 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Occasional (5 to 50 percent chance in any year)
Depth to water table: More than 60 inches

75411—Tilk very gravelly sandy loam, 0 to 3 percent slopes, rarely flooded**Setting**

Landform: River valleys
Position on the landform: Stream terraces
Parent material: Loamy and sandy alluvium with a high content of rock fragments

Map Unit Composition

Tilk and similar soils—85 percent
 Components of minor extent—15 percent

- Gladden soils
- Wideman soils
- Secesh soils

Typical Profile

A—0 to 8 inches; very gravelly sandy loam
 E—8 to 16 inches; extremely gravelly loam
 Bt—16 to 47 inches; very cobbly loam
 2C—47 to 70 inches; extremely gravelly coarse sandy loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderately rapid (2 to 6 inches per hour)
Available water capacity: Low (3 to 6 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Rare (1 to 5 percent chance in any year)
Depth to water table: More than 60 inches

75416—Gladden loam, 0 to 3 percent slopes, occasionally flooded

Setting

Landform: River valleys

Position on the landform: Terraces

Parent material: Loamy and gravelly alluvium

Map Unit Composition

Gladden and similar soils—85 percent

Components of minor extent—15 percent

- Jamesfin soils
- Relfe soils
- Secesh soils
- Wideman soils

Typical Profile

Ap—0 to 5 inches; loam

A—5 to 26 inches; loam

Bw—26 to 58 inches; loam

2C—58 to 77 inches; coarse sand

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour) in the upper part and moderately rapid (2 to 6 inches per hour) in the lower part

Available water capacity: High (9 to 12 inches)

Shrink-swell potential: Low (0 to 3 percent)

Frequency of flooding: Occasional (5 to 50 percent chance in any year)

Depth to water table: More than 60 inches

75417—Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded

Setting

Landform: River valleys

Position on the landform: Flood plains

Parent material: Relfe—sandy and gravelly alluvium;
Sandbur—loamy alluvium

Map Unit Composition

Relfe and similar soils—40 percent

Sandbur and similar soils—30 percent

Components of minor extent—30 percent

- Sand and gravel bars
- Tilk soils
- Racket soils
- Farewell soils
- Cedargap soils
- Kaintuck soils

Typical Profile

Relfe

Ap—0 to 6 inches; very gravelly sandy loam

C—6 to 80 inches; stratified extremely cobbly coarse sand to very gravelly loamy sand

Sandbur

Ap—0 to 8 inches; fine sandy loam

C—8 to 50 inches; stratified fine sand to silt loam

2C—50 to 80 inches; very gravelly sandy loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Relfe—excessively drained;

Sandbur—somewhat excessively drained

Permeability: Moderately rapid (2 to 6 inches per hour)

Available water capacity: Relfe—very low (0 to 3 inches); Sandbur—moderate (6 to 9 inches)

Shrink-swell potential: Low (0 to 3 percent)

Frequency of flooding: Frequent (more than 50 percent chance in any year)

Depth to water table: More than 60 inches

75426—Gabriel silt loam, 0 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys

Position on the landform: Low stream terraces

Parent material: Fine-silty alluvium

Map Unit Composition

Gabriel and similar soils—90 percent

Components of minor extent—10 percent

- Moniteau soils
- Farewell soils
- Higdon soils

Typical Profile

A—0 to 14 inches; silt loam

Btg1—14 to 46 inches; silty clay loam

Btg2—46 to 81 inches; silty clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Poorly drained

Permeability: Moderately slow (0.2 to 0.6 inch per hour)

Available water capacity: High (9 to 12 inches)

Shrink-swell potential: Moderate (3 to 6 percent)

Frequency of flooding: Rare (1 to 5 percent chance in any year)

Depth to water table: 12 to 30 inches

75428—Tilk, occasionally flooded-Cornwall-Poynor complex, 3 to 15 percent slopes

Setting

Landform: Tilk and Cornwall—river valleys; Poynor—hills

Position on the landform: Tilk—terraces; Cornwall—valley footslopes, terraces; Poynor—footslopes

Parent material: Tilk—loamy and sandy alluvium with a high content of rock fragments; Cornwall—loess over valley fill material; Poynor—gravelly colluvium derived from cherty dolostone over clayey residuum derived from dolostone

Map Unit Composition

Tilk and similar soils—35 percent

Cornwall and similar soils—30 percent

Poynor and similar soils—15 percent

Components of minor extent—20 percent

- Clarksville soils
- Gladden soils
- Secesh soils

Typical Profile

Tilk

A—0 to 4 inches; very gravelly loam

BA—4 to 10 inches; very cobbly sandy loam

Bt—10 to 35 inches; very gravelly sandy loam

2BC—35 to 65 inches; very gravelly coarse sandy loam

Cornwall

A—0 to 8 inches; silt loam

Bt1—8 to 35 inches; silty clay loam

2Btx—35 to 62 inches; very gravelly silty clay loam

3Bt2—62 to 80 inches; silty clay loam

Poynor

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 4 inches; gravelly loam

E—4 to 9 inches; very cobbly loam

Bt1—9 to 26 inches; very cobbly clay loam

2Bt2—26 to 80 inches; gravelly clay

Soil Properties and Qualities

Depth to bedrock: Very deep

Drainage class: Tilk and Poynor—well drained; Cornwall—moderately well drained

Permeability: Tilk—moderately rapid (2 to 6 inches per hour); Cornwall—moderately slow (0.2 to 0.6 inch per hour); Poynor—moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Tilk and Poynor—low (3 to 6 inches); Cornwall—high (9 to 12 inches)

Shrink-swell potential: Tilk and Cornwall—low (0 to 3 percent); Poynor—moderate (3 to 6 percent)

Flooding: Tilk—occasional (5 to 50 percent chance in any year); Cornwall and Poynor—none

Depth to water table: Tilk and Poynor—more than 60 inches; Cornwall—16 to 32 inches

75429—Tilk-Secesh complex, 0 to 3 percent slopes, occasionally flooded

Setting

Landform: River valleys

Position on the landform: Terraces

Parent material: Tilk—loamy and sandy alluvium with a high content of rock fragments; Secesh—2 feet of loamy material over gravelly residuum or alluvium

Map Unit Composition

Tilk and similar soils—45 percent

Secesh and similar soils—35 percent

Components of minor extent—20 percent

- Haymond soils
- Kaintuck soils
- Wideman soils

Typical Profile

Tilk

Ap—0 to 8 inches; gravelly loam

Bt1—8 to 14 inches; very gravelly loam

2Bt2—14 to 37 inches; very gravelly sandy loam

2C—37 to 80 inches; gravelly loam

Secesh

Ap—0 to 10 inches; gravelly silt loam

Bt1—10 to 16 inches; silt loam

2Bt2—16 to 36 inches; gravelly loam

3C—36 to 80 inches; very gravelly sandy loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Tilk—moderately rapid (2 to 6 inches per hour); Secesh—moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Tilk—low (3 to 6 inches); Secesh—moderate (6 to 9 inches)

Shrink-swell potential: Low (0 to 3 percent)

Frequency of flooding: Tilk—occasional (5 to 50 percent chance in any year); Secesh—rare (1 to 5 percent chance in any year)

Depth to water table: More than 60 inches

75430—Wideman fine sandy loam, 0 to 3 percent slopes, occasionally flooded

Setting

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Sandy alluvium

Map Unit Composition

Wideman and similar soils—90 percent
Components of minor extent—10 percent

- Jamesfin soils
- Haymond soils
- Kaintuck soils
- Relfe soils

Typical Profile

Ap—0 to 9 inches; fine sandy loam
C1—9 to 13 inches; fine sandy loam
C2—13 to 16 inches; sand
C3—16 to 49 inches; loam
C4—49 to 71 inches; gravelly sandy loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Excessively drained

Permeability: Moderately rapid (2 to 6 inches per hour)

Available water capacity: Moderate (6 to 9 inches)

Shrink-swell potential: Low (0 to 3 percent)

Frequency of flooding: Occasional (5 to 50 percent chance in any year)

Depth to water table: More than 60 inches

75432—Batcave-Farewell complex, 0 to 3 percent slopes, frequently flooded

Setting

Landform: River valleys

Position on the landform: Flood plains, stream terraces

Parent material: Batcave—gravelly alluvium;

Farewell—loamy alluvium

Map Unit Composition

Batcave and similar soils—45 percent
Farewell and similar soils—40 percent
Components of minor extent—15 percent

- Gabriel soils
- Cedargap soils
- Racket soils

Typical Profile

Batcave

Ap—0 to 11 inches; gravelly silt loam

A—11 to 36 inches; very gravelly silt loam

Bt1—36 to 60 inches; extremely gravelly loam

2Bt2—60 to 80 inches; very gravelly loam

Farewell

Ap—0 to 8 inches; silt loam

A—8 to 18 inches; silt loam

Btg1—18 to 39 inches; silt loam

Btg2—39 to 80 inches; gravelly clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Moderate (6 to 9 inches)

Shrink-swell potential: Batcave—low (0 to 3 percent);

Farewell—moderate (3 to 6 percent)

Frequency of flooding: Rare (more than 50 percent chance in any year)

Depth to water table: 0 to 6 inches

75451—Gladden silt loam, 0 to 3 percent slopes, occasionally flooded

Setting

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Loamy and gravelly alluvium

Map Unit Composition

Gladden and similar soils—85 percent

Components of minor extent—15 percent

- Haymond soils
- Relfe soils
- Wideman soils

Typical Profile

A—0 to 5 inches; silt loam

Bw—5 to 53 inches; loam

2C—53 to 80 inches; gravelly sandy loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Moderate (0.6 inch to 2.0 inches per

hour) in the upper part and moderately rapid (2 to 6 inches per hour) in the lower part
Available water capacity: High (9 to 12 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Occasional (5 to 50 percent chance in any year)
Depth to water table: More than 60 inches

75462—Huzzah sandy loam, 0 to 3 percent slopes, occasionally flooded

Setting

Landform: River valleys
Position on the landform: High flood plains
Parent material: Loamy alluvium

Map Unit Composition

Huzzah and similar soils—90 percent
 Components of minor extent—10 percent

- Cedargap soils
- Relfe soils
- Kaintuck soils

Typical Profile

A1—0 to 6 inches; sandy loam
 A2—6 to 23 inches; fine sandy loam
 Bw—23 to 47 inches; fine sandy loam
 2C—47 to 60 inches; loamy fine sand

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderately rapid (2 to 6 inches per hour)
Available water capacity: High (9 to 12 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Occasional (5 to 50 percent chance in any year)
Depth to water table: More than 60 inches

75463—Huzzah sandy loam, 0 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys
Position on the landform: Low stream terraces
Parent material: Loamy alluvium

Map Unit Composition

Huzzah and similar soils—90 percent
 Components of minor extent—10 percent

- Kaintuck soils

- Relfe soils
- Very deep, silty soils that have a dark surface layer

Typical Profile

Ap—0 to 10 inches; sandy loam
 A—10 to 24 inches; fine sandy loam
 Bw—24 to 38 inches; fine sandy loam
 2C—38 to 60 inches; loamy fine sand

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderately rapid (2 to 6 inches per hour)
Available water capacity: Moderate (6 to 9 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Rare (1 to 5 percent chance in any year)
Depth to water table: More than 60 inches

75464—Cedargap gravelly loam, 0 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys
Position on the landform: Low stream terraces
Parent material: Gravelly alluvium

Map Unit Composition

Cedargap and similar soils—80 percent
 Components of minor extent—20 percent

- Huzzah soils
- Hartville soils
- Tilk soils

Typical Profile

Ap—0 to 6 inches; gravelly loam
 A—6 to 20 inches; gravelly loam
 Bw—20 to 36 inches; extremely gravelly sandy loam
 C—36 to 60 inches; extremely gravelly sandy clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Well drained
Permeability: Moderately slow (0.2 to 0.6 inch per hour)
Available water capacity: Low (3 to 6 inches)
Shrink-swell potential: Low (0 to 3 percent)
Frequency of flooding: Rare (1 to 5 percent chance in any year)
Depth to water table: More than 60 inches

75465—Raftville-Gabriel complex, 0 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Raftville—loamy alluvium derived from sandstone; Gabriel—fine-silty alluvium

Map Unit Composition

Raftville and similar soils—50 percent

Gabriel and similar soils—25 percent

Components of minor extent—25 percent

- Cedargap soils
- Lecomma soils
- Moniteau soils
- Relfe soils

Typical Profile

Raftville

A—0 to 9 inches; sandy loam

Bt—9 to 24 inches; loam

2Bt—24 to 39 inches; very gravelly clay loam

2R—39 inches; dolostone bedrock

Gabriel

Ap—0 to 9 inches; silt loam

E—9 to 19 inches; silt loam

Bt1—19 to 25 inches; silt loam

Bt2—25 to 63 inches; silty clay loam

Soil Properties and Qualities

Depth to bedrock: Raftville—moderately deep (20 to 40 inches); Gabriel—very deep (more than 60 inches)

Drainage class: Raftville—well drained; Gabriel—poorly drained

Permeability: Raftville—moderately rapid (2 to 6 inches per hour); Gabriel—moderately slow (0.2 to 0.6 inch per hour)

Available water capacity: Raftville—low (3 to 6 inches); Gabriel—high (9 to 12 inches)

Shrink-swell potential: Raftville—low (0 to 3 percent); Gabriel—moderate (3 to 6 percent)

Frequency of flooding: Rare (1 to 5 percent chance in any year)

Depth to water table: Raftville—more than 60 inches; Gabriel—12 to 30 inches

75466—Midco very gravelly loam, 0 to 3 percent slopes, occasionally flooded

Setting

Landform: River valleys

Position on the landform: High flood plains

Parent material: Gravelly alluvium

Map Unit Composition

Midco and similar soils—90 percent

Components of minor extent—10 percent

- Relfe soils
- Loamy soils
- Secesh soils

Typical Profile

A—0 to 8 inches; very gravelly loam

C1—8 to 26 inches; very gravelly sandy loam

C2—26 to 60 inches; extremely gravelly sandy loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Permeability: Moderately rapid (2 to 6 inches per hour)

Available water capacity: Low (3 to 6 inches)

Shrink-swell potential: Low (0 to 3 percent)

Frequency of flooding: Occasional (5 to 50 percent chance in any year)

Depth to water table: More than 60 inches

75470—Farewell gravelly silt loam, 0 to 3 percent slopes, rarely flooded

Setting

Landform: River valleys

Position on the landform: Low stream terraces

Parent material: Loamy alluvium

Map Unit Composition

Farewell and similar soils—90 percent

Components of minor extent—10 percent

- Cedargap soils
- Gabriel soils
- Gladden soils

Typical Profile

Ap—0 to 8 inches; gravelly silt loam

A—8 to 18 inches; silt loam

Btg1—18 to 39 inches; gravelly clay loam
2Btg2—39 to 80 inches; very gravelly clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Permeability: Moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: Moderate (6 to 9 inches)
Shrink-swell potential: Moderate (3 to 6 percent)
Frequency of flooding: Rare (1 to 5 percent chance in any year)
Depth to water table: 0 to 6 inches

77000—Killarney-Frenchmill complex, 15 to 45 percent slopes, rubbly

Setting

Landform: Mountains
Position on the landform: Backslopes, footslopes
Parent material: Killarney—gravelly colluvium derived from loess or rhyolite; Frenchmill—colluvium derived from rhyolite or granite

Map Unit Composition

Killarney and similar soils—45 percent
Frenchmill and similar soils—40 percent
Components of minor extent—15 percent

- Delassus soils
- Irondale soils
- Taumsauk soils
- Rock outcrop

Typical Profile

Killarney

Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 5 inches; very cobbly silt loam
E—5 to 16 inches; very cobbly silt loam
Bt—16 to 32 inches; very gravelly silt loam
2Btx—32 to 48 inches; very gravelly silt loam
3Bt—48 to 80 inches; very gravelly loam

Frenchmill

Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 6 inches; very cobbly silt loam
E—6 to 19 inches; gravelly silt loam
Bt—19 to 27 inches; very gravelly silt loam
2Bt—27 to 58 inches; very gravelly loam
3Bt—58 to 80 inches; cobbly clay loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Killarney—moderately well drained; Frenchmill—well drained
Permeability: Killarney—moderate (0.6 inch to 2.0 inches per hour) above the fragipan and very slow (less than 0.06 inch per hour) in the fragipan; Frenchmill—moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: Killarney—low (3 to 6 inches); Frenchmill—moderate (6 to 9 inches)
Shrink-swell potential: Low (0 to 3 percent)
Flooding: None
Depth to water table: Killarney—24 to 36 inches; Frenchmill—more than 60 inches

77003—Delassus gravelly silt loam, 8 to 15 percent slopes, very bouldery

Setting

Landform: Mountains
Position on the landform: Summits, footslopes
Parent material: Loess mixed with colluvium or residuum derived from granite or rhyolite

Map Unit Composition

Delassus and similar soils—90 percent
Components of minor extent—10 percent

- Frenchmill soils
- Roselle soils
- Trackler soils
- Rock outcrop

Typical Profile

A—0 to 8 inches; gravelly silt loam
E—8 to 13 inches; gravelly silt loam
Bt—13 to 20 inches; gravelly loam
2Btx—20 to 59 inches; gravelly loam
3Bt—59 to 78 inches; cobbly loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Permeability: Moderate (0.6 inch to 2.0 inches per hour) in the upper part and very slow (less than 0.6 inch/hour) in the fragipan
Available water capacity: Low (3 to 6 inches)
Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: 22 to 30 inches

77004—Irondale gravelly silt loam, 15 to 35 percent slopes, rocky, extremely bouldery

Setting

Landform: Mountains

Position on the landform: Backslopes, shoulders

Parent material: Residuum derived from rhyolite

Map Unit Composition

Irondale and similar soils—85 percent

Components of minor extent—15 percent

- Killarney soils
- Trackler soils
- Taumsauk soils
- Frenchmill soils

Typical Profile

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 4 inches; gravelly silt loam

E—4 to 9 inches; very gravelly silt loam

Bt1—9 to 15 inches; very cobbly silt loam

Bt2—15 to 22 inches; very gravelly silt loam

R—22 inches; rhyolite bedrock

Soil Properties and Qualities

Depth to bedrock: Moderately deep (20 to 40 inches)

Drainage class: Well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Very low (0 to 3 inches)

Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: More than 60 inches

77007—Taumsauk-Irondale-Rock outcrop complex, 15 to 45 percent slopes, extremely stony

Setting

Landform: Mountains

Position on the landform: Backslopes, shoulders

Parent material: Taumsauk—thin residuum derived from rhyolite and loess; Irondale—residuum derived from rhyolite

Map Unit Composition

Taumsauk and similar soils—40 percent

Irondale and similar soils—32 percent

Rock outcrop—21 percent

Components of minor extent—7 percent

- Killarney soils
- Trackler soils
- Frenchmill soils

Typical Profile

Taumsauk

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; cobbly silt loam

Bt—5 to 17 inches; very cobbly silt loam

R—17 inches; rhyolite bedrock

Irondale

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; very cobbly silt loam

E—5 to 10 inches; very cobbly silt loam

Bt1—10 to 17 inches; very cobbly silt loam

Bt2—17 to 35 inches; very cobbly silty clay loam

R—35 inches; rhyolite bedrock

Soil Properties and Qualities

Depth to bedrock: Taumsauk—very shallow and shallow (4 to 20 inches); Irondale—moderately deep (20 to 40 inches)

Drainage class: Taumsauk—somewhat excessively drained; Irondale—well drained

Permeability: Taumsauk and Irondale—moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: Taumsauk and Irondale—very low (0 to 3 inches)

Shrink-swell potential: Taumsauk and Irondale—low (0 to 3 percent)

Flooding: None

Depth to water table: More than 60 inches

77009—Trackler silt loam, 3 to 8 percent slopes

Setting

Landform: Mountains

Position on the landform: Shoulders, summits

Parent material: Loamy colluvium and residuum derived from fine-grained igneous rocks, predominantly rhyolite

Map Unit Composition

Trackler and similar soils—92 percent

Components of minor extent—8 percent

- Taumsauk soils
- Loughboro soils
- Delassus soils

Typical Profile

Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 2 inches; silt loam
 E—2 to 8 inches; silt loam
 Bt—8 to 14 inches; silt loam
 2Bt—14 to 23 inches; cobbly silt loam
 3CB—23 to 45 inches; extremely stony loam
 3R—45 inches; rhyolite bedrock

Soil Properties and Qualities

Depth to bedrock: Very deep (40 to 60 inches)
Drainage class: Well drained
Permeability: Moderately slow (0.2 to 0.6 inch per hour)
Available water capacity: Low (3 to 6 inches)
Shrink-swell potential: Low (0 to 3 percent)
Flooding: None
Depth to water table: More than 60 inches

77011—Taumsauk-Irondale-Rock outcrop complex, 3 to 15 percent slopes, very stony**Setting**

Landform: Mountains
Position on the landform: Shoulders, backslopes
Parent material: Taumsauk—thin residuum derived from rhyolite; Irondale—residuum derived from rhyolite

Map Unit Composition

Taumsauk and similar soils—40 percent
 Irondale and similar soils—30 percent
 Rock outcrop—15 percent
 Components of minor extent—15 percent

- Trackler soils
- Hassler soils
- Delassus soils

Typical Profile**Taumsauk**

A—0 to 4 inches; gravelly silt loam
 Bt—4 to 15 inches; extremely cobbly silty clay loam
 R—15 inches; rhyolite bedrock

Irondale

A—0 to 3 inches; gravelly silt loam
 E—3 to 6 inches; gravelly silt loam
 Bt1—6 to 13 inches; very gravelly silt loam
 Bt2—13 to 28 inches; very gravelly silty clay loam
 R—28 inches; rhyolite bedrock

Soil Properties and Qualities

Depth to bedrock: Taumsauk—very shallow and shallow (4 to 20 inches); Irondale—moderately deep (20 to 40 inches)
Drainage class: Taumsauk—somewhat excessively drained; Irondale—well drained
Permeability: Taumsauk and Irondale—moderate (0.6 inch to 2.0 inches per hour)
Available water capacity: Taumsauk—very low (0 to 3 inches); Irondale—low (3 to 6 inches)
Shrink-swell potential: Taumsauk and Irondale—low (0 to 3 percent)
Flooding: None
Depth to water table: More than 60 inches

77012—Mudlick-Irondale-Killarney complex, 15 to 45 percent slopes, extremely bouldery, rocky**Setting**

Landform: Mountains
Position on the landform: Mudlick—backslopes, shoulders, summits; Irondale—backslopes, shoulders; Killarney—backslopes, footslopes
Parent material: Mudlick—loamy colluvium and residuum derived from diorite; Irondale—residuum derived from diorite; Killarney—gravelly colluvium derived from loess and diorite

Map Unit Composition

Mudlick and similar soils—40 percent
 Irondale and similar soils—30 percent
 Killarney and similar soils—20 percent
 Components of minor extent—10 percent

- Taumsauk soils
- Rock outcrop

Typical Profile**Mudlick**

Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 4 inches; cobbly silt loam
 E—4 to 15 inches; cobbly silt loam
 Bt1—15 to 36 inches; gravelly silt loam
 2Bt2—36 to 46 inches; stony clay loam
 2BC—46 to 80 inches; stony clay loam

Irondale

Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 4 inches; very gravelly silt loam
 E—4 to 11 inches; gravelly silt loam
 Bt1—11 to 18 inches; very stony silt loam

Bt2—18 to 29 inches; very stony loam
R—29 inches; bedrock

Killarney

Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 8 inches; very cobbly silt loam
E—8 to 12 inches; very cobbly silt loam
Bt—12 to 26 inches; very cobbly silt loam
2Btx—26 to 65 inches; very gravelly loam

Soil Properties and Qualities

Depth to bedrock: Mudlick and Killarney—very deep (more than 60 inches); Irondale—moderately deep (20 to 40 inches)

Drainage class: Mudlick and Irondale—well drained; Killarney—moderately well drained

Permeability: Mudlake and Irondale—moderate (0.6 inch to 2.0 inches per hour); Killarney—moderate (0.6 inch to 2.0 inches per hour) in the upper part and very slow (less than 0.06 inch per hour) in the lower part

Available water capacity: Mudlick—moderate (6 to 9 inches); Irondale and Killarney—low (3 to 6 inches)

Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: Mudlick and Irondale—more than 60 inches; Killarney—24 to 31 inches

77013—Mudlick very cobbly silt loam, 8 to 15 percent slopes, very stony, rocky

Setting

Landform: Mountains

Position on the landform: Backslopes, shoulders, summits

Parent material: Loamy colluvium and residuum derived from diorite

Map Unit Composition

Mudlick and similar soils—80 percent
Components of minor extent—20 percent

- Trackler soils
- Irondale soils
- Delassus soils
- Rock outcrop

Typical Profile

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 8 inches; very cobbly silt loam
E—8 to 14 inches; silt loam
Bt—14 to 39 inches; silty clay loam
2BC—39 to 68 inches; very cobbly loam

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Well drained

Permeability: Moderate (0.6 inch to 2.0 inches per hour)

Available water capacity: High (9 to 12 inches)

Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: More than 60 inches

99001—Water

Description

- This map unit consists of naturally occurring basins of surface water, such as perennial rivers and creeks. It also includes manmade lakes and ponds that are larger than 5 acres.

99006—Psamments, 1 to 8 percent slopes

Description

- This map unit consists of finely crushed dolostone from the processing of ore.

Map Unit Composition

Psamments—90 percent

Components of minor extent—10 percent

- Areas of shallow water
- Udorthents
- Crushed igneous rock
- Waterlogged sands
- Pits

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Drainage class: Excessively drained

Permeability: Moderately rapid (2 to 6 inches per hour)

Available water capacity: Low (3 to 6 inches)

Shrink-swell potential: Low (0 to 3 percent)

Flooding: None

Depth to water table: More than 60 inches

99007—Dam***Description***

- This map unit consists of earthen structures that hold larger bodies of water.

99010—Pits and Dumps***Map Unit Composition***

Pits—55 percent
Dumps—45 percent

Description

This map unit consists of open excavations from which iron ore, granite, gravel, limestone, rhyolite, or sandstone has been removed. These areas commonly are associated with areas of dumps, or spoil material.

Iron ore was mined from the thick residual deposits weathered from limestone or dolostone. Most of the iron mines were small and were mined before 1920. Dumps in these areas consist of heaps of soil and clayey residuum.

Granite and sandstone were quarried for dimension stone. These quarries are small. Dumps in these areas consist of heaps of soil and weathered rock.

Gravel was extracted from the gravelly alluvium in the stream valleys. It is used for aggregate on roads and in concrete. The areas vary in size. The deeper pits are filled with water. The dumps in these areas consist of heaps of larger rocks and alluvium.

Limestone or dolostone is quarried for stone, aggregate, and agricultural lime. Some of the larger quarry pits contain water. Dumps in these areas consist of heaps of the overlying soil and the clayey residuum. Individual areas vary widely in size.

Rhyolite is quarried for aggregate. Dumps in these areas consist of the overlying soil and weathered rock. These dumps are smoothed and vegetated with grasses.

Many of the pits support no vegetation. Some have a sparse cover of grasses, weeds, and trees. Onsite investigation is needed to determine the suitability for any proposed use and the limitations affecting that use.

99013—Riverwash, frequently flooded***Description***

- This map unit consists of gravel bars and other areas in river and stream channels (fig. 9). These areas are reshaped by the stream flow. Many of the areas have a sparse cover of willows and grapevines.

Setting

Landform: River valleys

Position on the landform: Low flood plains

Parent material: Alluvium

Map Unit Composition

Riverwash—90 percent

Components of minor extent—10 percent

- Wet areas

Soil Properties and Qualities

Depth to bedrock: Very deep (more than 60 inches)

Frequency of flooding: Frequent (more than 50 percent chance in any year)

Depth to water table: Variable



Figure 9.—A gravel bar on the Black River in an area of Riverwash, frequently flooded.

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis for predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as woodland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; and for wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern that is in harmony with nature.

Contractors can use this survey to locate sources of sand and gravel, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various land uses. Many of the tables identify the limitations that affect specified uses

and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited or not limited by all of the soil features that affect a specified use. Terms for the limitation classes are *not limited*, *slightly limited*, *moderately limited*, *limited*, and *very limited*. In certain tables the soils are rated as *improbable*, *possible*, or *probable* sources of specific materials used for construction purposes.

Numerical Ratings

Numerical ratings in the tables indicate the severity of individual limitations. They also indicate the overall degree to which a soil is limited or not limited for a specific use. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited	0.00
Slightly limited	0.01 to 0.30
Moderately limited	0.31 to 0.60
Limited	0.61 to 0.99
Very limited	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

In tables that use limitation class terms, such as *very limited* or *limited*, the limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each map unit component. The overall limitation rating for the component is based on the most severe limitation.

Crops and Pasture

General management needed for crops and pasture is suggested in this section. Prime farmland is

described, the estimated yields of the main crops and pasture plants are listed, and the system of land capability classification used by the Natural Resources Conservation Service is explained.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading "Detailed Soil Map Units." Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

About 6 percent of the survey area is used for crops and pasture. Of this total, less than 2 percent is used for cultivated crops, mainly corn and soybeans. The rest is used for pasture and hay (fig. 10).

The potential for increased production is fair. About 15,075 acres in the survey area qualifies as prime

farmland. An additional 11,046 acres is suited to crop production, including sloping areas where adequate protection from erosion is needed. About 21,647 acres is best suited to pasture.

Water erosion is a major concern in areas that have slopes of more than about 3 percent. Loss of the surface layer reduces the available water capacity and results in poor tilth. Erosion is especially harmful in areas of soils that have a root-restricting layer within a depth of about 40 inches, such as Tonti soils. Erosion is less harmful, though still a concern, in areas of soils that have no root-restricting characteristics, such as Courtois soils. Applications of fertilizer help to offset the lower fertility caused by erosion, but overcoming much of the damage is difficult or impractical. Controlling erosion minimizes the pollution of streams by sedimentation, thus improving the quality of water



Figure 10.—Fescue in an area of Courtois silt loam, 8 to 15 percent slopes. In the background, alfalfa is growing in an area of Jamesfin silt loam, 0 to 3 percent slopes, occasionally flooded.

for farm and city uses, for wildlife habitat, and for recreational uses.

Erosion-control practices provide a protective cover of crop residue or vegetation. Properly managed permanent pasture or hay can provide 80 percent or more of the protection needed. Crop rotations that alternate cultivated crops and meadows help to control erosion. Applying a system of conservation tillage that leaves a protective cover of crop residue on the surface throughout the year can reduce sheet erosion by one-half or more, as compared with fall plowing with a moldboard plow.

No-tillage systems that leave nearly the entire amount of crop residue on the surface reduce the hazard of erosion. Contour farming and contour stripcropping can be used on fields that have smooth, uniform slopes. Terraces that divert surface runoff to safe outlets can be used in some fields.

Parallel terraces can be farmed more easily than contour terraces. Deep and very deep soils that have no root-restricting characteristics, such as Courtois soils, are better suited to terraces than soils that have bedrock near the surface, such as Tonti soils. On the more shallow soils, the possible losses caused by exposing small infertile areas should be considered when the depth of cuts and the design of the terrace system are determined.

Soil tilth is an important factor affecting the germination of seeds and the infiltration of water into the soil. Soils that have good tilth are granular and porous. In the uplands, most soils used for cultivated crops have a surface layer of silt loam that is low in organic matter content. Examples are Courtois soils. Generally, tilling these soils weakens the soil structure and increases the degree of soil compaction and the extent of surface crusting. Tilling when the soils are too wet can further increase the degree of compaction, even below the plow layer. Subsoiling and varying the depth of plowing minimize compaction and the formation of traffic pans. Regular additions of crop residue, manure, and other organic material improve tilth and minimize surface crusting.

Most of the soils on the flood plains in the survey area have a surface layer of silt loam that is moderate in organic matter content. These soils retain favorable tilth under normal tillage operations. They are susceptible to compaction below the tillage zone.

Stones and boulders are a common feature in many of the soils in the survey area. In some places these soils cannot be tilled because they have too many stones and boulders. In other places the stones and boulders can be removed.

Soil fertility is medium in most of the soils on the flood plains and low in the soils on uplands. Almost all

of the soils on uplands are excessively acid in the upper part of the root zone. Applications of lime are needed to raise the pH level of these soils for the adequate growth of most crops. Most of the soils on flood plains are naturally acid, but the levels may or may not affect crop growth in a given year. On all soils, the amount of lime and fertilizer to be applied should be based on the results of soil test, the needs of the crop, and the expected level of yield. The Cooperative Extension Service can help to determine the kind and amount of fertilizer to be applied. This soil survey can be used to organize soil samples and identify contrasting soil types.

Organic matter is an important source of nitrogen for crop growth. Also, it helps to maintain good tilth and the rate of water infiltration. The content of organic matter is low in most of the cultivated soils in the uplands and moderate in the soils on flood plains. Throughout the survey area, the soils have low levels of phosphorus and low or moderate levels of potassium unless heavy applications of fertilizer have been applied.

Soils on bottom land along rivers are generally flooded at some time. Some soils, generally gravelly soils, are subject to frequent flooding. Soils on the next higher level above the bottom land are subject to occasional flooding. Flooding generally occurs between December and May and is of brief duration. Flash flooding as a result of intensive rainfall can occur on the upper reaches of streams at any time of the year. The history of flooding should be considered for cropped areas.

In soils that have a high water table, a drainage system is needed to reduce wetness during spring. Additional drainage measures are needed in some areas of Deible soils. Surface ditches or tile drains can be used if suitable outlets are available. In some areas, drainage is only partly effective because of the seepage of water into the soils. Soils in these areas are best suited to pasture and wildlife habitat.

Areas of wet soils that have historically not been cultivated may be considered wetland. Before any area that may be considered a wetland is altered, the Natural Resources Conservation Service should be contacted in order to ensure compliance with existing laws and regulations.

Prime Farmland

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is

limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has

an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent (fig. 11). More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

About 15,075 acres in the survey area, or nearly 3 percent of the total acreage, meets the soil requirements for prime farmland. Scattered areas of this land are throughout the county, mainly in the



Figure 11.—Hay bales in an area of Gladden silt loam, 0 to 3 percent slopes, occasionally flooded. This soil is prime farmland.

Relfe-Tilk-Secesh-Taterhill association, which is described under the heading “General Soil Map Units.”

The map units in the survey area that are considered prime farmland are listed below. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in table 4. The location is shown on the detailed soil maps. Some of the soil qualities and properties that affect use and management are described under the heading “Detailed Soil Map Units.”

73197—Viburnum silt loam, 3 to 8 percent slopes

73222—Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded

73333—Taterhill silt loam, 1 to 3 percent slopes

74644—Deible silt loam, 1 to 3 percent slopes (where drained)

74658—Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded

74679—Higdon silt loam, 0 to 3 percent slopes, rarely flooded

74680—Moniteau silt loam, 0 to 3 percent slopes, rarely flooded (where drained)

75381—Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded

75395—Jamesfin silt loam, 0 to 3 percent slopes, occasionally flooded

75408—Secesh silt loam, 0 to 3 percent slopes, rarely flooded

75416—Gladden loam, 0 to 3 percent slopes, occasionally flooded

75426—Gabriel silt loam, 0 to 3 percent slopes, rarely flooded (where drained)

75430—Wideman fine sandy loam, 0 to 3 percent slopes, occasionally flooded

75451—Gladden silt loam, 0 to 3 percent slopes, occasionally flooded

75462—Huzzah sandy loam, 0 to 3 percent slopes, occasionally flooded (where protected from flooding or not frequently flooded during the growing season)

75464—Cedargap gravelly loam, 0 to 3 percent slopes, rarely flooded (where protected from flooding or not frequently flooded during the growing season)

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 5. The yields for the main pasture and hay crops are given in table 6. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall and other climatic factors. Table 5 also shows the land capability classification of the soils in the survey area, and table 6 includes the pasture and hayland suitability groups assigned to the soils.

The yields in these tables are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in tables 5 and 6 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for

field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for forestland or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA, 1961). Only class and subclass are used in this survey.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless 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.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w*, *s*, or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use.

The capability classification of map units in this survey area is given in table 5.

Pasture and Hayland Suitability Groups

The soils in Reynolds County are assigned to a pasture and hayland group according to their suitability for pasture management.

Many different pasture and hayland suitability groups are in the survey area. Over time, the combination of plants best suited to a particular soil and climate has or will become dominant. Plant communities are not static but vary slightly from year to year and from place to place.

The relationship between soils and vegetation was ascertained during this survey. Thus, pasture and hayland suitability groups generally can be determined directly from the soil map. Soil properties that affect moisture supply and plant nutrients have the greatest influence on the productivity of each plant species. Soil reaction, salt content, and a seasonal high water table also are important. The "Field Office Technical Guide," which is available at local offices of the Natural Resources Conservation Service, can provide specific information about pasture and hayland suitability groups.

Table 6 shows, for each soil, the assigned pasture and hayland suitability group. Specific concerns and recommendations for pasture and hayland management for each group are described in the following paragraphs.

Group WLB—Wet Loamy Bottom. A seasonal high water table and flooding are the main management concerns. Plants should be selected accordingly. A seedbed can be easily prepared. A drainage system can improve the growth of deep-rooted species. The hazard of flooding should be considered when a grazing system is designed.

Group WCB—Wet Clayey Bottom. Wetness and flooding are the main management concerns. The soils in this group are poorly suited to hay. The hazard of flooding should be considered when a grazing system is designed. Maintaining stands of desirable

species is difficult in depressional areas. A drainage system can improve the growth of deep-rooted species.

Group WCU—Wet Clayey Upland. Wetness is the main management concern. Maintaining stands of desirable species is difficult in depressional areas. A drainage system can improve the growth of deep-rooted species.

Group WLO—Wet Loamy Overflow. Wetness and flooding are the main management concerns. A seedbed can be easily prepared. A drainage system can improve the growth of deep-rooted species. The hazard of flooding should be considered when a grazing system is designed.

Group LyO—Loamy Overflow. Flooding is the main management concern. The hazard of flooding should be considered when a grazing system is designed.

Group LyU—Loamy Upland. No serious concerns affect pasture and hayland management. Erosion is a hazard in newly seeded areas. Timely seedbed preparation is needed to ensure a good ground cover.

Group CyU—Clayey Upland. Pasture and hay crops are effective in controlling erosion. Erosion during seedbed preparation is the main concern. Timely tillage and a quickly established ground cover reduce the hazard of erosion. The forage species that are tolerant of wetness grow best. The production of deep-rooted legumes is limited because of wetness and a restricted rooting depth.

Group GrU—Gravelly Upland. The soils in this group generally are not suited to cultivated crops. Droughtiness and erosion are the main management concerns. Seedbeds should be prepared on the contour. Timely seedbed preparation helps to ensure rapid plant growth and a protective ground cover.

Group MDU—Moderately Deep Upland. Shallow-rooted species that are tolerant of droughtiness should be selected for planting. Erosion is a serious hazard in newly seeded areas. Timely tillage and a quickly established ground cover reduce the hazard of erosion.

Group WtP—Wet Pan. The species that are tolerant of wetness grow best. A dense layer in the subsoil can restrict the rooting depth and result in insufficient soil moisture in dry years. Erosion during seedbed preparation is the main concern. Timely tillage and a quickly established ground cover reduce the hazard of erosion.

Group LyP—Loamy Pan. A few small areas of this group are used for cultivated crops, and some areas are wooded. A dense layer in the subsoil can restrict the rooting depth and result in insufficient soil moisture in dry years. Erosion during seedbed preparation is a

hazard. Seedbeds should be prepared on the contour. Timely tillage and a quickly established ground cover reduce the hazard of erosion.

Group GrO—Gravelly Overflow. Most areas of this group have been cleared of trees and are used for pasture and hay. Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during periods of flooding help to keep the pasture in good condition.

Group GrP—Gravelly Pan. If the soils in this group are used for improved pasture, chert on the surface hinders tillage. Because of seasonal droughtiness, timely planting is needed to ensure an adequate stand. Erosion is a hazard in newly seeded areas. Timely seedbed preparation helps to ensure a protective ground cover.

Group ShU—Shallow Upland. Most areas of this group are used for native pasture and are best suited to shallow-rooted species. In some areas tillage is nearly impossible. Broadcast seeding may be necessary. The slope and rock outcrop can hinder mowing in places.

Group SyO—Sandy Overflow. The soils in this group tend to be droughty because they are excessively drained, but they are also subject to flooding. Plants should be selected accordingly. A seedbed can be easily prepared. The flooding and the droughtiness should be considered when a grazing system is designed. Because the soils are subject to flooding and droughtiness at different times, a flexible grazing system is needed.

Group GNS—Generally Not Suited. The soils in this group generally are not suited to pasture and hay. The suitability for forage species and the use of equipment are limited by the slope, a high content of rock fragments, or both.

Forest Productivity and Management

The tables described in this section can help forest owners or managers plan the use of soils for wood crops. The potential productivity of the soils for wood crops is provided in table 7, and interpretive ratings for various aspects of forest management are provided in tables 8a and 8b (fig. 12).

Forest Productivity

In table 7, the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of



Figure 12.—Mixed hardwoods in an area of Taumsauk-Irondale-Rock outcrop complex, 15 to 45 percent slopes, extremely stony. Rock outcrop and boulders limit logging activities in areas of this map unit.

a given species attain in 50 years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the “National Forestry Manual,” which is available in local offices of the Natural Resources Conservation Service or through the Agency’s Web site (<http://soils.usda.gov>).

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forest Management

In tables 8a and 8b, interpretive ratings are given for various aspects of forest management. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified aspect of forest management. *Not limited* indicates that the soil has features that are very favorable for the specified aspect of management. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified aspect of management. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified aspect of management. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Limited* indicates that the soil has one or more features that are significant limitations for the specified aspect of management. The limitations can be overcome, but overcoming them generally requires special design, special planning, soil reclamation, specialized equipment, or other procedures that may result in additional expense. Fair performance and moderate or high maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified aspect of management. The limitations generally cannot be overcome without major soil reclamation, special design, specialized equipment, or other expensive procedures. Poor performance, unsafe conditions, or high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited	0.00
Slightly limited	0.01 to 0.30
Moderately limited	0.31 to 0.60
Limited	0.61 to 0.99
Very limited	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each component.

The overall limitation class for the component is based on the most severe limitation.

The paragraphs that follow indicate the soil properties considered in rating the soils for forest management factors. More detailed information about the criteria used in the ratings is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or through the Agency's Web site (<http://soils.usda.gov>).

In table 8a, ratings in the column *hand planting* are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. Ratings indicate the expected difficulty of hand planting, which includes the proper placement of root systems of tree seedlings to a depth of up to 12 inches, using standard hand planting tools. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column *mechanical planting* are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. Ratings indicate the expected difficulty in using a mechanical planter, which includes proper placement of root systems of tree seedlings to a depth of up to 12 inches. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column *use of harvesting equipment* are based on slope, rock fragments on the surface, plasticity index, content of sand, surface texture, depth to a water table, and ponding. Ratings indicate the suitability for operating harvesting equipment for off-road transport or harvest of logs and/or wood products by ground-based wheeled or tracked equipment.

Ratings in the column *mechanical site preparation (surface)* are based on slope, depth to a restrictive layer, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The part of the soil from the surface to a depth of about 12 inches is considered in the ratings. Ratings indicate the suitability of using surface-altering soil tillage equipment to prepare the site for planting or seeding.

Ratings in the column *roads (natural surface)* are based on slope, rock fragments on the surface, plasticity index, content of sand, surface texture, depth to a water table, ponding, flooding, and the hazard of soil slippage. The ratings indicate the suitability for using the natural surface of the soil for roads on which trucks transport logs and other wood products from the site.

In table 8b, ratings in the column *erosion on roads and trails* are based on the soil erosion factor K, slope,

and content of rock fragments. The ratings apply to unsurfaced roads and trails.

Ratings in the column *off-road or off-trail erosion* are based on slope and on the soil erosion factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance.

Ratings in the column *soil rutting* are based on depth to a water table, rock fragments on or below the surface, surface texture, depth to a restrictive layer, and slope. Ruts form as a result of the operation of forest equipment. Ratings indicate limitations affecting the hazard or risk of ruts in the uppermost layers of the soil. Soil displacement and puddling (soil deformation and compaction) may occur simultaneously with the formation of ruts.

Ratings in the column *log landings* are based on slope, rock fragments on the surface, plasticity index, content of sand, surface texture, depth to a water table, ponding, flooding, and the hazard of soil slippage. Ratings indicate the suitability of the soil at the forest site to serve as a log landing and to allow the efficient and effective use of equipment for the temporary storage and handling of logs.

Ratings in the column *seedling survival* are based on flooding, ponding, depth to a water table, content of lime, reaction, salinity, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. Ratings indicate the impact of soil, physiographic, and climatic conditions on the survivability of newly established tree seedlings.

Windbreaks and Environmental Plantings

Windbreaks protect livestock, buildings, and yards from wind and snow. They also protect fruit trees and gardens, and they furnish habitat for wildlife. Field windbreaks are narrow plantings made at right angles to the prevailing wind and at specific intervals across the field. The interval depends on the erodibility of the soil. Field windbreaks protect cropland and crops from wind, help to keep snow on the fields, and provide food and cover for wildlife.

Environmental plantings help to beautify and screen houses and other buildings and to abate noise. The plants, mostly evergreen shrubs and trees, are closely spaced. To ensure plant survival, a healthy planting stock of suitable species should be planted properly on a well prepared site and maintained in good condition.

Table 9 shows the height that locally grown trees and shrubs are expected to reach in 20 years on various soils. The estimates in the table are based on measurements and observation of established plantings that have been given adequate care. They can be used as a guide in planning windbreaks and screens. Additional information on planning windbreaks and screens and planting and caring for trees and shrubs can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service or from a commercial nursery.

Recreation

Reynolds County offers many opportunities for the enjoyment of outdoor activities. The Black River provides excellent boating, fishing, and swimming. The county has thousands of acres of publicly owned land available for outdoor recreation. Johnson Shut-Ins offers hiking, fishing, canoeing, and swimming in the east fork of the Black River. Visitors can enjoy picnic areas and playgrounds, the visitor and nature center, naturalist programs, and a dining lodge.

Campgrounds and furnished cabins are available in the many parks around Clearwater Lake (fig. 13). Fully equipped marinas and stores rent fishing boats, pontoons, and motors and sell fishing tackle. A sand beach, paved boat ramp, picnic sites, playground, and hiking trails are available for visitors at the Clearwater Dam Park.

The Mark Twain National Forest covers thousands of acres in the county. The forest provides opportunities for camping, hiking, picnics, hunting, fishing, and horseback riding.

Clearwater Lake has more than 1,630 surface acres of water. Visitors to the lake enjoy swimming, boating, fishing, skiing, hunting, and hiking. Four swimming beaches are located on Clearwater Lake. Several boat ramps, marinas, and docks are available for boaters (fig. 14). Deer and turkey are abundant in the uplands along the lakes.

The Missouri Department of Conservation owns several thousand acres of land in Reynolds County. The Department manages a number of conservation areas and river and stream accesses. These areas provide excellent wildlife habitat and are available for hunting and hiking.

The soils of the survey area are rated in table 10 according to limitations that affect their suitability for recreational uses. Soils are rated for camp areas, picnic areas, playgrounds, and paths and trails.



Figure 13.—Clearwater Lake provides numerous recreational opportunities. This view is in an area of the Alred-Rueter-Gepp association.

The ratings in the table are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect recreational site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Limited* indicates that



Figure 14.—A marina on Clearwater Lake.

the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but overcoming them generally requires special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate or high maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited	0.00
Slightly limited	0.01 to 0.30
Moderately limited	0.31 to 0.60
Limited	0.61 to 0.99
Very limited	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each component. The overall limitation rating for the component is based on the most severe limitation.

The information in table 10 can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The soil properties that affect the performance of the areas after development are those

that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, a water table, ponding, flooding, slope, and texture of the surface layer. The best soils are not wet, are firm after rains, are not dusty when dry, and are not subject to frequent flooding during the period of use. They have moderate slopes and few or no stones or boulders on the surface.

Wildlife Habitat

Arron J. Hendershott, Missouri Department of Conservation, helped prepare this section.

Reynolds County is in the highest sections of the St. Francois Mountains of the Ozarks. An estimated 476,000 acres of the county's landscape is forested. The rest is a mix of land uses, including cropland, pasture, hayland, and residential/urban uses (Reynolds County, 1992).

Before European settlement of the survey area, the landscape was shaped by a combination of soil types, natural forces, and the actions of Native tribes. The area was much more open than it is at present. Although many of the current types of vegetation and animals were also present prior to modern-day settlement, the abundance of these plants and animals has changed.

A variety of soils and geologic features strongly influence the plant communities in a specific location (Nelson, 1987). Soil reaction, fertility, depth, and moisture content have an impact on the type of plants that grow in any given location. The plants in turn influence the kind of wildlife. Soil type can provide valuable insight into historic and present-day vegetative and wildlife patterns.

Woodlands and savannas.—Reynolds County is currently dominated by forests, but 200 years ago the area was a complex of woodland and savanna. This type of landscape is more open than a forested area and supports prairie grasses and forbs. Early settlers in the area described ridges and sunny slopes as parklike areas or barrens because of the sparse vegetative cover. Although woodlands and savannas are both open natural communities, the savannas have fewer trees than the woodlands. In a savanna, for example, the tree canopies commonly do not touch as they do in woodlands. As a result, the difference in the amount of sunlight reaching the ground influences the plants that grow and the animals that inhabit or use the area. Much of the savanna in the county is in areas of soils that formed in material weathered from igneous rock along ridgetops.

These open forest types were produced by the poorer and drier soils and shaped by fires set by Native tribes. Fire was used as a weapon for war and for hunting (Guyette and McGinnes, 1982). Periodic fires helped to shape the woodlands and savannas in two ways. First, the young trees that are not tolerant of fire were killed or set back. Fewer trees made it to the canopy to provide shade. Second, the fire aided in the

germination of prairie plant seeds by blackening the earth and allowing sunlight to warm the soil.

The combination of prairie and forest in the woodlands and savannas resulted in an abundant wildlife resource. Both forest and prairie plants were available to a variety of animals, including wild turkey, white-tailed deer, cottontail rabbits, bluebirds, flickers, bobwhite quail, tiger salamanders, fence lizards, and coachwhip snakes.

Although mixed hardwoods were common throughout the survey area, the western and southern parts of the county were heavily covered with shortleaf pine. Occurring either in pure stands or in mixed stands with oaks and hickories, pine is an important habitat element for wildlife. Animals that frequent areas that support this type of vegetation include Bachman's sparrow, red-breasted nuthatch, pine warbler, yellow-throated warbler, and yellow-throated vireo. These pine stands formerly attracted the brown-headed nuthatch, red-cockaded woodpecker, and northern saw-whet owl. Pine stands also provide a place for turkeys to roost and songbirds to nest.

The open lands of Reynolds County have changed over the last 200 years. Fire is no longer a major shaping force favoring the prairie plants but instead allows the encroachment of trees. The history of erosion from logging and fire suppression in the Ozarks has resulted in denser forest rather than the more open woodland (Beilmann and Brenner, 1951).

Glades.—Glades occur along rocky ridgetops and on slopes where the soil is extremely thin. Igneous rock, limestone, dolostone, and chert can create conditions favorable for the formation of glades and can influence soil pH. Southern and western slopes typically support glades because they are exposed to the hottest rays of the sun. Fires that helped maintain the woodlands also kept glades renewed by killing certain trees, including post oak and eastern redcedar. The thin soils warm up easily in intensive sunlight. As a result, glades are dry, almost desert-like areas (Nelson, 1987).

Numerous animals thrive in glade habitats. Examples are striped scorpion, milk snake, fence lizard, racerunner, nighthawk, prairie warbler, and tarantula. Bobwhite quail, wild turkey, white-tailed deer, and cottontail rabbits also use glades as feeding areas. Glades can be crucial to the development of immature quail and turkey by providing abundant sources of invertebrates for the poults to eat.

Many glades in Reynolds County have grown over with cedars or been converted to non-native, cool-season grasses that have limited value to wildlife. Cedar groves can be of value as a food source for berry-eating birds or as cover for songbirds and small

mammals. Glades choked with cedar provide some habitat, but restored glades support a wider variety of wildlife.

Fens and seeps.—Few wetland communities exist in Reynolds County, but fens and seeps can occur. They are created when water seeps out of the ground along hillsides or in valleys. The soil and type of bedrock influence whether a wetland area is a fen or a seep. Fens are generally a result of basic pH water associated with limestone or dolostone, and seeps have more acid water conditions associated with sandstone or igneous rock.

Fens and seeps are important water sources for all wildlife species. They attract water-loving species, such as Hine's emerald dragonfly, four-toed salamander, American bittern, common yellow-throat, sedge wren, marsh wren, red-winged blackbird, snapping turtle, and many species of crayfish. Fens and seeps are important features that cannot tolerate much disturbance if they are to support wildlife.

Bottom-land forests.—A small area on flood plains along some of the rivers in the southern part of Reynolds County was subject to periodic flooding. The flooding and the type of soil promoted the existence of bottom-land forest. The combination of relatively fertile soils and abundant water resulted in lush plant growth. Early explorers reported the stark contrast between the abundance of trees and understory vegetation in the valleys and the sparsely vegetated ridges (Rafferty, 1996). Assorted hardwoods dominated the canopy, and the understory included various shrubs and vines. These forests supported such animals as the pileated woodpecker, cerulean warbler, gray squirrel, flying squirrel, wood duck, mole salamander, pipevine swallowtail, and spicebush swallowtail butterfly. Mast crops and abundant cavities in these forests were attractive to a wide range of animals.

Canebrakes.—Canebrakes were pure stands of river cane that once occupied hundreds of acres along the Black River and Logan Creek and their tributaries. Some of the canebrakes were miles long and were valuable to swamp rabbits, black bear, Swainson's warbler, golden mice, and a host of moth and butterfly caterpillars. Some thick cane stands still exist, but the extent of these areas is much reduced. The stands are limited to field borders and the understory of bottom-land forests. They provide important food and shelter for white-tailed deer, bobwhite quail, cottontail rabbits, and assorted songbirds.

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water.

Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

In tables 11a and 11b, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. *Not limited* indicates that the soil has features that are very favorable for the specified use. Habitat is easily established, improved, or maintained. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Habitat can be established, improved, or maintained. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified use. Habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. *Limited* indicates that the soil has one or more features that are significant limitations for the specified use. Habitat is difficult to create, improve, or maintain in most places. Management is difficult and must be very intensive. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. Habitat is usually impractical or impossible to create, improve, or maintain. Management would be very difficult, and unsatisfactory results can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited	0.00
Slightly limited	0.01 to 0.30
Moderately limited	0.31 to 0.60
Limited	0.61 to 0.99
Very limited	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as

three soil features may be listed for each component. The overall limitation class for the component is based on the most severe limitation.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Selection should be made from a list of locally adapted species.

Domestic grasses and legumes are domestic perennial grasses and herbaceous legumes. Soil properties and features that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, flooding, and slope. Soil temperature and soil moisture also are considerations. Selection should be made from a list of locally adapted species.

Upland wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Selection should be made from a list of locally adapted species.

Upland shrubs and vines are bushy woody plants that produce fruit, buds, twigs, bark, and foliage. Soil properties and features that affect the growth of shrubs and vines are depth of the root zone, available water capacity, salinity, and soil moisture. Selection should be made from a list of locally adapted species.

Upland deciduous trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees are depth of the root zone, available water capacity, and wetness. Selection should be made from a list of locally adapted species.

Upland mixed deciduous-conifer trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, browse, seeds, and foliage. Soil properties and features that affect the growth of these trees are depth of the root zone, available water capacity, and wetness. Selection should be made from a list of locally adapted species.

Riparian herbaceous plants are annual and perennial native or naturally established grasses and forbs that grow on moist or wet sites. Soil properties and features affecting riparian herbaceous plants are

surface texture, wetness, flooding, ponding, and surface stones. Selection should be made from a list of locally adapted species.

Riparian shrubs, vines, and trees are bushy woody plants and trees that grow on moist or wet sites. Soil properties and features affecting these plants are surface texture, wetness, flooding, ponding, and surface stones. Selection should be made from a list of locally adapted species.

Freshwater wetland plants are grasses, forbs, and shrubs that are adapted to wet soil conditions. The soils suitable for this habitat generally occur adjacent to springs, seeps, depressions, areas of bottom land, marshes, or backwater areas on flood plains. Most areas are ponded for some period of time during the year. Soil properties and features affecting these plants are surface texture, wetness, ponding, and soil reaction. Selection should be made from a list of locally adapted species.

Irrigated freshwater wetland plants are grasses, forbs, and shrubs that are adapted to wet soil conditions. The soils suitable for this habitat generally occur in areas of cropland, in previously cropped areas, and in marginal areas associated with cropland and wetlands. These areas may be ponded for some period of time during the year. They are generally suitable for restoring wetland features temporarily or permanently. Soil properties and features affecting these plants are surface texture, permeability, wetness, ponding, and soil reaction. Selection should be made from a list of locally adapted species.

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading "Soil Properties."

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil within a depth of 5 or 6 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils

or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about grain-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 or 6 feet of the surface, soil wetness, depth to a seasonal high water table, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, earthfill, and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Table 12 shows the degree and kind of soil limitations that affect

dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Limited* indicates that the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but overcoming them generally requires special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate or high maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited	0.00
Slightly limited	0.01 to 0.30
Moderately limited	0.31 to 0.60
Limited	0.61 to 0.99
Very limited	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each component. The overall limitation rating for the component is based on the most severe limitation.

Dwellings are single-family houses of three stories or less. For dwellings without basements, the

foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number),

subsidence, linear extensibility (shrink-swell potential), the potential for frost action, a water table, and ponding.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

The soils of the survey area are rated in table 13 according to limitations that affect their suitability for sanitary facilities. Soils are rated for septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect sanitary facilities. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Limited* indicates that the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but overcoming them generally requires special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate or high maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited	0.00
Slightly limited	0.01 to 0.30
Moderately limited	0.31 to 0.60
Limited	0.61 to 0.99
Very limited	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each component. The overall limitation rating for the component is based on the most severe limitation.

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may be contaminated. Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluent, surfacing of effluent, hillside seepage, and contamination of ground water, can affect public health.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, a water table, ponding, depth to bedrock or a cemented

pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A *trench sanitary landfill* is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet

are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as

the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

Construction Materials and Excavating

The soils of the survey area are rated in table 14 as a source of roadfill, sand, gravel, or topsoil. Normal compaction, minor processing, and other standard construction practices are assumed. The soils are also rated according to limitations that affect their suitability for shallow excavations. The ratings in the table are both verbal and numerical.

For sand and gravel, the soils are rated as a *probable, possible, or improbable* source. A rating of *probable* indicates that the source material is likely to be in or below the soil. A rating of *possible* indicates that the source material may be in or below the soil and that further investigation is warranted. A rating of *improbable* indicates that the source material is unlikely to be in or below the soil. The numerical ratings in these columns indicate the degree of probability. A numerical rating of 1.00 indicates that the soil is an improbable source. A numerical rating of less than 1.00 indicates the degree to which the soil is a possible or probable source of sand or gravel.

Other rating class terms used in this table indicate the extent to which the soils are limited by soil features that affect their use as a source for roadfill or topsoil or their suitability for shallow excavations. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Limited* indicates that the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but overcoming them generally requires special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate or high maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings for roadfill, topsoil, and shallow excavations indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited	0.00
Slightly limited	0.01 to 0.30
Moderately limited	0.31 to 0.60
Limited	0.61 to 0.99
Very limited	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each component. The overall limitation rating for the component is based on the most severe limitation.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Sand and *gravel* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In the table, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the lowest layer of the soil contains sand or gravel, the soil

is rated as a probable source regardless of the thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for basements, graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Water Management

Table 15 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas, drainage, irrigation, terraces and diversions, and grassed waterways.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low

maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Limited* indicates that the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but overcoming them generally requires special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate or high maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited	0.00
Slightly limited	0.01 to 0.30
Moderately limited	0.31 to 0.60
Limited	0.61 to 0.99
Very limited	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each component. The overall limitation rating for the component is based on the most severe limitation.

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Slope can affect the storage capacity of the reservoir area.

Drainage is the removal of excess surface and subsurface water from the soil. How easily and effectively the soil is drained depends on the depth to bedrock, permeability, depth to a water table, ponding, slope, and flooding. Excavating and grading and the

stability of ditchbanks are affected by depth to bedrock or a cemented pan, large stones, slope, and the likelihood that cutbanks will cave. The productivity of the soil after drainage is adversely affected by extreme acidity or by toxic substances in the root zone, such as salts, sodium, and sulfur. The availability of drainage outlets is not considered in the ratings.

Irrigation is the controlled application of water to supplement rainfall and support plant growth. The design and management of an irrigation system are affected by depth to a water table, ponding, flooding, available water capacity, intake rate, permeability, erodibility, and slope. The construction of a system is affected by large stones and depth to bedrock. The performance of a system is affected by the depth of the root zone, reaction, and the amount of salts, sodium, sulfur, lime, or gypsum.

Terraces and diversions are embankments or a combination of channels and ridges constructed across a slope to control erosion and conserve moisture by intercepting runoff. Slope, a water table, ponding, large stones, and depth to bedrock affect the construction of terraces and diversions. A restricted rooting depth, erodibility, an excessively coarse texture, and restricted permeability adversely affect maintenance.

Grassed waterways are natural or constructed channels, generally broad and shallow, that conduct surface water to outlets at a nonerosive velocity. Large stones, a water table, slope, and depth to bedrock affect the construction of grassed waterways. Erodibility, soil moisture regime, available water capacity, restricted rooting depth, restricted permeability, and toxic substances, such as salts and sodium, affect the growth and maintenance of the grass after construction.

Waste Management

Soil properties are important considerations in areas where soils are used as sites for the treatment and disposal of organic waste and wastewater. Selection of soils with properties that favor waste management can help to prevent environmental damage.

Table 16 shows the degree and kind of soil limitations affecting the treatment of agricultural waste, including municipal and food-processing wastewater and effluent from lagoons or storage ponds. Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of

fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. In the context of this table, the effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 mg/l. The wastewater from animal waste treatment lagoons or storage ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 mg/l. When wastewater is applied, checks should be made to ensure that nitrogen, heavy metals, and salts are not added in excessive amounts.

The ratings in the table are for waste management systems that not only dispose of and treat organic waste or wastewater but also are beneficial to crops (application of manure and food-processing waste, application of sewage sludge, and disposal of wastewater through irrigation) and for waste management systems that are designed only for the purpose of wastewater disposal and treatment (slow rate treatment of wastewater and rapid infiltration of wastewater).

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Limited* indicates that the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but overcoming them generally requires special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate or high maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be

overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited	0.00
Slightly limited	0.01 to 0.30
Moderately limited	0.31 to 0.60
Limited	0.61 to 0.99
Very limited	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each component. The overall limitation rating for the component is based on the most severe limitation.

Land application of manure and food-processing waste not only disposes of waste material but also improves crop production by increasing the supply of nutrients in the soils where the material is applied. Manure is the excrement of livestock and poultry, and food-processing waste is damaged fruit and vegetables and the peelings, stems, leaves, pits, and soil particles removed in food preparation. The manure and food-processing waste are either solid, slurry, or liquid. Their nitrogen content varies. A high content of nitrogen limits the application rate. Toxic or otherwise dangerous wastes, such as those mixed with the lye used in food processing, are not considered in the ratings.

The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the waste is applied, and the method by which the waste is applied. The properties that affect absorption include permeability, a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, and available water capacity. The properties that affect plant growth and microbial activity include reaction, the sodium adsorption ratio, salinity, and bulk density. The wind erodibility group, the soil erosion factor K, and slope are considered in estimating the likelihood of wind erosion or water erosion. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste.

Land application of municipal sewage sludge not only disposes of waste material but also improves

crop production by increasing the supply of nutrients in the soils where the material is applied. In the context of this table, sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy metals and exotic organic compounds, and should be analyzed chemically prior to use.

The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include permeability, a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, the soil erosion factor K, and slope are considered in estimating the likelihood of wind erosion or water erosion. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge.

Disposal of wastewater by irrigation not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also improves crop production by increasing the amount of water available to crops. The ratings in the table are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, a water table, ponding, available water capacity, permeability, slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, a water table, and ponding. The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a soil to adsorb heavy metals.

Treatment of wastewater by slow rate process is a process in which wastewater is applied to land at a rate normally between 0.5 inch and 4.0 inches per

week. The application rate commonly exceeds the rate needed for irrigation of cropland. The applied wastewater is treated as it moves through the soil. Much of the treated water percolates to the ground water, and some enters the atmosphere through evapotranspiration. The applied water generally is not allowed to run off the surface. Waterlogging is prevented either through control of the application rate or through the use of tile drains, or both.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, and the application of waste. The properties that affect absorption include the sodium adsorption ratio, a water table, ponding, available water capacity, permeability, depth to bedrock or a cemented pan, reaction, the cation-exchange capacity, and slope. Reaction, the sodium adsorption ratio, salinity, and bulk density affect plant growth and microbial activity. The wind erodibility group, the soil erosion factor K, and slope are considered in estimating the likelihood of wind erosion or water erosion. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste.

Treatment of wastewater by rapid infiltration process is a process in which wastewater applied in a level basin at a rate of 4 to 120 inches per week percolates through the soil, eventually reaching the ground water. The application rate commonly exceeds the rate needed for irrigation of cropland. Vegetation is not a necessary part of the treatment; hence, the basins may or may not be vegetated. The thickness of the soil material needed for proper treatment of the wastewater is more than 72 inches. As a result, geologic and hydrologic investigation is needed to ensure proper design and performance and to determine the risk of ground-water pollution.

The ratings in the table are based on the soil properties that affect the risk of pollution and the design, construction, and performance of the system. A water table, ponding, flooding, and depth to bedrock or a cemented pan affect the risk of pollution and the design and construction of the system. Slope, stones, and cobbles also affect design and construction. Permeability and reaction affect performance.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey. The data and the estimates of soil and water features, listed in tables, are explained on the following pages.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine grain-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties shown in the tables include the range of grain-size distribution and Atterberg limits, the engineering classification, and the physical and chemical properties of the major layers of each soil. Pertinent soil and water features also are given.

Engineering Index Properties

Table 17 gives estimates of the engineering classification and of the range of index properties for the major layers of each soil in the survey area. Most soils have layers of contrasting properties within the upper 5 or 6 feet.

Depth to the upper and lower boundaries of each layer is indicated. The range in depth and information on other properties of each layer are given for each soil series under the heading "Soil Series and Their Morphology."

Texture is given in abbreviations of the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter (fig. 15). "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50

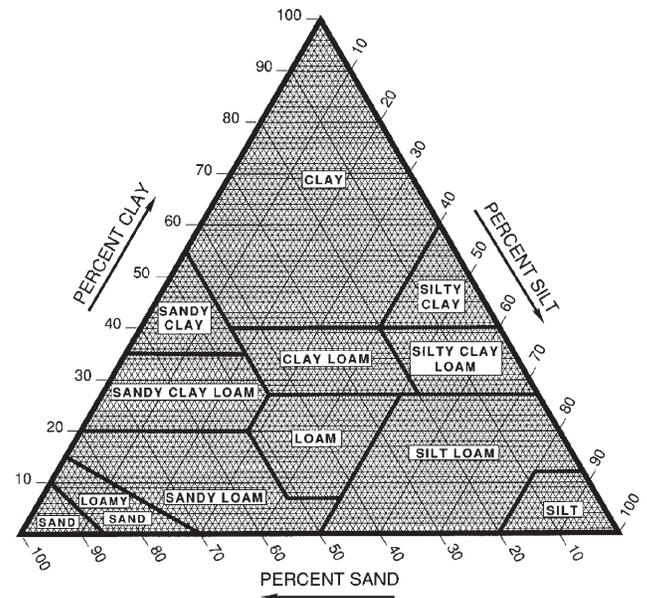


Figure 15.—Percentages of clay, silt, and sand in the basic USDA soil textural classes.

percent silt, and less than 52 percent sand. If the content of particles coarser than sand is as much as about 15 percent, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to grain-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of grain-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is omitted in the table.

Physical Properties

Table 18 shows estimates of some characteristics and features that affect soil behavior. These estimates are given for the major layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In the table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (oven-dry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $1/3$ - or $1/10$ -bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity refers to the ability of a soil to transmit water or air. The term

“permeability,” as used in soil surveys, indicates saturated hydraulic conductivity (Ksat). The estimates in the table indicate the rate of water movement, in micrometers per second (um/sec), when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at $1/3$ - or $1/10$ -bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In the table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill

erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the “National Soil Survey Handbook” (USDA/NRCS, National Soil Survey Handbook).

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Properties

Table 19 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable bases that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity

hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable bases plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Water Features

Table 20 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to two hydrologic groups in the table, the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are *negligible*, *very low*, *low*, *medium*, *high*, and *very high*.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. Table 20 indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. Table 20 indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means

that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year). Probable dates are expressed in months. About two-thirds to three-fourths of all flooding occurs during the stated period.

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Soil Features

Table 21 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the thickness and hardness of the restrictive layer, both of

which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage mainly to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that dissolves or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than steel in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low*, *moderate*, or *high*, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion is also expressed as *low*, *moderate*, or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1998 and 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 22 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Ultisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udult (*Ud*, meaning humid, plus *ult*, from Ultisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Paleudults (*Pale*, meaning excessive development, plus *udult*, the suborder of the Ultisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Paleudults.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the "Soil Survey Manual" (Soil Survey Division Staff, 1993). Many of the technical terms used in the descriptions are defined in "Soil Taxonomy" (Soil Survey Staff, 1999) and in "Keys to Soil Taxonomy" (Soil Survey Staff, 1998). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Aaron Series

Soil depth: Deep

Drainage class: Moderately well drained

Landform: Basins

Position on the landform: Summits, shoulders

Parent material: Loess over residuum derived from interbedded dolostone, shale, and siltstone

Slope range: 3 to 15 percent

Taxonomic classification: Fine, mixed, active, mesic
Oxyaquic Hapludalfs

Typical Pedon

Aaron silt loam, in an area of Gatewood-Aaron complex, 3 to 8 percent slopes; in a pasture; 1,730 feet north and 900 feet east of the southwest corner of sec. 29, T. 36 N., R. 3 E., in Washington County; USGS Irondale topographic quadrangle; UTM coordinates 4,186,250 meters Northing and 699,610 meters Easting, Zone 15, NAD 27:

- Ap—0 to 7 inches; brown (10YR 4/3) silt loam, very pale brown (10YR 7/3) dry; strong thin platy and weak fine subangular blocky structure; friable; many fine and very fine roots; neutral; clear smooth boundary.
- BE—7 to 12 inches; yellowish brown (10YR 5/4) silt loam; moderate fine subangular blocky structure; friable; common fine and very fine roots; many distinct silt coats on faces of peds; neutral; clear smooth boundary.
- Bt1—12 to 18 inches; yellowish brown (10YR 5/6) silt loam; weak fine prismatic structure parting to moderate fine subangular blocky; friable; few fine and very fine roots; common distinct clay films on faces of peds; many distinct silt coats on faces of peds; neutral; gradual smooth boundary.
- Bt2—18 to 25 inches; yellowish brown (10YR 5/6) silty clay loam; weak medium prismatic structure parting to moderate fine subangular blocky; firm; few fine and very fine roots; common distinct clay films on faces of peds; common distinct silt coats on faces of peds; common fine manganese or iron-manganese stains on faces of peds; moderately acid; clear smooth boundary.
- 2Bt3—25 to 36 inches; 90 percent dark yellowish brown (10YR 4/6) and 10 percent light yellowish brown (10YR 6/4) silty clay; moderate medium prismatic structure parting to moderate fine angular blocky; firm; few fine and very fine roots; many distinct clay films on faces of peds; few silt coats on faces of peds; many fine manganese or iron-manganese stains on faces of peds; very strongly acid; clear smooth boundary.
- 2Bt4—36 to 46 inches; dark yellowish brown (10YR 4/6) clay; moderate medium prismatic structure parting to strong fine angular blocky; very firm; many distinct clay films on faces of peds; few fine prominent greenish gray (5GY 6/1) and common fine distinct light brownish gray (2.5Y 6/2) iron depletions; common fine manganese or iron-manganese stains on faces of peds; very strongly acid; abrupt smooth boundary.
- 2R—46 inches; shale bedrock.

Range in Characteristics

Depth to bedrock: 40 to 60 inches

Ap horizon:

- Color—hue of 10YR, value of 4, and chroma of 2 or 3
Texture of the fine-earth fraction—silt loam
Reaction—slightly acid or neutral

BE horizon:

- Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4
Texture of the fine-earth fraction—silt loam
Reaction—slightly acid or neutral

Bt horizon:

- Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 6
Texture of the fine-earth fraction—silt loam or silty clay loam
Reaction—strongly acid to neutral

2Bt horizon:

- Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 6
Texture—silty clay or clay
Content of rock fragments—0 to 10 percent
Reaction—very strongly acid to moderately acid

Alred Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderately slow

Landform: Hills

Position on the landform: Backslopes, summits, shoulders

Parent material: Colluvium over residuum derived from cherty dolostone

Slope range: 8 to 35 percent

Elevation: 620 feet

Taxonomic classification: Loamy-skeletal over clayey, siliceous, semiactive, mesic Typic Paleudalfs

Typical Pedon

Alred very gravelly silt loam, in an area of Alred-Rueter complex, 15 to 35 percent slopes, very stony; in a hardwood forest; 100 feet west and 640 feet south of the northeast corner of sec. 32, T. 29 N., R. 2 E.; USGS Clearwater Dam, Missouri, topographic quadrangle; UTM coordinates 4,112,640 meters Northing and 690,730 meters Easting, Zone 15, NAD 27:

- Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

- A—1 to 5 inches; brown (10YR 5/3) very gravelly silt loam; weak fine subangular blocky structure; friable; many fine, many medium, and many coarse roots throughout; many medium interstitial pores; 35 percent subangular chert gravel; moderately acid; clear smooth boundary.
- BE—5 to 13 inches; strong brown (7.5YR 5/6) very gravelly silt loam; moderate fine subangular blocky structure; friable; common fine and common medium roots throughout; many fine tubular pores; common distinct light yellowish brown (10YR 6/4) silt coats on vertical faces of peds and few distinct yellowish brown (10YR 5/4) clay films on vertical faces of peds; 50 percent subangular chert gravel; very strongly acid; clear smooth boundary.
- Bt1—13 to 21 inches; strong brown (7.5YR 5/6) very gravelly silt loam; moderate fine subangular blocky structure; friable; common fine and common medium roots throughout; common fine vesicular and common fine tubular pores; common distinct yellowish brown (10YR 5/4) clay films on vertical faces of peds and common distinct light yellowish brown (10YR 6/4) silt coats on vertical faces of peds; 50 percent subangular chert gravel; very strongly acid; clear smooth boundary.
- Bt2—21 to 30 inches; strong brown (7.5YR 5/6) very gravelly silty clay loam; moderate fine subangular blocky structure; firm; few fine roots throughout; many fine vesicular pores; common distinct red (2.5YR 5/6) clay films on vertical faces of peds; 45 percent subangular chert gravel; very strongly acid; clear smooth boundary.
- 2Bt3—30 to 42 inches; red (2.5YR 4/6) gravelly clay; moderate fine subangular blocky structure; firm; few fine roots throughout; many fine vesicular pores; common distinct yellowish red (5YR 5/6) clay films on vertical faces of peds; 5 percent subangular chert cobbles and 15 percent subangular chert gravel; strongly acid; clear smooth boundary.
- 2Bt4—42 to 60 inches; dark red (2.5YR 3/6) gravelly clay; moderate fine subangular blocky structure; firm; many fine vesicular pores; common distinct dark red (2.5YR 3/6) clay films on vertical faces of peds; 20 percent subangular chert gravel; very strongly acid.

Range in Characteristics

Depth to the 2Bt horizon: 14 to 40 inches

Thickness of the solum: More than 60 inches

A or Ap horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—35 to 60 percent
Reaction—very strongly acid to moderately acid

BE or E horizon (if it occurs):

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—20 to 50 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 8

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—35 to 75 percent (less in some subhorizons)

Reaction—very strongly acid or strongly acid

2Bt horizon:

Color—hue of 2.5YR or 5YR, value of 3 to 6, and chroma of 4 to 8

Texture of the fine-earth fraction—clay

Content of rock fragments—0 to 35 percent (0 to 60 percent in the lower part)

Reaction—strongly acid to neutral

Arkana Series

Soil depth: Moderately deep

Drainage class: Well drained

Permeability class: Very slow

Landform: Hills

Position on the landform: Summits, backslopes

Parent material: Gravelly colluvium over clayey residuum derived from dolostone

Slope range: 8 to 55 percent

Elevation: 890 feet

Taxonomic classification: Very fine, mixed, active, mesic Mollic Hapludalfs

Typical Pedon

Arkana very gravelly silt loam, in an area of Arkana-Gepp complex, 8 to 15 percent slopes, rocky, stony; in a hardwood forest; 3,600 feet east and 3,610 feet north of the southwest corner of sec. 32, T. 32 N., R. 3 W., in Shannon County; USGS Round Spring, Missouri, topographic quadrangle; UTM coordinates 4,128,232 meters Northing and 643,306 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

Ap—1 to 6 inches; very dark grayish brown (10YR 3/2) very gravelly silt loam, grayish brown (10YR 5/2) dry; weak fine granular structure; very friable; many fine and many medium roots; many fine

interstitial and tubular pores; 50 percent chert gravel; moderately acid; clear smooth boundary.

Bt1—6 to 11 inches; red (2.5YR 4/8) gravelly silty clay loam; moderate medium subangular blocky structure; firm; common fine and common coarse roots; many fine and common medium and coarse tubular pores; many distinct dark grayish brown (10YR 4/2) organic stains, common distinct pale brown (10YR 6/3) silt coats, and common distinct red (2.5YR 4/8) clay films on faces of peds; 2 percent chert cobbles and 15 percent chert gravel; strongly acid; clear wavy boundary.

2Bt2—11 to 23 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; very firm; common fine and common coarse roots; many fine and common medium and coarse tubular pores; common distinct dark yellowish brown (10YR 4/6) clay films and common distinct red (2.5YR 4/6) clay films on faces of peds; very strongly acid; clear smooth boundary.

2Bt3—23 to 29 inches; strong brown (7.5YR 5/6) clay; weak fine angular blocky structure; very firm; few fine and few coarse roots; many fine tubular pores; common distinct yellowish red (5YR 5/6) clay films on faces of peds, common distinct yellowish brown (10YR 5/4) clay films on faces of peds, and common distinct black (N 2/0) manganese or iron-manganese stains on faces of peds; strongly acid; abrupt smooth boundary.

2R—29 inches; dolostone bedrock.

Range in Characteristics

Depth to bedrock: 20 to 45 inches

A horizon:

Color—hue of 10YR, value of 2 or 3, and chroma of 1 to 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—35 to 60 percent

Reaction—very strongly acid to neutral

Bt horizon:

Color—hue of 2.5YR, 5YR, or 7.5YR, value of 4 to 6, and chroma of 4 to 8

Texture of the fine-earth fraction—silty clay loam, silty clay, or clay

Content of rock fragments—0 to 40 percent

Reaction—very strongly acid to neutral

2Bt horizon:

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture of the fine-earth fraction—clay

Content of rock fragments—0 to 10 percent

Reaction—very strongly acid to neutral

Aslinger Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Moderately slow

Landform: Hills

Position on the landform: Footslopes

Parent material: Loamy colluvium over loamy and clayey alluvium

Slope range: 3 to 8 percent

Elevation: 1,050 feet

Taxonomic classification: Fine-loamy, mixed, active, mesic Fragiaquic Paleudults

Typical Pedon

Aslinger silt loam, 3 to 8 percent slopes; in a hardwood forest; 3,850 feet east and 350 feet north of the southwest corner of sec. 16, T. 27 N., R. 5 W., in Shannon County; USGS Bartlett, Missouri, topographic quadrangle; UTM coordinates 4,096,110 meters Northing and 633,863 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 5 inches; brown (10YR 4/3) silt loam; moderate fine and medium granular structure; friable; common fine and medium and few coarse roots; common fine tubular pores; 2 percent chert gravel; strongly acid; clear smooth boundary.

AB—5 to 9 inches; 60 percent dark yellowish brown (10YR 4/4) and 40 percent brown (10YR 4/3) silt loam; moderate very fine subangular blocky structure; friable; common medium roots; common fine and medium tubular pores; 2 percent chert gravel; strongly acid; clear wavy boundary.

Bt1—9 to 17 inches; dark yellowish brown (10YR 4/6) silty clay loam; moderate medium subangular blocky structure; firm; common medium roots; common fine tubular pores; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds and few faint manganese or iron-manganese stains on faces of peds; 2 percent chert gravel; very strongly acid; clear wavy boundary.

Bt2—17 to 24 inches; dark yellowish brown (10YR 4/6) gravelly silty clay loam; weak medium subangular blocky structure; firm; few fine roots; few fine tubular pores; common faint dark yellowish brown (10YR 3/4) clay films throughout; common distinct very dark grayish brown (10YR 3/2) manganese or iron-manganese stains on faces of peds and in pores; 15 percent chert gravel; very strongly acid; abrupt wavy boundary.

2Btx—24 to 32 inches; grayish brown (10YR 5/2) extremely gravelly silt loam; weak coarse prismatic structure; very firm; 35 percent brittle; few fine roots; common fine and medium vesicular pores; many faint grayish brown (10YR 5/2) silt coats on faces of peds and in pores; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; many fine faint irregular dark gray (10YR 4/1) iron depletions; 2 percent chert cobbles and 60 percent chert gravel; very strongly acid; clear smooth boundary.

3Bt1—32 to 43 inches; 60 percent yellowish brown (10YR 5/4), 30 percent strong brown (7.5YR 5/6), and 10 percent yellowish red (5YR 5/6) gravelly clay loam; weak thick platy structure parting to weak fine subangular blocky; firm; few fine roots; few fine tubular and few medium vesicular pores; common distinct yellowish brown (10YR 5/4) silt coats on faces of peds and in pores; common distinct yellowish brown (10YR 5/4) and dark yellowish brown (10YR 4/4) clay films on faces of peds; 15 percent chert gravel; very strongly acid; clear wavy boundary.

4Bt2—43 to 55 inches; 60 percent strong brown (7.5YR 5/6), 20 percent reddish brown (5YR 4/4), and 20 percent yellowish brown (10YR 5/4) gravelly clay; moderate medium subangular blocky structure; firm; common fine and medium tubular pores; many distinct strong brown (7.5YR 4/6) and brown (10YR 4/3) clay films on faces of peds; 1 percent chert cobbles and 25 percent chert gravel; very strongly acid; gradual wavy boundary.

4Bt3—55 to 72 inches; 70 percent strong brown (7.5YR 5/8), 20 percent gray (10YR 5/2), and 10 percent red (2.5YR 4/6) extremely gravelly clay; weak fine and medium subangular blocky structure; firm; few fine tubular pores; very few distinct gray (10YR 5/1) clay films on vertical faces of peds; 1 percent chert stones, 10 percent chert cobbles, and 50 percent chert gravel; very strongly acid.

Range in Characteristics

Depth to the 2Btx horizon: 20 to 36 inches

A or Ap horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 7 percent gravel

Reaction—very strongly acid to slightly acid

AB horizon:

Color—hue of 10YR or 7.5YR, value of 4, and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 7 percent gravel

Reaction—very strongly acid to slightly acid

Bt horizon:

Color—hue of 10YR to 5YR, value of 4 to 6, and chroma of 6 to 8

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 15 percent gravel

Reaction—very strongly acid to moderately acid

2Btx or 2Bt horizon (if it occurs):

Color—hue of 10YR to 2.5YR, value of 4 to 6, and chroma of 2 to 8

Texture of the fine-earth fraction—loam, silt loam, or clay loam

Content of rock fragments—15 to 60 percent gravel; 0 to 10 percent cobbles

Reaction—very strongly acid or strongly acid

3Bt horizon:

Color—hue of 10YR to 2.5YR, value of 4 to 6, and chroma of 2 to 8

Texture of the fine-earth fraction—silty clay loam, clay loam, or clay

Content of rock fragments—25 to 60 percent gravel; 0 to 40 percent cobbles

Reaction—extremely acid to strongly acid

Bardley Series

Soil depth: Moderately deep

Drainage class: Well drained

Permeability class: Moderate

Landform: Hills

Position on the landform: Backslopes

Parent material: Gravelly colluvium over clayey residuum derived from dolostone

Slope range: 15 to 50 percent

Elevation: 620 feet

Taxonomic classification: Very fine, mixed, active, mesic Typic Hapludalfs

Typical Pedon

Bardley very gravelly silt loam, in an area of Niangua-Bardley complex, 15 to 50 percent slopes, extremely stony; in a hardwood forest; 100 feet east and 150 feet south of the northwest corner of sec. 4, T. 28 N., R. 2 W., in Shannon County; USGS Stegall Mountain, Missouri, topographic quadrangle; UTM coordinates 4,109,649 meters Northing and 662,501 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

- A—1 to 5 inches; yellowish brown (10YR 5/4) very gravelly silt loam; weak fine granular structure; friable; many fine and medium roots; many coarse interstitial and tubular pores; 45 percent chert gravel; very strongly acid; clear smooth boundary.
- E—5 to 12 inches; light brown (7.5YR 6/4) very gravelly loam; weak fine subangular blocky structure; friable; many fine to coarse roots; many coarse interstitial and tubular pores; common distinct yellowish red (5YR 5/8) clay films on faces of peds; 45 percent chert gravel; very strongly acid; clear smooth boundary.
- 2Bt—12 to 21 inches; red (2.5YR 4/8) clay; weak fine subangular blocky structure; very firm; common fine and medium roots; few fine vesicular pores; many distinct red (2.5YR 4/6) clay films on faces of peds; 1 percent chert gravel; strongly acid; clear smooth boundary.
- 2BC—21 to 31 inches; red (2.5YR 4/6) gravelly loamy coarse sand; common fine distinct yellowish red (5YR 5/6) and common fine distinct pinkish gray (7.5YR 7/2) mottles; single grain or weak fine subangular blocky structure; loose; few fine roots; few fine vesicular pores; many distinct red (2.5YR 4/6) clay films on faces of peds; 25 percent dolostone gravel; slightly alkaline; abrupt smooth boundary.
- 2R—31 inches; dolostone bedrock.

Range in Characteristics

Depth to bedrock: 20 to 40 inches

A horizon:

- Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4
- Texture of the fine-earth fraction—silt loam
- Content of rock fragments—35 to 60 percent
- Reaction—very strongly acid to neutral

E or BE horizon:

- Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 or 4
- Texture of the fine-earth fraction—silt loam or loam
- Content of rock fragments—35 to 60 percent
- Reaction—very strongly acid to moderately acid

2Bt horizon:

- Color—hue of 2.5YR or 5YR, value of 3 to 5, and chroma of 3 to 8
- Texture of the fine-earth fraction—clay
- Content of rock fragments—0 to 30 percent
- Reaction—very strongly acid to moderately acid in the upper part and moderately acid to neutral in the lower part

Batcave Series

Soil depth: Very deep

Drainage class: Somewhat poorly drained

Permeability class: Moderate

Landform: River valleys

Position on the landform: Flood plains and low stream terraces

Parent material: Alluvium

Slope range: 0 to 3 percent

Elevation: 1,130 feet

Taxonomic classification: Loamy-skeletal, siliceous, active, mesic Typic Argiaquolls

Typical Pedon

Batcave gravelly loam, in an area of Batcave-Farewell complex, 0 to 3 percent slopes, frequently flooded; in a fescue pasture; 1,700 feet north and 200 feet west of the southeast corner of sec. 17, T. 27 N., R. 10 W., in Howell County; USGS Cabool Southeast topographic quadrangle; UTM coordinates 4,096,930 meters Northing and 584,130 meters Easting, Zone 15, NAD 27:

Ap1—0 to 4 inches; very dark grayish brown (10YR 3/2) gravelly loam, dark grayish brown (10YR 4/2) dry; moderate fine and medium granular structure; very friable; many very fine and fine roots throughout and few medium roots throughout; many very fine and fine irregular pores; 15 percent subrounded chert gravel; slightly acid; abrupt smooth boundary.

Ap2—4 to 12 inches; dark brown (10YR 3/3) gravelly loam, dark brown (10YR 4/3) dry; moderate fine granular structure; friable; common very fine and fine roots throughout; common fine tubular pores; common fine rounded black (N 2/0) hard iron-manganese concretions throughout; 20 percent subrounded chert gravel; slightly acid; clear smooth boundary.

Bt1—12 to 16 inches; dark yellowish brown (10YR 4/4) very gravelly loam; moderate fine subangular blocky structure; firm; common very fine and fine roots throughout; common fine tubular pores; common fine faint discontinuous brown (10YR 4/3) clay films on faces of peds; common fine distinct grayish brown (10YR 5/2) iron depletions; common fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; 50 percent subrounded chert gravel; moderately acid; clear smooth boundary.

Bt2—16 to 24 inches; dark yellowish brown (10YR 4/6) extremely gravelly loam; weak fine subangular

- blocky structure; firm; few fine roots throughout; common fine tubular pores and few fine vesicular pores; common fine distinct discontinuous brown (10YR 5/3) clay films on faces of peds; common fine prominent light brownish gray (10YR 6/2) iron depletions; many medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; common fine rounded black (N 2/0) hard iron-manganese concretions throughout; 60 percent subrounded chert gravel and 2 percent subrounded mixed cobbles; moderately acid; clear smooth boundary.
- Bt3—24 to 33 inches; dark yellowish brown (10YR 4/4) very gravelly sandy clay loam; weak fine subangular blocky structure; firm; few fine roots throughout; few fine irregular and tubular pores; common fine distinct discontinuous dark brown (10YR 3/3) clay films on faces of peds; many medium prominent light brownish gray (10YR 6/2) iron depletions; common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; common fine rounded black (N 2/0) hard iron-manganese concretions throughout; 50 percent subrounded chert gravel; neutral; gradual wavy boundary.
- Bt4—33 to 45 inches; brown (10YR 5/3) silty clay loam; weak fine subangular blocky structure; firm; few fine roots throughout; few very fine and fine irregular and tubular pores; few medium prominent discontinuous gray (10YR 5/1) clay films on faces of peds; many medium prominent light brownish gray (10YR 6/2) iron depletions; common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation between peds; few medium prominent irregular black (N 2/0) iron-manganese stains throughout; common fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; 2 percent subrounded chert gravel; neutral; gradual wavy boundary.
- Bt5—45 to 80 inches; yellowish brown (10YR 5/4) gravelly clay loam; weak fine subangular blocky structure; firm; few very fine roots throughout; few very fine and fine irregular and tubular pores; common medium prominent discontinuous light brownish gray (10YR 6/2) clay films on faces of peds; many medium prominent light brownish gray (10YR 6/2) iron depletions; common medium distinct yellowish brown (10YR 5/6) masses of iron accumulation on faces of peds; few medium prominent irregular black (N 2/0) iron-manganese stains throughout; common fine rounded black (N 2/0) hard iron-manganese concretions throughout; 15 percent subrounded chert gravel; neutral.

Range in Characteristics

Thickness of the solum: 80 or more inches

Ap or A horizon (upper part):

Color—hue of 10YR, 2.5Y, or N, value of 2 or 3, and chroma of 0 to 2

Texture of the fine-earth fraction—loam

Content of rock fragments—15 to 35 percent gravel

Reaction—moderately acid to slightly alkaline

A horizon (lower part):

Color—hue of 10YR, 2.5Y, or N, value of 2 or 3, and chroma of 0 to 2

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—35 to 60 percent gravel

Reaction—moderately acid to slightly alkaline

Bt or Btg horizon (upper part):

Color—hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 6

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—30 to 70 percent gravel; 0 to 15 percent cobbles

Reaction—moderately acid to slightly alkaline

Bt or Btg horizon (lower part):

Color—hue of 5YR or 2.5Y, value of 2 to 6, and chroma of 2 to 8

Texture of the fine-earth fraction—sandy clay loam, clay loam, silty clay loam, or clay

Content of rock fragments—0 to 70 percent gravel

Reaction—moderately acid to slightly alkaline

Bearthicket Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Silty alluvium

Slope range: 0 to 3 percent

Elevation: 570 feet

Taxonomic classification: Fine-silty, mixed, active, mesic Ultic Hapludalfs

Typical Pedon

Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded; in a hay field; 100 feet east and 60 feet north of the southwest corner of sec. 32, T. 29 N., R. 2 E.; USGS Clearwater Dam, Missouri, topographic quadrangle; UTM coordinates 4,112,249 meters

Northing and 689,339 meters Easting, Zone 15, NAD 27:

- A—0 to 6 inches; brown (10YR 4/3) silt loam; weak fine granular structure; many fine roots throughout; many medium moderate-continuity interstitial pores; moderately acid; clear smooth boundary.
- BA—6 to 12 inches; dark yellowish brown (10YR 4/4) silt loam; moderate fine subangular blocky structure; common fine roots throughout; many fine moderate-continuity tubular pores; common faint dark yellowish brown (10YR 4/6) and pale brown (10YR 6/3) clay films on all faces of peds and common distinct pale brown (10YR 6/3) silt coats on all faces of peds; moderately acid; clear smooth boundary.
- Bt1—12 to 21 inches; strong brown (7.5YR 5/6) silt loam; strong fine subangular blocky structure; common fine roots throughout; many fine moderate-continuity tubular pores; common distinct brown (7.5YR 4/3) clay films on all faces of peds and common distinct brown (10YR 5/3) and brown (7.5YR 4/3) silt coats on all faces of peds; moderately acid; clear smooth boundary.
- Bt2—21 to 31 inches; yellowish brown (10YR 5/6) silt loam; weak fine subangular blocky structure; common very fine roots throughout; many fine moderate-continuity irregular pores; common faint brown (7.5YR 4/4) clay films on all faces of peds and few distinct very pale brown (10YR 7/3) and dark yellowish brown (10YR 4/4) silt coats on all faces of peds; common fine distinct irregular very dark gray (10YR 3/1) iron-manganese masses between peds with diffuse boundaries; common fine distinct irregular yellowish brown (10YR 5/6) masses of oxidized iron between peds with sharp boundaries; moderately acid; clear smooth boundary.
- Bt3—31 to 44 inches; yellowish brown (10YR 5/4) silt loam; weak very fine subangular blocky structure; common fine roots throughout; common fine low-continuity tubular pores; many prominent very pale brown (10YR 7/3) silt coats on all faces of peds and few prominent brown (10YR 4/3) clay films on all faces of peds; common fine prominent irregular very dark gray (10YR 3/1) and black (10YR 2/1) iron-manganese masses; common fine distinct irregular yellowish brown (10YR 5/6) masses of oxidized iron; moderately acid; clear wavy boundary.
- Bt4—44 to 60 inches; 70 percent pale brown (10YR 6/3) and 30 percent brown (10YR 5/3) silt loam; weak fine subangular blocky structure; common very fine roots throughout; common fine moderate-continuity tubular pores; common

prominent yellowish brown (10YR 5/6) clay films on all faces of peds; many fine distinct irregular very dark gray (10YR 3/1) manganese masses between peds with diffuse boundaries; many fine faint irregular brownish yellow (10YR 6/6) masses of oxidized iron between peds with diffuse boundaries; many fine faint irregular gray (10YR 5/1) clay depletions between peds with diffuse boundaries; strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 80 inches

A or Ap horizon:

Color—hue of 10YR or 7.5YR, value of 3 or 4, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 2 percent gravel

Reaction—strongly acid to neutral

AB horizon or BA horizon (if it occurs):

Color—hue of 10YR or 7.5YR, value of 3 or 4, and chroma of 2 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 2 percent

Reaction—strongly acid to neutral

Bt horizon (upper part):

Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 2 percent

Reaction—strongly acid to neutral

2Bt horizon or Bt horizon (lower part):

Color—hue of 10YR to 2.5YR and value and chroma of 3 to 6

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—0 to 30 percent; 0 to

60 percent below a depth of 60 inches

Reaction—strongly acid to neutral

2BC horizon or 2C horizon (if it occurs):

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—coarse sandy

loam, sandy loam, fine sandy loam, or loam

Content of rock fragments—0 to 35 percent

Reaction—moderately acid to neutral

Bendavis Series

Soil depth: Moderately deep

Drainage class: Moderately well drained

Permeability class: Moderate

Landform: Hills

Position on the landform: Summits, backslopes

Parent material: Gravelly colluvium

Slope range: 1 to 15 percent

Elevation: 1,060 feet

Taxonomic classification: Loamy-skeletal, siliceous, active, mesic Typic Hapludults

Typical Pedon

Bendavis very gravelly silt loam, in an area of Scholten-Bendavis-Poynor complex, 8 to 15 percent slopes; in a hardwood forest; 260 feet north and 160 feet west of the southeast corner of sec. 1, T. 29 N., R. 5 W., in Shannon County; USGS Alley Spring, Missouri, topographic quadrangle; UTM coordinates 4,118,510 meters Northing and 636,840 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 5 inches; dark grayish brown (10YR 4/2) very gravelly silt loam; weak fine granular structure; very friable; common medium and common coarse roots; common fine interstitial pores; 5 percent chert cobbles and 50 percent chert gravel; very strongly acid; clear smooth boundary.

E—5 to 13 inches; pale brown (10YR 6/3) very gravelly silt loam; weak fine subangular blocky structure; friable; common fine and common medium roots; many fine tubular pores; 5 percent chert cobbles and 35 percent chert gravel; very strongly acid; clear smooth boundary.

Bt1—13 to 20 inches; yellowish brown (10YR 5/6) very gravelly clay loam; moderate fine subangular blocky structure; firm; few fine and common medium roots; common fine tubular pores; few faint yellowish brown (10YR 5/6) clay films on faces of peds; 10 percent chert cobbles and 30 percent chert gravel; very strongly acid; abrupt smooth boundary.

Bt2—20 to 23 inches; yellowish brown (10YR 5/8) extremely gravelly clay loam; common medium prominent light brownish gray (10YR 6/2) and common medium distinct pale brown (10YR 6/3) mottles; moderate fine subangular blocky structure; firm; few fine roots; common fine tubular pores; few faint yellowish brown (10YR 5/6) clay films on faces of peds; 15 percent chert cobbles and 50 percent chert gravel; very strongly acid; abrupt smooth boundary.

R—23 inches; sandstone bedrock.

Range in Characteristics

Depth to bedrock: 20 to 40 inches

A horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 60 percent

Reaction—very strongly acid to slightly acid

E horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—10 to 60 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 8

Texture of the fine-earth fraction—silt loam, clay loam, or silty clay loam

Content of rock fragments—35 to 70 percent gravel

Reaction—extremely acid to strongly acid

Bender Series

Soil depth: Moderately deep

Drainage class: Somewhat excessively drained

Permeability class: Moderately rapid

Landform: Hills

Position on the landform: Backslopes and shoulders

Parent material: Gravelly residuum derived from sandstone

Slope range: 15 to 50 percent

Elevation: 1,120 feet

Taxonomic classification: Loamy-skeletal, siliceous, active, mesic Typic Hapludults

Typical Pedon

Bender extremely cobbly sandy loam, in an area of Coulstone-Bender complex, 15 to 50 percent slopes, very stony; in a pine and hardwood forest; 950 feet west and 250 feet south of the northeast corner of sec. 25, T. 29 N., R. 6 E., in Shannon County; USGS Summersville NE, Missouri, topographic quadrangle; UTM coordinates 4,113,713 meters Northing and 628,943 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 6 inches; dark grayish brown (10YR 4/2) extremely cobbly sandy loam; weak fine granular structure; friable; many fine roots throughout; many fine interstitial and tubular pores; 35 percent sandstone cobbles and 30 percent chert gravel; very strongly acid; abrupt smooth boundary.

E—6 to 9 inches; pale brown (10YR 6/3) very gravelly fine sandy loam; weak fine subangular blocky structure; friable; common medium roots; common fine tubular pores; few faint brown (10YR 5/3) organic stains; 10 percent sandstone cobbles and 35 percent chert gravel; very strongly acid; clear smooth boundary.

Bt1—9 to 15 inches; pale brown (10YR 6/3) very gravelly fine sandy loam; weak fine subangular blocky structure; friable; common medium roots; common fine tubular pores; few distinct yellowish brown (10YR 5/4) clay films; 5 percent sandstone cobbles and 35 percent chert gravel; very strongly acid; clear smooth boundary.

Bt2—15 to 23 inches; pale brown (10YR 6/3) very gravelly sandy loam; weak fine subangular blocky structure; friable; few fine roots; common fine tubular pores; common distinct light gray (10YR 7/2) skeletal and common distinct brown (7.5YR 4/4) clay films on rock fragments; 10 percent sandstone cobbles and 35 percent chert gravel; very strongly acid; abrupt wavy boundary.

Bt3—23 to 35 inches; brown (7.5YR 5/3) extremely cobbly coarse sandy loam; weak fine subangular blocky structure; friable; few fine roots; few fine tubular pores; many distinct brown (7.5YR 4/4) clay films and common distinct pale brown (10YR 6/3) skeletal; 35 percent chert gravel and 30 percent sandstone cobbles; very strongly acid; abrupt smooth boundary.

R—35 inches; sandstone bedrock.

Range in Characteristics

Depth to bedrock: 20 to 40 inches

A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 or 3

Texture of the fine-earth fraction—sandy loam

Content of rock fragments—0 to 40 percent cobbles and 35 to 75 percent gravel

Reaction—very strongly acid to moderately acid

E horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 6

Texture of the fine-earth fraction—sandy loam, fine sandy loam, or loam

Content of rock fragments—0 to 35 percent cobbles and 35 to 75 percent gravel

Reaction—very strongly acid to moderately acid

Bt horizon (upper part):

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—sandy loam, fine sandy loam, or loam

Content of rock fragments—0 to 40 percent cobbles and 35 to 75 percent gravel

Reaction—very strongly acid to moderately acid

Bt horizon (lower part):

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—coarse sandy loam, sandy loam, fine sandy loam, or loam

Content of rock fragments—0 to 40 percent cobbles and 35 to 75 percent gravel

Reaction—extremely acid to moderately acid

Brussels Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderately slow

Landform: Hills

Position on the landform: Backslopes

Parent material: Gravelly colluvium over gravelly residuum derived from dolostone

Slope range: 30 to 90 percent

Elevation: 620 feet

Taxonomic classification: Clayey-skeletal, mixed, superactive, mesic Pachic Argiudolls

Taxadjunct features: The typical pedon (from Shannon County) has an argillic horizon and a thicker surface layer than is defined as the range for the series.

Typical Pedon

Brussels gravelly silty clay loam, in an area of Brussels-Gasconade-Rock outcrop complex, 30 to 90 percent slopes, very bouldery; in a hardwood forest; 2,450 feet east and 3,500 feet north of the southwest corner of sec. 19, T. 29 N., R. 3 W., in Shannon County; USGS Eminence, Missouri, topographic quadrangle; UTM coordinates 4,115,009 meters Northing and 649,361 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 10 inches; very dark grayish brown (10YR 3/2) gravelly silty clay loam, grayish brown (10YR 5/2) dry; weak fine granular structure; very friable; common very fine roots; common fine tubular pores; 30 percent dolostone gravel; slightly alkaline; clear smooth boundary.

Bt1—10 to 22 inches; very dark grayish brown (10YR 3/2) very gravelly silty clay loam, grayish brown

(10YR 5/2) dry; moderate medium subangular blocky structure; friable; common very fine roots; common fine tubular pores; few distinct very dark gray (10YR 3/1) organic stains on faces of peds; 10 percent dolostone cobbles and 30 percent dolostone gravel; moderately alkaline; clear smooth boundary.

Bt2—22 to 35 inches; very dark grayish brown (10YR 3/2) very gravelly silty clay loam, grayish brown (10YR 5/2) dry; moderate medium subangular blocky structure; firm; common very fine roots; common fine tubular pores; few distinct very dark gray (10YR 3/1) clay films on faces of peds; 35 percent dolostone gravel; moderately alkaline; clear smooth boundary.

Bt3—35 to 49 inches; 50 percent brown (10YR 4/3) and 50 percent dark grayish brown (10YR 4/2) very gravelly silty clay loam; moderate medium subangular blocky structure; firm; common very fine roots; common fine tubular pores; common distinct very dark grayish brown (10YR 3/2) clay films on faces of peds; 35 percent dolostone gravel; moderately alkaline; clear wavy boundary.

2Bt4—49 to 60 inches; brown (10YR 4/3) silty clay loam; moderate medium subangular blocky structure; firm; few very fine roots; few fine tubular pores; common distinct dark brown (10YR 3/3) clay films on faces of peds and few prominent very dark gray (10YR 3/1) clay films in root channels and/or pores; 10 percent dolostone cobbles; moderately alkaline; clear wavy boundary.

2Bt5—60 to 70 inches; brown (10YR 4/3) gravelly silty clay loam; moderate medium subangular blocky structure; firm; few very fine roots; few fine tubular pores; common distinct dark brown (10YR 3/3) clay films on faces of peds; 25 percent dolostone gravel; slightly alkaline.

Range in Characteristics

Remarks: In Reynolds County, these soils have an argillic horizon and have ranges in color and texture as listed below.

Thickness of the mollic epipedon: 20 to 40 inches

Depth to bedrock: More than 60 inches

A horizon:

Color—hue of 10YR, value of 2 or 3, and chroma of 1 or 2

Texture of the fine-earth fraction—silty clay loam

Content of rock fragments—15 to 35 percent

Reaction—slightly acid to slightly alkaline

Bt horizon (upper part):

Color—hue of 10YR or 7.5YR, value of 3, and chroma of 2 or 3

Texture of the fine-earth fraction—silty clay loam, silty clay, or clay

Content of rock fragments—35 to 60 percent

Reaction—slightly acid to moderately alkaline

Bt horizon (lower part):

Color—hue of 10YR or 7.5YR, value of 3 or 4, and chroma of 2 to 6

Texture of the fine-earth fraction—silty clay loam, silty clay, or clay

Content of rock fragments—7 to 35 percent

Reaction—slightly acid to moderately alkaline

Captina Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Slow

Landform: Hills

Position on the landform: Summits

Parent material: Loess over loamy and clayey material weathered from cherty dolostone

Slope range: 3 to 8 percent

Elevation: 700 feet

Taxonomic classification: Fine-silty, siliceous, active, mesic Typic Fragiudults

Typical Pedon

Captina silt loam, 3 to 8 percent slopes; in a hardwood forest; 2,850 feet west and 850 feet south of the northeast corner of sec. 6, T. 26 N., R. 4 E., in Wayne County; USGS Ellsinore, Missouri, topographic quadrangle; UTM coordinates 4,090,485 meters Northing and 707,665 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

Ap—1 to 7 inches; dark yellowish brown (10YR 4/4) silt loam; weak very fine and fine granular structure; very friable; 1 percent subangular gravel; very strongly acid; clear smooth boundary.

Bt1—7 to 20 inches; strong brown (7.5YR 4/6) silty clay loam; moderate very fine and fine subangular blocky structure; firm; few faint clay films on faces of peds; 1 percent subangular gravel; very strongly acid; gradual smooth boundary.

Bt2—20 to 27 inches; 85 percent yellowish brown (10YR 5/4) and 15 percent gray (10YR 5/1) silty clay loam; moderate very fine and fine subangular blocky structure; firm; common faint clay films on faces of peds; 1 percent subangular gravel; very strongly acid; gradual smooth boundary.

2Btx1—27 to 38 inches; 60 percent light brownish gray (10YR 6/2) and 40 percent brownish yellow (10YR

6/6) silty clay loam; weak coarse prismatic structure parting to weak very fine and fine subangular blocky; firm; 60 percent brittle; few faint clay films on faces of peds; common black (10YR 2/1) iron-manganese masses; 5 percent subangular gravel; very strongly acid; abrupt smooth boundary.

2Btx2—38 to 44 inches; light yellowish brown (10YR 6/4) very gravelly silt loam; moderate very coarse prismatic structure parting to weak fine subangular blocky; very firm; 75 percent brittle; few distinct light brownish gray (2.5Y 6/2) clay films on faces of peds and few distinct dark grayish brown (10YR 4/2) clay films on faces of peds; 50 percent subangular gravel; very strongly acid; gradual wavy boundary.

3Bt1—44 to 58 inches; 90 percent brownish yellow (10YR 6/6) and 10 percent red (2.5YR 5/8) very gravelly clay loam; massive; firm; few prominent very dark grayish brown (10YR 3/2) clay films on faces of peds and few prominent light brownish gray (10YR 6/2) clay films on faces of peds; 50 percent subangular gravel; very strongly acid; gradual wavy boundary.

3Bt2—58 to 68 inches; 80 percent brownish yellow (10YR 6/6) and 20 percent red (2.5YR 5/8) gravelly clay; weak very fine and fine angular blocky structure; very firm; few prominent very dark grayish brown (10YR 3/2) clay films on faces of peds; 20 percent subangular gravel; very strongly acid; gradual wavy boundary.

3Bt3—68 to 80 inches; 90 percent red (2.5YR 5/6) and 10 percent brownish yellow (10YR 6/6) gravelly clay; weak very fine and fine angular blocky structure; very firm; few prominent very dark grayish brown (10YR 3/2) clay films on faces of peds; 15 percent subangular gravel; very strongly acid.

Range in Characteristics

Depth to the fragipan: 20 to 38 inches

Ap or A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 5 percent

Reaction—very strongly acid to slightly acid (except in limed areas)

E or BE horizon (if it occurs):

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Reaction—very strongly acid to slightly acid (except in limed areas)

Bt horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 8

Redoximorphic features—iron segregations in shades of brown or red in the lower part of some pedons

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 5 percent

Reaction—very strongly acid or strongly acid

2Btx horizon:

Color—hue of 10YR to 5YR, value of 4 to 6, and chroma of 4 to 8

Redoximorphic features—iron segregations in shades of gray and red

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 35 percent in the upper part and 0 to 60 percent in the lower part

Reaction—extremely acid to strongly acid

3Bt horizon:

Color—hue of 10YR to 2.5YR, value of 3 to 6, and chroma of 4 to 8; or multicolored

Texture of the fine-earth fraction—clay loam, silty clay, or clay

Content of rock fragments—15 to 50 percent (extremely variable over short distances)

Reaction—extremely acid to strongly acid

Cedargap Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderately slow

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Gravelly alluvium

Slope range: 0 to 3 percent

Elevation: 790 feet

Taxonomic classification: Loamy-skeletal, mixed, superactive, mesic Cumulic Hapludolls

Typical Pedon

Cedargap gravelly loam, 0 to 3 percent slopes, rarely flooded; in a hardwood forest; 450 feet east and 2,350 feet north of the southwest corner of sec. 1, T. 30 N., R. 4 W., in Shannon County; USGS The Sinks, Missouri, topographic quadrangle; UTM coordinates 4,131,572 meters Northing and 647,458 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

- A1—1 to 6 inches; very dark grayish brown (10YR 3/2) gravelly loam, grayish brown (10YR 5/2) dry; weak fine granular structure; very friable; many fine and medium roots and common coarse roots; many fine to coarse interstitial and tubular pores; 15 percent angular chert gravel; strongly acid; clear smooth boundary.
- A2—6 to 10 inches; 70 percent very dark gray (10YR 3/1) and 30 percent very dark grayish brown (10YR 3/2) gravelly loam, grayish brown (10YR 5/2) dry; moderate fine subangular blocky structure; friable; common fine and medium roots; common medium tubular pores; few distinct very dark brown (10YR 2/2) organic stains on faces of peds; 15 percent angular chert gravel; strongly acid; clear smooth boundary.
- A3—10 to 24 inches; very dark gray (10YR 3/1) gravelly clay loam, dark gray (10YR 4/1) dry; moderate fine subangular blocky structure; friable; common fine and medium roots and few coarse roots; common medium tubular pores; common distinct black (10YR 2/1) organic stains on faces of peds and few distinct very dark grayish brown (10YR 3/2) organic stains on faces of peds; 15 percent angular chert gravel; moderately acid; clear smooth boundary.
- Bw1—24 to 30 inches; dark grayish brown (10YR 4/2) very gravelly coarse sandy loam; weak fine subangular blocky structure; friable; few fine and medium roots; many coarse vesicular pores; common distinct brown (10YR 5/3) clay films on faces of peds and common distinct gray (10YR 5/1) clay films on faces of peds; 50 percent angular chert gravel; moderately acid; clear wavy boundary.
- Bw2—30 to 36 inches; 50 percent gray (10YR 6/1) and 50 percent brown (10YR 5/3) very gravelly sandy loam; weak fine subangular blocky structure; very friable; few fine roots; many coarse vesicular pores; common distinct gray (7.5YR 5/1) clay films on faces of peds; 50 percent angular chert gravel; slightly acid; clear wavy boundary.
- C1—36 to 48 inches; brown (10YR 5/3) extremely gravelly sandy clay loam; massive; very friable; many coarse voids between rock fragment pores; few distinct strong brown (7.5YR 5/6) and few distinct gray (7.5YR 5/1) clay films on sand and gravel; 75 percent angular chert gravel; neutral; clear wavy boundary.
- C2—48 to 60 inches; yellowish brown (10YR 5/8) extremely gravelly sandy clay loam; massive; very friable; many coarse voids between rock fragment pores; 15 percent subangular chert stones, 20

percent subangular chert cobbles, and 40 percent angular chert gravel; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 24 to 60 inches

A or Ap horizon:

Color—hue of 10YR or 7.5YR, value of 2 or 3, and chroma of 1 to 3

Texture of the fine-earth fraction—loam in the upper part; loam or clay loam in the lower part

Content of rock fragments—15 to 35 percent in the upper part; 3 to 35 percent in the lower part

Reaction—strongly acid to neutral

Bw horizon:

Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 1 to 4

Texture of the fine-earth fraction—sandy loam, coarse sandy loam, or sandy clay loam

Content of rock fragments—35 to 75 percent

Reaction—strongly acid to neutral

C horizon:

Color—hue of 10YR to 5YR, value of 2 to 5, and chroma of 1 to 4

Texture of the fine-earth fraction—loam, sandy clay loam, or clay loam

Content of rock fragments—35 to 75 percent

Reaction—neutral or slightly alkaline

Clarksville Series

Soil depth: Very deep

Drainage class: Somewhat excessively drained

Permeability class: Moderate

Landform: Hills

Position on the landform: Backslopes, shoulders

Parent material: Gravelly colluvium over clayey residuum derived from cherty dolostone

Slope range: 8 to 45 percent

Elevation: 830 feet

Taxonomic classification: Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults

Typical Pedon

Clarksville gravelly silt loam, in an area of Poynor-Clarksville-Scholten complex, 8 to 15 percent slopes, stony; in a hardwood forest; 75 feet east and 640 feet south of the northwest corner of sec. 33, T. 29 N., R. 1 W., in Shannon County; USGS Exchange, Missouri, topographic quadrangle; UTM coordinates 4,112,195 meters Northing and 671,410 meters Easting, Zone 15, NAD 27:

- Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.
- A—1 to 5 inches; dark grayish brown (10YR 4/2) gravelly silt loam; moderate fine granular structure; friable; common fine and few medium and coarse roots; many fine interstitial and tubular pores; 2 percent chert cobbles and 30 percent chert gravel; very strongly acid; clear smooth boundary.
- E—5 to 12 inches; 60 percent light yellowish brown (10YR 6/4) and 40 percent brown (10YR 5/3) gravelly silt loam; weak fine subangular blocky structure; friable; few fine to coarse roots; few fine tubular pores; few distinct dark grayish brown (10YR 4/2) organic stains in root channels and/or pores and few prominent black (N 2/0) manganese or iron-manganese stains on rock fragments; 20 percent chert gravel; very strongly acid; clear smooth boundary.
- Bt1—12 to 18 inches; light yellowish brown (10YR 6/4) gravelly silt loam; moderate fine subangular blocky structure; friable; few fine to coarse roots; common fine vesicular and tubular pores; few faint dark yellowish brown (10YR 4/4) clay films on faces of peds and few prominent black (N 2/0) manganese or iron-manganese stains on faces of peds; 20 percent chert gravel; strongly acid; clear smooth boundary.
- Bt2—18 to 29 inches; yellowish brown (10YR 5/6) very gravelly loam; weak fine subangular blocky structure; firm; few fine and medium roots; common fine tubular pores; many distinct light brownish gray (10YR 6/2) silt coats on faces of peds and few distinct strong brown (7.5YR 4/6) clay films on faces of peds; 3 percent chert cobbles and 45 percent chert gravel; strongly acid; clear smooth boundary.
- 2Bt3—29 to 41 inches; yellowish brown (10YR 5/6) extremely gravelly clay loam; moderate fine subangular blocky structure; firm; few fine and medium roots; common fine tubular pores; common distinct reddish brown (5YR 4/4) clay films on faces of peds and common prominent very pale brown (10YR 7/3) silt coats throughout; 15 percent chert cobbles and 55 percent chert gravel; strongly acid; clear wavy boundary.
- 2Bt4—41 to 52 inches; strong brown (7.5YR 5/6) very gravelly clay loam; moderate fine subangular blocky structure; firm; few fine to coarse roots; common fine tubular pores; common distinct red (2.5YR 4/6) clay films on faces of peds and few faint pale brown (10YR 6/3) silt coats on rock fragments; 10 percent chert cobbles and 40 percent chert gravel; strongly acid; gradual wavy boundary.

- 3Bt5—52 to 60 inches; red (2.5YR 4/6) cobbly clay; moderate fine angular blocky structure; very firm; few fine roots; few fine vesicular and few fine interstitial and tubular pores; common distinct strong brown (7.5YR 4/6) clay films on rock fragments, common prominent red (2.5YR 4/8) clay films on faces of peds, and common distinct light brown (7.5YR 6/4) silt coats on faces of peds; 10 percent chert cobbles and 10 percent chert gravel; strongly acid.

Range in Characteristics

Depth to the 3Bt horizon: 36 to 54 inches

Depth to bedrock: More than 60 inches

A or Ap horizon:

Color—hue of 10YR, value of 2 to 6, and chroma of 1 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 35 percent

Reaction—extremely acid to moderately acid

E horizon:

Color—hue of 10YR, value of 4 to 7, and chroma of 2 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—20 to 50 percent

Reaction—extremely acid to moderately acid

Bt horizon:

Color—hue of 10YR to 2.5YR and value and chroma of 4 to 6

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—20 to 50 percent

Reaction—very strongly acid or strongly acid

2Bt horizon:

Color—hue of 10YR to 2.5YR, value of 3 to 6, and chroma of 4 to 6

Texture of the fine-earth fraction—loam, silt loam, clay loam, or silty clay loam

Content of rock fragments—35 to 75 percent

Reaction—very strongly acid or strongly acid

3Bt horizon:

Color—hue of 10YR to 2.5YR, value of 3 to 6, and chroma of 4 to 6

Texture of the fine-earth fraction—clay

Content of rock fragments—7 to 60 percent

Reaction—very strongly acid or strongly acid

Cornwall Series

Soil depth: Very deep (more than 60 inches)

Drainage class: Moderately well drained

Permeability class: Moderately slow

Landform: River valleys

Position on the landform: High terraces, valley footslopes, and intra-valley ridge points

Parent material: Loess and valley fill materials

Slope range: 3 to 15 percent

Elevation: 625 feet

Taxonomic classification: Fine-silty, mixed, active, mesic Fragiaquic Paleudults

Typical Pedon

Cornwall silt loam, 3 to 8 percent slopes; in a pasture; 3,500 feet south and 3,950 feet east of the northwest corner of sec. 17, T. 32 N., R. 8 E., in Madison County; USGS Marquand topographic quadrangle; UTM coordinates 4,148,950 meters Northing and 748,732 meters Easting, Zone 15, NAD 27:

Ap—0 to 5 inches; brown (10YR 4/3) silt loam, light gray (10YR 7/2) dry; weak fine granular structure; friable; many fine roots; neutral; clear wavy boundary.

Bt—5 to 17 inches; yellowish brown (10YR 5/6) silty clay loam; weak fine and very fine subangular blocky structure; friable; common fine roots; common distinct clay films on faces of peds; strongly acid; abrupt wavy boundary.

2Btx1—17 to 27 inches; yellowish brown (10YR 5/6) silt loam; weak very coarse prismatic structure parting to moderate medium platy and weak fine subangular blocky; firm; common fine roots in vertical pale brown seams; common medium and coarse prominent pale brown (10YR 6/3) clay depletions and common medium prominent yellowish red (5YR 5/6) masses of iron accumulation along seam exteriors; common fine black masses of iron and manganese accumulation; few distinct clay films on faces of peds; 2 percent chert gravel; 30 percent brittle; very strongly acid; clear smooth boundary.

2Btx2—27 to 39 inches; yellowish brown (10YR 5/6) silt loam; weak very coarse prismatic structure parting to moderate fine subangular blocky; firm; many medium and coarse prominent light brownish gray (10YR 6/2) iron depletions and common medium and coarse prominent yellowish red (5YR 4/6) masses of iron accumulation along seam exteriors; common very fine black masses of iron and manganese accumulation; few distinct clay films on faces of peds; 2 percent chert gravel; 40 percent brittle; strongly acid; gradual wavy boundary.

3Bt—39 to 60 inches; red (2.5YR 4/6) very gravelly silty clay loam; moderate fine and medium subangular blocky structure; very firm; few medium prominent brown (10YR 5/3) iron

depletions and few fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; common prominent clay films on faces of peds; 42 percent chert gravel; strongly acid.

Range in Characteristics

Depth to the 2Btx horizon: 17 to 35 inches

Depth to the 3Bt horizon: 39 to 59 inches

A or Ap horizon:

Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 10 percent gravel

Reaction—strongly acid to moderately acid (except in limed areas)

Bt horizon:

Color—hue of 10YR or 7.5YR and value and chroma of 4 to 6

Texture of the fine-earth fraction—silty clay loam or silt loam

Content of rock fragments—0 to 10 percent gravel

Reaction—very strongly acid or strongly acid

2Btx horizon:

Color—hue of 10YR to 2.5YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 60 percent gravel and 0 to 10 percent cobbles

Reaction—very strongly acid or strongly acid

3Bt horizon:

Color—hue of 7.5YR to 2.5YR, value of 3 to 5, and chroma of 6 to 8

Texture of the fine-earth fraction—clay loam, silty clay loam, or clay

Content of rock fragments—15 to 70 percent gravel and 0 to 15 percent cobbles

Reaction—very strongly acid or strongly acid

Coulstone Series

Soil depth: Very deep

Drainage class: Somewhat excessively drained

Permeability class: Moderately rapid

Landform: Hills

Position on the landform: Backslopes

Parent material: Colluvium and residuum derived from sandstone with lenses of cherty dolostone

Slope range: 15 to 50 percent

Elevation: 1,080 feet

Taxonomic classification: Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults

Typical Pedon

Coulstone extremely cobbly sandy loam, in an area of Coulstone-Bender complex, 15 to 50 percent slopes, very stony; in a hardwood forest; 2,400 feet west and 2,500 feet north of the southeast corner of sec. 32, T. 28 N., R. 3 W., in Shannon County; USGS Winona, Missouri, topographic quadrangle; UTM coordinates 4,101,817 meters Northing and 651,284 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 5 inches; light brownish gray (10YR 5/2) extremely cobbly sandy loam; weak fine granular structure; very friable; many fine to coarse roots; many fine to coarse tubular pores; 30 percent sandstone cobbles and 35 percent chert gravel; very strongly acid; clear smooth boundary.

E1—5 to 11 inches; pale brown (10YR 6/3) very gravelly fine sandy loam; weak very fine and fine granular structure; very friable; many fine to coarse roots; many fine tubular pores; 20 percent sandstone gravel and 15 percent chert gravel; strongly acid; clear wavy boundary.

E2—11 to 15 inches; light yellowish brown (10YR 6/4) extremely cobbly fine sandy loam; weak very fine and fine subangular blocky structure; very friable; many fine and medium and common coarse roots; many fine tubular pores; 30 percent sandstone cobbles and 35 percent sandstone gravel; strongly acid; clear wavy boundary.

E3—15 to 19 inches; strong brown (7.5YR 5/4) extremely cobbly loam; moderate very fine and fine subangular blocky structure; very friable; many fine and medium and common coarse roots; many fine tubular pores; few faint brown (7.5YR 5/4) clay films on faces of peds; 30 percent sandstone cobbles and 35 percent sandstone gravel; strongly acid; clear wavy boundary.

Bt1—19 to 32 inches; strong brown (7.5YR 5/6) very cobbly loam; moderate very fine and fine subangular blocky structure; friable; many very fine and fine roots; many fine tubular pores; few faint strong brown (7.5YR 4/6) clay films on faces of peds; 20 percent sandstone cobbles and 35 percent chert gravel; very strongly acid; clear smooth boundary.

Bt2—32 to 46 inches; strong brown (7.5YR 5/6) very gravelly loam; moderate very fine and fine subangular blocky structure; firm; common very fine and fine roots; common fine tubular pores; common distinct light gray (10YR 7/2) silt coats on faces of peds; common distinct red (2.5YR 4/6)

clay films on faces of peds; 20 percent chert cobbles and 35 percent sandstone gravel; very strongly acid; clear smooth boundary.

2Bt3—46 to 56 inches; 80 percent yellowish red (5YR 5/8) and 20 percent red (2.5YR 4/8) sandy clay loam; moderate very fine and fine subangular blocky structure; very firm; common very fine and fine roots; common fine tubular pores; common distinct red (2.5YR 4/6) clay films on faces of peds; 7 percent chert gravel; very strongly acid; clear wavy boundary.

2Bt4—56 to 80 inches; red (2.5YR 4/6) clay; moderate medium and moderate fine subangular blocky structure; very firm; common very fine and fine roots; common fine tubular pores; common distinct dark reddish brown (2.5YR 3/4), common distinct reddish yellow (7.5YR 6/8), and few distinct reddish brown (5YR 5/4) clay films on faces of peds; 5 percent chert gravel; very strongly acid.

Range in Characteristics

Depth to the 2Bt horizon: 30 to 60 inches

Depth to bedrock: More than 60 inches

A horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 1 to 4

Texture of the fine-earth fraction—sandy loam

Content of rock fragments—0 to 40 percent cobbles or stones and 35 to 60 percent gravel

Reaction—very strongly acid to moderately acid

E horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 4

Texture of the fine-earth fraction—loam, sandy loam, fine sandy loam, or silt loam

Content of rock fragments—0 to 40 percent cobbles or stones and 35 to 60 percent gravel

Reaction—very strongly acid to moderately acid

Bt horizon:

Color—hue of 5YR to 10YR, value of 3 to 7, and chroma of 3 to 6

Texture of the fine-earth fraction—sandy loam or loam

Content of rock fragments—0 to 40 percent cobbles or stones and 35 to 60 percent gravel

Reaction—very strongly acid to moderately acid

2Bt horizon:

Color—hue of 10R, 2.5YR, or 5YR, value of 4 to 6, and chroma of 4 to 8

Texture of the fine-earth fraction—sandy clay loam, loam, or clay

Content of rock fragments—0 to 30 percent cobbles or stones and 5 to 60 percent gravel
Reaction—extremely acid to strongly acid

3Bt horizon (if it occurs):

Color—hue of 10R, 2.5YR, or 5YR, value of 4 to 6, and chroma of 4 to 8
Texture of the fine-earth fraction—sandy loam, sandy clay loam, clay loam, or clay
Content of rock fragments—0 to 30 percent cobbles or stones and 5 to 60 percent gravel
Reaction—very strongly acid to moderately acid

Courtois Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: Basins

Position on the landform: Summits, shoulders

Parent material: Loess over clayey residuum derived from dolostone

Slope range: 3 to 15 percent

Elevation: 440 feet

Taxonomic classification: Fine, mixed, active, mesic Typic Paleudalfs

Typical Pedon

Courtois silt loam, 8 to 15 percent slopes; in a hardwood forest; 450 feet west and 1,100 feet south of the southwest corner of the Highway 34 bridge over the St. Francis River, in Wayne County; USGS Patterson, Missouri, topographic quadrangle; UTM coordinates 4,118,805 meters Northing and 721,481 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 7 inches; dark brown (7.5YR 3/3) silt loam, pale brown (10YR 6/3) dry; moderate fine subangular blocky structure; friable; many very fine to coarse roots; common fine tubular and many very fine and fine vesicular pores; 10 percent subangular chert gravel; strongly acid; clear wavy boundary.

BE—7 to 16 inches; brown (7.5YR 4/4) silt loam; moderate very fine subangular blocky structure; firm; many very fine to medium roots; common fine tubular and many very fine and fine vesicular pores; strongly acid; gradual smooth boundary.

Bt1—16 to 27 inches; 60 percent red (2.5YR 4/6) and 40 percent yellowish red (5YR 4/6) silty clay loam; moderate very fine and fine subangular blocky

structure; very firm; common very fine and fine roots; common fine tubular and many very fine vesicular pores; common black (10YR 2/1) iron-manganese masses; strongly acid; gradual smooth boundary.

2Bt2—27 to 36 inches; 60 percent red (2.5YR 4/6) and 40 percent yellowish red (5YR 4/6) silty clay; moderate very fine and fine subangular blocky structure; very firm; common very fine and fine roots; common fine tubular and many very fine vesicular pores; common black (10YR 2/1) iron-manganese masses; strongly acid; abrupt wavy boundary.

2Bt3—36 to 50 inches; 70 percent red (10R 4/6) and 30 percent yellowish red (5YR 4/6) gravelly clay; strong very fine and fine angular blocky structure; very firm; few very fine and fine roots; many very fine vesicular pores; common black (10YR 2/1) iron-manganese masses; 30 percent angular chert gravel; strongly acid; gradual smooth boundary.

3Bt4—50 to 60 inches; 70 percent red (10R 4/6) and 30 percent yellowish red (5YR 4/6) gravelly clay; strong very fine and fine angular blocky structure; very firm; few very fine and fine roots; many very fine vesicular pores; common black (10YR 2/1) iron-manganese masses; 30 percent angular chert gravel; strongly acid; clear wavy boundary.

3Bt5—60 to 70 inches; 80 percent red (10R 4/6) and 20 percent yellowish red (5YR 4/6) clay; strong very fine angular blocky structure; very firm; few very fine and fine roots; few very fine vesicular pores; 2 percent angular chert gravel; strongly acid; gradual smooth boundary.

3Bt6—70 to 80 inches; 80 percent red (10R 4/6) and 20 percent yellowish red (5YR 4/6) clay; strong very fine angular blocky structure; very firm; few very fine and fine roots; few very fine vesicular pores; 2 percent angular chert gravel; strongly acid.

Range in Characteristics

Depth to bedrock: More than 60 inches

Depth to the 2Bt horizon: 15 to 33 inches

Ap or A horizon:

Color—hue of 10YR, 7.5YR, or 5YR, value of 3 or 4, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 15 percent

Reaction—strongly acid to neutral

BE horizon or E horizon (if it occurs):

Color—hue of 7.5YR or 5YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—silt loam
 Content of rock fragments—0 to 20 percent
 Reaction—strongly acid to neutral

Bt horizon:

Color—hue of 2.5YR, 5YR, or 7.5YR, value of 3 or 4, and chroma of 4 to 6
 Texture of the fine-earth fraction—silt loam, silty clay loam, or silty clay
 Content of rock fragments—0 to 10 percent
 Reaction—strongly acid or moderately acid

2Bt horizon:

Color—hue of 10R, 2.5YR, or 5YR, value of 3 to 5, and chroma of 4 to 6
 Redoximorphic features—iron segregations with hue of 5YR to 10YR, value of 3 to 5, and chroma of 4 to 8
 Texture of the fine-earth fraction—clay loam, silty clay loam, silty clay, or clay
 Content of rock fragments—0 to 50 percent in the upper part and 0 to 20 percent in the lower part
 Reaction—strongly acid or moderately acid

3Bt horizon:

Color—hue of 10R, 2.5YR, or 5YR, value of 3 to 5, and chroma of 4 to 6
 Redoximorphic features—iron segregations with hue of 5YR to 10YR, value of 3 to 5, and chroma of 4 to 8
 Texture of the fine-earth fraction—clay
 Content of rock fragments—0 to 30 percent
 Reaction—strongly acid to neutral

Deible Series

Soil depth: Very deep

Drainage class: Poorly drained

Permeability class: Very slow

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Loess over alluvium

Slope range: 1 to 3 percent

Elevation: 400 feet

Taxonomic classification: Fine, mixed, active, mesic

Typic Albaqualfs

Typical Pedon

Deible silt loam, 1 to 3 percent slopes; in a cultivated field; 2,150 feet east and 250 feet south of the northwest corner of sec. 19, T. 27 N., R. 6 E., in Wayne County; USGS Hendrickson, Missouri, topographic quadrangle; UTM coordinates 4,095,981 meters Northing and 726,723 meters Easting, Zone 15, NAD 27:

Ap—0 to 6 inches; brown (10YR 5/3) silt loam; moderate fine granular structure; friable; many very fine and fine roots; many very fine and fine vesicular pores; 1 percent subangular chert gravel; moderately acid; clear smooth boundary.

E1—6 to 10 inches; yellowish brown (10YR 5/3) silt loam; weak very fine subangular blocky structure; friable; many very fine and fine roots; many very fine and fine vesicular pores; common black (10YR 2/1) iron-manganese masses; 1 percent subangular chert gravel; strongly acid; clear smooth boundary.

E2—10 to 16 inches; 50 percent yellowish brown (10YR 5/3) and 50 percent light yellowish brown (10YR 6/4) silt loam; moderate very fine and fine subangular blocky structure; firm; common very fine and fine roots; many very fine vesicular pores; many light gray (10YR 7/2) iron depletions; common iron-manganese masses; 1 percent subangular chert gravel; moderately acid; abrupt smooth boundary.

Btg1—16 to 23 inches; 60 percent grayish brown (10YR 5/2) and 40 percent gray (10YR 5/1) silty clay; moderate fine angular blocky structure; firm; few very fine roots; many very fine vesicular pores; common distinct clay films on faces of peds; common strong brown (7.5YR 4/6) masses of oxidized iron; common black (10YR 2/1) iron-manganese masses; 2 percent subangular chert gravel; neutral; gradual smooth boundary.

Btg2—23 to 33 inches; 80 percent gray (10YR 5/1) and 20 percent grayish brown (10YR 5/2) silty clay loam; moderate very fine and fine angular blocky structure; firm; few very fine roots; common very fine vesicular pores; common distinct clay films on faces of peds; many strong brown (7.5YR 4/6) masses of oxidized iron; common black (10YR 2/1) iron-manganese masses; 3 percent subangular chert gravel; slightly alkaline; gradual smooth boundary.

2Btg3—33 to 50 inches; 65 percent dark yellowish brown (10YR 4/4) and 35 percent gray (10YR 6/1) silty clay loam; moderate very fine and fine angular blocky structure; firm; common very fine vesicular pores; few faint clay films on faces of peds; common yellowish red (5YR 5/8) masses of oxidized iron; 10 percent subangular chert gravel; slightly alkaline; gradual smooth boundary.

2Btg4—50 to 68 inches; 40 percent gray (10YR 6/1), 30 percent yellowish brown (10YR 5/4), and 30 percent yellowish brown (10YR 5/6) silty clay loam; moderate very fine and fine subangular blocky structure; firm; many very fine vesicular pores; few faint clay films on faces of peds;

common black (10YR 2/1) iron-manganese masses; 10 percent subangular chert gravel; slightly alkaline; gradual smooth boundary.

2Btg5—68 to 80 inches; 60 percent strong brown (7.5YR 4/6) and 40 percent gray (10YR 6/1) clay loam; moderate very fine and fine subangular blocky structure; firm; many very fine vesicular pores; few faint clay films on faces of peds; common red (2.5YR 4/8) masses of oxidized iron; common black (10YR 2/1) iron-manganese masses; 15 percent subangular chert gravel; moderately alkaline.

Range in Characteristics

Thickness of the solum: 30 to more than 60 inches

Depth to the Btg horizon: 13 to 22 inches

Depth to the 2Btg horizon: 30 to 40 inches

A or Ap horizon:

Color—hue of 10YR, value of 4 or 5, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 10 percent gravel

Reaction—strongly acid to neutral

E or BE horizon:

Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 2 or 3

Redoximorphic features—iron segregations in shades of brown, gray, or yellow; iron-manganese accumulations

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 15 percent gravel

Reaction—very strongly acid to neutral

Btg horizon:

Color—hue of 7.5YR, 10YR, or 2.5Y, value of 4 to 6, and chroma of 1 or 2

Redoximorphic features—iron segregations in shades of brown, gray, or yellow; iron-manganese accumulations

Texture of the fine-earth fraction—silty clay loam or silty clay

Content of rock fragments—0 to 3 percent gravel

Reaction—very strongly acid to slightly alkaline

2Btg or 2BCg horizon:

Color—hue of 7.5YR, 10YR, 2.5Y, 5Y, or N, value of 4 to 6, and chroma of 0 to 6

Redoximorphic features—iron segregations in shades of brown, gray, or yellow; iron-manganese accumulations

Texture of the fine-earth fraction—silt loam, silty clay loam, or clay loam

Content of rock fragments—0 to 15 percent gravel

Reaction—strongly acid to moderately alkaline

Delassus Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Moderate in the upper part and very slow in the fragipan

Landform: Mountains

Position on the landform: Summits, footslopes

Parent material: Loess over loamy residuum or colluvium weathered from granite or rhyolite

Slope range: 3 to 15 percent

Elevation: 630 feet

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Fragiuults

Typical Pedon

Delassus gravelly silt loam, 8 to 15 percent slopes, very bouldery; in a hardwood forest; 990 feet west and 250 feet south of the northeast corner of sec. 5, T. 29 N., R. 2 W., in Shannon County; USGS Powder Mill Ferry, Missouri, topographic quadrangle; UTM coordinates 4,110,400 meters Northing and 661,326 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 8 inches; brown (10YR 4/3) gravelly silt loam; weak fine granular structure; very friable; many fine and medium and common coarse roots; many fine and medium interstitial and tubular pores; 20 percent rhyolite gravel; very strongly acid; clear smooth boundary.

E—8 to 13 inches; yellowish brown (10YR 5/6) gravelly silt loam; weak fine granular structure; friable; many fine and medium and common coarse roots; common fine and medium tubular pores; common distinct brown (10YR 4/3) organic stains on faces of peds; 25 percent rhyolite gravel; strongly acid; clear smooth boundary.

Bt—13 to 20 inches; strong brown (7.5YR 5/6) gravelly loam; moderate medium subangular blocky structure; friable; common fine and medium and few coarse roots; common fine and medium tubular pores; few distinct brown (7.5YR 4/4) clay films on rock fragments; 25 percent rhyolite gravel; very strongly acid; gradual wavy boundary.

2Btx1—20 to 32 inches; strong brown (7.5YR 5/6) very gravelly coarse sandy loam; weak very coarse prismatic structure; firm; common fine and few medium roots; common fine interstitial and tubular pores; common distinct strong brown (7.5YR 4/6) clay films on faces of peds and common distinct pink (7.5YR 7/3) silt coats on faces of peds; common fine and medium irregular

black (N 2/0) iron-manganese masses; 10 percent rhyolite cobbles and 40 percent rhyolite gravel; very strongly acid; gradual wavy boundary.

2Btx2—32 to 43 inches; 60 percent brown (7.5YR 5/4) and 40 percent light gray (7.5YR 7/1) gravelly loam; weak very coarse prismatic structure; firm; few fine roots; common fine interstitial and tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds; many medium threadlike reddish yellow (7.5YR 6/8) iron-manganese masses throughout; many fine and medium threadlike light gray (5YR 7/1) iron depletions throughout; 30 percent rhyolite gravel; very strongly acid; gradual smooth boundary.

3Bt1—43 to 60 inches; 50 percent light brown (7.5YR 6/3) and 50 percent red (2.5YR 4/8) very cobbly loam; moderate medium angular blocky structure; friable; few fine roots; common fine and medium tubular pores; many distinct red (2.5YR 4/6) clay films on faces of peds and common distinct strong brown (7.5YR 5/6) clay films on faces of peds; many medium irregular strong brown (7.5YR 5/8) iron-manganese masses throughout; 15 percent rhyolite gravel and 30 percent rhyolite cobbles; very strongly acid; gradual wavy boundary.

3Bt2—60 to 80 inches; 60 percent red (2.5YR 5/8) and 40 percent light gray (7.5YR 7/1) very cobbly silty clay loam; moderate medium angular blocky structure; friable; few fine roots; common fine and medium tubular pores; common distinct red (2.5YR 4/8) clay films on faces of peds and few distinct yellowish brown (10YR 5/6) clay films on faces of peds; many medium threadlike light gray (7.5YR 7/1) iron depletions throughout; many medium threadlike strong brown (7.5YR 5/8) iron-manganese masses throughout; 15 percent rhyolite gravel and 40 percent rhyolite cobbles; very strongly acid.

Range in Characteristics

Depth to the 2Btx horizon: 20 to 36 inches

A or Ap horizon:

Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 27 percent

Reaction—very strongly acid to moderately acid (except in limed areas)

E horizon:

Color—hue of 10YR or 7.5YR, value of 3 to 6, and chroma of 2 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 27 percent

Reaction—very strongly acid to moderately acid

BE horizon or Bt horizon (upper part):

Color—hue of 10YR, 7.5YR, or 5YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam or loam

Content of rock fragments—0 to 27 percent

Reaction—very strongly acid to moderately acid

Bt horizon (lower part):

Color—hue of 10YR, 7.5YR, or 5YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam, loam, or silty clay loam

Content of rock fragments—0 to 27 percent

Reaction—extremely acid to strongly acid

2E horizon (if it occurs):

Color—hue of 10YR, 7.5YR, or 5YR, value of 4 to 7, and chroma of 2 to 6

Texture of the fine-earth fraction—silt loam or loam

Content of rock fragments—0 to 27 percent

Reaction—extremely acid or very strongly acid

2Btx horizon:

Color—hue of 7.5YR, 10YR, or 2.5Y, value of 4 to 6, and chroma of 2 to 8

Texture of the fine-earth fraction—coarse sandy loam, sandy loam, or silt loam

Content of rock fragments—15 to 60 percent

Reaction—extremely acid to strongly acid

3Bt horizon:

Color—hue of 2.5YR to 10YR, value of 3 to 7, and chroma of 1 to 8

Texture of the fine-earth fraction—loam, silt loam, or silty clay loam

Content of rock fragments—15 to 60 percent

Reaction—extremely acid to strongly acid

Farewell Series

Soil depth: Very deep

Drainage class: Somewhat poorly drained

Permeability class: Moderate

Landform: River valleys

Position on the landform: Flood plains and low stream terraces

Parent material: Loamy alluvium

Slope range: 0 to 3 percent

Elevation: 1,020 feet

Taxonomic classification: Fine-loamy, siliceous, active, mesic Typic Argiaquolls

Typical Pedon

Farewell silt loam, in an area of Batcave-Farewell complex, 0 to 3 percent slopes, frequently flooded; in a fescue pasture; 2,400 feet south and 1,700 feet east of the northwest corner of sec. 5, T. 22 N., R. 10 W., in Howell County; USGS Caulfield, Missouri, topographic quadrangle; UTM coordinates 4,051,560 meters Northing and 583,240 meters Easting, Zone 15, NAD 27:

- Ap—0 to 8 inches; very dark gray (N 3/0) silt loam, very dark grayish brown (2.5Y 3/2) dry; weak fine subangular blocky structure; very friable; many very fine roots throughout; many very fine irregular and tubular pores; common fine distinct rounded gray (2.5Y 6/1) iron depletions; common fine prominent rounded brown (7.5YR 4/4) masses of iron accumulation between pedes; few brown (7.5YR 4/4) iron stains in root channels and in pores; 5 percent subangular chert gravel; moderately acid; clear smooth boundary.
- A1—8 to 13 inches; very dark gray (N 3/) silt loam, very dark grayish brown (2.5Y 3/2) dry; moderate fine and medium subangular blocky structure; very friable; common very fine roots throughout; few fine and medium tubular pores and few medium vesicular pores; common fine distinct rounded gray (2.5Y 6/1) iron depletions; few brown (7.5YR 4/4) iron stains in root channels and in pores; common fine irregular brown (7.5YR 4/4) masses of iron accumulation throughout; 2 percent chert gravel; slightly acid (pH 6.4); clear smooth boundary.
- A2—13 to 24 inches; very dark gray (10YR 3/1) gravelly silt loam, very dark grayish brown (10YR 3/2) dry; moderate fine subangular blocky structure; friable; common very fine roots throughout; few fine and medium tubular pores and few medium vesicular pores; few fine distinct brown (10YR 5/3) clay depletions on faces of pedes; few fine prominent strong brown (7.5YR 4/6) iron stains on faces of pedes; common fine rounded strong brown (7.5YR 4/6) slightly hard iron-manganese concretions throughout; 30 percent chert gravel; neutral; gradual wavy boundary.
- Btg1—24 to 30 inches; light olive brown (2.5Y 5/3) gravelly loam; weak fine subangular blocky structure; friable; few very fine roots throughout; many very fine and fine irregular pores; few discontinuous distinct dark grayish brown (10YR 4/2) clay films bridging sand grains; common fine faint rounded grayish brown (2.5Y 5/2) iron depletions; common fine prominent black (N 2/0) iron stains throughout; common fine rounded black

(N 2/0) slightly hard iron-manganese concretions throughout; 30 percent chert gravel; neutral; abrupt wavy boundary.

- Btg2—30 to 40 inches; light olive brown (2.5Y 5/3) silt loam; moderate medium subangular blocky structure; friable; few very fine roots throughout; few fine and medium tubular pores and few medium vesicular pores; few prominent discontinuous dark grayish brown (10YR 4/2) clay films on faces of pedes; common fine distinct rounded light brownish gray (10YR 6/2) and gray (10YR 5/1) iron depletions; few distinct irregular strong brown (7.5YR 4/6) iron stains on faces of pedes; few medium prominent irregular black (N 2/0) iron-manganese stains on faces of pedes; common fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; 10 percent chert gravel; neutral; gradual wavy boundary.
- Btg3—40 to 48 inches; light olive brown (2.5Y 5/3) silt loam; moderate fine and medium subangular blocky structure; firm; few very fine roots throughout; many very fine tubular pores and few medium vesicular pores; few faint discontinuous dark yellowish brown (10YR 4/4) clay films on faces of pedes; common fine distinct rounded light brownish gray (10YR 6/2) iron depletions; few distinct irregular strong brown (7.5YR 4/6) iron stains on faces of pedes; few medium prominent irregular black (N 2/0) iron-manganese stains on faces of pedes; common fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; 5 percent chert gravel; neutral; gradual wavy boundary.
- Btg4—48 to 60 inches; light olive brown (2.5Y 5/4) gravelly loam; moderate fine subangular blocky structure; firm; few very fine roots throughout; many very fine tubular pores; few faint discontinuous dark yellowish brown (10YR 4/4) clay films on faces of pedes; few fine distinct rounded light brownish gray (10YR 6/2) iron depletions; few medium prominent irregular black (N 2/0) iron-manganese stains throughout; common fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; 25 percent chert gravel; neutral; gradual wavy boundary.
- Btg5—60 to 80 inches; brown (10YR 5/3) silt loam; weak medium subangular blocky structure parting to moderate fine subangular blocky; firm; many very fine tubular pores; few prominent discontinuous brown (7.5YR 4/4) clay films on faces of pedes; common fine distinct rounded light brownish gray (10YR 6/2) iron depletions between

pedes; few medium prominent irregular black (N 2/0) iron-manganese stains on faces of pedes; few fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; 5 percent chert gravel and 2 percent chert cobbles; neutral.

Range in Characteristics

Thickness of the solum: 80 or more inches

Ap horizon and A horizon (upper part):

Color—hue of 10YR, 2.5Y, or N, value of 2 or 3, and chroma of 0 to 2

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 5 percent gravel

Reaction—moderately acid to slightly acid

A horizon (lower part):

Color—hue of 10YR, 2.5Y, or N, value of 2 or 3, and chroma of 0 to 2

Texture of the fine-earth fraction—loam, silt loam, or clay loam

Content of rock fragments—0 to 25 percent gravel

Reaction—moderately acid to neutral

Btg or Bt horizon (upper part):

Color—hue of 10YR, 2.5Y, or N, value of 2 to 5, and chroma of 0 to 4

Texture of the fine-earth fraction—silt loam or clay loam

Content of rock fragments—5 to 35 percent gravel

Reaction—moderately acid to slightly alkaline

Btg or Bt horizon (lower part):

Color—hue of 5YR, 2.5Y, or N, value of 2 to 6, and chroma of 0 to 8

Texture of the fine-earth fraction—clay loam or clay with strata of loamy coarse sand

Content of rock fragments—0 to 60 percent gravel

Reaction—slightly acid to slightly alkaline

Fourche Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Moderately slow

Landform: Hills

Position on the landform: Footslopes

Parent material: Loess and the underlying residuum derived from dolostone

Slope range: 3 to 8 percent

Elevation: 518 feet

Taxonomic classification: Fine-silty, mixed, active, mesic Glossaquic Paleudalfs

Typical Pedon

Fourche silt loam, 3 to 8 percent slopes; in a pasture; 4,300 feet south and 3,000 feet east of the northwest corner of sec. 31, T. 30 N., R. 5 E., in Madison County; USGS Brunot topographic quadrangle; UTM coordinates 4,132,797 meters Northing and 718,040 meters Easting, Zone 15, NAD 27:

Ap—0 to 5 inches; dark yellowish brown (10YR 4/4) silt loam, yellowish brown (10YR 5/4) dry; weak fine subangular blocky structure parting to moderate very fine granular; very friable; many very fine and fine roots; moderately acid; abrupt wavy boundary.

AB—5 to 9 inches; brown (7.5YR 4/4) silt loam, brownish yellow (10YR 6/6) dry; weak fine subangular blocky structure parting to weak very fine granular; friable; common very fine and fine roots; moderately acid; clear wavy boundary.

Bt1—9 to 18 inches; strong brown (7.5YR 4/6) silty clay loam; moderate very fine subangular blocky structure; friable; common very fine roots; common faint discontinuous clay films on faces of pedes and very few prominent dark brown (10YR 3/3) manganese or iron-manganese stains; moderately acid; clear wavy boundary.

Bt2—18 to 23 inches; strong brown (7.5YR 4/6) silty clay loam; weak fine subangular blocky and moderate very fine subangular blocky structure; friable; common very fine roots; few distinct discontinuous clay films on faces of pedes, few faint discontinuous silt coats on faces of pedes, few prominent patchy clay films on vertical faces of pedes, and very few prominent black (10YR 2/1) manganese or iron-manganese stains; common black (10YR 2/1) iron-manganese concretions throughout; strongly acid; abrupt wavy boundary.

Bt3—23 to 30 inches; strong brown (7.5YR 5/6) silty clay loam; common fine distinct pale brown (10YR 6/3) and common medium prominent red (2.5YR 4/6) mottles; moderate medium prismatic structure parting to moderate fine subangular blocky; firm; common very fine roots; many distinct continuous clay films on faces of pedes, few distinct patchy light brown (7.5YR 6/4) silt coats on faces of pedes, few prominent discontinuous clay films on vertical faces of pedes, and few prominent black (10YR 2/1) manganese or iron-manganese stains; common black (10YR 2/1) iron-manganese concretions throughout; very strongly acid; clear wavy boundary.

2Bt/E—30 to 37 inches; dark red (2.5YR 3/6) and strong brown (7.5YR 5/6) silty clay loam (Bt);

strong medium prismatic structure parting to moderate fine subangular blocky; firm; common prominent discontinuous clay films on vertical faces of peds and few prominent black (10YR 2/1) manganese or iron-manganese stains; common black (10YR 2/1) iron-manganese concretions between peds and common fine and medium light gray (10YR 7/2) soft iron depletions (pedogenic) between peds; very strongly acid; light yellowish brown (10YR 6/4) silt loam (E); friable; few very fine roots; very strongly acid; abrupt irregular boundary.

3Bt1—37 to 56 inches; 60 percent brown (7.5YR 5/4) and 40 percent dark red (2.5YR 3/6) silty clay loam; moderate medium prismatic structure parting to moderate fine subangular blocky; firm; few very fine roots; common prominent discontinuous clay films on faces of peds and very few prominent black (10YR 2/1) manganese or iron-manganese stains; few black (10YR 2/1) masses of iron-manganese accumulation between peds, common very coarse and extremely coarse light brownish gray (10YR 6/2) soft iron depletions (pedogenic) between peds, and common very coarse and extremely coarse light gray (10YR 7/2) soft iron depletions (pedogenic) between peds; very strongly acid; clear wavy boundary.

3Bt2—56 to 66 inches; 65 percent dark red (2.5YR 3/6) and 35 percent brown (7.5YR 5/4) silty clay; weak medium subangular blocky and moderate very fine subangular blocky structure; firm; many prominent continuous clay films on faces of peds and very few prominent black (10YR 2/1) manganese or iron-manganese stains; few black (10YR 2/1) masses of iron-manganese accumulation throughout, common coarse light brownish gray (10YR 6/2) soft iron depletions (pedogenic) between peds, and common coarse light gray (10YR 7/2) soft iron depletions (pedogenic) between peds; very strongly acid.

Range in Characteristics

Depth to bedrock: More than 60 inches

Ap or A horizon:

Color—hue of 10YR, value of 4, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Reaction—moderately acid to neutral

AB or Bt horizon:

Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—silty clay loam or silt loam

Reaction—very strongly acid to moderately acid

2Bt/E horizon:

Color—hue of 10YR to 2.5YR and value and chroma of 4 to 6 (Bt part); hue of 10YR, value of 5 to 7, and chroma of 1 to 4 (E part)

Redoximorphic features—iron segregations in shades of gray in some pedons

Texture of the fine-earth fraction—silty clay loam or silty clay (Bt part); silt loam (E part)

Content of rock fragments—0 to 10 percent

Reaction—very strongly acid or strongly acid

3Bt horizon:

Color—hue of 7.5YR to 2.5YR, value of 3 to 5, and chroma of 4 to 6

Redoximorphic features—iron segregations in shades of brown, yellow, or gray

Texture of the fine-earth fraction—silty clay or clay

Content of rock fragments—0 to 15 percent

Reaction—strongly acid to neutral

Frenchmill Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: Mountains

Position on the landform: Backslopes, footslopes

Parent material: Colluvium derived from rhyolite or granite

Slope range: 15 to 45 percent

Elevation: 700 feet

Taxonomic classification: Loamy-skeletal, mixed, active, mesic Typic Paleudults

Typical Pedon

Frenchmill very cobbly silt loam, in an area of Killarney-Frenchmill complex, 15 to 45 percent slopes, rubbly; in a hardwood forest; 650 feet west and 400 feet south of the northeast corner of sec. 5, T. 28 N., R. 2 W., in Shannon County; USGS Powder Mill Ferry, Missouri, topographic quadrangle; UTM coordinates 4,110,332 meters Northing and 661,287 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; clear smooth boundary.

A—1 to 6 inches; very dark grayish brown (10YR 3/2) very cobbly silt loam, light brownish gray (10YR 6/2) dry; weak fine granular structure; very friable;

- many fine to coarse roots; many fine and medium interstitial and tubular pores; 20 percent rhyolite cobbles and 25 percent rhyolite gravel; moderately acid; clear smooth boundary.
- E1—6 to 11 inches; brown (10YR 5/3) very gravelly silt loam; weak fine granular structure; very friable; common fine and medium roots and few coarse roots; many fine interstitial and tubular pores; 15 percent rhyolite cobbles and 35 percent rhyolite gravel; strongly acid; clear smooth boundary.
- E2—11 to 19 inches; light yellowish brown (10YR 6/4) gravelly silt loam; weak fine granular structure; very friable; common fine to coarse roots; many fine tubular pores; 5 percent rhyolite cobbles and 15 percent rhyolite gravel; very strongly acid; gradual wavy boundary.
- Bt1—19 to 27 inches; pale brown (10YR 6/3) very gravelly silt loam; weak fine subangular blocky structure; friable; few fine and medium roots; many fine to coarse tubular pores; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds and few distinct dark grayish brown (10YR 4/2) organic stains in root channels and/or pores; 5 percent rhyolite cobbles and 40 percent rhyolite gravel; very strongly acid; gradual wavy boundary.
- 2Bt2—27 to 35 inches; pale brown (10YR 6/3) very cobbly loam; weak fine subangular blocky structure; friable; few fine roots; many fine and medium tubular pores; common distinct yellowish brown (10YR 5/4) clay films on faces of peds and common distinct brown (7.5YR 5/4) clay films on rock fragments; common fine yellow (10YR 7/8) iron-manganese masses between peds; 15 percent rhyolite cobbles and 20 percent rhyolite gravel; very strongly acid; gradual wavy boundary.
- 2Bt3—35 to 45 inches; 70 percent light brown (7.5YR 6/4) and 30 percent red (2.5YR 4/8) very cobbly loam; weak fine subangular blocky structure; friable; few fine roots; many fine and medium tubular pores; common distinct light brown (7.5YR 6/3) silt coats on faces of peds, common distinct brown (7.5YR 5/4) clay films in root channels and/or pores, few distinct brown (7.5YR 5/3) clay films on faces of peds, few distinct reddish brown (5YR 4/4) clay films on faces of peds, and few distinct strong brown (7.5YR 4/6) clay films on faces of peds; 10 percent rhyolite gravel and 25 percent rhyolite cobbles; very strongly acid; gradual wavy boundary.
- 2Bt4—45 to 58 inches; 50 percent light brown (7.5YR 6/4) and 50 percent red (2.5YR 4/6) very cobbly loam; moderate medium subangular blocky structure; friable; few fine roots; many fine and medium tubular pores; common distinct light gray (7.5YR 7/1) silt coats on faces of peds, few distinct red (2.5YR 4/6) clay films on faces of peds, and few distinct brown (7.5YR 5/4) clay films on faces of peds; common fine yellow (10YR 7/8) iron-manganese masses between peds; 10 percent rhyolite gravel and 25 percent rhyolite cobbles; very strongly acid; gradual wavy boundary.
- 3Bt5—58 to 69 inches; 70 percent red (2.5YR 4/6) and 30 percent red (2.5YR 4/8) cobbly clay loam; moderate medium subangular blocky structure; very firm; common fine tubular pores; common distinct pale brown (10YR 6/3) silt coats in root channels and/or pores, common distinct brown (7.5YR 5/4) clay films on faces of peds, and common distinct dark red (2.5YR 3/6) clay films on faces of peds; 5 percent rhyolite gravel and 20 percent rhyolite cobbles; very strongly acid; clear smooth boundary.
- 3Bt6—69 to 81 inches; 70 percent red (2.5YR 4/8) and 30 percent light brown (7.5YR 6/4) clay loam; weak fine angular blocky structure; very firm; common fine tubular pores; common distinct red (2.5YR 4/6) clay films on faces of peds and common distinct brown (7.5YR 5/4) clay films on faces of peds; 10 percent rhyolite cobbles; very strongly acid.

Range in Characteristics

Depth to bedrock: More than 60 inches

A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—35 to 60 percent

Reaction—very strongly acid to moderately acid

E horizon:

Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam or loam

Content of rock fragments—10 to 50 percent

Reaction—very strongly acid or strongly acid

Bt horizon:

Color—hue of 10YR to 5YR, value of 4 to 6, and chroma of 3 to 8

Texture of the fine-earth fraction—silt loam

Content of rock fragments—35 to 60 percent

Reaction—very strongly acid or strongly acid

2Bt horizon:

Color—hue of 10YR to 2.5YR, value of 4 to 7, and chroma of 3 to 8

Texture of the fine-earth fraction—loam or clay loam

Content of rock fragments—35 to 60 percent
Reaction—very strongly acid or strongly acid

3Bt horizon:

Color—hue of 10YR to 2.5YR, value of 3 to 6, and chroma of 4 to 8

Texture of the fine-earth fraction—sandy clay loam or clay loam

Content of rock fragments—0 to 35 percent
Reaction—very strongly acid or strongly acid

Gabriel Series

Soil depth: Very deep

Drainage class: Poorly drained

Permeability class: Moderately slow

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Fine-silty alluvium

Slope range: 0 to 3 percent

Elevation: 450 feet

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Argiaquolls

Typical Pedon

Gabriel silt loam, 0 to 3 percent slopes, rarely flooded; in a pasture; 950 feet north and 1,200 feet east of the southwest corner of sec. 6, T. 27 N., R. 4 E., in Wayne County; USGS Mill Spring, Missouri, topographic quadrangle; UTM coordinates 4,099,100 meters Northing and 707,100 meters Easting, Zone 15, NAD 27:

A1—0 to 6 inches; very dark gray (7.5YR 3/1) silt loam, grayish brown (10YR 5/2) dry; moderate fine subangular blocky structure; friable; many very fine roots; many very fine tubular pores; few fine faint black (10YR 2/1) iron-manganese concretions; 1 percent angular chert gravel; neutral; gradual smooth boundary.

A2—6 to 13 inches; very dark gray (7.5YR 3/1) silt loam, gray (10YR 5/1) dry; moderate very fine and fine subangular blocky structure; friable; many very fine roots; many very fine tubular pores; 1 percent angular chert gravel; neutral; clear smooth boundary.

Btg1—13 to 27 inches; very dark gray (7.5YR 3/1) silt loam; moderate very fine and fine subangular blocky structure; friable; common very fine roots; many very fine tubular pores; few faint clay films on faces of pedis; common fine prominent dark yellowish brown (10YR 4/6) masses of oxidized iron; 1 percent angular chert gravel; neutral; gradual smooth boundary.

Btg2—27 to 41 inches; gray (7.5YR 6/1) silt loam; moderate very fine and fine angular blocky structure; firm; many very fine tubular pores; few faint clay films on faces of pedis; common fine prominent strong brown (7.5YR 5/6) masses of oxidized iron; 1 percent angular chert gravel; neutral; gradual smooth boundary.

Btg3—41 to 53 inches; gray (7.5YR 6/1) silt loam; moderate very fine and fine angular blocky structure; firm; common very fine and fine tubular pores; few faint clay films on faces of pedis; common fine prominent strong brown (7.5YR 5/6) masses of oxidized iron; 1 percent angular chert gravel; neutral; clear smooth boundary.

Btg4—53 to 60 inches; gray (10YR 6/1) silty clay loam; moderate very fine and fine angular blocky structure; firm; many very fine tubular pores; few faint clay films on faces of pedis; common fine prominent strong brown (7.5YR 5/6) masses of oxidized iron; few iron-manganese concretions; 1 percent angular chert gravel; neutral; gradual smooth boundary.

Btg5—60 to 74 inches; gray (10YR 6/1) silty clay loam; moderate very fine and fine angular blocky structure; firm; many very fine vesicular pores; few faint clay films on faces of pedis; common fine prominent strong brown (7.5YR 5/6) masses of oxidized iron; 1 percent angular chert gravel; neutral; gradual smooth boundary.

BC—74 to 84 inches; strong brown (7.5YR 5/6) silty clay loam; moderate very fine and fine angular blocky structure; firm; many very fine vesicular pores; many fine prominent gray (7.5YR 6/1) iron depletions; neutral.

Range in Characteristics

Thickness of the solum: 80 inches or more

Depth to bedrock: 80 inches or more

A horizon:

Color—hue of 7.5YR or 10YR, value of 2 or 3, and chroma of 1 to 3

Texture of the fine-earth fraction—silt loam

Reaction—moderately acid to neutral

Btg horizon (upper part):

Color—hue of 7.5YR or 10YR, value of 2 or 3, and chroma of 1 to 3

Texture of the fine-earth fraction—silt loam, silty clay loam, or clay loam

Reaction—strongly acid to neutral

Btg horizon (lower part) or BC horizon:

Color—hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 1 or 2

Redoximorphic features—iron masses with hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam, silty clay loam, or clay loam

Reaction—strongly acid to neutral

Gasconade Series

Soil depth: Shallow and very shallow

Drainage class: Somewhat excessively drained

Permeability class: Moderately slow

Landform: Hills

Position on the landform: Backslopes, shoulders

Parent material: Residuum derived from dolostone

Slope range: 3 to 35 percent

Elevation: 560 feet

Taxonomic classification: Clayey-skeletal, mixed, superactive, mesic Lithic Hapludolls

Typical Pedon

Gasconade silty clay, in an area of Gasconade-Rock outcrop complex, 3 to 35 percent slopes; in a conifer forest; 1,850 feet west and 4,590 feet north of the southeast corner of sec. 33, T. 31 N., R. 5 E., in Madison County; USGS Coldwater topographic quadrangle; UTM coordinates 4,134,080 meters Northing and 721,590 meters Easting, Zone 15, NAD 27:

A—0 to 4 inches; dark brown (10YR 3/3) silty clay, dark brown (10YR 3/3) dry; moderate fine granular structure; friable; common fine and medium and many very fine roots; 5 percent subangular dolostone gravel; neutral; abrupt wavy boundary.

Bw—4 to 13 inches; dark brown (7.5YR 3/3) very gravelly clay; moderate fine subangular blocky structure; firm; common very fine roots; 25 percent subangular dolostone gravel and 15 percent dolostone cobbles; slightly alkaline; abrupt wavy boundary.

R—13 inches; dolostone bedrock.

Range in Characteristics

Depth to bedrock: 4 to 20 inches

A horizon:

Color—hue of 10YR, value of 2 or 3, and chroma of 1 to 3

Texture of the fine-earth fraction—silty clay

Content of rock fragments—0 to 35 percent

Reaction—slightly acid to slightly alkaline

Bw horizon:

Color—hue of 7.5YR to 2.5Y, value of 2 to 4, and chroma of 1 to 4

Texture of the fine-earth fraction—clay, silty clay, silty clay loam, or clay loam

Content of rock fragments—35 to 70 percent

Reaction—slightly acid to slightly alkaline

Gatewood Series

Soil depth: Moderately deep

Drainage class: Moderately well drained

Permeability class: Slow

Landform: Basins

Position on the landform: Summits

Parent material: Loess over residuum derived from dolostone and shale

Slope range: 3 to 15 percent

Elevation: 880 feet

Taxonomic classification: Very fine, mixed, active, mesic Oxyaquic Hapludalfs

Typical Pedon

Gatewood silt loam, in an area of Gatewood-Aaron complex, 3 to 8 percent slopes; in a pasture; 100 feet west and 1,700 feet north of the southeast corner of sec. 30, T. 36 N., R. 3 E., in Washington County; USGS Irondale, Missouri, topographic quadrangle; UTM coordinates 4,186,220 meters Northing and 699,300 meters Easting, Zone 15, NAD 27:

Ap—0 to 3 inches: very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; weak very fine subangular blocky structure; friable; common very fine and fine roots; neutral; clear smooth boundary.

E—3 to 7 inches; grayish brown (10YR 5/2) silt loam; moderate thin platy and moderate very fine subangular blocky structure; friable; common fine and very fine roots; many continuous distinct silt coats on faces of peds; neutral; clear smooth boundary.

2Bt1—7 to 13 inches; yellowish red (5YR 4/6) clay; strong medium prismatic structure parting to strong fine angular blocky; very firm; few very fine and fine roots; many discontinuous distinct clay films on faces of peds; very strongly acid; gradual smooth boundary.

2Bt2—13 to 18 inches; dark yellowish brown (10YR 4/4) clay; strong medium prismatic structure; very firm; few very fine to coarse roots; many

discontinuous distinct clay films on faces of peds; extremely acid; gradual smooth boundary.

2Bt3—18 to 28 inches; yellowish brown (10YR 5/6) clay; strong coarse prismatic structure; very firm; few fine and very fine roots; many discontinuous distinct clay films on faces of peds; very strongly acid; gradual smooth boundary.

2Bt4—28 to 35 inches; 90 percent red (2.5YR 5/6) and 10 percent reddish yellow (7.5YR 6/6) clay; strong coarse prismatic structure; very firm; few very fine to coarse roots; many discontinuous distinct clay films on faces of peds; many fine manganese or iron-manganese stains on faces of peds; moderately acid; clear smooth boundary.

2Cr—35 to 37 inches; 60 percent brownish yellow (10YR 6/6), 20 percent gray (2.5Y 6/1), and 20 percent light brownish gray (2.5Y 6/2) clay shale; strong medium platy rock structure; moderately acid; abrupt smooth boundary.

2R—37 inches; shale bedrock.

Range in Characteristics

Depth to bedrock: 20 to 40 inches

Ap horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Reaction—slightly acid or neutral

E horizon (if it occurs):

Color—hue of 10YR, value of 4 or 5, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Reaction—slightly acid or neutral

2Bt horizon:

Color—hue of 2.5YR to 5Y, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—clay

Content of rock fragments—0 to 12 percent

Reaction—extremely acid to moderately acid

Gepp Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: Hills

Position on the landform: Summits, backslopes, structural benches

Parent material: Clayey residuum derived from dolostone

Slope range: 8 to 55 percent

Elevation: 820 feet

Taxonomic classification: Very fine, mixed, semiactive, mesic Typic Paleudalfs

Typical Pedon

Gepp gravelly silt loam, in an area of Rueter-Gepp complex, 8 to 15 percent slopes, stony; in a hardwood forest; 1,000 feet west and 2,100 feet north of the southeast corner of sec. 22, T. 31 N., R. 4 W., in Shannon County; USGS The Sinks, Missouri, topographic quadrangle; UTM coordinates 4,136,480 meters Northing and 645,440 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 5 inches; dark grayish brown (10YR 4/2) gravelly silt loam; weak fine granular structure; very friable; many fine and medium and few coarse roots; many fine to coarse interstitial and tubular pores; 30 percent sandstone gravel; moderately acid; clear smooth boundary.

BA—5 to 9 inches; 60 percent yellowish brown (10YR 5/4) and 40 percent yellowish red (5YR 5/6) gravelly silt loam; weak fine granular and weak fine subangular blocky structure; friable; many fine to coarse roots; many fine to coarse tubular pores; 1 percent sandstone cobbles and 25 percent chert gravel; very strongly acid; gradual smooth boundary.

Bt1—9 to 17 inches; red (2.5YR 4/6) gravelly clay; moderate fine subangular blocky structure; friable; common fine to coarse roots; many fine and medium tubular and few coarse tubular pores; few distinct strong brown (7.5YR 5/6) clay films on faces of peds and few distinct brown (7.5YR 5/4) clay films on faces of peds; 4 percent sandstone cobbles and 25 percent chert gravel; very strongly acid; clear smooth boundary.

2Bt2—17 to 31 inches; 50 percent red (2.5YR 4/6) and 50 percent strong brown (7.5YR 4/6) clay; moderate fine subangular blocky structure; firm; many fine and medium roots and common coarse roots; common very fine and fine and few medium tubular pores; common distinct yellowish brown (10YR 5/6) clay films on faces of peds, common distinct red (2.5YR 4/6) silt coats on faces of peds, few distinct gray (10YR 6/1) clay films on faces of peds, and few distinct black (N 2/0) manganese or iron-manganese stains on faces of peds; 10 percent chert gravel; strongly acid; clear smooth boundary.

2Bt3—31 to 42 inches; 50 percent red (2.5YR 4/6) and 50 percent gray (10YR 6/1) gravelly clay; moderate medium subangular blocky structure; firm; common fine and medium roots; common

very fine and fine and few medium tubular pores; few distinct reddish brown (5YR 4/4) clay films on faces of peds, few distinct black (N 2/0) manganese or iron-manganese stains on faces of peds, few distinct strong brown (7.5YR 5/6) clay films on faces of peds, and few distinct dark red (2.5YR 3/6) clay films on faces of peds; 15 percent chert gravel; strongly acid; gradual smooth boundary.

2Bt4—42 to 54 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; very firm; common fine and few medium roots; common very fine and fine tubular pores; many distinct yellowish brown (10YR 5/4) clay films on faces of peds, common distinct dark red (2.5YR 3/6) clay films on faces of peds, and few distinct dark grayish brown (10YR 4/2) clay films in root channels and/or pores; strongly acid; clear smooth boundary.

2Bt5—54 to 72 inches; red (2.5YR 4/6) clay; moderate fine subangular blocky structure; very firm; common fine and few medium roots; common very fine and fine tubular pores; common distinct dark red (2.5YR 3/6) clay films on faces of peds, few distinct strong brown (7.5YR 5/6) clay films on faces of peds, and few distinct dark grayish brown (10YR 4/2) clay films in root channels and/or pores; strongly acid.

Range in Characteristics

Depth to bedrock: More than 60 inches

A horizon:

Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 60 percent

Reaction—very strongly acid to moderately acid

BA or E horizon (if it occurs):

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—10 to 70 percent

Reaction—very strongly acid to moderately acid

Bt horizon (upper part):

Color—hue of 7.5YR to 2.5YR, value of 3 to 5, and chroma of 6 or 8

Texture of the fine-earth fraction—clay loam, silty clay loam, silty clay, or clay

Content of rock fragments—0 to 35 percent

Reaction—very strongly acid to moderately acid

2Bt or Bt horizon (lower part):

Color—hue of 7.5YR to 10R, value of 3 to 5, and chroma of 6 or 8

Redoximorphic features—iron concentrations in shades of red and brown

Texture of the fine-earth fraction—clay

Content of rock fragments—0 to 15 percent

Reaction—strongly acid or moderately acid

Gladden Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate in the upper part and moderately rapid in the lower part

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Loamy and gravelly alluvium

Slope range: 0 to 3 percent

Elevation: 840 feet

Taxonomic classification: Coarse-loamy, siliceous, superactive, mesic Dystric Fluventic Eutrudepts

Typical Pedon

Gladden loam, 0 to 3 percent slopes, occasionally flooded; in a pasture; 2,100 feet east and 1,200 feet north of the southwest corner of sec. 12, T. 31 N., R. 6 W., in Shannon County; USGS Cedar Grove, Missouri, topographic quadrangle; UTM coordinates 4,139,509 meters Northing and 628,462 meters Easting, Zone 15, NAD 27:

Ap1—0 to 5 inches; brown (10YR 4/3) loam; weak fine subangular blocky structure; very friable; common fine and medium roots; many fine vesicular pores; moderately acid; clear smooth boundary.

Ap2—5 to 10 inches; brown (10YR 4/3) loam; weak fine subangular blocky structure; friable; common fine roots; many fine vesicular pores; few distinct very dark grayish brown (10YR 3/2) organic stains on faces of peds; 1 percent angular chert gravel; moderately acid; clear smooth boundary.

Bw1—10 to 15 inches; dark yellowish brown (10YR 4/4) loam; moderate fine subangular blocky structure; friable; common fine roots; many fine vesicular pores; few distinct dark yellowish brown (10YR 3/4) and few distinct very dark grayish brown (10YR 3/2) organic stains on faces of peds; moderately acid; clear smooth boundary.

Bw2—15 to 26 inches; dark yellowish brown (10YR 4/4) loam; moderate fine subangular blocky structure; friable; few fine roots; many fine vesicular and common fine tubular pores; few distinct very dark grayish brown (10YR 3/2) organic stains on faces of peds; moderately acid; clear wavy boundary.

Bw3—26 to 36 inches; dark yellowish brown (10YR 4/4) loam; weak fine subangular blocky structure; friable; few fine roots; many fine vesicular pores; few distinct dark yellowish brown (10YR 3/4) organic stains on faces of peds; moderately acid; clear wavy boundary.

Bw4—36 to 50 inches; yellowish brown (10YR 5/6) fine sandy loam; weak fine subangular blocky structure; friable; few fine roots; many fine vesicular pores; few distinct dark yellowish brown (10YR 3/4) organic stains on faces of peds; moderately acid; clear wavy boundary.

Bw5—50 to 58 inches; yellowish brown (10YR 5/6) sandy loam; weak fine subangular blocky structure; friable; few fine roots; many coarse interstitial pores; few distinct dark yellowish brown (10YR 3/4) organic stains on faces of peds; moderately acid; clear wavy boundary.

2C—58 to 73 inches; very pale brown (10YR 8/3) sand; single grain; loose; strongly acid.

Range in Characteristics

Thickness of the solum: 30 to 58 inches

Ap or A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 or 3

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—0 to 10 percent

Reaction—moderately acid to neutral

Bw horizon:

Color—hue of 10YR or 7.5YR and value and chroma of 3 to 6

Texture of the fine-earth fraction—sandy loam, fine sandy loam, loam, or silt loam

Content of rock fragments—0 to 35 percent

Reaction—moderately acid to neutral

2C horizon:

Color—hue of 10YR, value of 3 to 8, and chroma of 2 to 4

Texture of the fine-earth fraction—coarse sand, sand, loamy sand, coarse sandy loam, sandy loam, or loam

Content of rock fragments—0 to 70 percent

Reaction—strongly acid to slightly acid

Higdon Series

Soil depth: Very deep

Drainage class: Somewhat poorly drained

Permeability class: Moderately slow

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Silty alluvium

Slope range: 0 to 3 percent

Elevation: 390 feet

Taxonomic classification: Fine-silty, mixed, active, mesic Aquic Hapludalfs

Typical Pedon

Higdon silt loam, 0 to 3 percent slopes, rarely flooded; in a cultivated field; 5,000 feet south and 950 feet west of the northeast corner of sec. 5, T. 27 N., R. 7 E., in Wayne County; USGS Shook, Missouri, topographic quadrangle; UTM coordinates 4,101,290 meters Northing and 738,935 meters Easting, Zone 15, NAD 27:

Ap—0 to 7 inches; brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; weak very fine and fine granular structure; friable; many very fine and fine and few medium roots; few very fine vesicular pores; neutral; clear smooth boundary.

E—7 to 13 inches; brown (10YR 5/3) silt loam; weak fine and medium subangular blocky structure; friable; many very fine and fine and few medium roots; many very fine and fine vesicular pores; few faint organic stains on faces of peds; common fine black (10YR 2/1) iron-manganese masses; neutral; gradual smooth boundary.

Bt1—13 to 18 inches; yellowish brown (10YR 5/4) silt loam; moderate fine and medium subangular blocky structure; friable; many very fine and fine roots; many very fine and fine vesicular and few medium tubular pores; few faint clay films on faces of peds; common fine and medium black (10YR 2/1) iron-manganese masses; strongly acid; clear wavy boundary.

Bt2—18 to 25 inches; 70 percent light yellowish brown (10YR 6/4) and 30 percent yellowish brown (10YR 5/6) silt loam; weak medium prismatic structure parting to moderate very fine and fine subangular blocky; friable; few very fine and fine roots; many very fine and fine vesicular and few medium tubular pores; few faint clay films on faces of peds; many fine prominent light brownish gray (10YR 6/2) iron depletions; common fine black (10YR 2/1) iron-manganese masses; strongly acid; gradual wavy boundary.

Btg—25 to 35 inches; 60 percent light brownish gray (10YR 6/2) and 40 percent yellowish brown (10YR 5/6) silt loam; weak medium prismatic structure parting to moderate very fine and fine angular blocky; firm; few very fine and fine roots; many very fine and fine vesicular and few medium tubular pores; few faint clay films on faces of peds; common fine and medium strong brown (7.5YR 4/6) masses of oxidized iron; common fine black

- (10YR 2/1) iron-manganese masses; 1 percent chert gravel; strongly acid; gradual wavy boundary.
- B^t—35 to 43 inches; yellowish brown (10YR 5/6) silt loam; weak medium prismatic structure parting to moderate very fine and fine angular blocky; firm; few very fine and fine roots; many very fine and fine vesicular and few medium tubular pores; few distinct clay films on faces of peds; many fine prominent gray (10YR 6/1) iron depletions; common fine black (10YR 2/1) iron-manganese concretions; common fine black (10YR 2/1) iron-manganese masses; 1 percent chert gravel; strongly acid; gradual wavy boundary.
- 2B^t—43 to 58 inches; dark yellowish brown (10YR 4/6) silty clay loam; moderate very fine and fine angular blocky structure; firm; few very fine roots; many very fine and fine vesicular and few medium tubular pores; few distinct clay films on faces of peds; many fine and medium dark red (2.5YR 3/6) masses of oxidized iron; many fine and medium prominent gray (10YR 6/1) iron depletions; 1 percent chert gravel; slightly acid; gradual wavy boundary.
- 2BC—58 to 80 inches; 60 percent strong brown (7.5YR 4/6), 30 percent dark yellowish brown (10YR 4/4), and 10 percent dark grayish brown (10YR 4/2) silty clay loam; moderate very fine and fine angular blocky structure; firm; common very fine and fine vesicular pores; many fine and medium dark red (2.5YR 3/6) masses of oxidized iron; many fine and medium prominent gray (10YR 6/1) iron depletions; 10 percent chert gravel; neutral.

Range in Characteristics

Ap or A horizon:

- Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3
 Texture of the fine-earth fraction—silt loam
 Content of rock fragments—0 to 2 percent gravel
 Reaction—strongly acid to neutral

E horizon:

- Color—hue of 10YR or 2.5Y, value of 5, and chroma of 3
 Texture of the fine-earth fraction—silt loam
 Content of rock fragments—0 to 2 percent
 Reaction—strongly acid to neutral

Bt horizon:

- Color—hue of 10YR or 2.5Y, value of 5, and chroma of 2 to 6
 Redoximorphic features—iron depletions with chroma of 2 or less

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 3 percent gravel

Reaction—strongly acid to neutral

Btg, 2Btg, 2Bt, or 2BC horizon or the lower part of the Bt horizon:

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 6

Redoximorphic features—iron depletions with chroma of 2 or less

Texture of the fine-earth fraction—loam, silt loam, clay loam, or silty clay loam

Content of rock fragments—0 to 15 percent gravel

Reaction—strongly acid to neutral

Hobson Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Moderate above the fragipan and slow in the fragipan

Landform: Hills

Position on the landform: Summits, shoulders

Parent material: Residuum derived from mixed and cherty dolostone

Slope range: 3 to 15 percent

Elevation: 1,150 feet

Taxonomic classification: Fine-loamy, siliceous, active, mesic Oxyaquic Fragiudalfs

Typical Pedon

Hobson silt loam, in an area of Portia-Hobson complex, 8 to 15 percent slopes; in a hardwood forest; 800 feet east and 350 feet north of the southwest corner of sec. 2, T. 31 N., R. 6 W.; in Shannon County; USGS Cedargrove, Missouri, topographic quadrangle; UTM coordinates 4,141,102 meters Northing and 626,755 meters Easting, Zone 15, NAD 27:

A—0 to 8 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; very friable; many fine roots; many fine interstitial and tubular pores; 2 percent chert gravel; very strongly acid; clear smooth boundary.

Bt1—8 to 13 inches; yellowish brown (10YR 5/4) silt loam; weak fine subangular blocky structure; friable; many fine to coarse roots; many fine and medium tubular pores; common distinct dark yellowish brown (10YR 4/4) clay films, common distinct light yellowish brown (10YR 6/4) silt coats, and common distinct very dark grayish brown (10YR 3/2) organic stains on faces of peds; 2

percent chert gravel; very strongly acid; clear smooth boundary.

Bt2—13 to 20 inches; yellowish brown (10YR 5/4) silty clay loam; weak fine subangular blocky structure; friable; many fine and medium roots and common coarse roots; many fine and medium tubular pores; many distinct brown (7.5YR 4/4) clay films and common distinct brown (10YR 5/3) clay films on faces of peds; 2 percent chert gravel; very strongly acid; clear smooth boundary.

Bt3—20 to 27 inches; yellowish brown (10YR 5/6) loam; weak very fine subangular blocky structure; friable; many fine, common medium, and few coarse roots; many fine tubular pores; common distinct brown (7.5YR 4/4) clay films, common distinct dark yellowish brown (10YR 4/4) clay films, and common distinct very pale brown (10YR 7/3) silt coats on faces of peds; 3 percent chert gravel; strongly acid; gradual wavy boundary.

2Btx—27 to 36 inches; 50 percent strong brown (7.5YR 5/6) and 50 percent light brownish gray (10YR 6/2) extremely gravelly clay loam; weak coarse prismatic structure; firm; 65 percent brittle; common fine and medium roots; common fine and medium vesicular and few coarse vesicular pores; common distinct grayish brown (10YR 5/2) clay films, common distinct red (2.5YR 4/6) clay films, few distinct red (2.5YR 4/8) clay films, and few distinct weak red (2.5YR 5/2) clay films on faces of peds; 15 percent sandstone gravel and 45 percent chert gravel; strongly acid; gradual wavy boundary.

3Bt1—36 to 52 inches; yellowish red (5YR 5/6) clay; weak fine subangular blocky structure; firm; common fine and medium roots; common fine tubular pores; common distinct dark red (2.5YR 3/6) clay films, common distinct strong brown (7.5YR 4/6) clay films, and common distinct red (2.5YR 4/6) clay films on faces of peds; 10 percent chert gravel; very strongly acid; clear smooth boundary.

3Bt2—52 to 70 inches; 90 percent red (2.5YR 4/6) and 10 percent reddish yellow (7.5YR 6/6) clay; moderate medium subangular blocky structure; very firm; few fine roots; common fine tubular pores; common distinct dark red (2.5YR 3/6) clay films on faces of peds; moderately acid.

Range in Characteristics

Depth to the 2Btx horizon: 18 to 32 inches

A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 10 percent
Reaction—very strongly acid to moderately acid

E or BE horizon (if it occurs):

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 10 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Color—hue of 5YR, 7.5YR, or 10YR, value of 3 to 5, and chroma of 4 to 6

Texture of the fine-earth fraction—loam, silt loam, clay loam, or silty clay loam

Content of rock fragments—0 to 20 percent

Reaction—very strongly acid to moderately acid

2Btx horizon:

Color—hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 1 to 6

Texture of the fine-earth fraction—loam, silt loam, clay loam, or silty clay loam

Content of rock fragments—20 to 60 percent

Reaction—very strongly acid or strongly acid

3Bt horizon:

Color—hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 1 to 6

Texture of the fine-earth fraction—clay

Content of rock fragments—5 to 60 percent

Reaction—very strongly acid or strongly acid

Hogcreek Series

Soil depth: Moderately deep

Drainage class: Moderately well drained

Permeability class: Moderate above the fragipan and very slow in the fragipan

Landform: Hills

Position on the landform: Summits

Parent material: Loess over gravelly colluvium

Slope range: 2 to 6 percent

Elevation: 1,120 feet

Taxonomic classification: Fine-loamy, siliceous, active, mesic Typic Fragiudults

Typical Pedon

Hogcreek silt loam, in an area of Tonti-Hogcreek complex, 3 to 8 percent slopes; in a hardwood forest; 1,100 feet west and 2,100 feet north of the southeast corner of sec. 3, T. 29 N., R. 5 E., in Shannon County; USGS Alley Spring, Missouri, topographic quadrangle; UTM coordinates 4,119,440 meters Northing and 635,380 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 3 inches; dark brown (10YR 3/3) silt loam; weak very fine granular structure; very friable; many very fine roots; many very fine interstitial pores; very strongly acid; clear smooth boundary.

AE—3 to 7 inches; yellowish brown (10YR 5/4) silt loam; weak very fine subangular blocky structure; very friable; common medium roots; many very fine tubular pores; common distinct dark brown (10YR 3/3) organic stains on faces of peds and in pores; 2 percent chert gravel; very strongly acid; clear smooth boundary.

BE—7 to 15 inches; 50 percent brown (7.5YR 4/3) and 50 percent pale brown (10YR 6/3) loam; weak very fine subangular blocky structure; friable; few fine and few coarse roots; many very fine tubular pores; 5 percent chert gravel; very strongly acid; clear smooth boundary.

Bt—15 to 23 inches; strong brown (7.5YR 5/6) loam; moderate medium subangular blocky structure; firm; few fine roots; few fine tubular pores; few faint strong brown (7.5YR 5/6) clay films on faces of peds; 10 percent chert gravel; very strongly acid; clear smooth boundary.

2Btx—23 to 40 inches; grayish brown (10YR 5/2) extremely gravelly loam; massive; firm, strongly cemented; few fine roots; few medium vesicular pores; common distinct brown (7.5YR 4/4) clay films in root channels and/or pores; 75 percent sandstone gravel; very strongly acid; abrupt smooth boundary.

3R—40 inches; sandstone bedrock.

Range in Characteristics

Depth to bedrock: 20 to 40 inches

Depth to the 2Btx horizon: 18 to 28 inches

A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 15 percent

Reaction—very strongly acid to slightly acid

Bt horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 8

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 25 percent in the upper part and 20 to 60 percent in the lower part

Reaction—very strongly acid to slightly acid in the upper part and very strongly acid or strongly acid in the lower part

2Btx horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4

Texture of the fine-earth fraction—loam, silt loam, or clay loam

Content of rock fragments—35 to 80 percent

Reaction—extremely acid to strongly acid

Horneybuck Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Moderately slow

Landform: Hills

Position on the landform: Footslopes

Parent material: Loamy colluvium

Slope range: 3 to 8 percent

Elevation: 1,130 feet

Taxonomic classification: Fine-loamy, mixed, active, mesic Aquic Paleudults

Typical Pedon

Horneybuck silt loam, 3 to 8 percent slopes; in a hay field; 460 feet east and 240 feet north of the southwest corner of sec. 8, T. 28 N., R. 6 W., in Shannon County; USGS Pine Crest, Missouri, topographic quadrangle; UTM coordinates 4,107,671 meters Northing and 621,777 meters Easting, Zone 15, NAD 27:

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; friable; many very fine and fine roots; common very fine tubular pores; common fine dark yellowish brown (10YR 4/6) masses of oxidized iron; few fine black (10YR 2/1) iron-manganese concretions; 2 percent chert gravel; slightly acid; clear smooth boundary.

Bt1—6 to 11 inches; yellowish brown (10YR 5/6) silt loam; weak fine subangular blocky structure; firm; common fine roots; many fine interstitial and tubular pores; common distinct brown (10YR 5/3) clay films on faces of peds; common fine dark yellowish brown (10YR 4/6) masses of oxidized iron; few fine black (10YR 2/1) iron-manganese concretions; 10 percent chert gravel; strongly acid; clear smooth boundary.

Bt2—11 to 18 inches; 60 percent yellowish brown (10YR 5/6) and 40 percent yellowish brown (10YR 5/4) gravelly silt loam; moderate fine subangular

blocky structure; firm; few fine roots; common fine tubular pores; common distinct yellowish brown (10YR 5/6) clay films on faces of peds; few fine faint brown (10YR 5/3) iron depletions; few fine strong brown (7.5YR 5/6) masses of oxidized iron; 15 percent chert gravel; very strongly acid; clear wavy boundary.

Bt3—18 to 26 inches; pale brown (10YR 6/3) gravelly silt loam; weak medium platy structure parting to moderate fine subangular blocky; firm; few fine roots; many very fine and fine tubular pores; common distinct strong brown (7.5YR 4/6) clay films on faces of peds; few fine faint gray (10YR 6/1) iron depletions; common fine yellowish red (5YR 4/6) masses of oxidized iron; 15 percent chert gravel; very strongly acid; gradual wavy boundary.

2Bt4—26 to 37 inches; yellowish red (5YR 4/6) gravelly silty clay loam; moderate fine subangular blocky structure; firm; few very fine roots; many very fine and fine tubular pores; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; common medium prominent light brownish gray (10YR 6/2) iron depletions; few fine black (10YR 2/1) iron-manganese concretions; 15 percent chert gravel; very strongly acid; gradual wavy boundary.

2Bt5—37 to 45 inches; 60 percent yellowish brown (10YR 5/6) and 40 percent red (2.5YR 4/6) gravelly silty clay; moderate fine subangular blocky structure parting to moderate very fine angular blocky; firm; few fine vesicular and many very fine and fine tubular pores; few distinct dark yellowish brown (10YR 4/6) clay films on faces of peds and very few distinct dark grayish brown (10YR 4/2) clay films in root channels and/or pores; 35 percent medium cylindrical grayish brown (10YR 5/2) clay bodies; 15 percent chert gravel; very strongly acid; gradual wavy boundary.

2Bt6—45 to 60 inches; 65 percent red (2.5YR 4/6) and 35 percent yellowish brown (10YR 5/6) gravelly clay loam; moderate fine subangular blocky structure parting to moderate very fine angular blocky; firm; few fine vesicular and many very fine and fine tubular pores; few distinct dark yellowish brown (10YR 4/6) clay films on faces of peds and very few distinct dark grayish brown (10YR 4/2) clay films in root channels and/or pores; 35 percent medium cylindrical grayish brown (10YR 5/2) clay bodies; 15 percent chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches

A or Ap horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—2 to 10 percent

Reaction—strongly acid to neutral

E horizon (if it occurs):

Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—2 to 10 percent

Reaction—strongly acid to neutral

Bt horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 to 6

Redoximorphic features—clay depletions in shades of brown or gray

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—1 to 30 percent

Reaction—very strongly acid to neutral

2Bt/E horizon (if it occurs):

Color—hue of 10YR to 2.5YR, value of 4 to 7, and chroma of 1 to 6

Redoximorphic features—clay depletions in shades of brown or gray

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—1 to 30 percent

Reaction—very strongly acid or strongly acid

2Bt horizon:

Color—hue of 10YR to 2.5YR, value of 3 to 5, and chroma of 4 to 6

Redoximorphic features—clay depletions in shades of brown or gray

Texture of the fine-earth fraction—silt loam, silty clay loam, silty clay, loam, or clay loam

Content of rock fragments—15 to 80 percent

Reaction—very strongly acid or strongly acid

Huzzah Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderately rapid

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Loamy alluvium, coarse-loamy alluvium

Slope range: 0 to 3 percent

Elevation: 710 feet

Taxonomic classification: Coarse-loamy, siliceous, superactive, mesic Cumulic Hapludolls

Typical Pedon

Huzzah sandy loam, 0 to 3 percent slopes, rarely flooded; in a hay field; 420 feet west and 860 feet south of the northeast corner of sec. 30, T. 30 N., R. 4 W., in Shannon County; USGS Round Spring, Missouri, topographic quadrangle; UTM coordinates 4,125,307 meters Northing and 640,368 meters Easting, Zone 15, NAD 27:

- Ap1—0 to 6 inches; very dark grayish brown (10YR 3/2) sandy loam, grayish brown (10YR 5/2) dry; weak fine granular structure; very friable; many fine and medium roots; many fine and medium interstitial and tubular pores; neutral; clear wavy boundary.
- Ap2—6 to 10 inches; very dark grayish brown (10YR 3/2) fine sandy loam, grayish brown (10YR 5/2) dry; weak fine subangular blocky structure; very friable; common fine and medium roots; many fine and medium tubular pores; common prominent very dark grayish brown (10YR 3/2) organic stains on faces of peds; neutral; clear wavy boundary.
- Bw1—10 to 18 inches; very dark grayish brown (10YR 3/2) fine sandy loam, grayish brown (10YR 5/2) dry; moderate fine subangular blocky structure; very friable; common fine and medium roots; many fine and medium tubular pores; few prominent very dark grayish brown (10YR 3/2) and few distinct dark grayish brown (10YR 4/2) organic stains on faces of peds; slightly acid; clear wavy boundary.
- Bw2—18 to 27 inches; dark brown (10YR 3/3) fine sandy loam, dark grayish brown (10YR 4/2) dry; weak fine subangular blocky structure; very friable; common fine and medium roots; many fine and medium tubular pores; few prominent very dark grayish brown (10YR 3/2) and few distinct dark grayish brown (10YR 4/2) organic stains on faces of peds; slightly acid; clear wavy boundary.
- CB1—27 to 41 inches; 75 percent yellowish brown (10YR 5/4) and 25 percent light yellowish brown (10YR 6/4) loamy sand; weak fine subangular blocky structure parting to single grain; friable; few very fine and fine roots; many fine and medium tubular pores; few distinct brown (10YR 4/3) clay films between sand grains; slightly acid; clear wavy boundary.
- CB2—41 to 60 inches; 75 percent yellowish brown (10YR 5/4) and 25 percent light gray (10YR 7/2) loamy sand; weak fine subangular blocky structure parting to single grain; loose; few very fine and fine roots; many fine and medium interstitial and

tubular pores; few distinct dark grayish brown (10YR 4/2) clay films between sand grains; slightly acid.

Range in Characteristics

Depth to bedrock: More than 80 inches

Thickness of the solum: 34 to more than 60 inches

Ap or A horizon:

Color—hue of 10YR, value of 3, and chroma of 2 or 3

Texture of the fine-earth fraction—sandy loam, fine sandy loam, or loam

Content of rock fragments—0 to 10 percent gravel

Reaction—slightly acid or neutral

Bw horizon (upper part):

Color—hue of 10YR, value of 3 to 5, and chroma of 3 to 6

Texture of the fine-earth fraction—sandy loam, fine sandy loam, loam, or silt loam

Content of rock fragments—0 to 20 percent gravel

Reaction—slightly acid or neutral

Bw horizon (lower part) or C horizon:

Color—hue of 10YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—sand, fine sand, loamy sand, loamy fine sand, sandy loam, or fine sandy loam

Content of rock fragments—0 to 50 percent gravel

Reaction—moderately acid to neutral

Irondale Series

Soil depth: Moderately deep

Drainage class: Well drained

Permeability class: Moderate

Landform: Mountains

Position on the landform: Backslopes, shoulders

Parent material: Residuum derived from rhyolite or other fine-grained igneous rock

Slope range: 3 to 45 percent

Elevation: 1,100 feet

Taxonomic classification: Loamy-skeletal, mixed, active, mesic Typic Hapludults

Typical Pedon

Irondale gravelly silt loam, 15 to 35 percent slopes, rocky, extremely bouldery; in a hardwood forest; 40 feet west and 650 feet north of the southeast corner of sec. 24, T. 28 N., R. 3 W., in Shannon County; USGS Stegall Mountain, Missouri, topographic quadrangle; UTM coordinates 4,104,310 meters Northing and 658,439 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 5 inches; dark grayish brown (10YR 4/2) gravelly silt loam; weak fine granular structure; very friable; many fine to coarse roots; many fine to coarse interstitial and tubular pores; 30 percent rhyolite gravel; very strongly acid; clear wavy boundary.

E—5 to 9 inches; pale brown (10YR 6/3) very gravelly silt loam; weak very fine subangular blocky structure; very friable; many fine to coarse roots; many fine and medium interstitial and tubular pores; few distinct dark grayish brown (10YR 4/2) organic stains in root channels and/or pores; 15 percent rhyolite cobbles and 32 percent rhyolite gravel; very strongly acid; clear smooth boundary.

Bt1—9 to 17 inches; 60 percent light yellowish brown (10YR 6/4) and 40 percent pale brown (10YR 6/3) very cobbly silt loam; weak very fine and fine subangular blocky structure; very friable; common fine to coarse roots; few very fine and fine interstitial and tubular pores; few distinct brown (10YR 5/3) clay films on rock fragments and few distinct grayish brown (10YR 5/2) organic stains on faces of peds; 20 percent rhyolite cobbles and 35 percent rhyolite gravel; very strongly acid; clear wavy boundary.

Bt2—17 to 23 inches; very pale brown (10YR 7/3) very gravelly silt loam; weak very fine and fine subangular blocky structure; very friable; common fine to coarse roots; common fine and medium interstitial and tubular pores; few distinct strong brown (7.5YR 5/6) clay films on faces of peds and few distinct brown (7.5YR 5/4) clay films in root channels and/or pores; dendritic reddish yellow (7.5YR 6/6) masses of oxidized iron between peds; 10 percent rhyolite cobbles and 50 percent rhyolite gravel; very strongly acid; abrupt smooth boundary.

R—23 inches; rhyolite bedrock.

Range in Characteristics

Depth to bedrock: 20 to 40 inches

A horizon:

Color—hue of 10YR or 7.5YR, value of 3 or 4, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 55 percent

Reaction—very strongly acid to moderately acid

E horizon:

Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—10 to 50 percent

Reaction—extremely acid to moderately acid

Bt horizon:

Color—hue of 10YR or 7.5YR, value of 4 to 7, and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—35 to 60 percent

Reaction—very strongly acid or strongly acid

2Bt horizon (if it occurs):

Color—hue of 10YR, 7.5YR, or 2.5YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—loam, silt loam, silty clay loam, or clay loam

Content of rock fragments—35 to 60 percent

Reaction—very strongly acid or strongly acid

Jamesfin Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: River valleys

Position on the landform: Flood plains

Parent material: Fine-silty alluvium

Slope range: 0 to 3 percent

Elevation: 450 feet

Taxonomic classification: Fine-silty, mixed, superactive, mesic Dystric Fluventic Eutrudepts

Typical Pedon

Jamesfin silt loam, 0 to 3 percent slopes, occasionally flooded; in a pasture; 3,800 feet east of the northwest corner of sec. 12, T. 30 N., R. 7 E., in Wayne County; USGS Allbright, Missouri, topographic quadrangle; UTM coordinates 4,130,821 meters Northing and 746,255 meters Easting, Zone 15, NAD 27:

Ap—0 to 6 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; moderate fine granular structure; very friable; common very fine and fine roots; slightly acid; gradual smooth boundary.

Bw1—6 to 23 inches; dark yellowish brown (10YR 4/4) silt loam; moderate very fine and fine subangular blocky structure; friable; common very fine and fine roots; neutral; gradual wavy boundary.

Bw2—23 to 41 inches; dark yellowish brown (10YR 4/4) silt loam; moderate very fine and fine subangular blocky structure; friable; common very fine and fine roots; many organic stains; slightly acid; gradual wavy boundary.

BC1—41 to 53 inches; yellowish brown (10YR 5/4) silt loam; common fine distinct pale brown (10YR 6/3) mottles; moderate very fine and fine subangular

blocky structure; friable; common very fine and fine roots; few fine iron-manganese masses; 1 percent gravel; moderately acid; gradual wavy boundary.

BC2—53 to 90 inches; brown (10YR 5/3) silt loam; common coarse prominent light gray (10YR 7/2) iron depletions and common medium prominent brown (7.5YR 4/4) iron concentrations; weak fine prismatic structure parting to moderate fine subangular blocky; friable; many medium and coarse iron-manganese masses; moderately acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches

Ap or A horizon:

Color—hue of 10YR or 7.5YR, value of 3 or 4, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 3 percent

Reaction—moderately acid to slightly alkaline

Bw horizon:

Color—hue of 10YR or 7.5YR and value and chroma of 3 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 5 percent

Reaction—moderately acid to slightly alkaline

BC or 2BC horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 or 4

Texture of the fine-earth fraction—fine sandy loam, loam, or silt loam

Content of rock fragments—0 to 5 percent

Reaction—moderately acid to slightly alkaline

Killarney Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Moderate above the fragipan and very slow in the fragipan

Landform: Mountains

Position on the landform: Backslopes, footslopes

Parent material: Gravelly colluvium derived from loess and rhyolite or granite

Slope range: 15 to 45 percent

Elevation: 1,060 feet

Taxonomic classification: Loamy-skeletal, mixed, active, mesic Typic Fragiudults

Typical Pedon

Killarney very gravelly silt loam, in an area of Killarney-Frenchmill complex, 15 to 50 percent slopes, rubbly; in

a hardwood forest; 1,300 feet west and 500 feet south of the northeast corner of sec. 22, T. 29 N., R. 3 W., in Shannon County; USGS Eminence, Missouri, topographic quadrangle; UTM coordinates 4,115,040 meters Northing and 654,798 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 4 inches; dark grayish brown (10YR 4/2) very gravelly silt loam; weak fine granular structure; friable; common fine roots; common fine interstitial and tubular pores; 3 percent rhyolite cobbles and 50 percent rhyolite gravel; very strongly acid; clear smooth boundary.

E—4 to 13 inches; brown (10YR 5/3) gravelly silt loam; weak fine subangular blocky structure; friable; common fine roots; common fine interstitial and tubular and common fine tubular pores; 20 percent rhyolite gravel; very strongly acid; clear smooth boundary.

Bt1—13 to 21 inches; yellowish brown (10YR 5/4) very gravelly silt loam; moderate medium subangular blocky structure; friable; few fine roots; common fine tubular and few fine vesicular pores; common distinct brown (7.5YR 5/4) clay films on rock fragments and common distinct pale brown (10YR 6/3) silt coats on faces of peds; 35 percent rhyolite gravel; very strongly acid; clear wavy boundary.

Bt2—21 to 28 inches; yellowish brown (10YR 5/4) very gravelly silt loam; moderate fine subangular blocky structure; firm; few fine roots; few fine vesicular and common fine tubular pores; common distinct brown (7.5YR 4/4) clay films and few distinct pale brown (10YR 6/3) silt coats on faces of peds; 5 percent rhyolite cobbles and 45 percent rhyolite gravel; very strongly acid; clear smooth boundary.

2Btx1—28 to 37 inches; 70 percent yellowish brown (10YR 5/4) and 30 percent strong brown (7.5YR 5/6) very cobbly loam; weak coarse prismatic structure parting to moderate fine subangular blocky; very firm; 70 percent brittle; few fine roots; common fine vesicular and many fine tubular pores; common distinct gray (10YR 6/1) clay films on vertical faces of peds and common distinct strong brown (7.5YR 5/6) clay films on faces of peds; 20 percent rhyolite gravel and 20 percent rhyolite cobbles; very strongly acid; clear wavy boundary.

2Btx2—37 to 46 inches; 80 percent brown (7.5YR 4/4) and 20 percent brown (10YR 5/3) gravelly loam; weak coarse prismatic structure parting to moderate fine subangular blocky; very firm; 70 percent brittle; many fine tubular and few fine

vesicular pores; common distinct reddish brown (5YR 4/4) clay films and few distinct brown (10YR 5/3) silt coats on faces of peds; 5 percent rhyolite cobbles and 20 percent rhyolite gravel; extremely acid; gradual wavy boundary.

3Bt1—46 to 53 inches; reddish brown (5YR 4/4) gravelly loam; weak coarse prismatic structure parting to moderate fine prismatic; firm; many fine tubular pores; common distinct gray (10YR 6/1) clay films on faces of peds and few distinct yellowish red (5YR 5/6) clay films on faces of peds; 2 percent rhyolite cobbles and 15 percent rhyolite gravel; very strongly acid; gradual wavy boundary.

3Bt2—53 to 62 inches; yellowish red (5YR 4/6) gravelly loam; moderate fine prismatic structure; firm; few fine tubular pores; common distinct gray (10YR 6/1) clay films on faces of peds and common distinct reddish brown (5YR 4/4) clay films on rock fragments; 15 percent rhyolite gravel; very strongly acid; gradual wavy boundary.

3Bt3—62 to 80 inches; 60 percent yellowish red (5YR 4/6) and 40 percent strong brown (7.5YR 4/6) gravelly loam; weak coarse prismatic structure parting to moderate medium angular blocky; firm; few fine tubular pores; common faint reddish brown (5YR 4/4) clay films on faces of peds; 15 percent rhyolite gravel; very strongly acid.

Range in Characteristics

Depth to the 2Btx horizon: 26 to 34 inches

Depth to bedrock: More than 60 inches

A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—35 to 60 percent

Reaction—very strongly acid to moderately acid

E or BE horizon:

Color—hue of 10YR or 7.5YR, value of 5 or 6, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 50 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Color—hue of 10YR, 7.5YR, or 5YR and value and chroma of 4 to 6

Redoximorphic features—iron segregations in shades of brown or gray

Texture of the fine-earth fraction—silt loam

Content of rock fragments—35 to 60 percent

Reaction—very strongly acid or strongly acid

2Btx horizon:

Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 2 to 6

Texture of the fine-earth fraction—silt loam or loam

Content of rock fragments—25 to 75 percent

Reaction—extremely acid or very strongly acid

3Bt horizon:

Color—hue of 7.5YR, 5YR, or 2.5YR, value of 3 to 5, and chroma of 4 to 6

Texture of the fine-earth fraction—loam or clay loam

Content of rock fragments—15 to 60 percent

Reaction—very strongly acid or strongly acid

Lecoma Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: Hills, river valleys

Position on the landform: Structural benches, stream terraces

Parent material: Loamy colluvium derived from sandstone or fine-loamy alluvium

Slope range: 1 to 15 percent

Elevation: 810 feet

Taxonomic classification: Fine-loamy, siliceous, active, mesic Typic Paleudalfs

Typical Pedon

Lecoma loam, 8 to 15 percent slopes; in a hardwood forest; 600 feet west and 1,300 feet south of the northeast corner of sec. 27, T. 29 N., R. 5 E., in Shannon County; USGS Alley Spring, Missouri, topographic quadrangle; UTM coordinates 4,113,385 meters Northing and 635,512 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 6 inches; brown (10YR 4/3) loam; moderate fine granular structure; friable; many fine roots; many very fine tubular pores; very strongly acid; abrupt smooth boundary.

E—6 to 9 inches; 50 percent brown (10YR 4/3) and 50 percent yellowish brown (10YR 5/4) loam; weak fine subangular blocky structure; friable; few fine roots; few fine tubular pores; strongly acid; abrupt smooth boundary.

Bt1—9 to 22 inches; dark yellowish brown (10YR 4/4) loam; moderate fine subangular blocky structure; firm; few fine roots; few fine tubular pores; common distinct brown (7.5YR 4/4) clay films on

faces of peds; strongly acid; clear smooth boundary.

Bt2 (upper part)—22 to 29 inches; dark yellowish brown (10YR 4/4) loam; moderate fine subangular blocky structure; firm; few fine roots; common fine tubular pores; many prominent black (N 2/0) manganese or iron-manganese stains throughout, common distinct light gray (10YR 7/2) skeletons on faces of peds, and few distinct brown (7.5YR 4/4) clay films on faces of peds; strongly acid (horizon subdivided for sampling).

Bt2 (lower part)—29 to 39 inches; dark yellowish brown (10YR 4/4) loam; moderate fine subangular blocky structure; firm; few fine roots; common fine tubular pores; many prominent black (N 2/0) manganese or iron-manganese stains throughout, common distinct light gray (10YR 7/2) skeletons on faces of peds, and few distinct brown (7.5YR 4/4) manganese or iron-manganese stains on faces of peds; strongly acid; gradual smooth boundary.

2Bt3—39 to 53 inches; yellowish red (5YR 4/6) loam; moderate medium subangular blocky structure; firm; few fine roots; few fine tubular pores; many distinct pale brown (10YR 6/3) silt coats on faces of peds, common distinct red (2.5YR 4/6) clay films on faces of peds, and common prominent black (N 2/0) manganese or iron-manganese stains throughout; strongly acid; gradual smooth boundary.

2Bt4—53 to 70 inches; yellowish red (5YR 4/6) loam; moderate medium subangular blocky structure; firm; few fine roots; common medium tubular pores; many prominent black (N 2/0) manganese or iron-manganese stains throughout, common distinct pale brown (10YR 6/3) silt coats on faces of peds, and few distinct strong brown (7.5YR 4/6) clay films on faces of peds; strongly acid; gradual smooth boundary.

2Bt5—70 to 90 inches; dark red (2.5YR 3/6) loam; moderate medium subangular blocky structure; firm; few fine roots; few fine tubular pores; many prominent black (N 2/0) manganese or iron-manganese stains throughout, common distinct red (2.5YR 4/6) clay films on faces of peds, and common distinct light yellowish brown (10YR 6/4) silt coats on faces of peds; 2 percent chert gravel; strongly acid.

Range in Characteristics

Ap or A horizon:

Color—hue of 10YR, value of 3 or 4 moist (6 or 7 dry), and chroma of 3 or 4

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—0 to 5 percent

Reaction—strongly acid to neutral

E horizon:

Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4

Content of rock fragments—0 to 5 percent

Texture of the fine-earth fraction—loam or silt loam

Reaction—strongly acid to neutral

Bt horizon:

Color—hue of 10YR or 7.5YR and value and chroma of 4 to 6

Redoximorphic features—iron segregations in shades of red, brown, yellow, or gray

Texture of the fine-earth fraction—silt loam, loam, clay loam, or silty clay loam

Content of rock fragments—0 to 5 percent

Reaction—strongly acid to neutral

2Bt horizon:

Color—hue of 5YR or 2.5YR, value of 4, and chroma of 4 to 6

Redoximorphic features—iron segregations in shades of red, brown, yellow, or gray

Texture of the fine-earth fraction—sandy clay loam, loam, silt loam, clay loam, or silty clay loam

Content of rock fragments—0 to 10 percent

Reaction—very strongly acid to moderately acid

Midco Series

Soil depth: Very deep

Drainage class: Somewhat excessively drained

Permeability class: Moderately rapid

Landform: River valleys

Position on the landform: High flood plains

Parent material: Alluvium

Slope range: 0 to 3 percent

Elevation: 845 feet

Taxonomic classification: Loamy-skeletal, siliceous, superactive, nonacid, mesic Typic Udifluvents

Typical Pedon

Midco very gravelly loam, 0 to 3 percent slopes, occasionally flooded; in a pine forest; 690 feet east and 1,980 feet north of the southwest corner of sec. 13, T. 26 N., R. 3 W., in Shannon County; USGS Fremont, Missouri, topographic quadrangle; UTM coordinates 4,087,184 meters Northing and 657,021 meters Easting, Zone 15, NAD 27:

A—0 to 8 inches; dark brown (10YR 3/3) very gravelly loam, pale brown (10YR 6/3) dry; weak fine

granular structure; friable; many fine and medium roots; 35 percent chert fragments; slightly acid; abrupt wavy boundary.

- C1—8 to 17 inches; strong brown (7.5YR 5/6) extremely gravelly sandy loam; massive; friable; common fine and medium roots; 75 percent chert fragments; moderately acid; gradual wavy boundary.
- C2—17 to 26 inches; strong brown (7.5YR 5/6) very gravelly sandy loam; massive; friable; common fine roots; 50 percent chert fragments; moderately acid; clear wavy boundary.
- C3—26 to 60 inches; strong brown (7.5YR 5/6) extremely gravelly sandy loam; massive; friable; few fine roots; 80 percent chert fragments; moderately acid.

Range in Characteristics

A horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Texture of the fine-earth fraction—loam

Content of rock fragments—35 to 60 percent

Reaction—moderately acid or slightly acid

C horizon (upper part):

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—sandy loam or loam

Content of rock fragments—35 to 70 percent

Reaction—strongly acid to neutral

C horizon (lower part):

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 6

Texture of the fine-earth fraction—loamy sand, sandy loam, or loam

Content of rock fragments—30 to 80 percent

Reaction—strongly acid to neutral

Moniteau Series

Soil depth: Very deep

Drainage class: Poorly drained

Permeability class: Moderately slow

Landform: River valleys

Position on the landform: Low stream terraces

Parent material: Silty alluvium

Slope range: 0 to 3 percent

Elevation: 680 feet

Taxonomic classification: Fine-silty, mixed, active, mesic Typic Endoaqualfs

Taxadjunct features: The Moniteau soils in Reynolds County have an active cation-exchange activity

class instead of the superactive class that is defined for the series.

Typical Pedon

Moniteau silt loam, 0 to 3 percent slopes, rarely flooded; in a pasture; 460 feet north and 240 feet west of the southeast corner of sec. 18, T. 32 N., R. 2 E.; USGS Lesterville, Missouri, topographic quadrangle; UTM coordinates 4,146,700 meters Northing and 688,620 meters Easting, Zone 15, NAD 27:

Ap—0 to 7 inches; dark grayish brown (10YR 4/2) silt loam; weak fine subangular blocky structure; very friable; many fine roots throughout; many fine moderate-continuity interstitial pores; common fine prominent irregular very weakly cemented very dark grayish brown (10YR 3/2) iron-manganese masses; strongly acid; clear smooth boundary.

Eg—7 to 17 inches; light brownish gray (10YR 6/2) silt loam; weak fine subangular blocky structure; very friable; common fine roots throughout; many fine moderate-continuity vesicular pores; many fine prominent irregular weakly cemented yellowish brown (10YR 5/6) masses of oxidized iron between peds with diffuse boundaries; many fine prominent irregular weakly cemented very dark grayish brown (10YR 3/2) iron-manganese masses between peds with diffuse boundaries; very strongly acid; clear smooth boundary.

Btg1—17 to 27 inches; gray (10YR 6/1) silt loam; weak fine subangular blocky structure; friable; few very fine roots throughout; many fine moderate-continuity vesicular pores; few distinct dark grayish brown (10YR 4/2) clay films on vertical faces of peds; many fine distinct irregular weakly cemented brownish yellow (10YR 6/6) masses of oxidized iron between peds with diffuse boundaries; many fine prominent irregular weakly cemented very dark grayish brown (10YR 3/2) iron-manganese masses between peds with diffuse boundaries; very strongly acid; clear smooth boundary.

Btg2—27 to 37 inches; gray (10YR 6/1) silt loam; weak fine subangular blocky structure; friable; many fine moderate-continuity vesicular pores; few distinct dark grayish brown (10YR 4/2) clay films on vertical faces of peds; common fine prominent irregular weakly cemented brownish yellow (10YR 6/6) masses of oxidized iron between peds with diffuse boundaries; common fine distinct irregular moderately cemented very dark grayish brown (10YR 3/2) iron-manganese concretions between peds with clear boundaries; very strongly acid; clear smooth boundary.

Btg3—37 to 47 inches; gray (10YR 6/1) silt loam; weak fine subangular blocky structure; friable; many fine

moderate-continuity vesicular pores; very many distinct brown (7.5YR 4/2) clay films on vertical faces of peds; common fine prominent irregular moderately cemented dark brown (7.5YR 3/2) iron-manganese concretions between peds with clear boundaries; common fine prominent irregular weakly cemented reddish yellow (7.5YR 6/6) masses of oxidized iron between peds with diffuse boundaries; common fine prominent irregular weakly cemented strong brown (7.5YR 5/6) masses of oxidized iron between peds with diffuse boundaries; very strongly acid; clear smooth boundary.

Btg4—47 to 57 inches; gray (10YR 6/1) silt loam; weak fine subangular blocky structure; friable; many fine moderate-continuity vesicular pores; common distinct brown (7.5YR 4/2) clay films on vertical faces of peds; many fine distinct irregular weakly cemented yellowish brown (10YR 5/6) masses of oxidized iron between peds with diffuse boundaries; common fine distinct irregular very weakly cemented very dark gray (7.5YR 3/1) iron-manganese concretions between peds with clear boundaries; common fine distinct irregular weakly cemented strong brown (7.5YR 4/6) masses of oxidized iron between peds with diffuse boundaries; very strongly acid; clear smooth boundary.

Btg5—57 to 67 inches; gray (10YR 6/1) silt loam; weak fine subangular blocky structure; friable; many fine moderate-continuity vesicular pores; very many distinct brown (7.5YR 4/2) clay films on vertical faces of peds; many fine distinct irregular extremely weakly cemented strong brown (7.5YR 5/6) masses of oxidized iron between peds with diffuse boundaries; common fine distinct irregular weakly cemented very dark gray (7.5YR 3/1) iron-manganese concretions between peds with clear boundaries; common fine distinct irregular extremely weakly cemented reddish yellow (7.5YR 6/6) masses of oxidized iron between peds with diffuse boundaries; very strongly acid.

Range in Characteristics

Thickness of the solum: 36 to more than 60 inches

A or Ap horizon:

Color—hue of 10YR, value of 4 or 5, and chroma of 1 to 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 3 percent

Reaction—strongly acid to neutral

E horizon:

Color—hue of 10YR, value of 4 to 7, and chroma of 1 or 2

Redoximorphic features—iron segregations in shades of brown, yellow, or gray

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 3 percent

Reaction—very strongly acid to slightly acid

Btg horizon:

Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2

Redoximorphic features—iron segregations in shades of brown, yellow, or gray

Texture of the fine-earth fraction—silty clay loam or silt loam

Content of rock fragments—0 to 3 percent

Reaction—very strongly acid to neutral

2Btg horizon and Cg horizon (if it occurs):

Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2

Redoximorphic features—iron segregations in shades of brown, yellow, or gray

Texture of the fine-earth fraction—silt loam, loam, or silty clay loam

Content of rock fragments—0 to 30 percent

Reaction—strongly acid to slightly alkaline

Mudlick Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: Mountains

Position on the landform: Backslopes, shoulders, summits

Parent material: Loamy colluvium and residuum derived from diorite

Slope range: 8 to 45 percent

Elevation: 670 feet

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Paleudults

Typical Pedon

Mudlick cobbly silt loam, in an area of Mudlick-Irondale-Killarney complex, 15 to 45 percent slopes, extremely bouldery, rocky; in a hardwood forest; 3,900 feet east and 1,800 feet south of the northwest corner of sec. 4, T. 29 N., R. 5 E., in Wayne County; USGS Patterson, Missouri, topographic quadrangle; UTM

coordinates 4,122,212 meters Northing and 721,781 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 4 inches; dark yellowish brown (10YR 3/4) cobbly silt loam; moderate fine granular structure; very friable; many very fine to coarse roots; many very fine and fine interstitial and tubular pores; 10 percent subangular diorite gravel and 15 percent subangular diorite cobbles; very strongly acid; clear smooth boundary.

E—4 to 8 inches; yellowish brown (10YR 5/4) cobbly silt loam; moderate fine granular structure; very friable; many very fine to coarse roots; many very fine and fine interstitial and tubular pores; 10 percent subangular diorite gravel and 15 percent subangular diorite cobbles; very strongly acid; clear smooth boundary.

BE—8 to 15 inches; brown (7.5YR 5/4) silt loam; moderate fine subangular blocky structure; friable; many very fine to coarse roots; many very fine and fine vesicular and many very fine to medium tubular pores; 5 percent subangular diorite gravel; very strongly acid; clear wavy boundary.

Bt1—15 to 25 inches; strong brown (7.5YR 5/6) gravelly silt loam; moderate very fine and fine subangular blocky structure; friable; common very fine and fine roots; many very fine and fine vesicular and many very fine to medium tubular pores; common faint strong brown (7.5YR 4/6) clay films; 15 percent subangular diorite gravel; very strongly acid; clear wavy boundary.

Bt2—25 to 36 inches; strong brown (7.5YR 4/6) silty clay loam; moderate fine and medium subangular blocky structure; firm; common very fine and fine roots; many very fine and fine vesicular pores; common faint strong brown (7.5YR 4/6) clay films; 10 percent subangular diorite gravel; very strongly acid; clear wavy boundary.

2Bt3—36 to 46 inches; 80 percent strong brown (7.5YR 4/6) and 20 percent red (2.5YR 4/8) stony clay loam; moderate very fine and fine angular blocky structure; very firm; few very fine and fine roots; common very fine and fine vesicular pores; common faint strong brown (7.5YR 4/6) clay films; 30 percent subangular diorite stones; very strongly acid; gradual wavy boundary.

2BC—46 to 67 inches; 80 percent strong brown (7.5YR 4/6) and 20 percent red (2.5YR 4/8) stony clay loam; moderate very fine and fine angular blocky structure; very firm; few very fine and fine roots; common very fine and fine vesicular pores; very few faint strong brown (7.5YR 4/6) clay films;

common fine prominent yellowish red (5YR 5/8) masses of oxidized iron; common fine prominent gray (10YR 6/1) iron depletions; 25 percent subangular diorite stones; very strongly acid.

Range in Characteristics

Depth to the 2Bt or 2BC horizon: 12 to 38 inches

A horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 40 percent

Reaction—extremely acid to strongly acid

E and BE horizons:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—5 to 25 percent

Reaction—extremely acid to strongly acid

Bt horizon:

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 8

Redoximorphic features—iron concretions, iron depletions, masses of iron accumulation, or masses of iron-manganese accumulation

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—5 to 25 percent

Reaction—extremely acid to strongly acid

2Bt horizon:

Color—hue of 2.5YR, 5YR, or 7.5YR, value of 4 or 5, and chroma of 6 or 8

Redoximorphic features—iron depletions, masses of iron accumulation, or masses of iron-manganese accumulation

Texture of the fine-earth fraction—loam, clay loam, or silty clay loam

Content of rock fragments—0 to 30 percent

Reaction—extremely acid to strongly acid

2BC horizon:

Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 6 or 8

Redoximorphic features—iron depletions or masses of iron accumulation

Texture of the fine-earth fraction—loam, clay loam, or clay

Content of rock fragments—0 to 30 percent (0 to 25 percent stones and boulders, 0 to 30 percent cobbles, and 0 to 10 percent gravel)

Reaction—extremely acid to strongly acid

Niangua Series

Soil depth: Deep

Drainage class: Well drained

Permeability class: Moderately slow

Landform: Hills

Position on the landform: Backslopes

Parent material: Gravelly colluvium over clayey residuum derived from dolostone

Slope range: 15 to 50 percent

Elevation: 720 feet

Taxonomic classification: Very fine, mixed, active, mesic Typic Hapludalfs

Typical Pedon

Niangua very gravelly silt loam, in an area of Niangua-Bardley complex, 15 to 50 percent slopes, rocky, stony; in a hardwood forest; 560 feet west and 700 feet north of the southeast corner of sec. 4, T. 28 N., R. 2 W., in Shannon County; USGS Stegall Mountain, Missouri, topographic quadrangle; UTM coordinates 4,109,635 meters Northing and 662,612 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 5 inches; brown (10YR 4/3) very gravelly silt loam; weak fine granular structure; friable; many fine and medium roots and few coarse roots; many fine interstitial and tubular pores; 45 percent chert gravel; strongly acid; clear wavy boundary.

Bt1—5 to 14 inches; red (2.5YR 4/6) clay; weak fine subangular blocky structure; very firm; few fine to coarse roots; many fine vesicular pores; many distinct dark red (10R 3/6) clay films, common distinct yellowish red (5YR 5/6) clay films, and few distinct brownish yellow (10YR 6/8) organic stains on faces of peds; 2 percent chert gravel; very strongly acid; clear smooth boundary.

2Bt2—14 to 34 inches; red (2.5YR 4/6) clay; weak fine subangular blocky structure; very firm; few fine to coarse roots; many fine vesicular pores; many distinct dark red (10R 3/6) clay films on faces of peds; common fine irregular black (N 2/0) iron-manganese concretions between peds; very strongly acid; clear smooth boundary.

3Bt3—34 to 41 inches; 50 percent strong brown (7.5YR 5/8) and 50 percent red (10R 4/6) sandy clay; weak fine subangular blocky structure; firm; few fine roots; many fine vesicular pores; common distinct dark red (10R 3/6) clay films on faces of peds; 5 percent dolostone gravel; slightly acid; abrupt smooth boundary.

3R—41 inches; dolostone bedrock.

Range in Characteristics**A horizon:**

Color—hue of 10YR, value of 2 to 4, and chroma of 1 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 12 percent cobbles and 35 to 60 percent gravel

Reaction—very strongly acid to neutral

E horizon or BE horizon (if it occurs):

Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 12 percent cobbles

Reaction—strongly acid or moderately acid

Bt horizon:

Color—hue of 2.5YR to 7.5YR, value of 3 to 5, and chroma of 4 to 8

Texture of the fine-earth fraction—silty clay or clay

Content of rock fragments—0 to 25 percent

Reaction—very strongly acid to neutral

2Bt horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8

Color of mottles (if they occur)—hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 3 to 8

Texture of the fine-earth fraction—clay

Content of rock fragments—0 to 25 percent

Reaction—strongly acid to neutral

3Bt horizon (lower part):

Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 3 to 8

Texture of the fine-earth fraction—sandy clay or clay

Reaction—moderately acid to slightly alkaline

Content of rock fragments—0 to 25 percent

Portia Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: Hills

Position on the landform: Summits, shoulders

Parent material: Colluvium over residuum

Slope range: 3 to 15 percent

Elevation: 860 feet

Taxonomic classification: Fine-loamy, siliceous, semiactive, mesic Typic Paleudalfs

Typical Pedon

Portia silt loam, in an area of Portia-Hobson complex, 8 to 15 percent slopes; in a hardwood forest; 1,900 feet east and 2,200 feet north of the southwest corner of sec. 8, T. 28 N., R. 4 W., in Shannon County; USGS Bartlett, Missouri, topographic quadrangle; UTM coordinates 4,108,056 meters Northing and 641,121 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 6 inches; dark grayish brown (10YR 4/2) silt loam; weak fine and medium granular structure; very friable; many fine roots; many fine interstitial pores; common distinct dark brown (10YR 3/3) organic stains on faces of peds; 1 percent subangular chert gravel; strongly acid; abrupt wavy boundary.

Bt1—6 to 10 inches; 40 percent brown (7.5YR 5/4), 30 percent brown (7.5YR 5/3), and 30 percent strong brown (7.5YR 5/6) silt loam; weak fine subangular blocky structure; friable; common medium roots; common fine tubular pores; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds and in pores and common distinct brown (10YR 4/3) organic stains on faces of peds; 1 percent subangular chert gravel; strongly acid; clear smooth boundary.

Bt2—10 to 16 inches; strong brown (7.5YR 5/6) silt loam; moderate fine subangular blocky structure; friable; common fine roots; common fine tubular pores; common distinct brown (10YR 4/3) clay films on faces of peds and in pores; 1 percent subangular chert gravel; very strongly acid; clear smooth boundary.

Bt3—16 to 21 inches; strong brown (7.5YR 5/6) loam; moderate fine subangular blocky structure; firm; few fine roots; common fine tubular pores; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds and common prominent black (N 2/0) manganese or iron-manganese stains throughout; common fine spherical iron-manganese concretions; 10 percent subangular chert gravel; very strongly acid; clear wavy boundary.

2Bt4—21 to 31 inches; 60 percent brown (7.5YR 5/4) and 40 percent yellowish red (5YR 5/6) clay; moderate fine subangular blocky structure; firm; few fine roots and few medium roots; common fine tubular pores; common distinct brown (10YR 4/3) clay films on faces of peds and in pores and common prominent black (N 2/0) manganese or

iron-manganese stains throughout; common fine spherical iron-manganese concretions; 5 percent subangular chert gravel; strongly acid; clear wavy boundary.

2Bt5—31 to 44 inches; 60 percent red (2.5YR 5/6) and 40 percent strong brown (7.5YR 5/8) clay; weak fine and medium subangular blocky structure; firm; few fine roots; few very fine tubular pores; common distinct yellowish brown (10YR 5/6) clay films on faces of peds; few fine spherical iron-manganese concretions; 7 percent subangular chert gravel; strongly acid; gradual wavy boundary.

2Bt6—44 to 60 inches; 60 percent red (2.5YR 4/6) and 40 percent strong brown (7.5YR 5/6) clay; weak fine and medium subangular blocky structure; firm; few fine roots; few very fine tubular pores; common prominent light gray (10YR 7/1) clay films on faces of peds and common distinct pressure faces on faces of peds; 4 percent subangular chert gravel; strongly acid.

Range in Characteristics

Depth to bedrock: 60 to more than 80 inches

A horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 10 percent

Reaction—strongly acid to slightly acid

E horizon (if it occurs):

Color—hue of 10YR, value of 5, and chroma of 3 or 4

Texture of the fine-earth fraction—sandy loam, fine sandy loam, loam, or silt loam

Content of rock fragments—0 to 10 percent

Reaction—strongly acid to slightly acid

Bt horizon:

Color—hue of 2.5YR, 5YR, or 7.5YR, value of 3 to 5, and chroma of 4 to 8

Texture of the fine-earth fraction—loam, silt loam, sandy clay loam, or clay loam

Content of rock fragments—0 to 10 percent

Reaction—very strongly acid to moderately acid

2Bt or 3Bt horizon:

Color—hue of 2.5YR, 5YR, or 7.5YR, value of 3 to 5, and chroma of 4 to 8

Texture of the fine-earth fraction—clay loam, sandy clay, or clay

Content of rock fragments—0 to 25 percent

Reaction—very strongly acid to moderately acid

Poynor Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: Hills

Position on the landform: Shoulders, footslopes, summits, backslopes

Parent material: Gravelly colluvium over clayey residuum derived from dolostone

Slope range: 1 to 15 percent

Elevation: 1,000 feet

Taxonomic classification: Loamy-skeletal over clayey, siliceous, semiactive, mesic Typic Paleudults

Typical Pedon

Poynor gravelly silt loam, in an area of Poynor-Clarksville-Scholten complex, 8 to 15 percent slopes, stony; in a hardwood forest; 100 feet east and 5,700 feet north of the southwest corner of sec. 1, T. 29 N., R. 4 W., in Shannon County; USGS Eminence, Missouri, topographic quadrangle; UTM coordinates 4,120,453 meters Northing and 647,010 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 3 inches; dark grayish brown (10YR 4/2) gravelly silt loam; moderate fine granular structure; very friable; many fine roots; many fine interstitial and tubular pores; 33 percent chert gravel; very strongly acid; abrupt smooth boundary.

E—3 to 8 inches; light yellowish brown (10YR 6/4) very gravelly silt loam; moderate fine subangular blocky structure; friable; common fine roots; many fine tubular pores; 3 percent chert cobbles and 40 percent chert gravel; very strongly acid; clear wavy boundary.

Bt1—8 to 20 inches; yellowish brown (10YR 5/6) very gravelly silt loam; moderate medium subangular blocky structure; firm; common fine roots; many fine tubular pores; many distinct light yellowish brown (10YR 6/4) silt coats and few faint yellowish brown (10YR 5/4) clay films on faces of peds; 10 percent chert cobbles and 45 percent chert gravel; very strongly acid; gradual wavy boundary.

2Bt2—20 to 28 inches; yellowish red (5YR 5/6) gravelly clay; moderate medium subangular blocky structure; firm; few fine roots; many fine tubular pores; common distinct red (2.5YR 5/6) clay films and common distinct light brown (7.5YR 6/4) silt coats on faces of peds; 15 percent chert gravel; very strongly acid; gradual wavy boundary.

2Bt3 (upper part)—28 to 44 inches; 34 percent dark red (2.5YR 3/6), 33 percent yellowish red (5YR

5/6), and 33 percent gray (10YR 6/1) gravelly clay; strong fine angular blocky structure; very firm; few fine roots; few fine tubular pores; 20 percent chert gravel; very strongly acid (horizon subdivided for sampling).

2Bt3 (lower part)—44 to 63 inches; 34 percent gray (10YR 6/1), 33 percent dark red (2.5YR 3/6), and 33 percent yellowish red (5YR 5/6) gravelly clay; strong fine angular blocky structure; very firm; few fine roots; few fine tubular pores; 20 percent chert gravel; very strongly acid; gradual wavy boundary.

2Bt4—63 to 88 inches; 60 percent dark red (2.5YR 3/6) and 40 percent yellowish red (5YR 5/6) gravelly clay; strong fine angular blocky structure; very firm; few fine roots; few fine tubular pores; 2 percent chert stones, 8 percent chert cobbles, and 25 percent chert gravel; very strongly acid.

Range in Characteristics

Depth to the 2Bt horizon: 14 to 40 inches

Depth to bedrock: 80 inches or more

A horizon:

Color—hue of 10YR, value of 2 to 6, and chroma of 1 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 60 percent

Reaction—extremely acid to slightly acid

E horizon:

Color—hue of 10YR, value of 2 to 6, and chroma of 1 to 4

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—20 to 70 percent

Reaction—extremely acid to moderately acid

Bt or BE horizon (if it occurs):

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture of the fine-earth fraction—loam, silt loam, or silty clay loam

Content of rock fragments—35 to 75 percent

Reaction—very strongly acid or strongly acid

2Bt horizon:

Color—hue of 2.5YR to 10YR, value of 3 to 5, and chroma of 3 to 8

Texture of the fine-earth fraction—clay

Content of rock fragments—0 to 20 percent

Reaction—extremely acid to strongly acid

3Bt horizon (if it occurs):

Color—hue of 2.5YR to 10YR, value of 3 to 5, and chroma of 3 to 8; gray seams

Texture of the fine-earth fraction—clay

Content of rock fragments—0 to 35 percent

Reaction—extremely acid to strongly acid

Raftville Series

Soil depth: Moderately deep

Drainage class: Well drained

Permeability class: Moderate

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Loamy alluvium derived from sandstone

Slope range: 0 to 3 percent

Elevation: 950 feet

Taxonomic classification: Fine-loamy, siliceous, semiactive, mesic Typic Hapludalfs

Taxadjunct features: The typical pedon (from Shannon County) is a taxadjunct because of the high base saturation at the critical depth. The typical pedon in the official soil series description is an Ultisol.

Typical Pedon

Raftville sandy loam, in an area of Raftville-Gabriel complex, 0 to 3 percent slopes, rarely flooded; in a hardwood forest; 180 feet west and 620 feet north of the southeast corner of sec. 35, T. 29 N., R. 3 W., in Shannon County; USGS Powder Mill Ferry, Missouri, topographic quadrangle; UTM coordinates 4,111,192 meters Northing and 656,695 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 9 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable; common fine to coarse roots; many fine interstitial and tubular pores; 1 percent chert gravel; strongly acid; clear smooth boundary.

Bt1—9 to 16 inches; yellowish red (5YR 5/6) loam; weak fine subangular blocky structure; friable; common fine to coarse roots; common fine to coarse tubular pores; few distinct light brown (7.5YR 6/3) silt coats and few distinct reddish brown (5YR 5/4) clay films on faces of peds; 2 percent chert gravel; very strongly acid; clear smooth boundary.

Bt2—16 to 24 inches; yellowish red (5YR 5/6) clay loam; weak fine subangular blocky structure; firm; common fine roots and few medium and coarse roots; common fine and medium tubular pores; few distinct reddish brown (5YR 5/4) clay films and few distinct light brown (7.5YR 6/3) silt coats on faces of peds; 2 percent chert gravel; very strongly acid; clear smooth boundary.

2Bt3—24 to 34 inches; strong brown (7.5YR 5/6) very gravelly clay loam; weak fine subangular blocky structure; firm; few fine roots; common fine interstitial and tubular pores; common distinct

strong brown (7.5YR 5/6) clay films on faces of peds; 7 percent chert cobbles and 45 percent chert gravel; strongly acid; clear smooth boundary.

2Bt4—34 to 39 inches; strong brown (7.5YR 5/6) very gravelly clay loam; moderate fine subangular blocky structure; very firm; few fine roots; common fine interstitial and tubular pores; many distinct brown (10YR 5/3) clay films and few distinct reddish brown (5YR 5/4) clay films on faces of peds; 2 percent dolostone cobbles and 45 percent chert gravel; very strongly acid; abrupt smooth boundary.

3R—39 inches; dolostone bedrock.

Range in Characteristics

Depth to bedrock: 20 to 40 inches

Note: The ranges given for reaction apply to the Raftville soils in Reynolds County, not to the typical pedon.

A horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 or 4

Texture of the fine-earth fraction—sandy loam

Content of rock fragments—0 to 15 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Color—hue of 5YR, 7.5YR, or 10YR, value of 4 or 5, and chroma of 3 to 8

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—0 to 15 percent

Reaction—very strongly acid or strongly acid

2Bt or 2BC horizon:

Color—hue of 5YR or 7.5YR, value of 4 or 5, and chroma of 4 to 8

Texture of the fine-earth fraction—loam, sandy clay loam, or clay loam

Content of rock fragments—15 to 60 percent

Reaction—strongly acid to slightly acid

Relfe Series

Soil depth: Very deep

Drainage class: Excessively drained

Permeability class: Rapid

Landform: River valleys

Position on the landform: Flood plains

Parent material: Sandy and gravelly alluvium

Slope range: 0 to 3 percent

Elevation: 670 feet

Taxonomic classification: Sandy-skeletal, siliceous, mesic Mollic Udifluvents

Typical Pedon

Relfe very gravelly sandy loam, in an area of Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded; in a field; 100 feet east and 160 feet north of the southwest corner of sec. 32, T. 29 N., R. 2 E.; USGS Clearwater Dam, Missouri, topographic quadrangle; UTM coordinates 4,112,380 meters Northing and 689,200 meters Easting, Zone 15, NAD 27:

- A—0 to 6 inches; dark brown (10YR 3/3) very gravelly sandy loam, brown (10YR 5/3) dry; weak fine granular structure; very friable; common medium roots throughout; many fine interstitial pores; 40 percent subrounded chert gravel; slightly acid; clear smooth boundary.
- C1—6 to 15 inches; 50 percent brown (10YR 5/3) and 50 percent pale brown (10YR 6/3) extremely gravelly sand; single grain; loose; few fine and few medium roots throughout; many fine interstitial pores; 70 percent subrounded chert gravel; moderately acid; clear smooth boundary.
- C2—15 to 24 inches; brown (10YR 5/3) extremely gravelly sandy loam; weak fine subangular blocky structure; very friable; few fine and few medium roots throughout; many fine interstitial pores; 70 percent subrounded chert gravel; moderately acid; clear smooth boundary.
- C3—24 to 40 inches; pale brown (10YR 6/3) very gravelly sand; single grain; very friable; few fine roots throughout; many fine interstitial pores; 40 percent subrounded chert gravel; moderately acid; clear smooth boundary.
- C4 (upper part)—40 to 50 inches; 50 percent pale brown (10YR 6/3) and 50 percent brown (10YR 5/3) very gravelly sand; single grain; loose; few fine roots throughout; many fine interstitial pores; 45 percent subrounded chert gravel; neutral (horizon subdivided for sampling).
- C4 (lower part)—50 to 60 inches; 50 percent pale brown (10YR 6/3) and 50 percent brown (10YR 5/3) very gravelly sand; single grain; loose; few fine roots throughout; many fine interstitial pores; 45 percent subrounded chert gravel; neutral.

Range in Characteristics

Depth to bedrock: 60 inches or more

A or Ap horizon:

- Color—hue of 10YR or 7.5YR, value of 3, and chroma of 2 to 4
- Texture of the fine-earth fraction—coarse sandy loam or sandy loam
- Content of rock fragments—0 to 60 percent
- Reaction—strongly acid to neutral

C horizon:

- Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 to 6
- Texture of the fine-earth fraction—coarse sand, loamy coarse sand, or sand; stratified coarse sand and loamy sand in some pedons
- Content of rock fragments—35 to 75 percent
- Reaction—strongly acid to neutral

Rueter Series

Soil depth: Very deep

Drainage class: Somewhat excessively drained

Permeability class: Moderate

Landform: Hills, structural benches

Position on the landform: Backslopes, summits

Parent material: Gravelly colluvium over gravelly residuum derived from dolostone

Slope range: 3 to 35 percent

Elevation: 670 feet

Taxonomic classification: Loamy-skeletal, siliceous, active, mesic Typic Paleudalfs

Typical Pedon

Rueter very gravelly silt loam, in an area of Alred-Rueter complex, 15 to 35 percent slopes, very stony; in a hardwood forest; 2,100 feet east and 2,880 feet north of the southwest corner of sec. 21, T. 29 N., R. 2 W., in Shannon County; USGS Powder Mill Ferry, Missouri, topographic quadrangle; UTM coordinates 4,114,232 meters Northing and 662,322 meters Easting, Zone 15, NAD 27:

- Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.
- A—1 to 5 inches; brown (10YR 4/3) very gravelly silt loam; weak fine granular structure; friable; many fine to coarse roots; many fine to coarse interstitial and tubular pores; 35 percent chert gravel; moderately acid; clear smooth boundary.
- E—5 to 14 inches; yellowish brown (10YR 5/4) gravelly silt loam; weak fine granular structure; friable; common fine and medium roots; common medium tubular pores; 20 percent chert gravel; strongly acid; clear smooth boundary.
- Bt1—14 to 23 inches; light yellowish brown (10YR 6/4) very gravelly silt loam; weak fine subangular blocky structure; friable; common fine and medium roots; common medium tubular pores; common distinct yellowish brown (10YR 5/4) clay films on faces of peds and few distinct dark yellowish brown (10YR 3/4) clay films on faces of peds; 35 percent chert gravel; strongly acid; clear smooth boundary.

- Bt2—23 to 40 inches; brown (7.5YR 5/4) very gravelly silt loam; weak fine subangular blocky structure; friable; common fine and medium roots; few fine tubular pores; common distinct brown (7.5YR 5/4) clay films on faces of peds and few distinct dark brown (7.5YR 3/2) clay films on faces of peds; 50 percent chert gravel; strongly acid; clear smooth boundary.
- Bt3—40 to 54 inches; brown (7.5YR 5/4) extremely gravelly loam; weak fine subangular blocky structure; friable; few fine roots; few fine tubular pores; common distinct strong brown (7.5YR 5/6) clay films on faces of peds and common distinct brown (7.5YR 4/3) clay films on faces of peds and in pores; 10 percent chert cobbles and 60 percent chert gravel; strongly acid; clear wavy boundary.
- Bt4—54 to 64 inches; brown (7.5YR 5/4) extremely gravelly silt loam; weak fine subangular blocky structure; friable; few fine roots; few fine tubular pores; common distinct strong brown (7.5YR 5/6) clay films on faces of peds and common distinct red (2.5YR 4/6) clay films on faces of peds; 22 percent chert cobbles and 45 percent chert gravel; strongly acid; clear wavy boundary.
- 2Bt5—64 to 80 inches; 60 percent red (2.5YR 4/6) and 40 percent yellowish red (5YR 5/6) very gravelly silty clay loam; moderate fine subangular blocky structure; firm; few fine roots; few fine tubular pores; common distinct dark red (2.5YR 3/6) and common distinct dark reddish brown (5YR 3/4) clay films on faces of peds; 10 percent chert cobbles and 30 percent chert gravel; strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches

Depth to bedrock: More than 60 inches

A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 1 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 60 percent

Reaction—very strongly acid to moderately acid

E horizon:

Color—hue of 10YR, value of 4 to 7, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—20 to 50 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Color—hue of 10YR to 2.5YR, value of 3 to 6, and chroma of 3 to 8

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—35 to 75 percent

Reaction—very strongly acid or strongly acid

2Bt horizon:

Color—hue of 10YR to 10R, value of 3 to 7, and chroma of 1 to 8

Texture of the fine-earth fraction—clay loam, silty clay loam, silty clay, or clay

Content of rock fragments—35 to 60 percent

Reaction—strongly acid or moderately acid

3Bt horizon:

Color—hue of 10YR to 10R, value of 3 to 7, and chroma of 1 to 8

Texture of the fine-earth fraction—clay

Content of rock fragments—5 to 60 percent

Reaction—strongly acid or moderately acid

Sandbur Series

Soil depth: Very deep

Drainage class: Somewhat excessively drained

Permeability class: Moderately rapid

Landform: River valleys

Position on the landform: Flood plains

Parent material: Loamy alluvium

Slope range: 0 to 3 percent

Elevation: 470 feet

Taxonomic classification: Coarse-loamy, siliceous, superactive, nonacid, mesic Mollic Udifluvents

Typical Pedon

Sandbur fine sandy loam, in an area of Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded; in a hardwood forest; 500 feet west and 400 feet north of the southeast corner of sec. 26, T. 30 N., R. 5 W., in Shannon County; USGS Round Spring, Missouri, topographic quadrangle; UTM coordinates 4,124,640 meters Northing and 637,460 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 7 inches; dark brown (10YR 3/3) fine sandy loam, brown (10YR 5/3) dry; weak fine granular structure; very friable; many fine and medium roots; 12 percent gravel; moderately acid; clear smooth boundary.

C1—7 to 15 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; very friable; many fine and common medium roots; moderately acid; clear smooth boundary.

C2—15 to 25 inches; dark brown (7.5YR 3/4) fine sandy loam; weak fine granular structure; very

friable; common fine roots; moderately acid; clear smooth boundary.

C3—25 to 38 inches; brown (7.5YR 4/3) fine sandy loam; weak medium prismatic structure; very friable; common fine and medium roots; moderately acid; clear smooth boundary.

C4—38 to 50 inches; brown (7.5YR 4/3) fine sandy loam; single grain; loose; common fine and medium roots; moderately acid; clear smooth boundary.

2C5—50 to 60 inches; dark brown (7.5YR 3/4) very gravelly sandy loam; single grain; loose; few fine and medium roots; 50 percent rounded chert gravel; moderately acid.

Range in Characteristics

A or Ap horizon:

Color—hue of 10YR, value of 3, and chroma of 2 or 3

Texture of the fine-earth fraction—fine sandy loam

Content of rock fragments—0 to 15 percent

Reaction—moderately acid to neutral

C horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 1 to 6

Texture of the fine-earth fraction—stratified fine sand, loamy fine sand, fine sandy loam, loam, and silt loam

Content of rock fragments—0 to 15 percent

Reaction—moderately acid to neutral

2Bt horizon (if it occurs):

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 1 to 6

Texture of the fine-earth fraction—loamy coarse sand, coarse sandy loam, sandy loam, or loam

Content of rock fragments—35 to 75 percent

Reaction—strongly acid to slightly acid

2C horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 1 to 6

Texture of the fine-earth fraction—loamy sand, loamy fine sand, or sandy loam

Content of rock fragments—35 to 75 percent

Reaction—moderately acid to neutral

Scholten Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Moderate above the fragipan, very slow in the fragipan, and moderately rapid below the fragipan

Landform: Hills

Position on the landform: Backslopes, shoulders, summits

Parent material: Gravelly colluvium derived from cherty dolostone

Slope range: 3 to 45 percent

Elevation: 1,040 feet

Taxonomic classification: Loamy-skeletal, siliceous, active, mesic Typic Fragiudults

Typical Pedon

Scholten very gravelly silt loam, in an area of Scholten-Bendavis-Poynor complex, 1 to 8 percent slopes, stony; in a hardwood forest; 2,400 feet west and 900 feet south of the northeast corner of sec. 33, T. 29 N., R. 5 W., in Shannon County; USGS Alley Spring, Missouri, topographic quadrangle; UTM coordinates 4,111,902 meters Northing and 633,340 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 4 inches; dark grayish brown (10YR 4/2) very gravelly silt loam; moderate fine granular structure; very friable; many very fine roots; common fine tubular pores; 35 percent chert gravel; very strongly acid; clear smooth boundary.

E—4 to 8 inches; yellowish brown (10YR 5/4) gravelly silt loam; moderate fine subangular blocky structure; friable; common fine and medium roots; common fine tubular pores; 20 percent chert gravel; very strongly acid; clear wavy boundary.

Bt1—8 to 15 inches; yellowish brown (10YR 5/6) very gravelly silt loam; moderate medium subangular blocky structure; friable; common fine and medium roots; common fine tubular pores; few faint yellowish brown (10YR 5/6) clay films on faces of peds; 35 percent chert gravel; very strongly acid; clear wavy boundary.

Bt2—15 to 23 inches; strong brown (7.5YR 5/6) very gravelly silt loam; weak medium subangular blocky structure parting to strong fine angular blocky; firm; few fine roots; many fine tubular and common medium vesicular pores; many distinct yellowish brown (10YR 5/4) silt coats and few faint yellowish brown (10YR 5/6) clay films on faces of peds; 55 percent chert gravel; very strongly acid; clear smooth boundary.

2Btx1—23 to 34 inches; brown (10YR 5/3) extremely cobbly silt loam; weak extremely coarse prismatic structure; very firm, 70 percent brittle; many fine vesicular pores; many distinct reddish brown (5YR 4/4) clay films on faces of peds and few distinct grayish brown (10YR 5/2) skeletalans on vertical faces of peds; 8 percent chert stones, 20 percent

chert cobbles, and 35 percent chert gravel; very strongly acid; clear wavy boundary.

2Btx2—34 to 45 inches; brown (10YR 5/3) extremely gravelly silty clay loam; weak extremely coarse prismatic structure; very firm; 70 percent brittle; common fine vesicular pores; common distinct dark yellowish brown (10YR 4/6) clay films on faces of peds and few prominent grayish brown (10YR 5/2) skeletons on vertical faces of peds; 10 percent chert cobbles and 50 percent chert gravel; very strongly acid; clear wavy boundary.

3Bt1—45 to 61 inches; 33 percent red (2.5YR 4/8), 33 percent yellowish red (5YR 5/6), and 33 percent yellowish brown (10YR 5/6) very cobbly silty clay loam; strong medium subangular blocky structure; very firm; common very fine tubular pores; common distinct dark reddish gray (5YR 4/2) clay films on faces of peds; 20 percent chert gravel and 25 percent chert cobbles; very strongly acid; gradual wavy boundary.

3Bt2—61 to 72 inches; 50 percent red (2.5YR 4/6) and 50 percent yellowish red (5YR 5/6) very cobbly clay; moderate fine angular blocky structure; very firm; few fine roots; common very fine tubular pores; common distinct yellowish red (5YR 5/6) clay films on faces of peds; 20 percent chert gravel and 20 percent chert cobbles; very strongly acid.

Range in Characteristics

Depth to the 2Btx horizon: 14 to 36 inches

Ap or A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 60 percent

Reaction—extremely acid to slightly acid

E horizon:

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—20 to 50 percent

Reaction—extremely acid to moderately acid

Bt horizon:

Color—hue of 10YR to 5YR and value and chroma of 4 to 6

Redoximorphic features—iron segregations in shades of gray or brown just above the fragipan in some pedons

Texture of the fine-earth fraction—loam, clay loam, silt loam, or silty clay loam

Content of rock fragments—35 to 75 percent

Reaction—very strongly acid or strongly acid

2Btx horizon:

Color—hue of 10YR to 2.5YR, value of 4 to 6, and chroma of 3 to 6

Redoximorphic features—iron segregations in shades of red, brown, or gray

Texture of the fine-earth fraction—loam, silt loam, clay loam, or silty clay loam

Content of rock fragments—35 to 75 percent

Reaction—very strongly acid or strongly acid

3Bt horizon:

Color—hue of 2.5YR to 7.5YR, value of 3 or 4, and chroma of 4 to 8

Redoximorphic features—iron segregations in shades of brown, yellow, or gray

Texture of the fine-earth fraction—clay loam, silty clay loam, silty clay, or clay

Content of rock fragments—15 to 75 percent

Reaction—extremely acid or strongly acid

Secesh Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: River valleys

Position on the landform: Low stream terraces

Parent material: About 2 feet of loamy material over gravelly residuum or alluvium

Slope range: 0 to 3 percent

Elevation: 770 feet

Taxonomic classification: Fine-loamy, siliceous, active, mesic Ultic Hapludalfs

Typical Pedon

Secesh silt loam, 0 to 3 percent slopes, rarely flooded; in a pasture; 80 feet east and 200 feet north of the southwest corner of sec. 30, T. 30 N., R. 1 W., in Reynolds County; USGS Corridon SE, Missouri, topographic quadrangle; UTM coordinates 4,124,880 meters Northing and 672,980 meters Easting, Zone 15, NAD 27:

Ap—0 to 10 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; many very fine roots throughout; many very fine moderate-continuity interstitial pores; slightly acid; clear smooth boundary.

Bt1—10 to 26 inches; 60 percent dark yellowish brown (10YR 4/4) and 40 percent strong brown (7.5YR 5/8) silt loam; weak fine subangular blocky structure; common very fine roots throughout; many fine and many medium moderate-continuity tubular pores; many distinct brown (7.5YR 4/4) clay films and common distinct dark grayish brown

(10YR 4/2) organic stains on all faces of peds; moderately acid; clear smooth boundary.

Bt2—26 to 36 inches; dark yellowish brown (10YR 4/4) silt loam; weak fine subangular blocky structure; few fine roots between peds; common distinct brown (7.5YR 5/4) clay films and common distinct dark grayish brown (10YR 4/2) organic stains on all faces of peds; 12 percent subangular chert boulders; strongly acid; clear smooth boundary.

2Bt3—36 to 49 inches; dark yellowish brown (10YR 4/4) gravelly loam; weak fine subangular blocky structure; few fine roots throughout; many fine moderate-continuity tubular pores; few distinct dark grayish brown (10YR 4/2) organic stains and few faint clay films on all faces of peds; 15 percent subangular chert boulders; strongly acid; clear smooth boundary.

2Bt4—49 to 60 inches; dark yellowish brown (10YR 4/6) gravelly sandy loam; weak fine subangular blocky structure; common fine moderate-continuity tubular pores; few distinct brown (7.5YR 4/3) clay films on all faces of peds; 25 percent subangular chert boulders; moderately acid; clear wavy boundary.

2Bt5—60 to 80 inches; brown (7.5YR 4/4) gravelly sandy loam; weak fine subangular blocky structure; many fine moderate-continuity tubular pores; very many distinct brown (7.5YR 5/4) clay films on all faces of peds; 25 percent subangular chert boulders; very strongly acid.

Range in Characteristics

Thickness of the solum: 21 to more than 60 inches

Ap or A horizon:

Color—hue of 7.5YR or 10YR and value and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 35 percent

Reaction—strongly acid to slightly acid

AB horizon (if it occurs):

Color—hue of 7.5YR or 10YR and value and chroma of 2 to 4

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—0 to 15 percent

Reaction—strongly acid or moderately acid

Bt horizon:

Color—hue of 10YR, 7.5YR, or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—0 to 25 percent

Reaction—very strongly acid to moderately acid

2Bt horizon:

Color—hue of 10YR, 7.5YR, or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture of the fine-earth fraction—sandy loam, sandy clay loam, loam, or silt loam

Content of rock fragments—5 to 50 percent

Reaction—very strongly acid to moderately acid

2C horizon (if it occurs):

Color—hue of 10YR, 7.5YR, or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture of the fine-earth fraction—coarse sandy loam, sandy loam, sandy clay loam, loam, or silt loam

Content of rock fragments—15 to 75 percent

Reaction—very strongly acid to moderately acid

Splitlimb Series

Soil depth: Very deep

Drainage class: Somewhat poorly drained

Permeability class: Moderately slow

Landform: Hills

Position on the landform: Sinkholes

Parent material: Silty loess over silty colluvium

Slope range: 0 to 3 percent

Elevation: 1,230 feet

Taxonomic classification: Fine-silty, mixed, active, mesic Aquic Paleudults

Typical Pedon

Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded; in a hay field; 2,600 feet south and 1,700 feet east of the northwest corner of sec. 6, T. 28 N., R. 6 W., in Shannon County; USGS Summersville, Missouri, topographic quadrangle; UTM coordinates 4,109,924 meters Northing and 620,059 meters Easting, Zone 15, NAD 27:

A—0 to 4 inches; brown (10YR 4/3) silt loam; moderate fine granular structure; friable; many fine roots; many fine interstitial and tubular pores; strongly acid; clear smooth boundary.

E—4 to 9 inches; brown (10YR 5/3) silt loam; moderate fine subangular blocky structure; friable; common fine roots; common fine tubular pores; common distinct dark brown (10YR 3/3) manganese or iron-manganese stains throughout; strongly acid; clear smooth boundary.

Bt1—9 to 14 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; friable; common fine roots; many fine tubular pores; few faint dark yellowish brown

(10YR 4/4) clay films on faces of peds; many fine irregular dark yellowish brown (10YR 4/6) masses of oxidized iron throughout; many medium irregular grayish brown (10YR 5/2) iron depletions throughout; common fine black (N 2/0) iron-manganese concretions throughout; very strongly acid; clear smooth boundary.

Bt2—14 to 21 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable; few fine roots; many fine tubular pores; few faint dark yellowish brown (10YR 4/4) clay films on faces of peds; many medium irregular gray (10YR 5/1) iron depletions throughout; common fine black (N 2/0) iron-manganese concretions throughout; very strongly acid; clear smooth boundary.

Bt3—21 to 34 inches; grayish brown (10YR 5/2) silt loam; moderate medium angular blocky structure; firm; few fine roots; many fine tubular pores; few faint grayish brown (10YR 5/2) clay films on faces of peds; many fine dark gray (10YR 4/1) iron-manganese concretions throughout; common fine irregular dark grayish brown (10YR 4/2) iron depletions throughout; very strongly acid; clear smooth boundary.

2Bt4—34 to 43 inches; 50 percent grayish brown (10YR 5/2) and 50 percent strong brown (7.5YR 4/6) silty clay loam; moderate fine subangular blocky structure; firm; common fine tubular pores; many distinct strong brown (7.5YR 4/6) clay films on faces of peds; 5 percent chert gravel; extremely acid; abrupt smooth boundary.

2Bt5—43 to 60 inches; 50 percent gray (10YR 5/1) and 50 percent red (2.5YR 4/8) silty clay loam; moderate medium subangular blocky structure; firm; common fine tubular pores; common distinct dark gray (10YR 4/1) clay films on faces of peds; extremely acid.

Range in Characteristics

A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 5 percent gravel

Reaction—very strongly acid to slightly acid

E horizon:

Color—hue of 10YR, value of 4 or 5, and chroma of 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 5 percent gravel

Reaction—very strongly acid to slightly acid

Bt horizon:

Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 2 to 8

Redoximorphic features—iron segregations

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 5 percent gravel

Reaction—very strongly acid to slightly acid

2Bt horizon:

Color—hue of 2.5YR to 10YR, value of 3 to 7, and chroma of 1 to 6

Redoximorphic features—iron segregations in shades of gray, brown, or red

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 10 percent gravel

Reaction—extremely acid to strongly acid

Taterhill Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderate

Landform: River valleys

Position on the landform: Foothills, high stream terraces

Parent material: Silty sediments derived mainly from loess and the underlying valley fill materials

Slope range: 1 to 8 percent

Elevation: 780 feet

Taxonomic classification: Fine-loamy, siliceous, semiactive, mesic Typic Paleudults

Typical Pedon

Taterhill silt loam, 3 to 8 percent slopes; in a pasture; 1,800 feet east and 1,300 feet north of the southwest corner of sec. 27, T. 30 N., R. 1 W., in Reynolds County; USGS Corridor SE, Missouri, topographic quadrangle; UTM coordinates 4,124,999 meters Northing and 673,375 meters Easting, Zone 15, NAD 27:

Ap—0 to 8 inches; brown (10YR 4/3) silt loam; many medium distinct brown (10YR 5/3) mottles; weak fine granular structure; friable; many fine and very fine roots throughout; many fine moderate-continuity interstitial pores; slightly acid; clear smooth boundary.

BA—8 to 18 inches; 80 percent yellowish brown (10YR 5/4) and 20 percent brown (10YR 5/3) silt loam; weak fine granular and moderate fine subangular blocky structure; friable; many very fine roots

throughout; many fine moderate-continuity vesicular pores; many distinct brown (10YR 5/3) organic stains; slightly acid; clear smooth boundary.

Bt1—18 to 28 inches; yellowish brown (10YR 5/6) silt loam; moderate fine subangular blocky structure; friable; many very fine roots throughout; many fine moderate-continuity vesicular pores; common distinct brown (10YR 4/3) clay films and few distinct pale brown (10YR 6/3) silt coats on vertical faces of peds; slightly acid; clear smooth boundary.

Bt2—28 to 38 inches; strong brown (7.5YR 5/6) silt loam; many fine faint yellowish brown (10YR 5/6) mottles; moderate fine subangular blocky structure; friable; many very fine roots throughout; many fine moderate-continuity vesicular pores; common distinct strong brown (7.5YR 5/6) clay films, common distinct yellowish brown (10YR 5/6) clay films, and few distinct pale brown (10YR 6/3) silt coats on vertical faces of peds; 5 percent subangular chert gravel; moderately acid; clear smooth boundary.

2Bt3—38 to 45 inches; 50 percent yellowish red (5YR 5/6) and 50 percent strong brown (7.5YR 5/6) silt loam; many fine distinct red (2.5YR 5/6) mottles; moderate fine subangular blocky structure; friable; many very fine roots throughout; many fine moderate-continuity vesicular pores; common distinct strong brown (7.5YR 5/6) clay films, common distinct yellowish brown (10YR 5/6) clay films, and few distinct pale brown (10YR 6/3) silt coats on vertical faces of peds; 5 percent subangular chert gravel; very strongly acid; clear smooth boundary.

2Bt4—45 to 68 inches; yellowish red (5YR 5/6) very gravelly clay loam; many fine prominent yellow (10YR 7/8) mottles; moderate fine subangular blocky structure; friable; many very fine roots throughout; many fine moderate-continuity vesicular pores; common distinct strong brown (7.5YR 5/6) clay films and common distinct dark red (2.5YR 3/6) clay films on vertical faces of peds; 35 percent subangular chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 80 inches

Depth to the 2Bt horizon: 14 to 40 inches

A or Ap horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 15 percent gravel

Reaction—very strongly acid to neutral

BA horizon (if it occurs):

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 10 percent gravel

Reaction—very strongly acid to neutral

Bt horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—loam, silt loam, or silty clay loam

Content of rock fragments—0 to 35 percent gravel

Reaction—very strongly acid to slightly acid

2Bt horizon:

Color—hue of 7.5YR to 2.5YR, value of 4 to 6, and chroma of 4 to 8

Texture of the fine-earth fraction—loam, silt loam, clay loam, or silty clay loam

Content of rock fragments—5 to 60 percent gravel

Reaction—very strongly acid or strongly acid

Taumsauk Series

Soil depth: Shallow and very shallow

Drainage class: Somewhat excessively drained

Permeability class: Moderate

Landform: Mountains

Position on the landform: Backslopes, shoulders

Parent material: Colluvium or residuum derived from rhyolite; thin residuum derived from rhyolite and loess

Slope range: 3 to 35 percent

Elevation: 990 feet

Taxonomic classification: Loamy-skeletal, mixed, active, mesic Lithic Hapludults

Typical Pedon

Taumsauk cobbly silt loam, in an area of Taumsauk-Irondale-Rock outcrop complex, 3 to 15 percent slopes, very stony; in a hardwood forest; 100 feet east and 1,350 feet south of the northwest corner of sec. 1, T. 28 N., R. 3 W., in Shannon County; USGS Powder Mill Ferry, Missouri, topographic quadrangle; UTM coordinates 4,110,030 meters Northing and 656,853 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 5 inches; very dark grayish brown (10YR 3/2) cobbly silt loam; weak fine granular structure; very friable; many fine to coarse roots; common fine to coarse tubular and common coarse interstitial and tubular pores; 12 percent rhyolite gravel and 20

percent rhyolite cobbles; very strongly acid; clear smooth boundary.

Bt—5 to 16 inches; yellowish brown (10YR 5/4) very cobbly silt loam; weak fine subangular blocky structure; friable; many fine to coarse roots; many fine tubular and common medium and coarse tubular pores; common distinct gray (10YR 6/1) clay films, common distinct brown (10YR 5/3) clay films, and few distinct black (N 2/0) manganese or iron-manganese stains on faces of peds; 5 percent rhyolite stones, 20 percent rhyolite gravel, and 20 percent rhyolite cobbles; very strongly acid; abrupt smooth boundary.

R—16 inches; rhyolite bedrock.

Range in Characteristics

Thickness of the solum: 4 to 20 inches

Depth to bedrock: 4 to 20 inches

A horizon:

Color—hue of 10YR and value and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—15 to 35 percent

Reaction—extremely acid to moderately acid

Bt horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—silt loam, clay loam, or silty clay loam

Content of rock fragments—35 to 75 percent

Reaction—extremely acid to strongly acid

Tilk Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderately rapid

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Loamy and sandy alluvium with a high content of rock fragments; gravelly alluvium

Slope range: 0 to 3 percent

Elevation: 1,000 feet

Taxonomic classification: Loamy-skeletal, siliceous, active, mesic Ultic Hapludalfs

Typical Pedon

Tilk very gravelly sandy loam, 0 to 3 percent slopes, rarely flooded; in a hardwood forest; 1,600 feet west and 800 feet north of the southeast corner of sec. 3, T. 27 N., R. 5 W., in Shannon County; USGS Bartlett, Missouri, topographic quadrangle; UTM coordinates

4,099,449 meters Northing and 635,316 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 10 inches; dark grayish brown (10YR 4/2) very gravelly sandy loam; weak fine granular structure; loose; many very fine and fine roots; many fine interstitial pores; common distinct very dark gray (10YR 3/1) organic stains on faces of peds; 55 percent chert gravel; strongly acid; clear smooth boundary.

AB—10 to 15 inches; dark yellowish brown (10YR 4/4) very gravelly loam; weak fine subangular blocky structure; very friable; common fine and few medium roots; many fine interstitial and tubular pores; common distinct dark grayish brown (10YR 4/2) organic stains on faces of peds; 35 percent chert gravel; very strongly acid; clear smooth boundary.

Bt1—15 to 21 inches; dark yellowish brown (10YR 4/4) very gravelly sandy loam; weak fine subangular blocky structure; friable; few fine roots; common fine tubular pores; common distinct strong brown (7.5YR 4/6) clay films on faces of peds and few distinct black (N 2/0) manganese or iron-manganese stains on sand and gravel; 45 percent chert gravel; very strongly acid; clear wavy boundary.

Bt2—21 to 28 inches; brown (7.5YR 4/4) extremely gravelly coarse sandy loam; weak fine subangular blocky structure; loose; common fine roots; many fine interstitial and tubular pores; few faint clay bridges between sand grains; 75 percent chert gravel; very strongly acid; clear smooth boundary.

Bt3—28 to 34 inches; yellowish brown (10YR 5/4) very gravelly coarse sandy loam; weak fine subangular blocky structure; very friable; few fine roots; many fine tubular and common fine interstitial pores; common distinct strong brown (7.5YR 5/6) clay films on faces of peds, common distinct strong brown (7.5YR 4/6) clay films on faces of peds, and few distinct black (N 2/0) manganese or iron-manganese stains on sand and gravel; 45 percent chert gravel; very strongly acid; clear smooth boundary.

Bt4—34 to 41 inches; yellowish brown (10YR 5/4) very gravelly loam; weak fine subangular blocky structure; very friable; few fine roots; common fine tubular and few fine interstitial pores; common distinct brown (7.5YR 4/4) clay films on faces of peds and common distinct black (N 2/0) manganese or iron-manganese stains on sand and gravel; 50 percent chert gravel; very strongly acid; clear smooth boundary.

Bt5—41 to 52 inches; strong brown (7.5YR 4/6) gravelly loam; moderate medium subangular blocky and moderate medium angular blocky structure; firm; few fine and few medium roots; many fine tubular pores; common distinct yellowish red (5YR 5/6) clay films on faces of peds, common prominent pale brown (10YR 6/3) silt coats, and common distinct black (N 2/0) manganese or iron-manganese stains; 20 percent chert gravel; strongly acid; clear smooth boundary.

Bt6—52 to 69 inches; strong brown (7.5YR 4/6) very gravelly sandy loam; moderate fine subangular blocky structure; friable; few fine roots; many fine tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds, common distinct black (N 2/0) manganese or iron-manganese stains on rock fragments, and few distinct light brown (7.5YR 6/3) skeletons on faces of peds; 40 percent chert gravel; strongly acid.

Range in Characteristics

Thickness of the solum: 36 to 70 inches

A horizon:

Color—hue of 10YR or 7.5YR and value and chroma of 2 to 4

Texture of the fine-earth fraction—sandy loam or loam

Content of rock fragments—15 to 60 percent

Reaction—strongly acid to slightly acid

AB, BA, or E horizon:

Color—hue of 10YR or 7.5YR, value of 4, and chroma of 3 or 4

Texture of the fine-earth fraction—coarse sandy loam, sandy loam, or loam

Content of rock fragments—35 to 75 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 3 to 6

Texture of the fine-earth fraction—coarse sandy loam, sandy loam, or loam

Content of rock fragments—35 to 75 percent; a lower percentage in some subhorizons

Reaction—very strongly acid to moderately acid

2BC and 2C horizons (if they occur):

Color—hue of 10YR or 7.5YR, value of 3 or 4, and chroma of 4 to 6

Texture of the fine-earth fraction—loamy coarse sand, coarse sandy loam, sandy loam, or loam

Content of rock fragments—35 to 75 percent

Reaction—strongly acid or moderately acid

Tonti Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Very slow

Landform: Hills

Position on the landform: Summits

Parent material: Loess over gravelly colluvium over clayey residuum derived from dolostone

Slope range: 3 to 8 percent

Elevation: 1,420 feet

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Fragiudults

Typical Pedon

Tonti silt loam, in an area of Tonti-Hogcreek complex, 3 to 8 percent slopes; in a forest of pine and hardwoods; 1,600 feet east and 150 feet north of the southwest corner of sec. 7, T. 33 N., R. 3 W., in Reynolds County; USGS Stone Hill, Missouri, topographic quadrangle; UTM coordinates 4,158,560 meters Northing and 649,500 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 3 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine subangular blocky structure; friable; common fine to coarse roots; many very fine interstitial and tubular pores; very strongly acid; clear smooth boundary.

E—3 to 6 inches; brown (10YR 5/3) silt loam; weak fine subangular blocky structure; friable; common fine and medium roots and few coarse roots; many fine tubular pores; common distinct dark grayish brown (10YR 4/2) organic stains on vertical faces of peds; very strongly acid; clear smooth boundary.

Bt1—6 to 12 inches; strong brown (7.5YR 4/6) silty clay loam; moderate fine subangular blocky structure; friable; common fine and medium roots and few coarse roots; many fine tubular pores; common distinct brown (7.5YR 5/4) clay films and common distinct pale brown (10YR 6/3) silt coats on faces of peds; very strongly acid; clear smooth boundary.

Bt2—12 to 22 inches; strong brown (7.5YR 4/6) silty clay loam; moderate fine subangular blocky structure; friable; common medium roots and few very fine roots; many fine tubular pores; common distinct brown (7.5YR 4/4) clay films and few faint light brownish gray (10YR 6/2) silt coats on faces of peds; 1 percent chert gravel; very strongly acid; clear smooth boundary.

- Bt3**—22 to 28 inches; 70 percent pale brown (10YR 6/3) and 30 percent yellowish brown (10YR 5/4) silt loam; weak fine subangular blocky structure; friable; few very fine to medium roots; many very fine tubular pores; many distinct gray (10YR 6/1) silt coats, few distinct strong brown (7.5YR 5/8) clay films, and few distinct brown (7.5YR 4/3) clay films on faces of peds; 5 percent chert gravel; very strongly acid; clear wavy boundary.
- 2Btx**—28 to 38 inches; very pale brown (10YR 7/3) extremely gravelly silt loam; weak medium prismatic structure; firm; 80 percent brittle; few very fine and fine roots between peds; few fine tubular pores; common distinct strong brown (7.5YR 5/6) clay films on faces of peds and common distinct clay films on vertical faces of peds; many distinct light brownish gray (10YR 6/2) silt coats on faces of peds; 5 percent sandstone cobbles, 30 percent sandstone gravel, and 30 percent chert cobbles; very strongly acid; clear wavy boundary.
- 3Bt1**—38 to 46 inches; yellowish red (5YR 5/6) clay; moderate fine subangular blocky structure; firm; common very fine roots; common very fine tubular pores; many distinct light brownish gray (10YR 6/2), common distinct yellowish brown (10YR 5/4), and common distinct gray (7.5YR 5/1) clay films on faces of peds; 10 percent chert gravel; very strongly acid; clear wavy boundary.
- 3Bt2**—46 to 56 inches; 70 percent strong brown (10YR 4/6) and 30 percent red (2.5YR 4/8) gravelly clay; moderate fine subangular blocky and moderate fine angular blocky structure; firm; common fine roots; common very fine tubular pores; many distinct dark grayish brown (10YR 4/2) clay films throughout, common distinct brown (7.5YR 5/3) clay films on faces of peds, and common distinct yellowish red (5YR 5/6) clay films on faces of peds; 5 percent sandstone cobbles and 10 percent chert gravel; very strongly acid; clear wavy boundary.
- 3Bt3**—56 to 66 inches; 80 percent reddish brown (5YR 4/4) and 20 percent yellowish brown (10YR 5/6) very gravelly clay; moderate fine angular blocky structure; very firm; common very fine tubular pores; many distinct strong brown (7.5YR 4/6) clay films on faces of peds, common distinct red (10R 4/6) clay films on rock fragments, and common distinct reddish brown (5YR 4/4) clay films on rock fragments; 5 percent chert cobbles, 5 percent sandstone gravel, and 40 percent chert cobbles; very strongly acid.

Range in Characteristics

Depth to the 2Btx horizon: 15 to 30 inches

Depth to bedrock: More than 60 inches

Ap or A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 15 percent

Reaction—very strongly acid to slightly acid

BE horizon (if it occurs):

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 15 percent

Reaction—very strongly acid to slightly acid

Bt horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 8

Redoximorphic features—iron concentrations in shades of brown

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 25 percent

Reaction—extremely acid to strongly acid

2Btx horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, chroma of 4 to 6

Redoximorphic features—iron segregations in shades of gray, brown, or red

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—35 to 60 percent

Reaction—extremely acid to strongly acid

3Bt horizon:

Color—hue of 10YR to 2.5YR, value of 3 to 5, and chroma of 4 to 8

Redoximorphic features—iron segregations in shades of brown or gray

Texture of the fine-earth fraction—silty clay or clay

Content of rock fragments—20 to 75 percent (varies within short distances)

Reaction—extremely acid to strongly acid

Trackler Series

Soil depth: Deep

Drainage class: Moderately well drained

Permeability class: Moderately slow

Landform: Mountains

Position on the landform: Summits and shoulders

Parent material: Loamy colluvium and residuum from fine-grained igneous rocks, predominantly rhyolite

Slope range: Moderately sloping and strongly sloping (3 to 15 percent)

Elevation: 770 feet

Taxonomic classification: Fine-loamy, mixed, active, mesic Aquic Hapludults

Typical Pedon

Trackler silt loam, 3 to 8 percent slopes; in a hardwood forest; 950 feet north and 3,000 feet east of the southwest corner of sec. 19, T. 33 N., R. 6 E., in Madison County; USGS Rhodes Mountain topographic quadrangle; UTM coordinates 4,156,303 meters Northing and 727,522 meters Easting, Zone 15, NAD 27:

- Oi—0 to 1 inch; slightly decomposed leaves, twigs, and roots; abrupt smooth boundary.
- A—1 to 2 inches; brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; moderate very fine granular structure; very friable; many very fine and fine and few medium roots; 3 percent subrounded rhyolite gravel and 1 percent rhyolite cobbles; very strongly acid; clear smooth boundary.
- E—2 to 8 inches; yellowish brown (10YR 5/4) silt loam, very pale brown (10YR 7/3) dry; moderate fine subangular blocky structure parting to moderate very fine granular; friable; many very fine and fine and few medium and coarse roots; 2 percent subrounded rhyolite gravel and 1 percent rhyolite cobbles; very strongly acid; clear smooth boundary.
- Bt1—8 to 14 inches; yellowish brown (10YR 5/6) silt loam; moderate very fine and fine subangular blocky structure; friable; many very fine and fine and few medium and coarse roots; common faint clay films on faces of peds; 2 percent subrounded rhyolite gravel and 3 percent rhyolite cobbles; very strongly acid; clear smooth boundary.
- 2Bt2—14 to 23 inches; strong brown (7.5YR 5/6) cobbly silt loam; moderate fine subangular blocky structure; friable; many very fine, common fine, and few medium roots; many distinct clay films on faces of peds; few faint brown (7.5YR 5/4) clay depletions on faces of peds and along the larger root channels; 10 percent subrounded rhyolite gravel and 10 percent rhyolite cobbles; strongly acid; clear smooth boundary.
- 3Bt3—23 to 31 inches; strong brown (7.5YR 4/6) extremely stony loam; weak coarse prismatic structure; firm; common very fine and few fine roots; common distinct clay films on faces of peds

and few prominent pinkish gray (7.5YR 6/2) clay flows on faces of peds and rock fragments; common prominent light brown (7.5YR 6/4) clay depletions; 7 percent rhyolite gravel, 15 percent rhyolite cobbles (some decomposed), and 40 percent rhyolite stones; very strongly acid; clear wavy boundary.

3CB—31 to 45 inches; strong brown (7.5YR 4/6) extremely stony loam; massive; firm; few fine roots concentrated in gray seams; few prominent brown (7.5YR 5/2) clay films on rock fragments; few prominent light gray (10YR 7/2) iron depletions in pockets and seams; few coarse distinct strong brown (7.5YR 5/8) masses of iron accumulation; 2 percent rhyolite gravel, 10 percent rhyolite cobbles, and 60 percent rhyolite stones; very strongly acid; abrupt wavy boundary.

3R—45 inches; rhyolite.

Range in Characteristics

Depth to the 2Bt horizon: 13 to 27 inches

Depth to bedrock: 40 to 60 inches

A or Ap horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 6 percent

Reaction—very strongly acid to moderately acid

E horizon:

Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 6 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—silt loam or silty clay loam

Content of rock fragments—0 to 21 percent

Reaction—very strongly acid or strongly acid

2Bt horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 6

Texture of the fine-earth fraction—silt loam, clay loam, silty clay loam, or clay

Content of rock fragments—5 to 35 percent

Reaction—very strongly acid or strongly acid

3Bt or 3CB horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—coarse sandy loam or loam

Content of rock fragments—35 to 75 percent

Reaction—very strongly acid or strongly acid

Viburnum Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Moderately slow

Landform: Hills

Position on the landform: Summits

Parent material: Silty colluvium over clayey residuum

Slope range: 3 to 8 percent

Elevation: 1,140 feet

Taxonomic classification: Fine, mixed, active, mesic
Aquic Paleudults

Typical Pedon

Viburnum silt loam, 3 to 8 percent slopes; in a hardwood forest; 2,000 feet west and 5,400 feet south of the northeast corner of sec. 3, T. 29 N., R. 5 W., in Shannon County; USGS Alley Spring, Missouri, topographic quadrangle; UTM coordinates 4,120,914 meters Northing and 635,029 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 3 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine granular structure; friable; many fine roots; common fine tubular pores; 1 percent chert gravel; very strongly acid; abrupt smooth boundary.

E—3 to 8 inches; pale brown (10YR 6/3) silt loam; weak very fine subangular blocky structure; friable; common medium roots; common fine tubular pores; 1 percent chert gravel; very strongly acid; abrupt wavy boundary.

BE—8 to 11 inches; yellowish brown (10YR 5/4) silt loam; weak fine subangular blocky structure; friable; common fine roots; common fine tubular pores; 1 percent chert gravel; very strongly acid; abrupt wavy boundary.

Bt1—11 to 18 inches; brown (7.5YR 4/4) silty clay loam; moderate fine subangular blocky structure; friable; common medium roots; common fine tubular pores; 5 percent chert gravel; very strongly acid; abrupt smooth boundary.

2Bt2—18 to 26 inches; strong brown (7.5YR 5/6) silty clay; moderate fine subangular blocky structure; firm; few fine roots; few fine tubular pores; many

distinct strong brown (7.5YR 4/6) clay films on faces of peds and in pores; 7 percent chert gravel; very strongly acid; clear wavy boundary.

3Bt3—26 to 38 inches; 75 percent strong brown (7.5YR 5/6) and 25 percent yellowish red (5YR 4/6) clay; moderate fine subangular blocky structure; firm; few fine roots; few fine tubular pores; many distinct strong brown (7.5YR 5/6) clay films throughout; common fine faint light brownish gray (10YR 6/2) iron depletions; 7 percent chert gravel; very strongly acid; clear wavy boundary.

3Bt4—38 to 52 inches; 40 percent yellowish brown (10YR 5/8), 35 percent grayish brown (10YR 5/2), and 25 percent red (2.5YR 4/6) clay; weak coarse prismatic structure parting to moderate medium subangular blocky; firm; few fine roots; few fine tubular pores; few prominent dark grayish brown (10YR 4/2) clay films on faces of peds and in pores; 15 percent chert gravel; very strongly acid; clear wavy boundary.

3Bt5—52 to 65 inches; 40 percent grayish brown (10YR 5/2), 35 percent yellowish brown (10YR 5/8), and 25 percent dark red (2.5YR 3/6) gravelly clay; moderate medium angular blocky structure; firm; few fine roots; few fine tubular pores; common prominent dark grayish brown (10YR 4/2) clay films on faces of peds and in pores; 25 percent chert gravel; extremely acid; abrupt irregular boundary.

3R—65 inches; chert bedrock.

Range in Characteristics

Thickness of the solum: More than 60 inches

A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 or 3

Texture of the fine-earth fraction—silt loam
Content of rock fragments—0 to 12 percent
Reaction—very strongly acid to slightly acid

E horizon:

Color—hue of 10YR or 7.5YR, value of 5 or 6, and chroma of 3 or 4

Texture of the fine-earth fraction—silt loam
Content of rock fragments—0 to 20 percent
Reaction—very strongly acid to slightly acid

Bt horizon:

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 to 6

Texture of the fine-earth fraction—silty clay loam
Content of rock fragments—0 to 25 percent
Reaction—very strongly acid or strongly acid

2Bt horizon:

Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 6
 Redoximorphic features—iron segregations in shades of red, brown, yellow, or gray
 Texture of the fine-earth fraction—silty clay loam or silty clay
 Content of rock fragments—7 to 45 percent
 Reaction—extremely acid to strongly acid

3Bt horizon:

Color—hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 1 to 8
 Texture of the fine-earth fraction—silty clay or clay
 Content of rock fragments—15 to 75 percent
 Reaction—extremely acid to strongly acid

Waben Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderately rapid

Landform: Hills

Position on the landform: Footslopes

Parent material: Gravelly alluvium over gravelly colluvium

Slope range: 3 to 8 percent

Elevation: 950 feet

Taxonomic classification: Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults

Taxadjunct features: The typical pedon (from Shannon County) is a taxadjunct because it is an Ultisol. The typical pedon in the official soil series description is an Alfisol. Lab data indicate that the base saturation at the critical depth overlaps the Alfisol and Ultisol order level where this series is mapped in Missouri.

Typical Pedon

Waben gravelly silt loam, 3 to 8 percent slopes; in a hardwood forest; 1,100 feet west and 10 feet north of the southeast corner of sec. 9, T. 26 N., R. 5 W., in Shannon County; USGS Birch Tree, Missouri, topographic quadrangle; UTM coordinates 4,087,953 meters Northing and 633,871 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 4 inches; dark grayish brown (10YR 4/2) gravelly silt loam; weak fine granular structure; very friable; many fine to coarse roots; many fine interstitial and tubular pores; 20 percent angular chert gravel; strongly acid; clear smooth boundary.

BA—4 to 10 inches; yellowish brown (10YR 5/4) silt loam; weak fine subangular blocky structure; friable; many fine to coarse roots; many fine and medium tubular pores; common distinct dark grayish brown (10YR 4/2) organic stains on faces of peds; 10 percent angular chert gravel; strongly acid; clear smooth boundary.

Bt1—10 to 22 inches; yellowish brown (10YR 5/4) very cobbly silt loam; weak fine subangular blocky structure; friable; common fine and medium roots; many fine tubular pores; few faint brown (7.5YR 5/4) clay films on faces of peds; 20 percent angular chert gravel and 30 percent angular sandstone cobbles; very strongly acid; gradual irregular boundary.

Bt2—22 to 31 inches; brown (7.5YR 5/4) very cobbly silt loam; weak fine subangular blocky structure; friable; few fine and medium roots; many fine and medium vesicular pores; common distinct red (2.5YR 4/6) clay films on rock fragments; common fine and medium threadlike extremely weakly cemented black (N 2/0) iron-manganese concretions between peds; 10 percent subangular sandstone cobbles, 15 percent subangular chert gravel, and 25 percent subangular chert cobbles; very strongly acid; clear wavy boundary.

2Bt3—31 to 47 inches; reddish brown (5YR 5/4) extremely gravelly clay loam; weak fine angular blocky structure; firm; few fine roots; many fine and medium vesicular pores; common distinct very pale brown (10YR 7/3) silt coats on faces of peds, common distinct red (2.5YR 4/6) clay films on faces of peds, and few distinct light gray (10YR 7/2) silt coats on rock fragments; 25 percent subangular chert cobbles and 50 percent subangular chert gravel; very strongly acid; gradual wavy boundary.

2Bt4—47 to 64 inches; reddish brown (5YR 5/4) extremely gravelly clay loam; moderate medium angular blocky structure; very firm; many fine tubular pores; common distinct brown (7.5YR 5/4) clay films, few distinct red (2.5YR 4/6) clay films, and few distinct pink (7.5YR 7/3) silt coats on faces of peds; 15 percent subangular chert cobbles and 50 percent subangular chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 80 inches

Depth to bedrock: More than 80 inches

A or Ap horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam
 Content of rock fragments—15 to 35 percent
 Reaction—strongly acid to slightly acid

E or BE horizon (if it occurs):

Color—hue of 10YR, value of 4 to 6, and chroma of 3 or 4
 Texture of the fine-earth fraction—silt loam or loam
 Content of rock fragments—25 to 80 percent
 Reaction—strongly acid to slightly acid

Bt horizon:

Color—hue of 10YR, 7.5YR, or 5YR, value of 4 or 5, and chroma of 4 to 6
 Redoximorphic features—iron concentrations in shades of brown
 Texture of the fine-earth fraction—loam or silt loam
 Content of rock fragments—35 to 60 percent
 Reaction—very strongly acid to moderately acid

2Bt horizon:

Color—hue of 10YR, 7.5YR, or 5YR, value of 4 or 5, and chroma of 4 to 6
 Redoximorphic features—iron concentrations in shades of brown
 Texture of the fine-earth fraction—sandy clay loam or clay loam
 Content of rock fragments—35 to 70 percent
 Reaction—very strongly acid to strongly acid

Wideman Series

Soil depth: Very deep

Drainage class: Excessively drained

Permeability class: Moderately rapid

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Sandy alluvium

Slope range: 0 to 3 percent

Elevation: 830 feet

Taxonomic classification: Sandy, siliceous, mesic Typic Udifluvents

Typical Pedon

Wideman fine sandy loam, 0 to 3 percent slopes, occasionally flooded; in a hay field; 1,980 feet south and 1,107 feet east of the northwest corner of sec. 13, T. 26 N., R. 5 E., in Butler County; USGS Hendrickson, Missouri, topographic quadrangle; UTM coordinates 4,087,120 meters Northing and 724,780 meters Easting, Zone 15, NAD 27:

Ap—0 to 9 inches; brown (10YR 4/3) fine sandy loam, pale brown (10YR 6/3) dry; weak medium platy structure; very friable; many fine roots; many fine

pores; few wormcasts; moderately acid; abrupt smooth boundary.

C1—9 to 13 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine subangular blocky structure; very friable; many fine roots; many fine pores; few wormcasts; moderately acid; abrupt wavy boundary.

C2—13 to 16 inches; dark yellowish brown (10YR 4/4) loamy sand; single grain; very friable; common fine roots; many fine pores; few wormcasts; moderately acid; abrupt wavy boundary.

C3—16 to 21 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine subangular blocky structure; very friable; common fine roots; many fine pores; moderately acid; abrupt wavy boundary.

C4—21 to 60 inches; yellowish brown (10YR 5/4) loamy fine sand; single grain; very friable; few fine roots; many fine pores; slightly acid.

Range in Characteristics

A horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—fine sandy loam

Content of rock fragments—0 to 10 percent

Reaction—strongly acid to neutral

C horizon:

Color—hue of 10YR or 7.5YR, value of 4 to 7, and chroma of 2 to 6

Texture of the fine-earth fraction—sand, loamy sand, or fine sand with thick layers or thin strata of loamy very fine sand or finer textures

Content of rock fragments—0 to 20 percent in the lower part in some pedons; thin lenses that contain 1 to 75 percent gravel in some pedons

Reaction—strongly acid to neutral

Yelton Series

Soil depth: Very deep

Drainage class: Moderately well drained

Permeability class: Moderate above the fragipan and slow in the fragipan

Landform: Hills

Position on the landform: Footslopes

Parent material: Loess over colluvium derived from sandstone

Slope range: 3 to 8 percent

Elevation: 900 feet

Taxonomic classification: Fine-loamy, siliceous, active, mesic Typic Fragiudults

Typical Pedon

Yelton silt loam, 3 to 8 percent slopes; in a hardwood forest; 360 feet east and 100 feet south of the northwest corner of sec. 24, T. 29 N., R. 1 W., in Reynolds County; USGS Exchange, Missouri, topographic quadrangle; UTM coordinates 4,117,290 meters Northing and 676,489 meters Easting, Zone 15, NAD 27:

Oi—0 to 1 inch; slightly decomposed organic material; abrupt smooth boundary.

A—1 to 5 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine granular structure; friable; 2 percent chert gravel; very strongly acid; clear smooth boundary.

BE—5 to 9 inches; brown (10YR 5/3) silt loam; weak fine subangular blocky structure; friable; many fine and medium roots; many fine tubular pores; few distinct brown (7.5YR 4/4) clay films and few distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; 1 percent chert gravel; very strongly acid; clear smooth boundary.

Bt—9 to 22 inches; yellowish brown (10YR 5/4) silty clay loam; moderate fine and medium subangular blocky structure; friable; common fine to coarse roots; many fine and medium tubular pores; many distinct brown (7.5YR 4/4) clay films and common distinct light yellowish brown (10YR 6/4) silt coats on faces of peds; 4 percent chert gravel; extremely acid; clear smooth boundary.

2Btx1—22 to 30 inches; 70 percent pinkish gray (7.5YR 6/2) and 30 percent light yellowish brown (10YR 6/4) loam; weak medium subangular blocky structure; firm; 65 percent brittle; common fine and few medium and coarse roots; many fine and medium vesicular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds, few distinct gray (7.5YR 5/1) clay films in root channels and/or pores, and few distinct strong brown (7.5YR 5/6) clay films on faces of peds; 10 percent chert gravel; extremely acid; clear wavy boundary.

2Btx2—30 to 40 inches; 65 percent pinkish gray (5YR 6/2) and 35 percent red (2.5YR 4/8) very gravelly loam; weak fine subangular blocky structure; firm; 70 percent brittle; common fine and few medium and coarse roots; many fine to coarse vesicular pores; common distinct dark gray (7.5YR 4/1) clay films on faces of peds, few distinct red (2.5YR 4/6) clay films on faces of peds, and few distinct brown (7.5YR 5/3) clay films on rock fragments; 40 percent chert gravel; extremely acid; clear smooth boundary.

3Bt1—40 to 54 inches; 70 percent red (2.5YR 4/6), 20 percent red (2.5YR 4/8), and 10 percent light brown (7.5YR 6/4) clay loam; moderate medium subangular blocky structure; firm; few fine and few coarse roots; many fine and medium tubular pores; common distinct reddish brown (2.5YR 4/4) clay films on faces of peds and few distinct dark gray (5YR 4/1) clay films in root channels and/or pores; 5 percent chert gravel; extremely acid; clear smooth boundary.

3Bt2—54 to 70 inches; 80 percent red (2.5YR 4/6) and 20 percent pale red (2.5YR 6/2) clay loam; moderate medium angular blocky and strong coarse subangular blocky structure; firm; few fine roots; common fine vesicular pores; common faint red (2.5YR 4/6) clay films on faces of peds, few distinct dark reddish gray (2.5YR 4/1) clay films in root channels and/or pores, and few distinct yellowish red (5YR 4/6) clay films on faces of peds; 3 percent chert gravel and 5 percent sandstone cobbles; extremely acid.

Range in Characteristics

Depth to the fragipan: 18 to 27 inches

Ap or A horizon:

Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 2 to 4

Texture of the fine-earth fraction—silt loam

Content of rock fragments—0 to 10 percent

Reaction—extremely acid to slightly acid

E or BE horizon (if it occurs):

Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 3 to 6

Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—0 to 10 percent

Reaction—extremely acid to slightly acid

Bt horizon:

Color—hue of 10YR, 7.5YR, or 5YR, value of 3 to 6, and chroma of 3 to 8

Texture of the fine-earth fraction—loam or silty clay loam

Content of rock fragments—0 to 12 percent

Reaction—extremely acid to strongly acid

2Btx horizon:

Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 2 to 8

Texture of the fine-earth fraction—sandy loam or loam

Content of rock fragments—0 to 60 percent

Reaction—extremely acid to strongly acid

3Bt horizon:

Color—hue of 10R to 10YR, value of 3 to 7, and chroma of 2 to 8
 Texture of the fine-earth fraction—sandy clay loam, loam, or clay loam
 Content of rock fragments—0 to 60 percent
 Reaction—extremely acid to strongly acid

Zanoni Series

Soil depth: Very deep

Drainage class: Well drained

Permeability class: Moderately rapid

Landform: River valleys

Position on the landform: Stream terraces

Parent material: Loamy alluvium

Slope range: 1 to 3 percent

Elevation: 580 feet

Taxonomic classification: Coarse-loamy, siliceous, active, mesic Ultic Hapludalfs

Typical Pedon

Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded; in a hay field; 2,500 feet east and 100 feet south of the northwest corner of sec. 17, T. 29 N., R. 2 W., in Shannon County; USGS Powder Mill Ferry, Missouri, topographic quadrangle; UTM coordinates 4,116,896 meters Northing and 660,775 meters Easting, Zone 15, NAD 27:

Ap—0 to 8 inches; brown (7.5YR 4/4) fine sandy loam; weak very fine and fine granular structure; very friable; many very fine and fine roots; few fine tubular pores; moderately acid; clear smooth boundary.

AB—8 to 14 inches; 50 percent strong brown (7.5YR 4/6) and 50 percent brown (7.5YR 4/4) fine sandy loam; weak very fine and fine granular structure; very friable; many very fine and fine roots; few fine tubular pores; strongly acid; clear smooth boundary.

Bt1—14 to 22 inches; strong brown (7.5YR 4/6) fine sandy loam; weak fine prismatic structure; friable; few very fine and fine roots; common fine tubular pores; many prominent yellowish red (5YR 4/6) clay films on faces of peds; strongly acid; clear smooth boundary.

Bt2—22 to 47 inches; strong brown (7.5YR 4/6) fine sandy loam; moderate very fine and fine subangular blocky structure; friable; few very fine and fine roots; few very fine and fine tubular pores; common distinct yellowish red (5YR 4/6) clay films

on faces of peds; common fine spherical black (N 2/0) iron-manganese concretions between peds; moderately acid; gradual smooth boundary.

Bt3—47 to 59 inches; strong brown (7.5YR 4/6) loam; weak very fine and fine subangular blocky structure; friable; few very fine and fine tubular pores; common faint brown (7.5YR 4/4) clay films on faces of peds; common fine spherical black (N 2/0) iron-manganese concretions between peds; 1 percent subrounded chert gravel; strongly acid; clear smooth boundary.

2Bt4—59 to 72 inches; strong brown (7.5YR 4/6) coarse sandy loam; moderate very fine and fine subangular blocky structure; friable; few very fine and fine tubular pores; common faint brown (7.5YR 4/4) clay films on faces of peds; few fine irregular black (N 2/0) iron-manganese masses between peds; 1 percent subrounded chert gravel; strongly acid; clear smooth boundary.

2Bt5—72 to 83 inches; strong brown (7.5YR 4/6) gravelly coarse sandy loam; weak very fine subangular blocky structure; very friable; common fine interstitial and tubular pores; few faint brown (7.5YR 4/4) clay films on faces of peds; 25 percent subrounded chert gravel; strongly acid; gradual smooth boundary.

2C—83 to 85 inches; strong brown (7.5YR 4/6) very gravelly loamy coarse sand; single grain; loose; common fine interstitial and tubular pores; few faint yellowish red (5YR 4/6) clay films on faces of peds and few faint light yellowish brown (10YR 6/4) clay films between sand grains; 50 percent subrounded chert gravel; strongly acid.

Range in Characteristics

Depth to bedrock: More than 80 inches

Thickness of the solum: 34 to more than 60 inches

A horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Texture of the fine-earth fraction—fine sandy loam

Content of rock fragments—0 to 15 percent gravel

Reaction—very strongly acid to neutral

AB horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 to 5

Texture of the fine-earth fraction—sandy loam,

fine sandy loam, loam, or coarse sandy loam

Content of rock fragments—0 to 15 percent gravel

Reaction—strongly acid to neutral

Bt horizon:

Color—hue of 10YR to 2.5YR and value and chroma of 4 to 6

Texture of the fine-earth fraction—sandy loam, fine sandy loam, loam, or sandy clay loam

Content of rock fragments—0 to 35 percent gravel

Reaction—strongly acid to neutral

2C horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6

Texture of the fine-earth fraction—loamy sand, sandy loam, sand, coarse sand, coarse sandy loam, or loamy coarse sand

Content of rock fragments—0 to 80 percent gravel or cobbles

Reaction—strongly acid to neutral

Formation of the Soils

Soil forms through processes that act on deposited or accumulated geologic material. The characteristics of the soil at any given point are determined by the physical and mineralogical composition of the parent material; the climate under which the soil material accumulated; the plant and animal life on and in the soil; topography, or lay of the land; and the length of time that the forces of soil formation have acted on the soil material. Human activities also affect soil formation.

Climate and plant and animal life are active factors of soil formation. They act on the parent material that has accumulated through the weathering of rocks and slowly change it to a natural body that has genetically related horizons. Relief conditions the effects of climate and plant and animal life. The parent material affects the kind of soil profile that forms and in extreme cases determines it almost entirely. Finally, time is needed to change the parent material into a soil that has distinct horizons. Generally, a long time is required for the formation of distinct horizons.

Parent Material

Parent material is the unconsolidated mass in which a soil forms. It determines the limits of the chemical and mineral composition of the soil. The soils in Reynolds County formed in loess, residuum, colluvium, or alluvium or in a combination of these materials.

Residuum consists primarily of material weathered from one of the different kinds of rock that occur in the area: granite, rhyolite, sandstone, dolostone, and cherty dolostone. Shallow soils generally form solely in residuum. Examples of shallow soils in the area are Taumsauk soils, which formed in rhyolite, and Gasconade soils, which formed in dolostone. The deeper soils generally have some loess or colluvial deposits in the upper part of the profile, but they have a layer of residuum at some depth within the profile.

Colluvium, or hillslope sediment, is the debris that has accumulated on slopes from the weathering of rock. Aslinger, Cornwall, and Waben soils formed in thick colluvial deposits at the base of slopes. The upper part of most deep and very deep soils on hillsides consists of colluvium. Killarney and Frenchmill soils formed in colluvium from rhyolite or granite.

Loess is silty material deposited by the wind. Older, stable parts of the landscape have thin deposits of loess or have had them in the past. Commonly, the thickness of the loess is 18 to 24 inches. The upper part of the Captina, Tonti, and Viburnum soils is loess. In other parts of the landscape that are more sloping and less stable, the loess has been eroded from or mixed with the upper soil layers.

Alluvium is material transported by water and deposited on the nearly level or gently sloping flood plains along rivers and streams. The major streams in Reynolds County are the Black River and its tributaries. The alluvial material was washed from the watersheds of these rivers and streams. It ranges from silt to sand and gravel. Relfe soils have a high content of gravel and sand. Jamesfin soils are silty and contain some clay. Gladden soils are loamy.

Stream terraces are older flood plains that are now higher than the immediate flood plain because of downcutting of the stream channels to a lower elevation. Bearthicket and Secesh soils formed in old alluvium.

Most deep soils in Reynolds County formed in a combination of loess, colluvium, and residuum. For example, the parent materials of the Tonti soils are loess (1 to 29 inches), colluvium (29 to 38 inches), and residuum (38 to 80 inches). On the steep slopes, loess is mixed with the gravelly colluvium to a depth of about 18 inches. Parent materials in the Clarksville soils are colluvium that is mixed with loess (1 to 29 inches), a second layer of colluvium (29 to 52 inches), and residuum (52 to 80 inches). The colluvium and residuum are derived from cherty dolostone. Alred and Rueter soils also formed in colluvium and residuum from cherty dolostone.

Living Organisms

Plants and animals living on or in the soil are active in the soil-forming process. Plants furnish organic material to the soil and bring up plant nutrients from underlying layers to the surface layer. As plants die and decay, they contribute organic material to the soil. Bacteria and fungi decompose the plant remains and help to incorporate the organic material into the soil. Burrowing animals and insects loosen and mix various soil horizons.

Trees and other plants in the forest community have significantly affected soil formation (Pritchett, 1979). Mature trees require a large root system for support and a supply of water and nutrients. As the roots decay, soil material from the upper horizons fills the old root channels. The result is pockets of dark material in many forested soils, such as Clarksville soils. The soil in these old root channels has more humus and is more porous than the surrounding soil. Old root channels are most prevalent in the upper part of the subsoil, generally within a depth of about 1.5 feet.

When trees are blown down during periods of high winds, a large amount of soil is unearthed with the roots. These tree-tip mounds are common in the survey area. They alter the topography on a small scale. Although only a small area is affected by one tree, over a period of many years the surface layer is mixed with the underlying soil. The accumulation of this mixing can greatly affect soil formation.

Climate

Climate has been an important factor in soil formation. Geologic erosion, the kinds of plant and animal life, and the parent materials of the soils have been directly affected by the climate. Accelerated erosion also is associated with climate.

The glacial periods that so greatly affected the soil-forming processes were a result of climatic changes. Thousands of years of cold temperatures resulted in glaciers that moved into the area. Several soil-forming periods have occurred since the last ice sheet left northern Missouri. Geologic evidence indicates that the climate was colder and wetter than the present climate during some soil-forming periods and was warmer during others. The warmer weather and high winds resulted in severe geologic erosion, and much of the area was covered by loess.

High temperatures and adequate rainfall encourage rapid chemical and physical changes. This type of

climate is conducive to the breakdown of minerals and the relocation of clay within the soil. The clay is moved downward into the soil profile, and this downward movement results in the formation of the subsoil. Nearly all of the upland soils in the county show evidence of this illuviation.

Topography

Topography, or relief, affects soil formation through its influence on drainage, runoff, the rate of water infiltration, and geologic erosion. Topography is characterized by the length, shape, aspect, and degree of slope. It is important in determining the pattern and distribution of soils.

The amount of water entering the soil depends on the slope, on permeability, and on the intensity of rainfall. Because runoff is rapid in steep areas, very little water passes through the soil and soil formation is slow. Geologic erosion almost keeps pace with the soil-forming processes. In gently sloping areas, runoff is slow, erosion is minimal, and most of the water passes through the soil. Leaching, the translocation of clay, and other soil-forming processes are intensified in these areas. Soils in these areas generally show maximum profile development.

Soils on steep, south-facing slopes receive more direct sunlight and are drier than similar soils on north-facing slopes. Drier conditions influence soil formation by affecting the kind of vegetation, the susceptibility to erosion, and the cycles of freezing and thawing.

Time

The youngest soils in Reynolds County formed in alluvium. Relfe soils, for example, show little profile development. Alluvial material is added to the surface nearly every year. Bearthicket, Deible, and Secesh soils are older alluvial soils. They are on stream terraces and show moderate profile development.

The oldest soils in the survey area formed in areas at the highest elevations in the county. Tonti, Captina, and Viburnum soils are examples. They have well developed, distinct horizons. The carbonates originally present in the parent material have been leached to a great depth, leaving the soils quite acid throughout. Clay has been concentrated in distinct subsoil horizons through translocation by water. Tonti and Captina soils have a distinct fragipan. Although the formation of the fragipan is obscure, it is clear that some time is required for its formation.

Most of the soils in Reynolds County are intermediate in age. Clarksville and Alred soils formed on steep slopes. They have an eluviated subsurface horizon and translocated clay in the subsoil horizons.

The age of a soil, as expressed in profile characteristics, is not necessarily a reflection of time in

years but is a result of the interaction of various soil-forming factors over periods of time. The age is influenced by topography and climate. It is determined by the degree of profile development and not by the years the soil material has existed.

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Beilmann, A., and L. Brenner. 1951. The recent intrusion of forests in the Ozarks. *Annals of the Missouri Botanical Garden*. Volume 38, pages 261-282.
- Guyette, Rich, and E. McGinnes. 1982. Fire history of a Missouri glade in Missouri. *Transactions of the Missouri Academy of Science* 16: 85-93.
- Nelson, Paul. 1987. The terrestrial natural communities of Missouri. Missouri Natural Areas Committee. Department of Natural Resources.
- Pritchett, William L. 1979. Properties and management of forest soils.
- Rafferty, Milton. 1996. Rude pursuits and rugged peaks: Schoolcraft's Ozark journal 1818-1819. University of Arkansas Press.
- Reynolds County, Missouri. 1992. Reynolds County agrifacts.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. <http://soils.usda.gov/technical/>
- Soil Survey Staff. 1998. Keys to soil taxonomy. 8th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
- United States Department of Agriculture, Bureau of Soils. 1921. Soil survey of Reynolds County, Missouri.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. <http://soils.usda.gov>
- United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. <http://soils.usda.gov>
- United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

Glossary

Many of the terms relating to landforms, geology, and geomorphology are defined in more detail in the "National Soil Survey Handbook" (available in local offices of the Natural Resources Conservation Service or on the Internet).

ABC soil. A soil having an A, a B, and a C horizon.

AC soil. A soil having only an A and a C horizon.

Commonly, such soil formed in recent alluvium or on steep, rocky slopes.

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvial fan. A low, outspread mass of loose materials and/or rock material, commonly with gentle slopes. It is shaped like an open fan or a segment of a cone. The material was deposited by a stream at the place where it issues from a narrow mountain valley or upland valley or where a tributary stream is near or at its junction with the main stream. The fan is steepest near its apex, which points upstream, and slopes gently and convexly outward (downstream) with a gradual decrease in gradient.

Alluvium. Unconsolidated material, such as gravel, sand, silt, clay, and various mixtures of these, deposited on land by running water.

Alpha,alpha-dipyridyl. A compound that when dissolved in ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction implies reducing conditions and the likely presence of redoximorphic features.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Area reclaim (in tables). An area difficult to reclaim after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction toward which a slope faces. Also called slope aspect.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

Basal area. The area of a cross section of a tree, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

Base slope (geomorphology). A geomorphic component of hills consisting of the concave to

linear (perpendicular to the contour) slope that, regardless of the lateral shape, forms an apron or wedge at the bottom of a hillside dominated by colluvium and slope-wash sediments (for example, slope alluvium).

Bedding plane. A planar or nearly planar bedding surface that visibly separates each successive layer of stratified sediment or rock (of the same or different lithology) from the preceding or following layer; a plane of deposition. It commonly marks a change in the circumstances of deposition and may show a parting, a color difference, a change in particle size, or various combinations of these. The term is commonly applied to any bedding surface, even one that is conspicuously bent or deformed by folding.

Bedding system. A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bedrock-floored plain. An extensive, nearly level to gently rolling or moderately sloping area that is underlain by hard bedrock and has a slope of 0 to 8 percent.

Bench terrace. A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Blowout. A saucer-, cup-, or trough-shaped depression formed by wind erosion on a preexisting dune or other sand deposit, especially in an area of shifting sand or loose soil or where protective vegetation is disturbed or destroyed; the adjoining accumulation of sand derived from the depression, where recognizable, is commonly included. Blowouts are commonly small.

Board foot. A unit of measure of the wood in lumber, logs, or trees. The amount of wood in a board 1 foot wide, 1 foot long, and 1 inch thick before finishing.

Bottom land. An informal term loosely applied to various portions of a flood plain.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breaks. A landscape or tract of steep, rough or broken land dissected by ravines and gullies and marking a sudden change in topography.

Breast height. An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.

Brush management. Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

Cable yarding. A method of moving felled trees to a nearby central area for transport to a processing facility. Most cable yarding systems involve use of a drum, a pole, and wire cables in an arrangement similar to that of a rod and reel used for fishing. To reduce friction and soil disturbance, felled trees generally are reeled in while one end is lifted or the entire log is suspended.

Calcareous soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

California bearing ratio (CBR). The load-supporting capacity of a soil as compared to that of standard crushed limestone, expressed as a ratio. First standardized in California. A soil having a CBR of 16 supports 16 percent of the load that would be supported by standard crushed limestone, per unit area, with the same degree of distortion.

Canopy. The leafy crown of trees or shrubs. (See Crown.)

Canyon. A long, deep, narrow valley with high, precipitous walls in an area of high local relief.

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Catena. A sequence, or "chain," of soils on a landscape that formed in similar kinds of parent material and under similar climatic conditions but that have different characteristics as a result of differences in relief and drainage.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil,

expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Catsteps. See Terracettes.

Cement rock. Shaly limestone used in the manufacture of cement.

Channeled. Refers to a drainage area in which natural meandering or repeated branching and convergence of a streambed have created deeply incised cuts, either active or abandoned, in alluvial material.

Channery soil material. Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.

Chemical treatment. Control of unwanted vegetation through the use of chemicals.

Chiseling. Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay depletions. See Redoximorphic features.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Clayey soil. Silty clay, sandy clay, or clay.

Claypan. A dense, compact, slowly permeable subsoil layer that contains much more clay than the overlying materials, from which it is separated by a sharply defined boundary. A claypan is commonly hard when dry and plastic and sticky when wet.

Clearcut. A method of forest harvesting that removes the entire stand of trees in one cutting. Reproduction is achieved artificially or by natural seeding from the adjacent stands.

Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Closed depression. A low area completely surrounded by higher ground and having no natural outlet.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.

Codominant trees. Trees whose crowns form the general level of the forest canopy and that receive full light from above but comparatively little from the sides.

COLE (coefficient of linear extensibility). See Linear extensibility.

Colluvium. Unconsolidated, unsorted earth material being transported or deposited on side slopes and/or at the base of slopes by mass movement (e.g., direct gravitational action) and by local, unconcentrated runoff.

Commercial forest. Forestland capable of producing 20 cubic feet or more per acre per year at the culmination of the mean annual increment.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Concretions. See Redoximorphic features.

Conglomerate. A coarse grained, clastic sedimentary rock composed of rounded or subangular rock fragments more than 2 millimeters in diameter. It commonly has a matrix of sand and finer textured material. Conglomerate is the consolidated equivalent of gravel.

Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

Conservation tillage. A tillage system that does not

invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.

Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."

Consolidated sandstone. Sandstone that disperses within a few hours when fragments are placed in water. The fragments are extremely hard or very hard when dry, are not easily crushed, and cannot be textured by the usual field method.

Consolidated shale. Shale that disperses within a few hours when fragments are placed in water. The fragments are extremely hard or very hard when dry and are not easily crushed.

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Corrosion (geomorphology). A process of erosion whereby rocks and soil are removed or worn away by natural chemical processes, especially by the solvent action of running water, but also by other reactions, such as hydrolysis, hydration, carbonation, and oxidation.

Corrosion (soil survey interpretations). Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

Cropping system. Growing crops according to a planned system of rotation and management practices.

Cross-slope farming. Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.

Crown. The upper part of a tree or shrub, including the living branches and their foliage.

Culmination of the mean annual increment (CMAI).

The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Decreasers. The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.

Deep to water (in tables). Deep to permanent water during the dry season.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Delta. A body of alluvium having a surface that is fan shaped and nearly flat; deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, generally a sea or lake.

Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

Depth, soil. Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.

Depth to bedrock (in tables). Bedrock is too near the surface for the specified use.

Dip slope. A slope of the land surface, roughly determined by and approximately conforming to the dip of the underlying bedrock.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Dominant trees. Trees whose crowns form the general level of the forest canopy and that receive full light from above and from the sides.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and*

very poorly drained. These classes are defined in the "Soil Survey Manual."

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. A general term for a course or channel along which water moves in draining an area. A term restricted to relatively small, linear depressions that at some time move concentrated water and either do not have a defined channel or have only a small defined channel.

Draw. A small stream valley that generally is shallower and more open than a ravine or gulch and that has a broader bottom. The present stream channel may appear inadequate to have cut the drainageway that it occupies.

Drift. A general term applied to all mineral material (clay, silt, sand, gravel, and boulders) transported by a glacier and deposited directly by or from the ice or transported by running water emanating from a glacier. Drift includes unstratified material (till) that forms moraines and stratified deposits that form outwash plains, eskers, kames, varves, and glaciofluvial sediments. The term is generally applied to Pleistocene glacial deposits in areas that no longer contain glaciers.

Droughty (in tables). The soil holds an insufficient amount of water for plants during dry periods.

Duff. A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.

Dune. A low mound, ridge, bank, or hill of loose, windblown granular material (generally sand), either barren and capable of movement from place to place or covered and stabilized with vegetation but retaining its characteristic shape.

Earthy fill. See Mine spoil.

Ecological site. An area where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. An ecological site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other ecological sites in kind and/or proportion of species or in total production.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

Endosaturation. A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.

Eolian deposit. Sand-, silt-, or clay-sized clastic material transported and deposited primarily by wind, commonly in the form of a dune or a sheet of sand or loess.

Ephemeral stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

Episaturation. A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.

Erodes easily (in tables). The soil is easily eroded by water.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Erosion pavement. A surficial lag concentration or layer of gravel and other rock fragments that remains on the soil surface after sheet or rill erosion or wind has removed the finer soil particles and that tends to protect the underlying soil from further erosion.

Escarpment. A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Most commonly applied to cliffs produced by differential erosion. Synonym: scarp.

Even aged. Refers to a stand of trees in which only small differences in age occur between individual trees. A range of 20 years is allowed.

Excess fines (in tables). Excess silt and clay in the soil. The soil does not provide a source of gravel or sand for construction purposes.

Extrusive rock. Igneous rock derived from deep-seated molten matter (magma) emplaced on the earth's surface.

Fast intake (in tables). The rapid movement of water into the soil.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when

light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the oven-dry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity*, *normal moisture capacity*, or *capillary capacity*.

Fill slope. A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.

Fine textured soil. Sandy clay, silty clay, or clay.

Firebreak. An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of firefighters and equipment. Designated roads also serve as firebreaks.

Flaggy soil material. Material that has, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.

Flagstone. A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.

Flood plain. The nearly level plain that borders a stream and is subject to flooding unless protected artificially.

Flood-plain landforms. A variety of constructional and erosional features produced by stream channel migration and flooding. Examples include backswamps, flood-plain splays, meanders, meander belts, meander scrolls, oxbow lakes, and natural levees.

Flood-plain splay. A fan-shaped deposit or other outspread deposit formed where an overloaded stream breaks through a levee (natural or artificial) and deposits its material (commonly coarse grained) on the flood plain.

Flood-plain step. An essentially flat, terrace-like alluvial surface within a valley that is frequently covered by floodwater from the present stream; any approximately horizontal surface still actively modified by fluvial scour and/or deposition. May occur individually or as a series of steps.

Fluvial. Of or pertaining to rivers or streams; produced by stream or river action.

Foothills. A region of steeply sloping hills that fringes a mountain range or high-plateau escarpment. The hills have relief of as much as 1,000 feet (300 meters).

Footslope. The concave surface at the base of a hillslope. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Frost action (in tables). Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Gilgai. Commonly, a succession of microbasins and microknolls in nearly level areas or of microvalleys and microridges parallel with the slope. Typically, the microrelief of clayey soils that shrink and swell considerably with changes in moisture content.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water. Water filling all the unblocked pores of the material below the water table.

Gully. A small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hard to pack (in tables). Difficult to compact using regular earthwork construction equipment.

Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.

Head slope (geomorphology). A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.

Heavy metal. Inorganic substances that are solid at ordinary temperatures and are not soluble in water. They form oxides and hydroxides that are basic. Examples are copper, iron, cadmium, zinc, manganese, lead, and arsenic.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

Highly erodible (in tables). The soil has a wind erodibility index greater than 8 and is very susceptible to erosion by water.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A generic term for an elevated area of the land surface, rising as much as 1,000 feet above

surrounding lowlands, commonly of limited summit area and having a well defined outline. Slopes are generally more than 15 percent. The distinction between a hill and a mountain is arbitrary and may depend on local usage.

Hillslope. A generic term for the steeper part of a hill between its summit and the drainage line, valley flat, or depression floor at the base of a hill.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

L horizon.—A layer of organic and mineral limnic materials, including coprogenous earth (sedimentary peat), diatomaceous earth, and marl.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil.

The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock that was formed by cooling and solidification of magma and that has not been changed appreciably by weathering since its formation. Major varieties include plutonic and volcanic rock (e.g., andesite, basalt, and granite).

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Increasesers. Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasesers commonly are the shorter plants and the less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Infrequent flooding (in tables). Flooding occurs at an interval that limits riparian plant species.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net

irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Interfluve. A landform composed of the relatively undissected upland or ridge between two adjacent valleys containing streams flowing in the same general direction. An elevated area between two drainageways that sheds water to those drainageways.

Interfluve (geomorphology). A geomorphic component of hills consisting of the uppermost, comparatively level or gently sloping area of a hill; shoulders of backwearing hillslopes can narrow the upland or can merge, resulting in a strongly convex shape.

Intermittent stream. A stream, or reach of a stream, that does not flow year-round but that is commonly dry for 3 or more months out of 12 and whose channel is generally below the local water table. It flows only during wet periods or when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

Iron depletions. See Redoximorphic features.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation include:
Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

Karst (topography). A kind of topography that formed in limestone, gypsum, or other soluble rocks by dissolution and that is characterized by closed depressions, sinkholes, caves, and underground drainage.

Knoll. A small, low, rounded hill rising above adjacent landforms.

Ksat. Saturated hydraulic conductivity. (See Permeability.)

Landslide. A general, encompassing term for most types of mass movement landforms and processes involving the downslope transport and outward deposition of soil and rock materials caused by gravitational forces; the movement may or may not involve saturated materials. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at $1/3$ - or $1/10$ -bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loamy soil. Coarse sandy loam, sandy loam, fine sandy loam, very fine sandy loam, loam, silt loam, silt, clay loam, sandy clay loam, or silty clay loam.

Loess. Material transported and deposited by wind and consisting dominantly of silt-sized particles.

Low strength. The soil is not strong enough to support loads.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Marl. An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal proportions; formed primarily under freshwater lacustrine conditions but also formed in more saline environments.

Masses. See Redoximorphic features.

Mean annual increment (MAI). The average annual increase in volume of a tree during the entire life of the tree.

Meander belt. The zone within which migration of a meandering channel occurs; the flood-plain area included between two imaginary lines drawn tangential to the outer bends of active channel loops.

Meander scar. A crescent-shaped, concave or linear mark on the face of a bluff or valley wall, produced by the lateral erosion of a meandering stream that impinged upon and undercut the bluff.

Meander scroll. One of a series of long, parallel, close-fitting, crescent-shaped ridges and troughs formed along the inner bank of a stream meander as the channel migrated laterally down-valley and toward the outer bank.

Mechanical treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Merchantable trees. Trees that are of sufficient size to be economically processed into wood products.

Mine spoil. An accumulation of displaced earthy material, rock, or other waste material removed during mining or excavation. Also called earthy fill.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. A kind of map unit that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation

and pedogenic soil structure. It may include the upper part of the subsoil.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few*, *common*, and *many*; size—*fine*, *medium*, and *coarse*; and contrast—*faint*, *distinct*, and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).

Mountain. A generic term for an elevated area of the land surface, rising more than 1,000 feet (300 meters) above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides. A mountain can occur as a single, isolated mass or in a group forming a chain or range. Mountains are formed primarily by tectonic activity and/or volcanic action but can also be formed by differential erosion.

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Mudstone. A blocky or massive, fine grained sedimentary rock in which the proportions of clay and silt are approximately equal. Also, a general term for such material as clay, silt, claystone, siltstone, shale, and argillite and that should be used only when the amounts of clay and silt are not known or cannot be precisely identified.

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)

Nodules. See Redoximorphic features.

Nose slope (geomorphology). A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent. Nose slopes consist dominantly of colluvium and slope-wash sediments (for example, slope alluvium).

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium,

magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Overstory. The trees in a forest that form the upper crown cover.

Oxbow. The horseshoe-shaped channel of a former meander, remaining after the stream formed a cutoff across a narrow meander neck.

Paleoterrace. An erosional remnant of a terrace that retains the surface form and alluvial deposits of its origin but was not emplaced by, and commonly does not grade to, a present-day stream or drainage network.

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan*, *fragipan*, *claypan*, *plowpan*, and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedon. The smallest volume that can be called “a soil.” A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as “saturated hydraulic conductivity,” which is defined in the “Soil Survey Manual.” In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow

continues to be expressed as “permeability.” Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0015 inch
Very slow	0.0015 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plateau (geomorphology). A comparatively flat area of great extent and elevation; specifically, an extensive land region that is considerably elevated (more than 100 meters) above the adjacent lower lying terrain, is commonly limited on at least one side by an abrupt descent, and has a flat or nearly level surface. A comparatively large part of a plateau surface is near summit level.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poor filter (in tables). Because of rapid or very rapid permeability, the soil may not adequately filter effluent from a waste disposal system.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Pore linings. See Redoximorphic features.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content

of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Quartzite, metamorphic. Rock consisting mainly of quartz that formed through recrystallization of quartz-rich sandstone or chert.

Quartzite, sedimentary. Very hard but unmetamorphosed sandstone consisting chiefly of quartz grains.

Rangeland. Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed as pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Redoximorphic concentrations. See Redoximorphic features.

Redoximorphic depletions. See Redoximorphic features.

Redoximorphic features. Redoximorphic features are associated with wetness and result from alternating periods of reduction and oxidation of iron and manganese compounds in the soil. Reduction occurs during saturation with water, and oxidation occurs when the soil is not saturated. Characteristic color patterns are created by these processes. The reduced iron and manganese ions may be removed from a soil if vertical or lateral fluxes of water occur, in which case there is no iron or manganese precipitation in that soil. Wherever the iron and manganese are oxidized and precipitated, they form either soft masses or hard concretions or nodules. Movement of iron and manganese as a result of redoximorphic processes in a soil may result in redoximorphic features that are defined as follows:

1. Redoximorphic concentrations.—These are zones of apparent accumulation of iron-manganese oxides, including:
 - A. Nodules and concretions, which are cemented bodies that can be removed from the soil intact. Concretions are distinguished from nodules on the basis of internal organization. A concretion typically has concentric layers that are visible to the naked eye. Nodules do not have visible organized internal structure; *and*
 - B. Masses, which are noncemented concentrations of substances within the soil matrix; *and*
 - C. Pore linings, i.e., zones of accumulation along pores that may be either coatings on pore surfaces or impregnations from the matrix adjacent to the pores.
2. Redoximorphic depletions.—These are zones of low chroma (chromas less than those in the matrix) where either iron-manganese oxides alone or both iron-manganese oxides and clay have been stripped out, including:
 - A. Iron depletions, i.e., zones that contain low amounts of iron and manganese oxides but have a clay content similar to that of the adjacent matrix; *and*
 - B. Clay depletions, i.e., zones that contain low amounts of iron, manganese, and clay (often referred to as silt coatings or skeletons).
3. Reduced matrix.—This is a soil matrix that has low chroma *in situ* but undergoes a change in hue or chroma within 30 minutes after the soil material has been exposed to air.

Reduced matrix. See Redoximorphic features.

Regolith. All unconsolidated earth materials above the solid bedrock. It includes material weathered in

place from all kinds of bedrock and alluvial, glacial, eolian, lacustrine, and pyroclastic deposits.

Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as bedrock disintegrated in place.

Rill. A very small, steep-sided channel resulting from erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. A rill generally is not an obstacle to wheeled vehicles and is shallow enough to be smoothed over by ordinary tillage.

Riser. The vertical or steep side slope (e.g., escarpment) of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural, steplike landforms, such as successive stream terraces.

Riverwash. Unstable areas of sandy, silty, clayey, or gravelly sediments. These areas are flooded, washed, and reworked by rivers so frequently that they support little or no vegetation.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Rock outcrop. Exposures of bare bedrock other than lava flows and rock-lined pits.

Root zone. The part of the soil that can be penetrated by plant roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Sandy soil. Sand or loamy sand.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saturated hydraulic conductivity (Ksat). See Permeability.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Sawlogs. Logs of suitable size and quality for the production of lumber.

Scarification. The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.

Seasonal wetness (in tables). The soil may be wet during the period of desired use. The wetness usually occurs during the winter and early spring.

Seasonally ponded (in tables). Standing water on soils in closed depressions that is removed only by percolation or evapotranspiration. Generally occurs during the winter and early spring.

Sedimentary rock. A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.

Seepage (in tables). The movement of water through the soil. Seepage adversely affects the specified use.

Semiconsolidated sedimentary beds. Soft geologic sediments that disperse when fragments are placed in water. The fragments are hard or very hard when dry. Determining the texture by the usual field method is difficult.

Sequum. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock that formed by the hardening of a deposit of clay, silty clay, or silty clay loam and that has a tendency to split into thin layers.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Shoulder. The convex, erosional surface near the top of a hillslope. A shoulder is a transition from summit to backslope.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Side slope (geomorphology). A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel. Side slopes are dominantly colluvium and slope-wash sediments.

Silica. A combination of silicon and oxygen. The mineral form is called quartz.

Silica-sesquioxide ratio. The ratio of the number of molecules of silica to the number of molecules of alumina and iron oxide. The more highly weathered soils or their clay fractions in warm-temperate, humid regions, and especially those in the tropics, generally have a low ratio.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. An indurated silt having the texture and composition of shale but lacking its fine lamination or fissility; a massive mudstone in which silt predominates over clay.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Sinkhole. A closed, circular or elliptical depression, commonly funnel shaped, characterized by subsurface drainage and formed either by dissolution of the surface of underlying bedrock (e.g., limestone, gypsum, or salt) or by collapse of underlying caves within bedrock. Complexes of sinkholes in carbonate-rock terrain are the main components of karst topography.

Site class. A grouping of site indexes into five to seven production capability levels. Each level can be represented by a site curve.

Site curve (50-year). A set of related curves on a graph that shows the average height of dominant or dominant and codominant trees for a range of ages on soils that differ in productivity. Each level is represented by a curve. The basis of the curves is the height of dominant or dominant and codominant trees that are 50 years old or are 50 years old at breast height.

Site curve (100-year). A set of related curves on a graph that shows the average height of dominant or dominant and codominant trees for a range of ages on soils that differ in productivity. Each level is represented by a curve. The basis of the curves is the height of dominant or dominant and codominant trees that are 100 years old or are 100 years old at breast height.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

Skid trails. Pathways along which logs are dragged to a common site for loading onto a logging truck.

Slash. The branches, treetops, reject logs, and broken or uprooted trees left on the ground after logging.

Slickensides (pedogenic). Grooved, striated, and/or glossy (shiny) slip faces on structural peds, such as wedges; produced by shrink-swell processes, most commonly in soils that have a high content of expansive clays.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.

Slope (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Slope/erodibility (in tables). A combination of slope and susceptibility to water erosion may restrict the specified use.

Slow intake (in tables). The slow movement of water into the soil.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Small stones (in tables). Rock fragments less than 3 inches (7.6 centimeters) in diameter. Small stones adversely affect the specified use of the soil.

Sodium adsorption ratio (SAR). A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent

material, as conditioned by relief and by the passage of time.

Soil reaction (in tables). The soil reaction is either too high or too low for the specified use.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Stickiness (surface) (in tables). The soil is slippery and sticky when wet and slow to dry.

Stone line. In a vertical cross section, a line formed by scattered fragments or a discrete layer of angular and subangular rock fragments (commonly a gravel- or cobble-sized lag concentration) that formerly was draped across a topographic surface and was later buried by additional sediments. A stone line generally caps material that was subject to weathering, soil formation, and erosion before burial. Many stone lines seem to be buried erosion pavements, originally formed by sheet and rill erosion across the land surface.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Strath terrace. A type of stream terrace; formed as an erosional surface cut on bedrock and thinly mantled with stream deposits (alluvium).

Stream channel. The hollow bed where a natural stream of surface water flows or may flow; the deepest or central part of the bed, formed by the main current and covered more or less continuously by water.

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to

the stream channel, originally formed near the level of the stream; represents the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grain* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

Substratum. The part of the soil below the solum.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Summit. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the “plow layer,” or the “Ap horizon.”

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Tailwater. The water directly downstream from a structure.

Talus. Rock fragments of any size or shape (commonly coarse and angular) derived from and lying at the base of a cliff or very steep rock slope. The accumulated mass of such loose broken rock formed chiefly by falling, rolling, or sliding.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to

that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terrace (conservation). An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geomorphology). A steplike surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, lake, or seashore. The term is usually applied both to the relatively flat summit surface (tread) that was cut or built by stream or wave action and to the steeper descending slope (scarp or riser) that has graded to a lower base level of erosion.

Terracettes. Small, irregular steplike forms on steep hillslopes, especially in pasture, formed by creep or erosion of surficial materials that may be induced or enhanced by trampling of livestock, such as sheep or cattle.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand*, *loamy sand*, *sandy loam*, *loam*, *silt loam*, *silt*, *sandy clay loam*, *clay loam*, *silty clay loam*, *sandy clay*, *silty clay*, and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying “coarse,” “fine,” or “very fine.” The abbreviations (see table 17) are *C—clay*, *CL—clay loam*, *COS—coarse sand*, *COSL—coarse sandy loam*, *FS—fine sand*, *FSL—fine sandy loam*, *L—loam*, *LCOS—loamy coarse sand*, *LFS—loamy fine sand*, *LS—loamy sand*, *LVFS—loamy very fine sand*, *S—sand*, *SC—sandy clay*, *SCL—sandy clay loam*, *SI—silt*, *SIC—silty clay*, *SICL—silty clay loam*, *SIL—silt loam*, *SL—sandy loam*, *VFS—very fine sand*, and *VFSL—very fine sandy loam*. Terms used in lieu of texture descriptions are *WB—weathered bedrock* and *UWB—unweathered bedrock*. The texture modifiers that may apply to textural classes are *BY—bouldery*, *BYV—very bouldery*, *BYX—extremely bouldery*, *CB—cobble*, *CBV—very cobble*, *CBX—extremely cobble*, *CN—channery*, *CNV—very channery*, *CNX—extremely channery*, *FL—flaggy*, *FLV—very*

flaggy, FLX—extremely flaggy, GR—gravelly, GRV—very gravelly, GRX—extremely gravelly, SR—stratified, ST—stony, STV—very stony, and STX—extremely stony.

- Thin layer** (in tables). Otherwise suitable soil material that is too thin for the specified use.
- Till.** Dominantly unsorted and nonstratified drift, generally unconsolidated and deposited directly by a glacier without subsequent reworking by meltwater, and consisting of a heterogeneous mixture of clay, silt, sand, gravel, stones, and boulders; rock fragments of various lithologies are embedded within a finer matrix that can range from clay to sandy loam.
- Tilth, soil.** The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.
- Toeslope.** The gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.
- Too clayey** (in tables). The soil is slippery and sticky when wet and slow to dry.
- Too sandy** (in tables). The soil is soft and loose, droughty, and low in fertility or is too fine to be used as gravel.
- Topsoil.** The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.
- Trace elements.** Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.
- Tread.** The flat to gently sloping, topmost, laterally extensive slope of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural steplike landforms, such as successive stream terraces.
- Upland.** An informal, general term for the higher ground of a region, in contrast with a low-lying adjacent area, such as a valley or plain, or for land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.
- Valley.** An elongated depressional area primarily developed by stream action.
- Valley fill.** The unconsolidated sediment deposited by any agent (water, wind, ice, or mass wasting) so as to fill or partly fill a valley.
- Variiegation.** Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.
- Varve.** A sedimentary layer or a lamina or sequence of laminae deposited in a body of still water within a year. Specifically, a thin pair of graded glaciolacustrine layers seasonally deposited, usually by meltwater streams, in a glacial lake or other body of still water in front of a glacier.
- Water bars.** Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.
- Water-spreading.** Diverting runoff from natural channels by means of a system of dams, dikes, or ditches and spreading it over relatively flat surfaces.
- Weathering.** All physical disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth's surface by atmospheric or biologic agents or by circulating surface waters but involving essentially no transport of the altered material.
- Well graded.** Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.
- Wilting point (or permanent wilting point).** The moisture content of soil, on an oven-dry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.
- Windthrow.** The uprooting and tipping over of trees by the wind.

Tables

Table 1.--Temperature and Precipitation

(Recorded in the period 1961-90 at Clearwater Dam, Missouri)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	2 years in 10 will have--		Average number of growing degree days*	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more	Average snowfall
				Maximum temperature higher than--	Minimum temperature lower than--			Less than--	More than--		
°F	°F	°F	°F	°F	Units	In	In	In		In	
January----	42.5	19.6	31.0	71	-9	7	2.72	1.03	4.14	4	2.4
February---	47.4	23.2	35.3	76	-2	13	2.90	1.51	4.11	5	2.6
March-----	58.6	33.3	46.0	84	12	83	4.62	2.45	6.53	7	.6
April-----	71.0	43.8	57.4	91	24	258	4.12	2.00	5.95	6	.0
May-----	78.8	52.3	65.5	92	34	483	4.48	2.74	6.04	7	.0
June-----	86.2	60.8	73.5	98	45	703	3.13	1.69	4.41	5	.0
July-----	91.1	65.7	78.4	102	51	880	3.93	1.67	5.85	5	.0
August-----	89.0	63.5	76.2	102	49	810	3.83	1.81	5.57	5	.0
September--	81.5	56.9	69.2	96	38	576	3.32	1.36	4.97	4	.0
October----	70.9	43.6	57.3	89	25	255	2.85	.83	4.66	4	.0
November---	58.1	34.5	46.3	80	13	73	4.13	1.84	6.10	6	.2
December---	45.8	24.4	35.1	71	-1	13	4.31	1.86	6.40	6	1.2
Yearly:											
Average---	68.4	43.5	55.9	---	---	---	---	---	---	---	---
Extreme---	110	-19	---	103	-11	---	---	---	---	---	---
Total-----	---	---	---	---	---	4,153	44.34	33.67	51.58	64	7.0

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 degrees F).

Table 2.--Freeze Dates in Spring and Fall

(Recorded in the period 1961-90 at Clearwater Dam, Missouri)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	Apr. 6	Apr. 14	Apr. 30
2 years in 10 later than--	Apr. 2	Apr. 10	Apr. 24
5 years in 10 later than--	Mar. 24	Apr. 1	Apr. 14
First freezing temperature in fall:			
1 year in 10 earlier than--	Oct. 29	Oct. 19	Oct. 5
2 years in 10 earlier than--	Nov. 3	Oct. 23	Oct. 10
5 years in 10 earlier than--	Nov. 12	Oct. 31	Oct. 18

Table 3.--Growing Season

(Recorded in the period 1961-90 at Clearwater Dam, Missouri)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	212	193	165
8 years in 10	219	200	172
5 years in 10	233	212	186
2 years in 10	247	225	199
1 year in 10	254	231	206

Table 4.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
73042	Niangua-Bardley complex, 15 to 50 percent slopes, extremely stony-----	9,410	1.8
73055	Alred-Rueter complex, 15 to 35 percent slopes, very stony-----	91,820	17.6
73139	Poynor-Clarksville-Scholten complex, 8 to 15 percent slopes, stony-----	55,042	10.6
73140	Clarksville-Scholten complex, 15 to 45 percent slopes, very stony-----	129,200	24.8
73143	Courtois silt loam, 3 to 8 percent slopes-----	829	0.2
73144	Courtois silt loam, 8 to 15 percent slopes-----	825	0.2
73147	Fourche silt loam, 3 to 8 percent slopes-----	264	*
73155	Gasconade-Rock outcrop complex, 3 to 35 percent slopes-----	494	*
73156	Alred-Gepp complex, 8 to 15 percent slopes, stony-----	6,960	1.3
73157	Captina silt loam, 3 to 8 percent slopes-----	447	*
73159	Yelton silt loam, 3 to 8 percent slopes-----	419	*
73197	Viburnum silt loam, 3 to 8 percent slopes-----	1,591	0.3
73222	Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded-----	42	*
73223	Coulstone-Bender complex, 15 to 50 percent slopes, very stony-----	27,579	5.3
73269	Brussels-Gasconade-Rock outcrop complex, 30 to 90 percent slopes, very bouldery-----	756	0.1
73290	Gatewood-Aaron complex, 3 to 8 percent slopes-----	88	*
73291	Gatewood-Aaron complex, 8 to 15 percent slopes, severely eroded-----	773	0.1
73295	Taterhill silt loam, 3 to 8 percent slopes-----	4,207	0.8
73298	Tonti-Hogcreek complex, 3 to 8 percent slopes-----	15,542	3.0
73310	Scholten-Bendavis-Poynor complex, 1 to 8 percent slopes-----	3,691	0.7
73311	Scholten-Bendavis-Poynor complex, 8 to 15 percent slopes-----	40,642	7.8
73333	Taterhill silt loam, 1 to 3 percent slopes-----	756	0.1
73334	Horneybuck silt loam, 3 to 8 percent slopes-----	154	*
73335	Hobson-Rueter complex, 3 to 8 percent slopes-----	1,898	0.4
73336	Rueter-Gepp complex, bench, 8 to 15 percent slopes-----	6,416	1.2
73337	Tonti-Portia complex, 3 to 8 percent slopes-----	780	0.1
73338	Portia-Hobson complex, 8 to 15 percent slopes-----	272	*
73339	Arkana-Gepp complex, 8 to 15 percent slopes, rocky, stony-----	1,658	0.3
73340	Rueter-Gepp complex, 8 to 15 percent slopes, stony-----	8,794	1.7
73341	Gepp-Arkana complex, 15 to 55 percent slopes, rocky-----	681	0.1
73342	Alred-Arkana complex, 8 to 15 percent slopes, rocky-----	1,382	0.3
74636	Lecoma loam, 3 to 8 percent slopes-----	1,346	0.3
74637	Lecoma loam, 8 to 15 percent slopes-----	806	0.2
74643	Lecoma silt loam, 1 to 3 percent slopes-----	416	*
74644	Deible silt loam, 1 to 3 percent slopes-----	622	0.1
74646	Cornwall silt loam, 3 to 8 percent slopes-----	45	*
74648	Aslinger silt loam, 3 to 8 percent slopes-----	206	*
74649	Aslinger-Waben complex, 3 to 15 percent slopes-----	2,623	0.5
74651	Waben gravelly silt loam, 3 to 8 percent slopes-----	3,539	0.7
74658	Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded-----	305	*
74679	Higdon silt loam, 0 to 3 percent slopes, rarely flooded-----	192	*
74680	Moniteau silt loam, 0 to 3 percent slopes, rarely flooded-----	200	*
75381	Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded-----	1,890	0.4
75394	Relfe gravelly sandy loam, 0 to 3 percent slopes, rarely flooded-----	3,857	0.7
75395	Jamesfin silt loam, 0 to 3 percent slopes, occasionally flooded-----	216	*
75408	Secesh silt loam, 0 to 3 percent slopes, rarely flooded-----	7,185	1.4
75409	Relfe sandy loam, 0 to 3 percent slopes, occasionally flooded-----	8,017	1.5
75411	Tilk very gravelly sandy loam, 0 to 3 percent slopes, rarely flooded-----	13,927	2.7
75416	Gladden loam, 0 to 3 percent slopes, occasionally flooded-----	959	0.2
75417	Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded-----	11,896	2.3
75426	Gabriel silt loam, 0 to 3 percent slopes, rarely flooded-----	483	*
75428	Tilk, occasionally flooded-Cornwall-Poynor complex, 3 to 15 percent slopes-----	7,710	1.5
75429	Tilk-Secesh complex, 0 to 3 percent slopes, occasionally flooded-----	7,961	1.5
75430	Wideman fine sandy loam, 0 to 3 percent slopes, occasionally flooded-----	767	0.1
75432	Batcave-Farewell complex, 0 to 3 percent slopes, frequently flooded-----	990	0.2
75451	Gladden silt loam, 0 to 3 percent slopes, occasionally flooded-----	155	*
75462	Huzzah sandy loam, 0 to 3 percent slopes, occasionally flooded-----	129	*
75463	Huzzah sandy loam, 0 to 3 percent slopes, rarely flooded-----	239	*
75464	Cedargap gravelly loam, 0 to 3 percent slopes, rarely flooded-----	266	*
75465	Raftville-Gabriel complex, 0 to 3 percent slopes, rarely flooded-----	167	*

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
75466	Midco very gravelly loam, 0 to 3 percent slopes, occasionally flooded----	4,861	0.9
75470	Farewell gravelly silt loam, 0 to 3 percent slopes, rarely flooded-----	483	*
77000	Killarney-Frenchmill complex, 15 to 45 percent slopes, rubbly-----	3,128	0.6
77003	Delassus gravelly silt loam, 8 to 15 percent slopes, very bouldery-----	1,231	0.2
77004	Irondale gravelly silt loam, 15 to 35 percent slopes, rocky, extremely bouldery-----	4,119	0.8
77007	Taumsauk-Irondale-Rock outcrop complex, 15 to 45 percent slopes, extremely stony-----	5,045	1.0
77009	Trackler silt loam, 3 to 8 percent slopes-----	224	*
77011	Taumsauk-Irondale-Rock outcrop complex, 3 to 15 percent slopes, very stony-----	2,129	0.4
77012	Mudlick-Irondale-Killarney complex, 15 to 45 percent slopes, extremely bouldery, rocky-----	1,431	0.3
77013	Mudlick very cobbly silt loam, 8 to 15 percent slopes, very stony, rocky	605	0.1
99001	Water-----	2,977	0.6
99006	Psamments, 1 to 8 percent slopes-----	543	0.1
99007	Dam-----	61	*
99010	Pits and Dumps-----	4	*
99013	Riverwash, frequently flooded-----	3,676	0.7
	Total-----	521,043	100.0

* Less than 0.1 percent.

Table 5.--Land Capability and Yields per Acre of Crops

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land capability	Corn	Grain sorghum	Soybeans	Winter wheat
		Bu	Bu	Bu	Bu
73042:					
Niangua-----	7e	---	---	---	---
Bardley-----	7e	---	---	---	---
73055:					
Alred-----	7s	---	---	---	---
Rueter-----	7s	---	---	---	---
73139:					
Poynor-----	6e	---	---	---	---
Clarksville---	6e	---	---	---	---
Scholten-----	6e	---	---	---	---
73140:					
Clarksville---	7s	---	---	---	---
Scholten-----	7s	---	---	---	---
73143:					
Courtois-----	3e	75	---	---	35
73144:					
Courtois-----	4e	65	---	---	25
73147:					
Fourche-----	3e	110	95	40	45
73155:					
Gasconade-----	7s	---	---	---	---
Rock outcrop--	8s	---	---	---	---
73156:					
Alred-----	6s	---	---	---	---
Gepp-----	4e	---	---	---	---
73157:					
Captina-----	3e	80	75	32	35
73159:					
Yelton-----	3e	---	---	---	36
73197:					
Viburnum-----	3e	---	---	---	38
73222:					
Splitlimb-----	2w	---	---	---	50
73223:					
Coulstone-----	7e	---	---	---	---
Bender-----	7e	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Corn	Grain sorghum	Soybeans	Winter wheat
		Bu	Bu	Bu	Bu
73269:					
Brussels-----	7s	---	---	---	---
Gasconade-----	7s	---	---	---	---
Rock outcrop--	8s	---	---	---	---
73290:					
Gatewood-----	4e	---	---	---	---
Aaron-----	3e	---	---	---	---
73291:					
Gatewood-----	6e	---	---	---	---
Aaron-----	4e	---	---	---	---
73295:					
Taterhill-----	3e	---	---	---	43
73298:					
Tonti-----	3e	---	---	---	36
Hogcreek-----	3e	---	---	---	36
73310:					
Scholten-----	4e	---	---	---	---
Bendavis-----	4e	---	---	---	19
Poynor-----	4e	---	---	---	---
73311:					
Scholten-----	6e	---	---	---	---
Bendavis-----	6e	---	---	---	---
Poynor-----	6e	---	---	---	---
73333:					
Taterhill-----	2e	60	70	23	---
73334:					
Horneybuck----	3e	78	68	29	32
73335:					
Hobson-----	3e	---	---	---	35
Rueter-----	4e	---	---	---	---
73336:					
Rueter-----	7s	---	---	---	---
Gepp-----	4e	---	---	---	---
73337:					
Tonti-----	3e	60	55	---	36
Portia-----	3e	70	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Corn	Grain sorghum	Soybeans	Winter wheat
		Bu	Bu	Bu	Bu
73338:					
Portia-----	4e	---	---	---	---
Hobson-----	4e	---	---	---	---
73339:					
Arkana-----	4e	---	---	---	---
Gepp-----	4e	---	---	---	---
73340:					
Rueter-----	7s	---	---	---	---
Gepp-----	4e	---	---	---	---
73341:					
Gepp-----	4e	---	---	---	---
Arkana-----	4e	---	---	---	---
73342:					
Alred-----	6s	---	---	---	---
Arkana-----	4e	---	---	---	---
74636:					
Lecoma-----	3e	83	73	30	43
74637:					
Lecoma-----	4e	---	---	---	40
74643:					
Lecoma-----	2e	85	75	32	35
74644:					
Deible-----	4w	90	70	30	35
74646:					
Cornwall-----	3e	80	80	25	30
74648:					
Aslinger-----	3e	75	70	29	33
74649:					
Aslinger-----	4e	70	64	25	31
Waben-----	4s	---	54	---	28
74651:					
Waben-----	3s	59	52	22	24
74658:					
Zanoni-----	2e	---	---	---	38
74679:					
Higdon-----	2w	100	80	35	40
74680:					
Moniteau-----	3w	90	80	35	41
75381:					
Bearthicket---	1	125	110	45	40

Table 5.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Corn	Grain sorghum	Soybeans	Winter wheat
		Bu	Bu	Bu	Bu
75394: Relfe-----	4s	---	---	---	---
75395: Jamesfin-----	2w	115	95	40	44
75408: Secesh-----	2s	80	72	43	40
75409: Relfe-----	4s	55	48	---	26
75411: Tilk-----	3s	70	54	---	31
75416: Gladden-----	2w	90	70	30	35
75417: Relfe-----	4s	---	---	---	---
Sandbur-----	3w	---	---	---	---
75426: Gabriel-----	4w	95	81	45	50
75428: Tilk-----	3s	70	54	---	31
Cornwall-----	4e	80	64	25	30
Poynor-----	6e	---	---	---	---
75429: Tilk-----	3s	70	54	---	25
Secesh-----	2s	80	57	---	40
75430: Wideman-----	3s	60	50	26	30
75432: Batcave-----	3w	---	---	---	---
Farewell-----	3w	---	---	---	---
75451: Gladden-----	2w	75	60	25	30
75462: Huzzah-----	2w	---	---	---	---
75463: Huzzah-----	2w	94	74	31	39
75464: Cedargap-----	3s	85	---	30	31
75465: Raftville-----	3e	---	---	---	29
Gabriel-----	2w	135	118	50	55

Table 5.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Corn	Grain sorghum	Soybeans	Winter wheat
		Bu	Bu	Bu	Bu
75466: Midco-----	3s	---	---	---	30
75470: Farewell-----	3w	---	---	---	53
77000: Killarney-----	7s	---	---	---	---
Frenchmill----	7s	---	---	---	---
77003: Delassus-----	4e	70	65	30	30
77004: Irondale-----	7s	---	---	---	---
77007: Taumsauk-----	7s	---	---	---	---
Irondale-----	7s	---	---	---	---
Rock outcrop--	8s	---	---	---	---
77009: Trackler-----	3e	75	70	30	35
77011: Taumsauk-----	7s	---	---	---	---
Irondale-----	7s	---	---	---	---
Rock outcrop--	8s	---	---	---	---
77012: Mudlick-----	7e	---	---	---	---
Irondale-----	7s	---	---	---	---
Killarney-----	7s	---	---	---	---
77013: Mudlick-----	4e	70	---	---	---
99001. Water					
99006: Psamments-----	7s	---	---	---	---
99007. Dam					
99010: Pits-----	8s	---	---	---	---
Dumps-----	8s	---	---	---	---
99013: Riverwash-----	7w	---	---	---	---

Table 6.--Pasture and Hayland Groups and Yields per Acre of Hay and Pasture

(See text for descriptions of the pasture and hayland suitability groups. Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Pasture and hayland group	Alfalfa hay	Caucasian bluestem	Orchard- grass-red clover	Tall fescue	Warm-season grasses
		Tons	Tons	Tons	Tons	Tons
73042:						
Niangua-----	GNS	---	---	---	---	---
Bardley-----	GNS	---	---	---	---	---
73055:						
Alred-----	GNS	---	---	---	---	---
Rueter-----	GNS	---	---	---	---	---
73139:						
Poynor-----	GrU	6.20	7.10	5.85	5.35	6.75
Clarksville---	GrU	6.20	7.10	5.85	5.35	6.75
Scholten-----	GrP	2.25	2.65	1.10	2.25	2.65
73140:						
Clarksville---	GNS	---	---	---	---	---
Scholten-----	GNS	---	---	---	---	---
73143:						
Courtois-----	CyU	7.50	8.00	7.50	7.00	7.50
73144:						
Courtois-----	CyU	7.50	8.00	7.50	7.00	7.50
73147:						
Fourche-----	LyU	9.50	8.00	7.45	6.65	8.00
73155:						
Gasconade-----	ShU	---	2.20	---	1.35	2.10
Rock outcrop.						
73156:						
Alred-----	GrU	6.20	7.10	5.85	5.35	6.75
Gepp-----	GrU	6.20	7.10	5.85	5.35	6.75
73157:						
Captina-----	LyP	4.45	5.75	4.80	5.00	5.75
73159:						
Yelton-----	LyP	4.45	5.75	4.80	5.00	5.75
73197:						
Viburnum-----	CyU	4.20	4.50	3.30	4.60	4.80
73222:						
Splitlimb-----	LyU	8.40	9.00	6.70	5.50	9.60
73223:						
Coulstone-----	GNS	---	---	---	---	---
Bender-----	GNS	---	---	---	---	---

Table 6.--Pasture and Hayland Groups and Yields per Acre of Hay and Pasture--Continued

Map symbol and soil name	Pasture and hayland group	Alfalfa hay	Caucasian bluestem	Orchard- grass-red clover	Tall fescue	Warm-season grasses
		Tons	Tons	Tons	Tons	Tons
73269:						
Brussels-----	GNS	---	---	---	---	---
Gasconade-----	GNS	---	---	---	---	---
Rock outcrop.						
73290:						
Gatewood-----	MDU	5.75	6.65	5.85	5.35	6.75
Aaron-----	CyU	7.50	8.00	7.50	7.00	7.50
73291:						
Gatewood-----	MDU	5.75	6.65	5.85	5.35	6.75
Aaron-----	CyU	7.50	8.00	7.50	7.00	7.50
73295:						
Taterhill-----	LyU	6.40	6.80	5.10	7.50	7.80
73298:						
Tonti-----	LyP	3.60	3.90	3.00	4.00	4.80
Hogcreek-----	LyP	2.50	2.60	2.00	2.60	2.80
73310:						
Scholten-----	GrP	1.10	1.10	0.80	2.00	1.20
Bendavis-----	MDU	2.00	2.25	1.60	2.20	2.40
Poynor-----	GRU	4.00	4.20	3.20	4.00	4.50
73311:						
Scholten-----	GrP	---	---	---	---	---
Bendavis-----	MDU	---	---	---	---	---
Poynor-----	GrU	---	---	---	---	---
73333:						
Taterhill-----	LyU	9.50	8.00	7.45	6.65	8.00
73334:						
Horneybuck----	WtP	---	---	5.00	7.30	8.25
73335:						
Hobson-----	LyP	4.45	5.75	4.80	5.00	5.75
Rueter-----	GrU	6.20	7.10	5.85	5.35	6.75
73336:						
Rueter-----	GrU	---	---	---	---	---
Gepp-----	GrU	6.20	7.10	5.85	5.35	6.75
73337:						
Tonti-----	LyP	4.45	5.75	4.80	5.00	5.75
Portia-----	LyU	9.50	8.00	7.45	6.65	8.00

Table 6.--Pasture and Hayland Groups and Yields per Acre of Hay and Pasture--Continued

Map symbol and soil name	Pasture and hayland group	Alfalfa hay	Caucasian bluestem	Orchard- grass-red clover	Tall fescue	Warm-season grasses
		Tons	Tons	Tons	Tons	Tons
73338:						
Portia-----	LyU	9.50	8.00	7.45	6.65	8.00
Hobson-----	LyP	4.45	5.75	4.80	5.00	5.75
73339:						
Arkana-----	MDU	5.75	6.65	5.85	5.35	6.75
Gepp-----	GrU	6.20	7.10	5.85	5.35	6.75
73340:						
Rueter-----	GrU	---	---	---	---	---
Gepp-----	GrU	6.20	7.10	5.85	5.35	6.75
73341:						
Gepp-----	GrU	6.20	7.10	5.85	5.35	6.75
Arkana-----	MDU	5.75	6.65	5.85	5.35	6.75
73342:						
Alred-----	GrU	6.20	7.10	5.85	5.35	6.75
Arkana-----	MDU	5.75	6.65	5.85	5.35	6.75
74636:						
Lecoma-----	LyU	9.50	8.00	7.45	6.65	8.00
74637:						
Lecoma-----	LyU	9.50	8.00	7.45	6.65	8.00
74643:						
Lecoma-----	LyU	9.50	8.00	7.45	6.65	8.00
74644:						
Deible-----	WCB	---	---	7.10	8.00	9.25
74646:						
Cornwall-----	LyU	9.50	8.00	7.45	6.65	8.00
74648:						
Aslinger-----	LyO	8.90	8.85	7.45	6.75	9.20
74649:						
Aslinger-----	LyO	8.90	8.85	7.45	6.75	9.20
Waben-----	GrO	2.65	4.00	1.20	2.65	3.65
74651:						
Waben-----	GrU	6.20	7.10	5.85	5.35	6.75
74658:						
Zanoni-----	LyO	6.60	7.00	5.20	5.25	7.40
74679:						
Higdon-----	WLB	---	---	7.10	8.10	9.50
74680:						
Moniteau-----	WLB	---	---	7.10	8.10	9.50
75381:						
Bearthicket---	LyO	8.90	8.85	7.45	6.75	9.20

Table 6.--Pasture and Hayland Groups and Yields per Acre of Hay and Pasture--Continued

Map symbol and soil name	Pasture and hayland group	Alfalfa hay	Caucasian bluestem	Orchard- grass-red clover	Tall fescue	Warm-season grasses
		Tons	Tons	Tons	Tons	Tons
75394: Relfe-----	SyO	3.55	3.00	3.20	3.20	3.35
75395: Jamesfin-----	LyO	8.90	8.85	7.45	6.75	9.20
75408: Secesh-----	LyO	8.90	8.85	7.45	6.75	9.20
75409: Relfe-----	SyO	3.55	3.00	3.20	3.20	3.35
75411: Tilk-----	GrO	2.65	4.00	1.20	2.65	3.65
75416: Gladden-----	LyO	8.90	8.85	7.45	6.75	9.20
75417: Relfe-----	SyO	2.00	2.30	1.60	3.00	2.40
Sandbur-----	LyO	6.60	7.00	5.20	6.75	7.40
75426: Gabriel-----	WLO	---	---	8.50	8.00	9.50
75428: Tilk-----	GrO	2.65	4.00	1.20	2.65	3.65
Cornwall-----	LyU	9.50	8.00	7.45	6.65	8.00
Poynor-----	GrU	6.20	7.10	5.85	5.35	6.75
75429: Tilk-----	GrO	2.65	4.00	1.20	2.65	3.65
Secesh-----	LyO	8.90	8.85	7.45	6.75	9.20
75430: Wideman-----	SyO	3.55	3.00	3.20	3.20	3.35
75432: Batcave-----	GrO	---	---	2.40	3.00	3.30
Farewell-----	WLO	---	---	4.00	6.00	7.00
75451: Gladden-----	LyO	8.90	8.85	7.45	6.75	9.20
75462: Huzzah-----	LyO	8.90	8.85	7.45	6.75	9.20
75463: Huzzah-----	LyO	---	---	---	---	---
75464: Cedargap-----	GrO	2.65	4.00	1.20	2.65	3.65
75465: Raftville-----	LyO	8.90	8.85	7.45	6.75	9.20
Gabriel-----	WLB	---	---	7.10	8.10	9.50

Table 6.--Pasture and Hayland Groups and Yields per Acre of Hay and Pasture--Continued

Map symbol and soil name	Pasture and hayland group	Alfalfa hay	Caucasian bluestem	Orchard- grass-red clover	Tall fescue	Warm-season grasses
		Tons	Tons	Tons	Tons	Tons
75466: Midco-----	GrO	2.65	4.00	1.20	2.65	3.65
75470: Farewell-----	WLB	---	---	7.10	8.10	9.50
77000: Killarney-----	GNS	---	---	---	---	---
Frenchmill-----	GNS	---	---	---	---	---
77003: Delassus-----	LyP	4.45	5.75	4.80	5.00	5.75
77004: Irondale-----	GNS	---	---	---	---	---
77007: Taumsauk-----	GNS	---	---	---	---	---
Irondale-----	GNS	---	---	---	---	---
Rock outcrop.						
77009: Trackler-----	GrU	6.20	7.10	5.85	5.35	6.75
77011: Taumsauk-----	ShU	---	---	---	---	---
Irondale-----	MDU	---	---	---	---	---
Rock outcrop.						
77012: Mudlick-----	GrU	---	---	---	---	---
Irondale-----	GNS	---	---	---	---	---
Killarney-----	GNS	---	---	---	---	---
77013: Mudlick-----	LyU	9.50	8.00	7.45	6.65	8.00
99001. Water						
99006. Psamments						
99007. Dam						
99010. Pits and Dumps						
99013. Riverwash						

Table 7.--Forestland Productivity

(See text for an explanation of terms used in this table. Absence of an entry indicates that information was not available)

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
73042:				
Niangua-----	Black oak-----	56	43	Northern red oak, Shumard's oak
	Northern red oak---	---	---	
	White oak-----	54	43	
Bardley-----	Black oak-----	54	43	Black oak, eastern redcedar
	Post oak-----	45	29	
	White oak-----	42	29	
73055:				
Alred-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	56	43	
Rueter-----	Black oak-----	53	43	Black oak, shortleaf pine
	Hickory-----	---	---	
	Post oak-----	45	29	
73139:				
Poynor-----	Black oak-----	60	43	Black oak, shortleaf pine
	Shortleaf pine-----	58	86	
	White oak-----	54	43	
Clarksville-----	Black oak-----	61	43	Black oak, northern red oak, shortleaf pine, white oak
	Northern red oak---	---	---	
	Shortleaf pine-----	58	86	
	White oak-----	55	43	
Scholten-----	Black oak-----	50	29	Black oak, eastern redcedar, shortleaf pine
	Blackjack oak-----	---	---	
	Hickory-----	---	---	
	Post oak-----	---	---	
73140:				
Clarksville-----	Black oak-----	61	43	Black oak, northern red oak, shortleaf pine, white oak
	Northern red oak---	---	---	
	Shortleaf pine-----	58	86	
	White oak-----	55	43	
Scholten-----	Black oak-----	50	29	Black oak, eastern redcedar, shortleaf pine
	Blackjack oak-----	---	---	
	Hickory-----	---	---	
	Post oak-----	---	---	
73143:				
Courtois-----	Northern red oak---	---	---	Northern red oak, white oak
	Shortleaf pine-----	65	100	
	White oak-----	60	43	
73144:				
Courtois-----	Northern red oak---	---	---	Northern red oak, white oak
	Shortleaf pine-----	65	100	
	White oak-----	60	43	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
73147: Fourche-----	Black oak-----	---	---	Black oak, northern red oak, white ash, white oak
	Northern red oak----	---	---	
	White ash-----	---	---	
	White oak-----	62	43	
73155: Gasconade-----	Blackjack oak-----	---	---	Eastern redcedar
	Chinkapin oak-----	40	29	
	Eastern redcedar----	27	29	
	Post oak-----	---	---	
Rock outcrop.				
73156: Alred-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	56	43	
	Gepp-----			Black oak, shortleaf pine, white oak
	Black oak-----	58	43	
	Shortleaf pine-----	55	86	
	White oak-----	55	43	
73157: Captina-----	Black oak-----	58	43	Black oak, scarlet oak, shortleaf pine
	Eastern redcedar----	---	---	
	Northern red oak----	---	---	
	Post oak-----	---	---	
	Scarlet oak-----	---	---	
	Shortleaf pine-----	60	86	
	White oak-----	54	43	
73159: Yelton-----	Black oak-----	60	43	Black oak, shortleaf pine
	White oak-----	55	43	
73197: Viburnum-----	Black oak-----	62	43	Scarlet oak, shortleaf pine, white oak
	Post oak-----	---	---	
	Scarlet oak-----	---	---	
	Shortleaf pine-----	58	86	
	White oak-----	---	---	
73222: Splitlimb-----	Black oak-----	---	---	Black oak, northern red oak, white oak
	Northern red oak----	70	57	
	Shortleaf pine-----	---	---	
	White oak-----	66	43	
73223: Coulstone-----	Black oak-----	56	43	Black oak, scarlet oak, shortleaf pine
	Scarlet oak-----	---	---	
	Shortleaf pine-----	57	86	
	White oak-----	55	43	
Bender-----	Black oak-----	52	29	Black oak, scarlet oak, shortleaf pine
	Scarlet oak-----	---	---	
	Shortleaf pine-----	53	71	
	White oak-----	50	29	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
73269:				
Brussels-----	Black oak-----	---	---	Northern red oak, white oak
	Northern red oak---	60	43	
	Shagbark hickory----	---	---	
	White oak-----	58	---	
Gasconade-----	Blackjack oak-----	---	---	Eastern redcedar
	Chinkapin oak-----	40	29	
	Eastern redcedar----	27	29	
	Post oak-----	---	---	
Rock outcrop.				
73290:				
Gatewood-----	Black oak-----	42	29	Eastern redcedar, shortleaf pine
	Eastern redcedar----	40	43	
	Post oak-----	43	29	
	White oak-----	45	29	
Aaron-----	Black oak-----	56	56	Black oak, scarlet oak
	Northern red oak---	---	---	
	Post oak-----	---	---	
	White oak-----	54	43	
73291:				
Gatewood-----	Black oak-----	42	29	Eastern redcedar, shortleaf pine
	Eastern redcedar----	40	43	
	Post oak-----	43	29	
	White oak-----	45	29	
Aaron-----	Black oak-----	56	56	Black oak, scarlet oak
	Northern red oak---	---	---	
	Post oak-----	---	---	
	White oak-----	54	43	
73295:				
Taterhill-----	Northern red oak---	65	43	Black walnut, shortleaf pine, white oak
	White oak-----	65	43	
73298:				
Tonti-----	Black oak-----	60	43	Black oak, shortleaf pine
	Post oak-----	---	---	
	Shortleaf pine-----	53	71	
Hogcreek-----	Black oak-----	60	43	Black locust, black oak, shortleaf pine, white ash
	Post oak-----	---	---	
73310:				
Scholten-----	Black oak-----	50	29	Black oak, eastern redcedar, shortleaf pine
	Blackjack oak-----	---	---	
	Hickory-----	---	---	
	Post oak-----	---	---	
Bendavis-----	Black oak-----	55	43	Black oak, scarlet oak, shortleaf pine
	Post oak-----	45	29	
	Scarlet oak-----	---	---	
	Shortleaf pine-----	56	86	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
73310: Poynor-----	Black oak-----	60	43	Black oak, shortleaf pine
	Shortleaf pine-----	58	86	
	White oak-----	54	43	
73311: Scholten-----	Black oak-----	50	29	Black oak, shortleaf pine
	Blackjack oak-----	---	---	
	Hickory-----	---	---	
	Post oak-----	---	---	
Bendavis-----	Black oak-----	55	43	Shortleaf pine
	Post oak-----	45	29	
	Scarlet oak-----	---	---	
	Shortleaf pine-----	56	86	
Poynor-----	Black oak-----	60	43	Black oak, shortleaf pine
	Shortleaf pine-----	58	86	
	White oak-----	54	43	
73333: Taterhill-----	Eastern redcedar----	50	57	Eastern redcedar, northern red oak, shortleaf pine, white oak
	Northern red oak----	70	57	
	Shortleaf pine-----	70	114	
73334: Horneybuck-----	Black oak-----	57	43	Black oak, shortleaf pine, white oak
	Post oak-----	---	---	
	White oak-----	55	43	
73335: Hobson-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	---	---	
	White oak-----	55	43	
Rueter-----	Black oak-----	61	43	Northern red oak, white oak
	Northern red oak----	61	43	
	White oak-----	58	43	
73336: Rueter-----	Black oak-----	61	43	---
	Northern red oak----	61	43	
	White oak-----	58	43	
Gepp-----	Black oak-----	53	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	55	43	
	White oak-----	48	29	
73337: Tonti-----	Black oak-----	65	43	Black oak, shortleaf pine
	Post oak-----	---	---	
	Shortleaf pine-----	53	43	
Portia-----	Loblolly pine-----	75	---	Loblolly pine, shortleaf pine
	Shortleaf pine-----	70	114	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
73338:				
Portia-----	Loblolly pine-----	75	---	Loblolly pine,
	Shortleaf pine-----	72	114	shortleaf pine,
	Sweetgum-----	80	---	tuliptree
	Tuliptree-----	90	---	
Hobson-----	Black oak-----	60	43	Black oak,
	Shortleaf pine-----	---	---	shortleaf pine,
	White oak-----	55	43	white oak
73339:				
Arkana-----	Eastern redcedar----	35	---	Eastern redcedar,
	Northern red oak----	55	---	shortleaf pine
	Shortleaf pine-----	55	72	
	White oak-----	---	---	
Gepp-----	Black oak-----	53	43	Black oak,
	Shortleaf pine-----	55	43	shortleaf pine,
	White oak-----	48	29	white oak
73340:				
Rueter-----	Black oak-----	61	43	---
	Northern red oak----	61	43	
	White oak-----	58	43	
Gepp-----	Black oak-----	53	43	Black oak,
	Shortleaf pine-----	55	43	shortleaf pine,
	White oak-----	48	29	white oak
73341:				
Gepp-----	Black oak-----	53	43	Black oak,
	Shortleaf pine-----	55	43	shortleaf pine,
	White oak-----	48	29	white oak
Arkana-----	Eastern redcedar----	35	---	Eastern redcedar,
	Northern red oak----	55	---	shortleaf pine
	Shortleaf pine-----	55	72	
	White oak-----	---	---	
73342:				
Alred-----	Black oak-----	53	43	Black oak,
	Shortleaf pine-----	55	43	shortleaf pine,
	White oak-----	48	29	white oak
Arkana-----	Eastern redcedar----	35	---	Eastern redcedar,
	Northern red oak----	55	---	shortleaf pine
	Shortleaf pine-----	55	72	
	White oak-----	---	---	
74636:				
Lecoma-----	Black oak-----	65	43	Northern red oak,
	Northern red oak----	65	43	shortleaf pine,
	White oak-----	60	43	white oak
74637:				
Lecoma-----	Black oak-----	65	43	Northern red oak,
	Northern red oak----	65	43	shortleaf pine,
	White oak-----	60	43	white oak

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
74643: Lecoma-----	Black oak-----	75	57	Green ash, northern red oak, white oak
	Northern red oak---	75	57	
	White oak-----	65	43	
74644: Deible-----	Green ash-----	---	---	Eastern cottonwood, green ash, pin oak, silver maple
	Pin oak-----	76	57	
	Silver maple-----	---	---	
74646: Cornwall-----	Black oak-----	60	43	Shortleaf pine, white oak
	Eastern redcedar---	---	---	
	Scarlet oak-----	60	43	
	Shortleaf pine-----	---	---	
	White oak-----	---	---	
74648: Aslinger-----	Black oak-----	60	43	Scarlet oak, shortleaf pine
	Scarlet oak-----	60	43	
	Shortleaf pine-----	---	---	
	White oak-----	---	---	
74649: Aslinger-----	Black oak-----	60	43	Scarlet oak, shortleaf pine
	Eastern redcedar---	---	---	
	Scarlet oak-----	60	43	
	Shortleaf pine-----	---	---	
	White oak-----	---	---	
Waben-----	Black oak-----	---	---	Eastern redcedar, shortleaf pine
	Eastern redcedar---	40	43	
	Post oak-----	---	---	
	Shortleaf pine-----	---	---	
74651: Waben-----	Black oak-----	71	57	Black oak, northern red oak, shortleaf pine, white oak
	Northern red oak---	66	57	
	Shortleaf pine-----	70	114	
	White oak-----	66	43	
74658: Zanoni-----	American sycamore---	85	86	Black walnut, shortleaf pine
	Black walnut-----	---	---	
	Shortleaf pine-----	---	---	
	White oak-----	75	57	
74679: Higdon-----	American sycamore---	---	---	Black walnut, green ash, pecan, white oak
	Black walnut-----	---	---	
	Green ash-----	---	---	
	White oak-----	65	43	
74680: Moniteau-----	Common hackberry---	---	---	Eastern cottonwood, green ash, pin oak, silver maple
	Eastern cottonwood--	---	---	
	Pin oak-----	70	57	
	Silver maple-----	---	---	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
75381: Bearthicket-----	American sycamore---	---	---	Black walnut, cherrybark oak, green ash, northern red oak, white oak
	Black walnut-----	---	---	
	Common hackberry----	---	---	
	Pin oak-----	96	86	
	Red maple-----	---	---	
75394: Relfe-----	American sycamore---	---	---	Black oak, shortleaf pine
	Black oak-----	60	43	
	Shortleaf pine-----	---	---	
	White oak-----	55	43	
75395: Jamesfin-----	American sycamore---	90	100	Black walnut, eastern cottonwood, green ash
	Black walnut-----	---	---	
	Eastern cottonwood--	---	---	
	River birch-----	---	---	
75408: Secesh-----	American sycamore---	---	---	American sycamore, black walnut, shortleaf pine
	Black oak-----	---	---	
	Black walnut-----	---	---	
	Shortleaf pine-----	---	---	
	White oak-----	60	43	
75409: Relfe-----	American sycamore---	---	---	Black oak, shortleaf pine
	Black oak-----	60	43	
	Shortleaf pine-----	---	---	
	White oak-----	55	43	
75411: Tilk-----	Black oak-----	50	29	Eastern redcedar, shortleaf pine
	Eastern redcedar---	---	---	
	Post oak-----	45	29	
	Scarlet oak-----	50	29	
	Shortleaf pine-----	55	86	
75416: Gladden-----	American sycamore---	85	86	Black walnut, northern red oak, white ash, white oak
	Bitternut hickory---	---	---	
	Black walnut-----	---	---	
	Blackgum-----	---	---	
	Northern red oak---	---	---	
	White oak-----	75	57	
75417: Relfe-----	Black oak-----	60	43	Black oak, shortleaf pine
	Shortleaf pine-----	---	---	
Sandbur-----	American basswood---	---	---	American sycamore, black walnut, green ash, northern red oak
	American sycamore---	---	---	
	Northern red oak---	---	---	
	River birch-----	---	---	
	White oak-----	60	43	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
75426: Gabriel-----	Eastern cottonwood--	90	100	American sycamore, eastern cottonwood, green ash, silver maple
	Silver maple-----	80	29	
75428: Tilk-----	Black oak-----	50	29	Eastern redcedar, shortleaf pine
	Eastern redcedar---	---	---	
	Post oak-----	45	29	
	Scarlet oak-----	50	29	
	Shortleaf pine-----	55	86	
Cornwall-----	Black oak-----	60	43	Scarlet oak, shortleaf pine
	Eastern redcedar---	---	---	
	Scarlet oak-----	60	43	
	Shortleaf pine-----	---	---	
	White oak-----	---	---	
Poynor-----	Black oak-----	60	43	Black oak, shortleaf pine
	Shortleaf pine-----	58	86	
	White oak-----	54	43	
75429: Tilk-----	Black oak-----	50	29	Eastern redcedar, shortleaf pine
	Eastern redcedar---	---	---	
	Post oak-----	45	29	
	Scarlet oak-----	50	29	
	Shortleaf pine-----	55	86	
Secesh-----	American sycamore---	---	---	American sycamore, black walnut, shortleaf pine
	Black oak-----	---	---	
	Black walnut-----	---	---	
	Shortleaf pine-----	---	---	
	White oak-----	60	43	
75430: Wideman-----	American sycamore---	80	72	Eastern cottonwood
	Eastern cottonwood--	90	100	
75432: Batcave-----	Black oak-----	66	43	Black oak, shortleaf pine
	Black walnut-----	---	---	
	Green ash-----	---	---	
Farewell-----	American sycamore---	---	---	American sycamore, baldcypress, pin oak, swamp white oak, sweetgum
	Black willow-----	---	---	
	Boxelder-----	---	---	
	Eastern cottonwood--	100	129	
	Pin oak-----	95	86	
	Red maple-----	---	---	
	Swamp white oak-----	---	---	
	Sweetgum-----	95	114	
75451: Gladden-----	American sycamore---	85	86	Black walnut, green ash, white oak
	Black walnut-----	---	---	
	Shortleaf pine-----	---	---	
	White oak-----	75	57	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
75462: Huzzah-----	American sycamore---	---	---	Black walnut, northern red oak, white ash, white oak
	Black walnut-----	70	---	
	White oak-----	90	72	
75463: Huzzah-----	American sycamore---	---	---	Black walnut
	Black cherry-----	---	---	
	Black walnut-----	72	72	
	Northern red oak---	---	---	
	White ash-----	---	---	
75464: Cedargap-----	Black oak-----	66	43	Black oak, shortleaf pine
75465: Raftville-----	Black oak-----	57	---	Black oak
	Post oak-----	---	---	
	White oak-----	55	---	
Gabriel-----	Eastern cottonwood--	90	100	American sycamore, common hackberry, eastern arborvitae, eastern cottonwood, green ash, silver maple
	Silver maple-----	80	29	
75466: Midco-----	American sycamore---	---	---	Shortleaf pine, white oak
	Black oak-----	60	43	
	Shortleaf pine-----	---	---	
	White oak-----	55	43	
75470: Farewell-----	American sycamore---	---	---	American sycamore, green ash, swamp white oak, sweetgum
	Eastern cottonwood--	95	114	
	Green ash-----	---	---	
	Pin oak-----	85	72	
	Red maple-----	---	---	
	Swamp white oak----	---	---	
77000: Killarney-----	Northern red oak----	60	43	Northern red oak, shortleaf pine
	Shortleaf pine-----	55	72	
	White oak-----	55	43	
Frenchmill-----	Northern red oak----	70	57	Northern red oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	65	43	
77003: Delassus-----	Black oak-----	---	---	Black oak, northern red oak, shortleaf pine, white oak
	Northern red oak----	60	43	
	Shortleaf pine-----	---	---	
	White oak-----	47	29	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
77004: Irontdale-----	Black oak-----	48	29	Black oak, scarlet oak, shortleaf pine
	Northern red oak---	47	29	
	Post oak-----	---	---	
	Shortleaf pine-----	48	56	
77007: Taumsauk.				
Irontdale-----	Black oak-----	48	29	Black oak, scarlet oak, shortleaf pine
	Northern red oak---	47	29	
	Post oak-----	---	---	
	Shortleaf pine-----	48	56	
Rock outcrop.				
77009: Trackler-----	Black oak-----	55	43	Black oak, northern red oak, shortleaf pine
	Northern red oak---	---	---	
	Shortleaf pine-----	58	86	
	White oak-----	---	---	
77011: Taumsauk.				
Irontdale-----	Black oak-----	48	29	Shortleaf pine
	Northern red oak---	47	29	
	Shortleaf pine-----	---	---	
	White oak-----	62	43	
Rock outcrop.				
77012: Mudlick-----	Black oak-----	55	43	Black oak, scarlet oak, shortleaf pine
	Scarlet oak-----	60	43	
	White oak-----	---	---	
Irontdale-----	Black oak-----	48	29	Black oak, scarlet oak, shortleaf pine
	Northern red oak---	47	29	
	Post oak-----	---	---	
	Shortleaf pine-----	48	56	
Killarney-----	Northern red oak---	60	43	Northern red oak, shortleaf pine
	Shortleaf pine-----	55	72	
	White oak-----	55	43	
77013: Mudlick-----	Black oak-----	55	43	Black oak, scarlet oak, shortleaf pine
	Scarlet oak-----	60	43	
	White oak-----	---	---	
99001. Water				
99006. Psamments				
99007. Dam				

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
99010. Pits and Dumps				
99013. Riverwash				

Table 8a.--Forestland Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042:										
Niangua-----	Moderately limited surface stones (moderately limited)	0.42	Very limited slope (very limited)	1.00	Limited slope (limited)	0.91	Limited slope (limited)	0.91	Very limited slope (very limited)	1.00
	small stones (moderately limited)	0.42	surface stones (limited)	0.79	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60
	slope (slightly limited)	0.25	small stones (moderately limited)	0.42			small stones (slightly limited)	0.30	surface stones (moderately limited)	0.42
Bardley-----	Moderately limited surface stones (moderately limited)	0.42	Very limited slope (very limited)	1.00	Limited slope (limited)	0.91	Limited slope (limited)	0.91	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.25	surface stones (limited)	0.79	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60
									surface stones (moderately limited)	0.42
73055:										
Alred-----	Moderately limited small stones (moderately limited)	0.31	Limited slope (limited)	0.99	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited)	0.60	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.14	surface stones (moderately limited)	0.38			small stones (slightly limited)	0.12	slippage potential (limited)	0.90
			small stones (moderately limited)	0.31						
Rueter-----	Slightly limited small stones (slightly limited)	0.28	Limited slope (limited)	0.99	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited)	0.60	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.14	surface stones (moderately limited)	0.38			small stones (slightly limited)	0.08	slippage potential (limited)	0.90
			small stones (slightly limited)	0.28						

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73139:										
Poynor-----	Slightly limited small stones (slightly limited)	0.14	Moderately limited slope (moderately limited) small stones (slightly limited) surface stones (slightly limited)	0.47 0.14 0.02	Moderately limited low strength (moderately limited)	0.50	Not limited		Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.76 0.50 0.50
Clarksville---	Slightly limited small stones (slightly limited)	0.04	Moderately limited slope (moderately limited) small stones (slightly limited) surface stones (slightly limited)	0.47 0.04 0.02	Moderately limited low strength (moderately limited)	0.50	Not limited		Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.76 0.50 0.50
Scholten-----	Slightly limited small stones (slightly limited)	0.06	Moderately limited slope (moderately limited) small stones (slightly limited) surface stones (slightly limited)	0.47 0.06 0.02	Moderately limited low strength (moderately limited) seasonal wetness (moderately limited)	0.50 0.43	Moderately limited seasonal wetness (moderately limited)	0.43	Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.76 0.50 0.50
73140:										
Clarksville---	Slightly limited slope (slightly limited) small stones (slightly limited)	0.20 0.13	Very limited slope (very limited) surface stones (moderately limited) small stones (slightly limited)	1.00 0.38 0.13	Limited slope (limited) low strength (moderately limited)	0.79 0.50	Limited slope (limited)	0.79	Very limited slope (very limited) slippage potential (limited) low strength (moderately limited)	1.00 0.90 0.50
Scholten-----	Moderately limited small stones (moderately limited) slope (slightly limited)	0.55 0.14	Limited slope (limited) small stones (moderately limited) surface stones (moderately limited)	0.99 0.55 0.38	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited) small stones (moderately limited)	0.60 0.51	Very limited slope (very limited) slippage potential (limited)	1.00 0.90

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73143: Courtois-----	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50
73144: Courtois-----	Not limited		Moderately limited slope (moderately limited)	0.43	Moderately limited low strength (moderately limited)	0.50	Not limited		Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.68 0.50 0.50
73147: Fourche-----	Not limited		Not limited		Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.10	Slightly limited seasonal wetness (slightly limited)	0.10	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.10
73155: Gasconade-----	Moderately limited stickiness (surface) (moderately limited) slope (slightly limited)	0.50 0.05	Limited slope (limited) stickiness (surface) (moderately limited)	0.72 0.50	Moderately limited stickiness (surface) (moderately limited) low strength (moderately limited) slope (slightly limited)	0.50 0.50 0.20	Moderately limited stickiness (surface) (moderately limited) slope (slightly limited)	0.50 0.20	Very limited slope (very limited) slippage potential (limited) stickiness (surface) (moderately limited)	1.00 0.90 0.50
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73156: Alred-----	Not limited		Moderately limited slope (moderately limited) surface stones (slightly limited)	0.47 0.02	Not limited		Not limited		Limited slippage potential (limited) slope (limited)	0.90 0.76

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73156: Gepp-----	Moderately limited small stones (moderately limited)	0.31	Moderately limited slope (moderately limited) small stones (moderately limited) surface stones (slightly limited)	0.47 0.31 0.02	Not limited		Slightly limited small stones (slightly limited)	0.12	Limited slippage potential (limited) slope (limited)	0.90 0.76
73157: Captina-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.15	Slightly limited seasonal wetness (slightly limited)	0.15	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.15
73159: Yelton-----	Not limited		Not limited		Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.28	Slightly limited seasonal wetness (slightly limited)	0.28	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.28
73197: Viburnum-----	Not limited		Not limited		Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29	Slightly limited seasonal wetness (slightly limited)	0.29	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29
73222: Splitlimb-----	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.80 0.50 0.26	Limited seasonally ponded (limited) seasonal wetness (slightly limited)	0.80 0.26	Very limited ponded (wetness) (very limited) low strength (moderately limited) seasonal wetness (slightly limited)	1.00 0.50 0.26

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73223:										
Coulstone-----	Limited surface stones (limited)	0.66	Very limited surface stones >15% (very limited)	1.00	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited)	0.60	Very limited slope (very limited)	1.00
	small stones (moderately limited)	0.60	slope (limited)	0.99	large surface stones (moderately limited)	0.52	small stones (moderately limited)	0.60	surface stones (limited)	0.66
	very sandy (surface) (moderately limited)	0.50	small stones (moderately limited)	0.60	very sandy (surface) (moderately limited)	0.50	large surface stones (moderately limited)	0.52	large surface stones (moderately limited)	0.52
Bender-----	Moderately limited very sandy (surface) (moderately limited)	0.50	Very limited slope (very limited)	1.00	Limited slope (limited)	0.79	Limited slope (limited)	0.79	Very limited slope (very limited)	1.00
	surface stones (moderately limited)	0.41	surface stones (limited)	0.78	very sandy (surface) (moderately limited)	0.50	large stones (moderately limited)	0.40	very sandy (surface) (moderately limited)	0.50
	large stones (moderately limited)	0.40	large stones (limited)	0.73					slippage potential (moderately limited)	0.50
73269:										
Brussels-----	Limited slope (limited)	0.72	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	surface stones (moderately limited)	0.42	surface stones (limited)	0.79	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	slippage potential (limited)	0.90
	small stones (slightly limited)	0.11	small stones (slightly limited)	0.11					large surface stones (moderately limited)	0.60
Gasconade-----	Limited stickiness (surface) (limited)	0.75	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	surface stones (moderately limited)	0.42	surface stones (limited)	0.79	stickiness (surface) (limited)	0.75	stickiness (surface) (limited)	0.75	slippage potential (limited)	0.90
	slope (moderately limited)	0.37	stickiness (surface) (limited)	0.75	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	stickiness (surface) (limited)	0.75
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73290:										
Gatewood-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited)	0.50	Slightly limited seasonal wetness (slightly limited)	0.15	Moderately limited low strength (moderately limited)	0.50
					seasonal wetness (slightly limited)	0.15			seasonal wetness (slightly limited)	0.15

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73290: Aaron-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.15	Slightly limited seasonal wetness (slightly limited)	0.15	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.15
73291: Gateway-----	Not limited		Moderately limited slope (moderately limited)	0.47	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.15	Slightly limited seasonal wetness (slightly limited)	0.15	Limited slope (limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.76 0.50 0.15
Aaron-----	Not limited		Moderately limited slope (moderately limited)	0.47	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.15	Slightly limited seasonal wetness (slightly limited)	0.15	Limited slope (limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.76 0.50 0.15
73295: Taterhill-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited low strength (moderately limited)	0.50
73298: Tonti-----	Not limited		Not limited		Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Slightly limited seasonal wetness (slightly limited)	0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20
Hogcreek-----	Not limited		Not limited		Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.26	Slightly limited seasonal wetness (slightly limited)	0.26	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.26

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73310: Scholten-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited small stones (moderately limited)	0.42	Slightly limited seasonal wetness (slightly limited)	0.28	Slightly limited small stones (slightly limited) seasonal wetness (slightly limited)	0.30 0.28	Slightly limited seasonal wetness (slightly limited)	0.28
Bendavis-----	Slightly limited small stones (slightly limited)	0.04	Slightly limited small stones (slightly limited)	0.04	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.10	Slightly limited seasonal wetness (slightly limited)	0.10	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.10
Poynor-----	Limited small stones (limited)	0.67	Limited small stones (limited) surface stones (slightly limited)	0.67 0.15	Not limited		Limited small stones (limited)	0.67	Not limited	
73311: Scholten-----	Moderately limited small stones (moderately limited)	0.38	Moderately limited slope (moderately limited) small stones (moderately limited)	0.47 0.38	Slightly limited seasonal wetness (slightly limited)	0.28	Slightly limited seasonal wetness (slightly limited) small stones (slightly limited)	0.28 0.24	Limited slope (limited) seasonal wetness (slightly limited)	0.76 0.28
Bendavis-----	Not limited		Moderately limited slope (moderately limited) surface stones (slightly limited)	0.47 0.02	Slightly limited seasonal wetness (slightly limited)	0.10	Slightly limited seasonal wetness (slightly limited)	0.10	Limited slope (limited) seasonal wetness (slightly limited)	0.76 0.10
Poynor-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited slope (moderately limited) small stones (moderately limited)	0.47 0.42	Not limited		Slightly limited small stones (slightly limited)	0.30	Limited slope (limited)	0.76

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73333: Taterhill-----	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50
73334: Horneybuck-----	Not limited		Not limited		Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.26	Slightly limited seasonal wetness (slightly limited)	0.26	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.26
73335: Hobson-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Slightly limited seasonal wetness (slightly limited)	0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20
Rueter-----	Moderately limited small stones (moderately limited)	0.38	Moderately limited small stones (moderately limited) slope (slightly limited)	0.38 0.10	Not limited		Slightly limited small stones (slightly limited)	0.24	Moderately limited slippage potential (moderately limited)	0.50
73336: Rueter-----	Slightly limited small stones (slightly limited)	0.04	Moderately limited slope (moderately limited) small stones (slightly limited)	0.47 0.04	Moderately limited low strength (moderately limited)	0.50	Not limited		Limited slope (limited) low strength (moderately limited)	0.76 0.50
Gepp-----	Slightly limited small stones (slightly limited)	0.03	Moderately limited slope (moderately limited) small stones (slightly limited)	0.47 0.03	Moderately limited low strength (moderately limited)	0.50	Not limited		Limited slippage potential (limited) slope (limited) low strength (moderately limited)	0.90 0.76 0.50

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73337:										
Tonti-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50	Slightly limited seasonal wetness (slightly limited)	0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50
Portia-----	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited low strength (moderately limited)	0.50
73338:										
Portia-----	Not limited		Moderately limited slope (moderately limited)	0.39	Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited slope (moderately limited) low strength (moderately limited)	0.60
Hobson-----	Not limited		Moderately limited slope (moderately limited)	0.47	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50	Slightly limited seasonal wetness (slightly limited)	0.20	Limited slope (limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.76
73339:										
Arkana-----	Limited small stones (limited)	0.70	Limited small stones (limited) slope (moderately limited)	0.47	Not limited		Limited small stones (limited)	0.71	Limited slope (limited)	0.76
Gepp-----	Moderately limited small stones (moderately limited)	0.56	Moderately limited small stones (moderately limited) slope (moderately limited)	0.47	Not limited		Moderately limited small stones (moderately limited)	0.54	Limited slippage potential (limited) slope (limited)	0.90
73340:										
Rueter-----	Moderately limited small stones (moderately limited)	0.50	Moderately limited small stones (moderately limited) slope (moderately limited)	0.47	Not limited		Moderately limited small stones (moderately limited)	0.44	Limited slope (limited)	0.76

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73340: Gepp-----	Slightly limited small stones (slightly limited)	0.15	Moderately limited slope (moderately limited) small stones (slightly limited)	0.47 0.15	Moderately limited low strength (moderately limited)	0.50	Not limited		Limited slippage potential (limited) slope (limited) low strength (moderately limited)	0.90 0.76 0.50
73341: Gepp-----	Limited small stones (limited) slope (slightly limited)	0.70 0.29	Very limited slope (very limited) small stones (limited)	1.00 0.70	Limited slope (limited)	0.99	Limited slope (limited) small stones (limited)	0.99 0.70	Very limited slope (very limited) slippage potential (limited)	1.00 0.90
Arkana-----	Moderately limited small stones (moderately limited) slope (slightly limited)	0.57 0.29	Very limited slope (very limited) small stones (moderately limited)	1.00 0.57	Limited slope (limited)	0.99	Limited slope (limited) small stones (moderately limited)	0.99 0.55	Very limited slope (very limited)	1.00
73342: Alred-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited slope (moderately limited) small stones (moderately limited)	0.47 0.42	Not limited		Slightly limited small stones (slightly limited)	0.30	Limited slippage potential (limited) slope (limited)	0.90 0.76
Arkana-----	Moderately limited small stones (moderately limited)	0.31	Moderately limited slope (moderately limited) small stones (moderately limited)	0.47 0.31	Not limited		Slightly limited small stones (slightly limited)	0.12	Limited slope (limited)	0.76
74636: Lecoma-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited low strength (moderately limited)	0.50

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74637: Lecoma-----	Not limited		Moderately limited slope (moderately limited)	0.39	Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited slope (moderately limited) low strength (moderately limited)	0.60 0.50
74643: Lecoma-----	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited low strength (moderately limited)	0.50
74644: Deible-----	Moderately limited seasonal wetness (moderately limited)	0.60	Moderately limited seasonal wetness (moderately limited)	0.60	Limited seasonal wetness (limited) low strength (moderately limited)	0.91 0.50	Limited seasonal wetness (limited)	0.91	Limited seasonal wetness (limited) slippage potential (moderately limited) low strength (moderately limited)	0.91 0.50 0.50
74646: Cornwall-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.15	Slightly limited seasonal wetness (slightly limited)	0.15	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.15
74648: Aslinger-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Slightly limited seasonal wetness (slightly limited)	0.20	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.20

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74649: Aslinger-----	Not limited		Moderately limited slope (moderately limited)	0.34	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Slightly limited seasonal wetness (slightly limited)	0.20	Moderately limited slippage potential (moderately limited) low strength (moderately limited) slope (moderately limited)	0.50 0.50 0.45
Waben-----	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50
74651: Waben-----	Slightly limited small stones (slightly limited)	0.05	Slightly limited slope (slightly limited) small stones (slightly limited)	0.10 0.05	Moderately limited low strength (moderately limited)	0.50	Not limited		Limited slippage potential (limited) low strength (moderately limited)	0.90 0.50
74658: Zanoni-----	Not limited		Not limited		Not limited		Not limited		Not limited	
74679: Higdon-----	Not limited		Not limited		Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29	Slightly limited seasonal wetness (slightly limited)	0.29	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.29
74680: Moniteau-----	Moderately limited seasonal wetness (moderately limited)	0.60	Moderately limited seasonal wetness (moderately limited)	0.60	Limited seasonal wetness (limited) low strength (moderately limited)	0.91 0.50	Limited seasonal wetness (limited)	0.91	Limited seasonal wetness (limited) low strength (moderately limited)	0.91 0.50

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75381: Bearthicket---	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50
75394: Relfe-----	Slightly limited small stones (slightly limited)	0.10	Slightly limited small stones (slightly limited)	0.10	Not limited		Not limited		Not limited	
75395: Jamesfin-----	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited flooding (moderately limited) low strength (moderately limited)	0.60 0.50
75408: Secesh-----	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50
75409: Relfe-----	Not limited		Not limited		Not limited		Not limited		Moderately limited flooding (moderately limited)	0.60
75411: Tilk-----	Limited small stones (limited) very sandy (surface) (moderately limited)	0.77 0.50	Limited small stones (limited) very sandy (surface) (moderately limited)	0.77 0.50	Moderately limited very sandy (surface) (moderately limited)	0.50	Limited small stones (limited)	0.78	Moderately limited very sandy (surface) (moderately limited) slippage potential (moderately limited)	0.50 0.50

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75416: Gladden-----	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited flooding (moderately limited) slippage potential (moderately limited) low strength (moderately limited)	0.60 0.50 0.50
75417: Relfe-----	Moderately limited small stones (moderately limited) very sandy (surface) (moderately limited)	0.58 0.50	Moderately limited small stones (moderately limited) very sandy (surface) (moderately limited)	0.58 0.50	Moderately limited very sandy (surface) (moderately limited)	0.50	Moderately limited small stones (moderately limited)	0.56	Very limited flooding (very limited) very sandy (surface) (moderately limited)	1.00 0.50
Sandbur-----	Not limited		Not limited		Not limited		Not limited		Very limited flooding (very limited)	1.00
75426: Gabriel-----	Not limited		Not limited		Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29	Slightly limited seasonal wetness (slightly limited)	0.29	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29
75428: Tilk-----	Slightly limited small stones (slightly limited)	0.17	Slightly limited small stones (slightly limited)	0.17	Not limited		Not limited		Moderately limited flooding (moderately limited) slippage potential (moderately limited)	0.60 0.50
Cornwall-----	Not limited		Moderately limited slope (moderately limited)	0.34	Moderately limited low strength (moderately limited) seasonal wetness (moderately limited)	0.50 0.34	Moderately limited seasonal wetness (moderately limited)	0.34	Moderately limited slippage potential (moderately limited) low strength (moderately limited) slope (moderately limited)	0.50 0.50 0.45

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75428: Poynor-----	Slightly limited small stones (slightly limited)	0.04	Moderately limited slope (moderately limited) small stones (slightly limited)	0.47 0.04	Moderately limited low strength (moderately limited)	0.50	Not limited		Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.76 0.50 0.50
75429: Tilk-----	Limited small stones (limited)	0.77	Limited small stones (limited)	0.77	Not limited		Limited small stones (limited)	0.77	Moderately limited flooding (moderately limited) slippage potential (moderately limited)	0.60 0.50
Secesh-----	Slightly limited large stones (slightly limited) small stones (slightly limited)	0.17 0.05	Moderately limited large stones (moderately limited) small stones (slightly limited)	0.45 0.05	Moderately limited low strength (moderately limited)	0.50	Slightly limited large stones (slightly limited)	0.17	Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50
75430: Wideman-----	Not limited		Not limited		Not limited		Not limited		Moderately limited flooding (moderately limited)	0.60
75432: Batcave-----	Moderately limited seasonal wetness (moderately limited) small stones (slightly limited)	0.60 0.08	Moderately limited seasonal wetness (moderately limited) small stones (slightly limited)	0.60 0.08	Very limited seasonal wetness (very limited)	1.00	Very limited seasonal wetness (very limited)	1.00	Very limited seasonal wetness (very limited) flooding (very limited)	1.00 1.00
Farewell-----	Moderately limited seasonal wetness (moderately limited) small stones (moderately limited)	0.60 0.58	Moderately limited seasonal wetness (moderately limited) small stones (moderately limited)	0.60 0.58	Very limited seasonal wetness (very limited) low strength (moderately limited)	1.00 0.50	Very limited seasonal wetness (very limited) small stones (moderately limited)	1.00 0.56	Very limited seasonal wetness (very limited) flooding (very limited) low strength (moderately limited)	1.00 1.00 0.50

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75451: Gladden-----	Not limited		Not limited		Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited flooding (moderately limited) low strength (moderately limited)	0.60 0.50
75462: Huzzah-----	Not limited		Not limited		Not limited		Not limited		Moderately limited flooding (moderately limited)	0.60
75463: Huzzah-----	Not limited		Not limited		Not limited		Not limited		Not limited	
75464: Cedargap-----	Slightly limited small stones (slightly limited)	0.01	Slightly limited small stones (slightly limited)	0.01	Not limited		Not limited		Not limited	
75465: Raftville-----	Not limited		Not limited		Not limited		Not limited		Not limited	
Gabriel-----	Not limited		Not limited		Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29	Slightly limited seasonal wetness (slightly limited)	0.29	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29
75466: Midco-----	Limited small stones (limited)	0.67	Limited small stones (limited)	0.67	Not limited		Limited small stones (limited)	0.67	Moderately limited flooding (moderately limited)	0.60
75470: Farewell-----	Moderately limited seasonal wetness (moderately limited) small stones (slightly limited)	0.60 0.10	Moderately limited seasonal wetness (moderately limited) small stones (slightly limited)	0.60 0.10	Very limited seasonal wetness (very limited) low strength (moderately limited)	1.00 0.50	Very limited seasonal wetness (very limited)	1.00	Very limited seasonal wetness (very limited) low strength (moderately limited)	1.00 0.50

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77000:										
Killarney-----	Limited surface stones (limited)	0.77	Very limited surface stones >15% (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00
	large stones (moderately limited)	0.30	slope (very limited)	1.00	slope (limited)	0.79	slope (limited)	0.79	large surface stones (very limited)	1.00
	slope (slightly limited)	0.20	large stones (moderately limited)	0.60	seasonal wetness (slightly limited)	0.10	large stones (moderately limited)	0.30	surface stones (limited)	0.77
Frenchmill----	Limited surface stones (limited)	0.77	Very limited surface stones >15% (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.20	slope (very limited)	1.00	slope (limited)	0.79	slope (limited)	0.79	large surface stones (very limited)	1.00
	small stones (slightly limited)	0.08	large stones (slightly limited)	0.27					surface stones (limited)	0.77
77003:										
Delassus-----	Moderately limited large stones (moderately limited)	0.38	Limited large stones (limited)	0.70	Moderately limited low strength (moderately limited)	0.50	Moderately limited large stones (moderately limited)	0.38	Limited slope (limited)	0.76
	small stones (slightly limited)	0.09	slope (moderately limited)	0.47	seasonal wetness (slightly limited)	0.16	seasonal wetness (slightly limited)	0.16	slippage potential (moderately limited)	0.50
			surface stones (moderately limited)	0.38					low strength (moderately limited)	0.50
77004:										
Irondale-----	Moderately limited surface stones (moderately limited)	0.42	Limited slope (limited)	0.99	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited)	0.60	Very limited slope (very limited)	1.00
	large stones (slightly limited)	0.17	surface stones (limited)	0.79	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60
	slope (slightly limited)	0.14	large stones (moderately limited)	0.45	low strength (moderately limited)	0.50	large stones (slightly limited)	0.17	slippage potential (moderately limited)	0.50
77007:										
Taumsauk-----	Moderately limited surface stones (moderately limited)	0.42	Limited slope (limited)	0.99	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited)	0.60	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.14	surface stones (limited)	0.79	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60
			large stones (slightly limited)	0.15	low strength (moderately limited)	0.50			slippage potential (moderately limited)	0.50

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77007:										
Irondale-----	Moderately limited surface stones (moderately limited)	0.42	Limited slope (limited)	0.99	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited)	0.60	Very limited slope (very limited)	1.00
	large stones (moderately limited)	0.32	surface stones (limited)	0.79	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60
	slope (slightly limited)	0.14	large stones (limited)	0.63			large stones (moderately limited)	0.32	slippage potential (moderately limited)	0.50
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77009:										
Trackler-----	Not limited		Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited)	0.50	Slightly limited seasonal wetness (slightly limited)	0.16	Moderately limited slippage potential (moderately limited)	0.50
					seasonal wetness (slightly limited)	0.16			low strength (moderately limited)	0.50
									seasonal wetness (slightly limited)	0.16
77011:										
Taumsauk-----	Slightly limited small stones (slightly limited)	0.04	Moderately limited slope (moderately limited)	0.34	Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited low strength (moderately limited)	0.50
			small stones (slightly limited)	0.04					slope (moderately limited)	0.45
Irondale-----	Slightly limited small stones (slightly limited)	0.05	Moderately limited slope (moderately limited)	0.34	Moderately limited low strength (moderately limited)	0.50	Not limited		Moderately limited low strength (moderately limited)	0.50
			small stones (slightly limited)	0.05					slope (moderately limited)	0.45
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77012:										
Mudlick-----	Moderately limited surface stones (moderately limited)	0.42	Limited slope (limited)	0.80	Moderately limited large surface stones (moderately limited)	0.60	Moderately limited large surface stones (moderately limited)	0.60	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.07	surface stones (limited)	0.79	low strength (moderately limited)	0.50	slope (moderately limited)	0.31	large surface stones (moderately limited)	0.60
			large stones (slightly limited)	0.06	slope (moderately limited)	0.31			slippage potential (moderately limited)	0.50

Table 8a.--Forestland Management--Continued

Map symbol and soil name	Hand planting		Mechanical planting		Use of harvesting equipment		Mechanical site preparation (surface)		Roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77012:										
Irondale-----	Moderately limited surface stones (moderately limited)	0.42	Limited slope (limited)	0.99	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited)	0.60	Very limited slope (very limited)	1.00
	large stones (moderately limited)	0.40	surface stones (limited)	0.79	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60
	slope (slightly limited)	0.14	large stones (limited)	0.73			large stones (moderately limited)	0.40	slippage potential (moderately limited)	0.50
Killarney-----	Moderately limited surface stones (moderately limited)	0.45	Very limited slope (very limited)	1.00	Limited slope (limited)	0.79	Limited slope (limited)	0.79	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.20	surface stones (limited)	0.83	large surface stones (limited)	0.67	large surface stones (limited)	0.67	large surface stones (limited)	0.67
	large stones (slightly limited)	0.17	large stones (moderately limited)	0.45	seasonal wetness (slightly limited)	0.11	large stones (slightly limited)	0.17	slippage potential (moderately limited)	0.50
77013:										
Mudlick-----	Moderately limited large stones (moderately limited)	0.40	Limited large stones (limited)	0.73	Not limited		Moderately limited large stones (moderately limited)	0.40	Limited slope (limited)	0.76
			slope (moderately limited)	0.47					slippage potential (moderately limited)	0.50
			surface stones (moderately limited)	0.38						
99001:										
Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99006:										
Psammets-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99007:										
Dam-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99010:										
Pits-----	Not rated		Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99013:										
Riverwash-----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 8b.--Forestland Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042: Niangua-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.65	Not limited		Very limited slope (very limited) large surface stones (moderately limited) surface stones (moderately limited)	1.00 0.60 0.42	Not limited	
Bardley-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.65	Not limited		Very limited slope (very limited) large surface stones (moderately limited) surface stones (moderately limited)	1.00 0.60 0.42	Not limited	
73055: Alred-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited		Very limited slope (very limited) slippage potential (limited)	1.00 0.90	Not limited	
Rueter-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited		Very limited slope (very limited) slippage potential (limited)	1.00 0.90	Not limited	
73139: Poynor-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Limited low strength (limited)	0.80	Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.76 0.50 0.50	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73139: Clarksville---	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Limited low strength (limited)	0.80	Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.76 0.50 0.50	Not limited	
Scholten-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.29	Limited low strength (limited) seasonal wetness (moderately limited)	0.80 0.43	Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.76 0.50 0.50	Slightly limited seasonal wetness (slightly limited) soil reaction (slightly limited)	0.26 0.12
73140: Clarksville---	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.59	Limited low strength (limited)	0.80	Very limited slope (very limited) slippage potential (limited) low strength (moderately limited)	1.00 0.90 0.50	Slightly limited soil reaction (slightly limited)	0.06
Scholten-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited		Very limited slope (very limited) slippage potential (limited)	1.00 0.90	Not limited	
73143: Courtois-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited)	0.80	Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73144: Courtois-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.22	Limited low strength (limited)	0.80	Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.68 0.50 0.50	Not limited	
73147: Fourche-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.12	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.10	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.10	Not limited	
73155: Gasconade-----	Limited slope/erodibility (limited)	0.69	Moderately limited slope/erodibility (moderately limited)	0.35	Limited low strength (limited)	0.80	Very limited slope (very limited) slippage potential (limited) stickiness (surface) (moderately limited)	1.00 0.90 0.50	Limited droughty (limited)	0.94
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73156: Alred-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited		Limited slippage potential (limited) slope (limited)	0.90 0.76	Not limited	
Gepp-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited		Limited slippage potential (limited) slope (limited)	0.90 0.76	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73157: Captina-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.15	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.15	Not limited	
73159: Yelton-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.12	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.28	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.28	Not limited	
73197: Viburnum-----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.08	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.29	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29	Not limited	
73222: Splitlimb-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.05	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.26	Limited seasonally ponded (limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.80 0.50 0.26	Not limited	
73223: Coulstone-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited		Very limited slope (very limited) surface stones (limited) large surface stones (moderately limited)	1.00 0.66 0.52	Limited droughty (limited)	0.88

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73223: Bender-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.59	Not limited		Very limited slope (very limited) slippage potential (moderately limited) very sandy (surface) (moderately limited)	1.00 0.50 0.50	Very limited droughty (very limited)	1.00
73269: Brussels-----	Very limited slope/erodibility (very limited)	1.00	Very limited slope/erodibility (very limited)	1.00	Not limited		Very limited slope (very limited) slippage potential (limited) large surface stones (moderately limited)	1.00 0.90 0.60	Not limited	
Gasconade-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.78	Not limited		Very limited slope (very limited) slippage potential (limited) stickiness (surface) (limited)	1.00 0.90 0.75	Limited droughty (limited) soil reaction (slightly limited)	0.89 0.01
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73290: Gatewood-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.15	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.15	Not limited	
Aaron-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.15	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.15	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73291: Gatewood-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.24	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.15	Limited slope (limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.76 0.50 0.15	Slightly limited droughty (slightly limited)	0.01
Aaron-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.29	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.15	Limited slope (limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.76 0.50 0.15	Not limited	
73295: Taterhill-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	
73298: Tonti-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.12	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	
Hogcreek-----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.26	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.26	Not limited	
73310: Scholten-----	Moderately limited slope/erodibility (moderately limited)	0.31	Slightly limited slope/erodibility (slightly limited)	0.10	Slightly limited seasonal wetness (slightly limited)	0.28	Slightly limited seasonal wetness (slightly limited)	0.28	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73310: Bendavis-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.10	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.10	Not limited	
Poynor-----	Slightly limited slope/erodibility (slightly limited)	0.25	Slightly limited slope/erodibility (slightly limited)	0.08	Not limited		Not limited		Not limited	
73311: Scholten-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.24	Slightly limited seasonal wetness (slightly limited)	0.28	Limited slope (limited) seasonal wetness (slightly limited)	0.76 0.28	Not limited	
Bendavis-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Slightly limited seasonal wetness (slightly limited)	0.10	Limited slope (limited) seasonal wetness (slightly limited)	0.76 0.10	Not limited	
Poynor-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited		Limited slope (limited)	0.76	Limited droughty (limited)	0.84
73333: Taterhill-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.05	Limited low strength (limited)	0.80	Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50	Not limited	
73334: Horneybuck-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.12	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.26	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.26	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73335: Hobson-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	
Rueter-----	Moderately limited slope/erodibility (moderately limited)	0.38	Slightly limited slope/erodibility (slightly limited)	0.12	Not limited		Moderately limited slippage potential (moderately limited)	0.50	Not limited	
73336: Rueter-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Limited low strength (limited)	0.80	Limited slope (limited) low strength (moderately limited)	0.76 0.50	Not limited	
Gepp-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Limited low strength (limited)	0.80	Limited slippage potential (limited) slope (limited) low strength (moderately limited)	0.90 0.76 0.50	Not limited	
73337: Tonti-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	
Portia-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.12	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	
73338: Portia-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.24	Limited low strength (limited)	0.80	Moderately limited slope (moderately limited) low strength (moderately limited)	0.60 0.50	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73338: Hobson-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.29	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.20	Limited slope (limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.76 0.50 0.20	Not limited	
73339: Arkana-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited		Limited slope (limited)	0.76	Not limited	
Gepp-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited		Limited slippage potential (limited) slope (limited)	0.90 0.76	Not limited	
73340: Rueter-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited		Limited slope (limited)	0.76	Not limited	
Gepp-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Limited low strength (limited)	0.80	Limited slippage potential (limited) slope (limited) low strength (moderately limited)	0.90 0.76 0.50	Not limited	
73341: Gepp-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.69	Not limited		Very limited slope (very limited) slippage potential (limited)	1.00 0.90	Not limited	
Arkana-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.69	Not limited		Very limited slope (very limited)	1.00	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73342: Alred-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited		Limited slippage potential (limited) slope (limited)	0.90 0.76	Not limited	
Arkana-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited		Limited slope (limited)	0.76	Not limited	
74636: Lecoma-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.12	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	
74637: Lecoma-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.20	Limited low strength (limited)	0.80	Moderately limited slope (moderately limited) low strength (moderately limited)	0.60 0.50	Not limited	
74643: Lecoma-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.05	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	
74644: Deible-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.05	Limited seasonal wetness (limited) low strength (limited)	0.91 0.80	Limited seasonal wetness (limited) slippage potential (moderately limited) low strength (moderately limited)	0.91 0.50 0.50	Limited seasonal wetness (limited)	0.91

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74646: Cornwall-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.15	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.15	Not limited	
74648: Aslinger-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.20	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.20	Not limited	
74649: Aslinger-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.22	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.20	Moderately limited slippage potential (moderately limited) low strength (moderately limited) slope (moderately limited)	0.50 0.50 0.45	Not limited	
Waben-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited)	0.80	Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50	Slightly limited droughty (slightly limited)	0.01
74651: Waben-----	Moderately limited slope/erodibility (moderately limited)	0.38	Slightly limited slope/erodibility (slightly limited)	0.12	Limited low strength (limited)	0.80	Limited slippage potential (limited) low strength (moderately limited)	0.90 0.50	Slightly limited droughty (slightly limited)	0.03

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74658: Zanoni-----	Slightly limited slope/erodibility (slightly limited)	0.06	Slightly limited slope/erodibility (slightly limited)	0.02	Moderately limited low strength (moderately limited)	0.50	Not limited		Not limited	
74679: Higdon-----	Slightly limited slope/erodibility (slightly limited)	0.17	Slightly limited slope/erodibility (slightly limited)	0.04	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.29	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.29	Not limited	
74680: Moniteau-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.05	Limited seasonal wetness (limited) low strength (limited)	0.91 0.80	Limited seasonal wetness (limited) low strength (moderately limited)	0.91 0.50	Limited seasonal wetness (limited)	0.91
75381: Bearthicket---	Slightly limited slope/erodibility (slightly limited)	0.17	Slightly limited slope/erodibility (slightly limited)	0.04	Limited low strength (limited)	0.80	Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50	Not limited	
75394: Relfe-----	Slightly limited slope/erodibility (slightly limited)	0.08	Slightly limited slope/erodibility (slightly limited)	0.04	Not limited		Not limited		Very limited droughty (very limited)	1.00
75395: Jamesfin-----	Slightly limited slope/erodibility (slightly limited)	0.11	Slightly limited slope/erodibility (slightly limited)	0.02	Limited low strength (limited)	0.80	Moderately limited flooding (moderately limited) low strength (moderately limited)	0.60 0.50	Moderately limited flooding (moderately limited)	0.60

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75408: Secesh-----	Slightly limited slope/erodibility (slightly limited)	0.09	Slightly limited slope/erodibility (slightly limited)	0.03	Limited low strength (limited)	0.80	Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50	Not limited	
75409: Relfe-----	Slightly limited slope/erodibility (slightly limited)	0.12	Slightly limited slope/erodibility (slightly limited)	0.04	Moderately limited low strength (moderately limited)	0.50	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited) droughty (moderately limited)	0.60 0.35
75411: Tilk-----	Slightly limited slope/erodibility (slightly limited)	0.08	Slightly limited slope/erodibility (slightly limited)	0.04	Not limited		Moderately limited slippage potential (moderately limited) very sandy (surface) (moderately limited)	0.50 0.50	Slightly limited droughty (slightly limited)	0.11
75416: Gladden-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.04	Limited low strength (limited)	0.80	Moderately limited flooding (moderately limited) slippage potential (moderately limited) low strength (moderately limited)	0.60 0.50 0.50	Moderately limited flooding (moderately limited)	0.60
75417: Relfe-----	Slightly limited slope/erodibility (slightly limited)	0.12	Slightly limited slope/erodibility (slightly limited)	0.04	Not limited		Very limited flooding (very limited) very sandy (surface) (moderately limited)	1.00 0.50	Very limited droughty (very limited) flooding (limited)	1.00 0.90
Sandbur-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.04	Moderately limited low strength (moderately limited)	0.50	Very limited flooding (very limited)	1.00	Limited flooding (limited)	0.90

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75426: Gabriel-----	Slightly limited slope/erodibility (slightly limited)	0.11	Slightly limited slope/erodibility (slightly limited)	0.02	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.29	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29	Not limited	
75428: Tilk-----	Slightly limited slope/erodibility (slightly limited)	0.12	Slightly limited slope/erodibility (slightly limited)	0.06	Not limited		Moderately limited flooding (moderately limited) slippage potential (moderately limited)	0.60 0.50	Moderately limited flooding (moderately limited) droughty (slightly limited)	0.60 0.18
Cornwall-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.18	Limited low strength (limited) seasonal wetness (moderately limited)	0.80 0.34	Moderately limited slippage potential (moderately limited) low strength (moderately limited) slope (moderately limited)	0.50 0.50 0.45	Slightly limited seasonal wetness (slightly limited)	0.11
Poynor-----	Moderately limited slope/erodibility (moderately limited)	0.46	Slightly limited slope/erodibility (slightly limited)	0.24	Limited low strength (limited)	0.80	Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.76 0.50 0.50	Limited droughty (limited)	0.77
75429: Tilk-----	Slightly limited slope/erodibility (slightly limited)	0.06	Slightly limited slope/erodibility (slightly limited)	0.02	Moderately limited low strength (moderately limited)	0.50	Moderately limited flooding (moderately limited) slippage potential (moderately limited)	0.60 0.50	Moderately limited flooding (moderately limited)	0.60
Secesh-----	Slightly limited slope/erodibility (slightly limited)	0.09	Slightly limited slope/erodibility (slightly limited)	0.03	Limited low strength (limited)	0.80	Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50 0.50	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75430: Wideman-----	Slightly limited slope/erodibility (slightly limited)	0.12	Slightly limited slope/erodibility (slightly limited)	0.04	Moderately limited low strength (moderately limited)	0.50	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited)	0.60
75432: Batcave-----	Slightly limited slope/erodibility (slightly limited)	0.05	Slightly limited slope/erodibility (slightly limited)	0.02	Very limited seasonal wetness (very limited) low strength (moderately limited)	1.00 0.50	Very limited seasonal wetness (very limited) flooding (very limited)	1.00 1.00	Very limited seasonal wetness (very limited) flooding (limited)	1.00 0.90
Farewell-----	Slightly limited slope/erodibility (slightly limited)	0.09	Slightly limited slope/erodibility (slightly limited)	0.02	Very limited seasonal wetness (very limited) low strength (limited)	1.00 0.80	Very limited seasonal wetness (very limited) flooding (very limited) low strength (moderately limited)	1.00 1.00 0.50	Very limited seasonal wetness (very limited) flooding (limited)	1.00 0.90
75451: Gladden-----	Slightly limited slope/erodibility (slightly limited)	0.11	Slightly limited slope/erodibility (slightly limited)	0.02	Limited low strength (limited)	0.80	Moderately limited flooding (moderately limited) low strength (moderately limited)	0.60 0.50	Moderately limited flooding (moderately limited)	0.60
75462: Huzzah-----	Slightly limited slope/erodibility (slightly limited)	0.06	Slightly limited slope/erodibility (slightly limited)	0.02	Moderately limited low strength (moderately limited)	0.50	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited)	0.60
75463: Huzzah-----	Slightly limited slope/erodibility (slightly limited)	0.12	Slightly limited slope/erodibility (slightly limited)	0.04	Moderately limited low strength (moderately limited)	0.50	Not limited		Not limited	
75464: Cedargap-----	Slightly limited slope/erodibility (slightly limited)	0.06	Slightly limited slope/erodibility (slightly limited)	0.02	Moderately limited low strength (moderately limited)	0.50	Not limited		Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75465: Raftville-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.04	Moderately limited low strength (moderately limited)	0.50	Not limited		Not limited	
Gabriel-----	Slightly limited slope/erodibility (slightly limited)	0.11	Slightly limited slope/erodibility (slightly limited)	0.02	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.29	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29	Not limited	
75466: Midco-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.04	Not limited		Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited) droughty (slightly limited)	0.60 0.05
75470: Farewell-----	Slightly limited slope/erodibility (slightly limited)	0.17	Slightly limited slope/erodibility (slightly limited)	0.04	Very limited seasonal wetness (very limited) low strength (limited)	1.00 0.80	Very limited seasonal wetness (very limited) low strength (moderately limited)	1.00 0.50	Very limited seasonal wetness (very limited)	1.00
77000: Killarney-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.59	Slightly limited seasonal wetness (slightly limited)	0.10	Very limited large surface stones (very limited) slope (very limited) surface stones (limited)	1.00 1.00 0.77	Not limited	
Frenchmill-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.59	Not limited		Very limited large surface stones (very limited) slope (very limited) surface stones (limited)	1.00 1.00 0.77	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77003: Delassus-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.24	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.16	Limited slope (limited) slippage potential (moderately limited) low strength (moderately limited)	0.76 0.50 0.50	Not limited	
77004: Irondale-----	Limited slope/erodibility (limited)	0.96	Moderately limited slope/erodibility (moderately limited)	0.49	Limited low strength (limited)	0.80	Very limited slope (very limited) large surface stones (moderately limited) slippage potential (moderately limited)	1.00 0.60 0.50	Not limited	
77007: Taumsauk-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Limited low strength (limited)	0.80	Very limited slope (very limited) large surface stones (moderately limited) slippage potential (moderately limited)	1.00 0.60 0.50	Not limited	
Irondale-----	Limited slope/erodibility (limited)	0.96	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited		Very limited slope (very limited) large surface stones (moderately limited) slippage potential (moderately limited)	1.00 0.60 0.50	Not limited	
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77009: Trackler-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.16	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.16	Not limited	
77011: Taumsauk-----	Moderately limited slope/erodibility (moderately limited)	0.35	Slightly limited slope/erodibility (slightly limited)	0.18	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited) slope (moderately limited)	0.50 0.45	Limited droughty (limited)	0.93
Irondale-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.18	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited) slope (moderately limited)	0.50 0.45	Not limited	
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77012: Mudlick-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.39	Limited low strength (limited)	0.80	Very limited slope (very limited) large surface stones (moderately limited) slippage potential (moderately limited)	1.00 0.60 0.50	Not limited	
Irondale-----	Limited slope/erodibility (limited)	0.96	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited		Very limited slope (very limited) large surface stones (moderately limited) slippage potential (moderately limited)	1.00 0.60 0.50	Not limited	

Table 8b.--Forestland Management--Continued

Map symbol and soil name	Erosion on roads and trails		Off-road or off-trail erosion		Soil rutting		Log landings		Seedling survival	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77012: Killarney-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.59	Slightly limited seasonal wetness (slightly limited)	0.11	Very limited slope (very limited) large surface stones (limited) slippage potential (moderately limited)	1.00 0.67 0.50	Not limited	
77013: Mudlick-----	Moderately limited slope/erodibility (moderately limited)	0.46	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited		Limited slope (limited) slippage potential (moderately limited)	0.76 0.50	Slightly limited soil reaction (slightly limited)	0.06
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99006: Psammets-----	Moderately limited slope/erodibility (moderately limited) slope/erodibility (slightly limited)	0.33 0.19	Not rated		Not rated		Not rated		Not rated	
99007: Dam-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99010: Pits-----	Not rated		Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99013: Riverwash-----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 9.--Windbreaks and Environmental Plantings

(Absence of an entry indicates that trees generally do not grow to the given height)

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
73042: Niangua-----	Common lilac; fragrant sumac	American plum; gray dogwood	Austrian pine; bur oak; common hackberry; eastern redcedar; green ash; honeylocust	Shortleaf pine-----	---
Bardley-----	Common lilac; fragrant sumac	American plum; gray dogwood	Austrian pine; bur oak; common hackberry; eastern redcedar; green ash; honeylocust	Shortleaf pine-----	---
73055: Alred-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Rueter-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
73139: Poynor-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
Clarksville-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Scholten-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
73140: Clarksville-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Scholten-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
73143: Courtois-----	American hazelnut; fragrant sumac; southern arrowwood	American plum; blue spruce; eastern hophornbeam; eastern redbud; eastern redcedar; roughleaf dogwood	Arborvitae; common serviceberry; sugar maple	Northern red oak; tuliptree; white ash; white oak	Eastern white pine
73144: Courtois-----	American hazelnut; fragrant sumac; southern arrowwood	American plum; blue spruce; eastern hophornbeam; eastern redbud; eastern redcedar; roughleaf dogwood	Arborvitae; common serviceberry; sugar maple	Northern red oak; tuliptree; white ash; white oak	Eastern white pine
73147: Fourche-----	American hazelnut; fragrant sumac; southern arrowwood	American plum; blue spruce; eastern hophornbeam; eastern redbud; eastern redcedar; roughleaf dogwood	Arborvitae; common serviceberry; sugar maple	Northern red oak; tuliptree; white ash; white oak	Eastern white pine
73155: Gasconade. Rock outcrop.					

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
73156: Alred-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Gepp-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
73157: Captina-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
73159: Yelton-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
73197: Viburnum-----	Common ninebark; fragrant sumac; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; common hackberry; green ash; honeylocust; pin oak	---
73222: Splitlimb-----	American hazelnut; downy arrowwood; fragrant sumac	American plum; blue spruce; eastern hophornbeam; eastern redbud; eastern redcedar; roughleaf dogwood	Arborvitae; common serviceberry; sugar maple; white oak	Northern red oak; tuliptree; white ash	Eastern white pine
73223: Coulstone-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
73223: Bender-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
73269: Brussels-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Gasconade.					
Rock outcrop.					
73290: Gatewood-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
Aaron-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
73291: Gatewood-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
Aaron-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
73295: Taterhill-----	American hazelnut; coralberry; flameleaf sumac	American plum; blue spruce; eastern redcedar; gray dogwood; Washington hawthorn	Common serviceberry; persimmon; post oak; shingle oak	Austrian pine; black oak	---

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
73298: Tonti-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Hogcreek-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
73310: Scholten-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Bendavis-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Poynor-----	Common ninebark; fragrant sumac; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; common hackberry; green ash; honeylocust; pin oak	---
73311: Scholten-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Bendavis-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
73311: Poynor-----	Common ninebark; fragrant sumac; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; common hackberry; green ash; honeylocust; pin oak	---
73333: Taterhill-----	Amur honeysuckle; common lilac; fragrant sumac	Autumn olive-----	Austrian pine; bur oak; common hackberry; eastern redcedar; green ash; honeylocust; Russian olive	Siberian elm-----	---
73334: Horneybuck-----	Common lilac; fragrant sumac	Amur maple; gray dogwood	Austrian pine; common hackberry; eastern redcedar; green ash; jack pine; Manchurian crabapple; Russian olive	Honeylocust-----	---
73335: Hobson-----	American plum; common lilac; fragrant sumac	Amur maple; gray dogwood; Washington hawthorn	Austrian pine; common hackberry; eastern redcedar; honeylocust; unknown; Virginia pine	---	---
Rueter-----	Common lilac; fragrant sumac	American plum; autumn olive; gray dogwood	Austrian pine; bur oak; common hackberry; eastern redcedar; green ash; honeylocust	Shortleaf pine-----	---
73336: Rueter-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
73336: Gepp-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
73337: Tonti-----	Coralberry; fragrant sumac; ninebark	---	Common serviceberry; eastern redbud; eastern redcedar; flowering dogwood; gray dogwood; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Portia-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
73338: Portia-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Hobson-----	American plum; common lilac; fragrant sumac	Amur maple; gray dogwood; Washington hawthorn	Austrian pine; common hackberry; eastern redcedar; honeylocust; Virginia pine	---	---
73339: Arkana-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
Gepp-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
73340: Rueter-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Gepp-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
73341: Gepp-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
Arkana-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
73342: Alred-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Arkana-----	Fragrant sumac; ninebark; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
74636: Lecoma-----	American hazelnut; downy arrowwood; fragrant sumac	American plum; blue spruce; eastern hophornbeam; eastern redbud; eastern redcedar; roughleaf dogwood	Arborvitae; common serviceberry; sugar maple; white oak	Northern red oak; tuliptree; white ash	Eastern white pine

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
74637: Lecoma-----	American hazelnut; downy arrowwood; fragrant sumac	American plum; blue spruce; eastern hophornbeam; eastern redbud; eastern redcedar; roughleaf dogwood	Arborvitae; common serviceberry; sugar maple; white oak	Northern red oak; tuliptree; white ash	Eastern white pine
74643: Lecoma-----	Common lilac-----	Amur maple-----	Common hackberry; eastern redcedar	Eastern white pine; green ash; honeylocust; Norway spruce; pin oak	---
74644: Deible-----	Common buttonbush; common ninebark	Possumhaw; sandbar willow	Black willow; bur oak; green hawthorn	Baldcypress; green ash; pecan; red maple; swamp white oak; sweetgum	Eastern cottonwood; silver maple
74646: Cornwall-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
74648: Aslinger-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
74649: Aslinger-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Waben-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
74651: Waben-----	Common lilac; fragrant sumac	Amur maple; gray dogwood	Austrian pine; bur oak; common hackberry; eastern redcedar; green ash; Russian olive; shortleaf pine	Honeylocust-----	---
74658: Zanoni-----	Coralberry; flameleaf sumac	Eastern redcedar; gray dogwood; jack pine	Chinkapin oak; persimmon; post oak	Black oak; honeylocust	---
74679: Higdon-----	American hazelnut; common ninebark; wild hydrangea	American plum; blue spruce; possumhaw; roughleaf dogwood	Arborvitae; bur oak; green hawthorn; shingle oak	Austrian pine; baldcypress; hackberry; pin oak; red maple	American sycamore; eastern cottonwood; eastern white pine
74680: Moniteau-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
75381: Bearthicket-----	American hazelnut; common ninebark; wild hydrangea	American plum; blue spruce; possumhaw; roughleaf dogwood	Arborvitae; bur oak; green hawthorn; shingle oak	Austrian pine; baldcypress; hackberry; pin oak; red maple	American sycamore; eastern cottonwood; eastern white pine
75394: Relfe-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
75395: Jamesfin-----	American hazelnut; common ninebark; wild hydrangea	American plum; blue spruce; possumhaw; roughleaf dogwood	Arborvitae; bur oak; green hawthorn; shingle oak	Austrian pine; baldcypress; hackberry; pin oak; red maple	American sycamore; eastern cottonwood; eastern white pine

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
75408: Secesh-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
75409: Relfe-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
75411: Tilk-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
75416: Gladden-----	American hazelnut; common ninebark; wild hydrangea	American plum; blue spruce; possumhaw; roughleaf dogwood	Arborvitae; bur oak; green hawthorn; shingle oak	Austrian pine; baldcypress; hackberry; pin oak; red maple	American sycamore; eastern cottonwood; eastern white pine
75417: Relfe-----	Coralberry; fragrant sumac; ninebark	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Sandbur-----	Coralberry; flameleaf sumac	Eastern redcedar; gray dogwood; jack pine	Chinkapin oak; persimmon; post oak	Black oak; honeylocust	---
75426: Gabriel-----	Buttonbush-----	Possumhaw-----	Eastern arborvitae; eastern redcedar; nannyberry	Baldcypress; common hackberry; pin oak	Eastern cottonwood

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
75428:					
Tilk-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Cornwall-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Poynor-----	Common ninebark; fragrant sumac; St. Johnswort	Eastern redcedar; possumhaw; roughleaf dogwood; Washington hawthorn	Arborvitae; bur oak; green hawthorn; post oak	Austrian pine; green ash; hackberry; honeylocust; pin oak	---
75429:					
Tilk-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Secesh-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
75430:					
Wideman-----	Coralberry; eastern redcedar; flameleaf sumac	Eastern redcedar; gray dogwood; jack pine	Chinkapin oak; persimmon; post oak	Black oak; honeylocust	---
75432:					
Batcave-----	Buttonbush; ninebark	Possumhaw; sandbar willow	Black willow; bur oak; green hawthorn	Baldcypress; green ash; pecan; red maple; swamp white oak; sweetgum	Eastern cottonwood; silver maple
Farewell-----	Buttonbush; ninebark	Possumhaw; sandbar willow	Black willow; bur oak; green hawthorn	Baldcypress; green ash; pecan; red maple; swamp white oak; sweetgum	Eastern cottonwood; silver maple

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
75451: Gladden-----	American hazelnut; common ninebark; wild hydrangea	American plum; blue spruce; possumhaw; roughleaf dogwood	Arborvitae; bur oak; green hawthorn; shingle oak	Austrian pine; baldcypress; hackberry; pin oak; red maple	American sycamore; eastern cottonwood; eastern white pine
75462: Huzzah-----	Fragrant sumac; American plum	Blackhaw; gray dogwood	Nannyberry; Washington hawthorn; eastern redcedar	Sweetgum; green ash; white fir	Pin oak; eastern white pine
75463: Huzzah-----	Fragrant sumac; American plum	Blackhaw; gray dogwood	Nannyberry; Washington hawthorn; eastern redcedar	Sweetgum; green ash; white fir	Pin oak; eastern white pine
75464: Cedargap-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
75465: Raftville-----	Coralberry; fragrant sumac; ninebark	---	Common serviceberry; eastern redbud; eastern redcedar; flowering dogwood; gray dogwood; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Gabriel-----	Buttonbush-----	Possumhaw-----	Eastern arborvitae; eastern redcedar; nannyberry	Baldcypress; common hackberry; pin oak	Eastern cottonwood
75466: Midco-----	American plum; fragrant sumac	Blackhaw; gray dogwood	Eastern redcedar; nannyberry; Washington hawthorn	Baldcypress; green ash; sweetgum	Eastern white pine; pin oak

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
75470: Farewell-----	Buttonbush; ninebark	---	Black willow; bur oak; green hawthorn; possumhaw; sandbar willow	Baldcypress; green ash; pecan; red maple; swamp white oak; sweetgum	Eastern cottonwood; silver maple
77000: Killarney-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Frenchmill-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
77003: Delassus-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
77004: Irondale-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
77007: Taumsauk.					
Irondale-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Rock outcrop.					

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
77009: Trackler-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
77011: Taumsauk.					
Irondale-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Rock outcrop.					
77012: Mudlick-----	American hazelnut; fragrant sumac; southern arrowwood	American plum; blue spruce; eastern hophornbeam; eastern redbud; eastern redcedar; roughleaf dogwood	Arborvitae; common serviceberry; sugar maple	Northern red oak; tuliptree; white ash; white oak	Eastern white pine
Irondale-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
Killarney-----	Common ninebark; coralberry; fragrant sumac	Eastern redbud; eastern redcedar; flowering dogwood; gray dogwood	Common serviceberry; persimmon; post oak; red pine; shingle oak; shortleaf pine	Black oak; mockernut hickory; northern red oak; white ash	---
77013: Mudlick-----	American hazelnut; fragrant sumac; southern arrowwood	American plum; blue spruce; eastern hophornbeam; eastern redbud; eastern redcedar; roughleaf dogwood	Arborvitae; common serviceberry; sugar maple	Northern red oak; tuliptree; white ash; white oak	Eastern white pine

Table 9.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
99001. Water					
99006. Psamments					
99007. Dam					
99010. Pits and Dumps					
99013. Riverwash					

Table 10.--Recreational Site Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042:								
Niangua-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited small stones (very limited)	1.00	Very limited large surface stones (very limited)	1.00
	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	small stones (very limited)	1.00	small stones (very limited)	1.00	percs slowly (slightly limited)	0.13	small stones (slightly limited)	0.30
Bardley-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00
	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	depth to bedrock (moderately limited)	0.46	slope (very limited)	1.00
73055:								
Alred-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited small stones (very limited)	1.00	Limited slope (limited)	0.92
	small stones (very limited)	1.00	small stones (very limited)	1.00	slope (very limited)	1.00	large surface stones (limited)	0.70
	large surface stones (limited)	0.70	large surface stones (limited)	0.70	percs slowly (moderately limited)	0.39	small stones (slightly limited)	0.12
Rueter-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.92
	small stones (very limited)	1.00	small stones (very limited)	1.00	small stones (very limited)	1.00	large surface stones (limited)	0.70
	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large stones (limited)	0.80	small stones (slightly limited)	0.08

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73139:								
Poynor-----	Limited small stones (limited) slope (limited) large surface stones (slightly limited)	0.69 0.63 0.17	Limited small stones (limited) slope (limited) large surface stones (slightly limited)	0.69 0.63 0.17	Very limited slope (very limited) small stones (very limited) large stones (slightly limited)	1.00 1.00 0.06	Slightly limited large surface stones (slightly limited)	0.17
Clarksville-----	Limited slope (limited) small stones (moderately limited) large surface stones (slightly limited)	0.63 0.31 0.17	Limited slope (limited) small stones (moderately limited) large surface stones (slightly limited)	0.63 0.31 0.17	Very limited slope (very limited) small stones (very limited)	1.00 1.00	Slightly limited large surface stones (slightly limited)	0.17
Scholten-----	Very limited wetness (very limited) percs slowly (very limited) slope (limited)	1.00 1.00 0.63	Very limited percs slowly (very limited) wetness (limited) slope (limited)	1.00 0.78 0.63	Very limited wetness (very limited) slope (very limited) percs slowly (very limited)	1.00 1.00 1.00	Limited wetness (limited) large surface stones (slightly limited)	0.78 0.17
73140:								
Clarksville-----	Very limited slope (very limited) large surface stones (limited) small stones (limited)	1.00 0.70 0.65	Very limited slope (very limited) large surface stones (limited) small stones (limited)	1.00 0.70 0.65	Very limited slope (very limited) small stones (very limited) too acid (moderately limited)	1.00 1.00 0.44	Very limited slope (very limited) large surface stones (limited)	1.00 0.70
Scholten-----	Very limited slope (very limited) percs slowly (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) percs slowly (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited small stones (very limited) slope (very limited) percs slowly (very limited)	1.00 1.00 1.00	Limited slope (limited) large surface stones (limited) small stones (moderately limited)	0.92 0.70 0.51

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73143: Courtois-----	Not limited		Not limited		Limited small stones (limited) slope (limited)	0.84 0.78	Not limited	
73144: Courtois-----	Moderately limited slope (moderately limited)	0.37	Moderately limited slope (moderately limited)	0.37	Very limited slope (very limited) small stones (limited)	1.00 0.68	Not limited	
73147: Fourche-----	Slightly limited percs slowly (slightly limited)	0.13	Slightly limited percs slowly (slightly limited)	0.13	Limited slope (limited) percs slowly (slightly limited)	0.78 0.13	Not limited	
73155: Gasconade-----	Very limited too clayey (very limited) percs slowly (very limited) slope (very limited)	1.00 1.00 1.00	Very limited too clayey (very limited) percs slowly (very limited) slope (very limited)	1.00 1.00 1.00	Very limited shallow to bedrock (very limited) too clayey (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited too clayey (very limited) slope (moderately limited)	1.00 0.33
Rock outcrop-----	Not rated		Not rated		Not rated		Not rated	
73156: Alred-----	Limited slope (limited) percs slowly (moderately limited) large surface stones (slightly limited)	0.63 0.39 0.17	Limited slope (limited) percs slowly (moderately limited) large surface stones (slightly limited)	0.63 0.39 0.17	Very limited slope (very limited) percs slowly (moderately limited) small stones (moderately limited)	1.00 0.39 0.36	Slightly limited large surface stones (slightly limited)	0.17

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73156: Gepp-----	Very limited small stones (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.30	Very limited small stones (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.30	Very limited small stones (very limited) slope (very limited) too acid (slightly limited)	1.00 1.00 0.30	Slightly limited large surface stones (slightly limited) small stones (slightly limited)	0.17 0.12
73157: Captina-----	Moderately limited percs slowly (moderately limited) wetness (moderately limited)	0.39 0.35	Moderately limited percs slowly (moderately limited) wetness (slightly limited)	0.39 0.13	Limited slope (limited) percs slowly (moderately limited) wetness (moderately limited)	0.98 0.39 0.35	Slightly limited wetness (slightly limited)	0.13
73159: Yelton-----	Limited wetness (limited) percs slowly (moderately limited)	0.90 0.39	Moderately limited wetness (moderately limited) percs slowly (moderately limited)	0.56 0.39	Limited wetness (limited) slope (limited) percs slowly (moderately limited)	0.90 0.78 0.39	Moderately limited wetness (moderately limited)	0.56
73197: Viburnum-----	Limited wetness (limited) percs slowly (slightly limited)	0.96 0.13	Limited wetness (limited) percs slowly (slightly limited)	0.61 0.13	Limited wetness (limited) slope (moderately limited) percs slowly (slightly limited)	0.96 0.40 0.13	Limited wetness (limited)	0.61
73222: Splitlimb-----	Very limited ponded (wetness) (very limited) wetness (limited) percs slowly (slightly limited)	1.00 0.81 0.13	Very limited ponded (wetness) (very limited) wetness (moderately limited) percs slowly (slightly limited)	1.00 0.49 0.13	Very limited ponded (wetness) (very limited) wetness (limited) percs slowly (slightly limited)	1.00 0.81 0.13	Very limited ponded (wetness) (very limited) wetness (moderately limited)	1.00 0.49

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73223:								
Coulstone-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited small stones (very limited)	1.00	Very limited large surface stones (very limited)	1.00
	small stones (very limited)	1.00	small stones (very limited)	1.00	slope (very limited)	1.00	slope (limited)	0.92
	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00			small stones (moderately limited)	0.60
Bender-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited large stones >25% (very limited)	1.00	Very limited slope (very limited)	1.00
	small stones (limited)	0.71	small stones (limited)	0.71	slope (very limited)	1.00	large surface stones (moderately limited)	0.43
	large surface stones (moderately limited)	0.43	large surface stones (moderately limited)	0.43	small stones (very limited)	1.00	large stones (moderately limited)	0.40
73269:								
Brussels-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	small stones (very limited)	1.00	large surface stones (very limited)	1.00
	small stones (moderately limited)	0.57	small stones (moderately limited)	0.57	percs slowly (slightly limited)	0.13		
Gasconade-----	Very limited too clayey (very limited)	1.00	Very limited too clayey (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	slope (very limited)	1.00	slope (very limited)	1.00	shallow to bedrock (very limited)	1.00	too clayey (very limited)	1.00
	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	too clayey (very limited)	1.00	large surface stones (very limited)	1.00
Rock outcrop-----	Not rated		Not rated		Not rated		Not rated	
73290:								
Gatewood-----	Moderately limited wetness (moderately limited)	0.35	Slightly limited percs slowly (slightly limited)	0.15	Limited slope (limited)	0.98	Slightly limited wetness (slightly limited)	0.13
	percs slowly (slightly limited)	0.15	wetness (slightly limited)	0.13	wetness (moderately limited)	0.35		
					percs slowly (slightly limited)	0.15		

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73290: Aaron-----	Moderately limited wetness (moderately limited) percs slowly (slightly limited)	0.35 0.15	Slightly limited percs slowly (slightly limited) wetness (slightly limited)	0.15 0.13	Limited slope (limited) wetness (moderately limited) percs slowly (slightly limited)	0.98 0.35 0.15	Slightly limited wetness (slightly limited)	0.13
73291: Gatewood-----	Limited slope (limited) wetness (moderately limited) percs slowly (slightly limited)	0.63 0.35 0.15	Limited slope (limited) percs slowly (slightly limited) wetness (slightly limited)	0.63 0.15 0.13	Very limited slope (very limited) wetness (moderately limited) percs slowly (slightly limited)	1.00 0.35 0.15	Very limited erodes easily (very limited) wetness (slightly limited)	1.00 0.13
Aaron-----	Limited slope (limited) wetness (moderately limited) percs slowly (slightly limited)	0.63 0.35 0.15	Limited slope (limited) percs slowly (slightly limited) wetness (slightly limited)	0.63 0.15 0.13	Very limited slope (very limited) wetness (moderately limited) percs slowly (slightly limited)	1.00 0.35 0.15	Very limited erodes easily (very limited) wetness (slightly limited)	1.00 0.13
73295: Taterhill-----	Not limited		Not limited		Limited slope (limited)	0.98	Not limited	
73298: Tonti-----	Very limited percs slowly (very limited) wetness (moderately limited)	1.00 0.50	Very limited percs slowly (very limited) wetness (slightly limited)	1.00 0.28	Very limited percs slowly (very limited) slope (limited) wetness (moderately limited)	1.00 0.78 0.50	Slightly limited wetness (slightly limited)	0.28

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73298: Hogcreek-----	Very limited percs slowly (very limited) wetness (limited)	1.00 0.81	Very limited percs slowly (very limited) wetness (moderately limited)	1.00 0.49	Very limited percs slowly (very limited) wetness (limited) slope (moderately limited)	1.00 0.81 0.40	Moderately limited wetness (moderately limited)	0.49
73310: Scholten-----	Very limited percs slowly (very limited) small stones (very limited) wetness (limited)	1.00 1.00 0.90	Very limited percs slowly (very limited) small stones (very limited) wetness (moderately limited)	1.00 1.00 0.56	Very limited small stones (very limited) percs slowly (very limited) wetness (limited)	1.00 1.00 0.90	Moderately limited wetness (moderately limited) small stones (slightly limited)	0.56 0.30
Bendavis-----	Moderately limited small stones (moderately limited)	0.33	Moderately limited small stones (moderately limited)	0.33	Very limited small stones (very limited) slope (limited) depth to bedrock (slightly limited)	1.00 0.78 0.27	Not limited	
Poynor-----	Very limited small stones (very limited) too acid (slightly limited)	1.00 0.12	Very limited small stones (very limited) too acid (slightly limited)	1.00 0.12	Very limited small stones (very limited) slope (moderately limited) too acid (slightly limited)	1.00 0.40 0.12	Limited small stones (limited)	0.67
73311: Scholten-----	Very limited percs slowly (very limited) small stones (very limited) wetness (limited)	1.00 1.00 0.90	Very limited percs slowly (very limited) small stones (very limited) slope (limited)	1.00 1.00 0.63	Very limited small stones (very limited) slope (very limited) percs slowly (very limited)	1.00 1.00 1.00	Moderately limited wetness (moderately limited) small stones (slightly limited)	0.56 0.24

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73311: Bendavis-----	Limited slope (limited) large surface stones (slightly limited)	0.63 0.13	Limited slope (limited) large surface stones (slightly limited)	0.63 0.13	Very limited slope (very limited) depth to bedrock (moderately limited)	1.00 0.58	Slightly limited large surface stones (slightly limited)	0.13
Poynor-----	Very limited small stones (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.12	Very limited small stones (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.12	Very limited small stones (very limited) slope (very limited) too acid (slightly limited)	1.00 1.00 0.12	Slightly limited small stones (slightly limited)	0.30
73333: Taterhill-----	Not limited		Not limited		Not limited		Not limited	
73334: Horneybuck-----	Limited wetness (limited) percs slowly (slightly limited)	0.81 0.13	Moderately limited wetness (moderately limited) percs slowly (slightly limited)	0.49 0.13	Limited small stones (limited) wetness (limited) slope (limited)	0.92 0.81 0.78	Moderately limited wetness (moderately limited)	0.49
73335: Hobson-----	Moderately limited wetness (moderately limited) percs slowly (moderately limited)	0.50 0.39	Moderately limited percs slowly (moderately limited) wetness (slightly limited)	0.39 0.28	Limited slope (limited) wetness (moderately limited) percs slowly (moderately limited)	0.98 0.50 0.39	Slightly limited wetness (slightly limited)	0.28
Rueter-----	Very limited small stones (very limited) too acid (slightly limited) percs slowly (slightly limited)	1.00 0.30 0.18	Very limited small stones (very limited) too acid (slightly limited) percs slowly (slightly limited)	1.00 0.30 0.18	Very limited small stones (very limited) slope (limited) too acid (slightly limited)	1.00 0.98 0.30	Slightly limited small stones (slightly limited)	0.24

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73336:								
Rueter-----	Limited slope (limited) small stones (moderately limited) percs slowly (slightly limited)	0.63 0.33 0.18	Limited slope (limited) small stones (moderately limited) percs slowly (slightly limited)	0.63 0.33 0.18	Very limited slope (very limited) small stones (very limited) percs slowly (slightly limited)	1.00 1.00 0.18	Not limited	
Gepp-----	Limited slope (limited) small stones (slightly limited) too acid (slightly limited)	0.63 0.30 0.30	Limited slope (limited) small stones (slightly limited) too acid (slightly limited)	0.63 0.30 0.30	Very limited slope (very limited) small stones (very limited) too acid (slightly limited)	1.00 1.00 0.30	Not limited	
73337:								
Tonti-----	Very limited percs slowly (very limited) wetness (moderately limited)	1.00 0.50	Very limited percs slowly (very limited) wetness (slightly limited)	1.00 0.28	Very limited percs slowly (very limited) slope (limited) wetness (moderately limited)	1.00 0.98 0.50	Slightly limited wetness (slightly limited)	0.28
Portia-----	Not limited		Not limited		Limited slope (limited)	0.78	Not limited	
73338:								
Portia-----	Slightly limited slope (slightly limited)	0.16	Slightly limited slope (slightly limited)	0.16	Very limited slope (very limited) small stones (slightly limited)	1.00 0.12	Very limited erodes easily (very limited)	1.00
Hobson-----	Limited slope (limited) wetness (moderately limited) percs slowly (moderately limited)	0.63 0.50 0.39	Limited slope (limited) percs slowly (moderately limited) wetness (slightly limited)	0.63 0.39 0.28	Very limited slope (very limited) wetness (moderately limited) percs slowly (moderately limited)	1.00 0.50 0.39	Very limited erodes easily (very limited) wetness (slightly limited)	1.00 0.28

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73339:								
Arkana-----	Very limited percs slowly (very limited) small stones (very limited) slope (limited)	1.00 1.00 0.63	Very limited percs slowly (very limited) small stones (very limited) slope (limited)	1.00 1.00 0.63	Very limited small stones (very limited) percs slowly (very limited) slope (very limited)	1.00 1.00 1.00 1.00	Limited small stones (limited)	0.71
Gepp-----	Very limited small stones (very limited) slope (limited)	1.00 0.63	Very limited small stones (very limited) slope (limited)	1.00 0.63	Very limited small stones (very limited) slope (very limited)	1.00 1.00	Moderately limited small stones (moderately limited)	0.54
73340:								
Rueter-----	Very limited small stones (very limited) slope (limited) percs slowly (slightly limited)	1.00 0.63 0.18	Very limited small stones (very limited) slope (limited) percs slowly (slightly limited)	1.00 0.63 0.18	Very limited small stones (very limited) slope (very limited) percs slowly (slightly limited)	1.00 1.00 0.18	Moderately limited small stones (moderately limited)	0.44
Gepp-----	Limited small stones (limited) slope (limited)	0.75 0.63	Limited small stones (limited) slope (limited)	0.75 0.63	Very limited slope (very limited) small stones (very limited)	1.00 1.00	Not limited	
73341:								
Gepp-----	Very limited slope (very limited) small stones (very limited)	1.00 1.00	Very limited slope (very limited) small stones (very limited)	1.00 1.00	Very limited small stones (very limited) slope (very limited)	1.00 1.00 1.00	Very limited slope (very limited) small stones (limited)	1.00 0.70
Arkana-----	Very limited slope (very limited) percs slowly (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) percs slowly (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited small stones (very limited) percs slowly (very limited) slope (very limited)	1.00 1.00 1.00 1.00	Very limited slope (very limited) small stones (moderately limited)	1.00 0.55

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73342:								
Alred-----	Very limited small stones (very limited) slope (limited) percs slowly (slightly limited)	1.00 0.63 0.18	Very limited small stones (very limited) slope (limited) percs slowly (slightly limited)	1.00 0.63 0.18	Very limited small stones (very limited) slope (very limited) percs slowly (slightly limited)	1.00 1.00 0.18	Slightly limited small stones (slightly limited)	0.30
Arkana-----	Very limited percs slowly (very limited) small stones (very limited) slope (limited)	1.00 1.00 0.63	Very limited percs slowly (very limited) small stones (very limited) slope (limited)	1.00 1.00 0.63	Very limited small stones (very limited) percs slowly (very limited) slope (very limited)	1.00 1.00 1.00	Slightly limited small stones (slightly limited)	0.12
74636:								
Lecoma-----	Not limited		Not limited		Limited slope (limited)	0.98	Not limited	
74637:								
Lecoma-----	Slightly limited slope (slightly limited)	0.16	Slightly limited slope (slightly limited)	0.16	Very limited slope (very limited)	1.00	Not limited	
74643:								
Lecoma-----	Not limited		Not limited		Not limited		Not limited	
74644:								
Deible-----	Very limited wetness (very limited) percs slowly (very limited)	1.00 1.00	Very limited wetness (very limited) percs slowly (very limited)	1.00 1.00	Very limited wetness (very limited) percs slowly (very limited)	1.00 1.00	Very limited wetness (very limited)	1.00

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74646: Cornwall-----	Moderately limited percs slowly (moderately limited) wetness (moderately limited)	0.39 0.35	Moderately limited percs slowly (moderately limited) wetness (slightly limited)	0.39 0.13	Limited slope (limited) percs slowly (moderately limited) wetness (moderately limited)	0.98 0.39 0.35	Slightly limited wetness (slightly limited)	0.13
74648: Aslinger-----	Moderately limited wetness (moderately limited) percs slowly (slightly limited)	0.50 0.13	Slightly limited wetness (slightly limited) percs slowly (slightly limited)	0.28 0.13	Limited slope (limited) wetness (moderately limited) percs slowly (slightly limited)	0.98 0.50 0.13	Slightly limited wetness (slightly limited)	0.28
74649: Aslinger-----	Moderately limited wetness (moderately limited) too acid (slightly limited) percs slowly (slightly limited)	0.50 0.30 0.13	Slightly limited too acid (slightly limited) wetness (slightly limited) percs slowly (slightly limited)	0.30 0.28 0.13	Very limited slope (very limited) wetness (moderately limited) too acid (slightly limited)	1.00 0.50 0.30	Very limited erodes easily (very limited) wetness (slightly limited)	1.00 0.28
Waben-----	Not limited		Not limited		Limited small stones (limited) slope (limited) large stones (slightly limited)	0.84 0.78 0.18	Not limited	
74651: Waben-----	Moderately limited small stones (moderately limited)	0.36	Moderately limited small stones (moderately limited)	0.36	Very limited small stones (very limited) slope (limited)	1.00 0.98	Not limited	

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74658: Zanoni-----	Limited flooding (rare) (limited)	0.90	Not limited		Moderately limited small stones (moderately limited)	0.31	Not limited	
74679: Higdon-----	Limited wetness (limited) flooding (rare) (limited) percs slowly (slightly limited)	0.96 0.90 0.13	Limited wetness (limited) percs slowly (slightly limited)	0.61 0.13	Limited wetness (limited) percs slowly (slightly limited)	0.96 0.13	Limited wetness (limited)	0.61
74680: Moniteau-----	Very limited wetness (very limited) flooding (rare) (limited) percs slowly (slightly limited)	1.00 0.90 0.13	Very limited wetness (very limited) percs slowly (slightly limited)	1.00 0.13	Very limited wetness (very limited) percs slowly (slightly limited)	1.00 0.13	Very limited wetness (very limited)	1.00
75381: Bearthicket-----	Limited flooding (rare) (limited)	0.90	Not limited		Not limited		Not limited	
75394: Relfe-----	Limited flooding (rare) (limited) small stones (moderately limited)	0.90 0.55	Moderately limited small stones (moderately limited)	0.55	Very limited small stones (very limited)	1.00	Not limited	
75395: Jamesfin-----	Very limited flooding (very limited)	1.00	Not limited		Moderately limited flooding (moderately limited)	0.60	Not limited	
75408: Secesh-----	Limited flooding (rare) (limited)	0.90	Not limited		Limited small stones (limited)	0.92	Not limited	

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75409: Relfe-----	Very limited flooding (very limited)	1.00	Not limited		Limited small stones (limited) flooding (moderately limited)	0.84 0.60	Not limited	
75411: Tilk-----	Very limited small stones (very limited) flooding (rare) (limited)	1.00 0.90	Very limited small stones (very limited)	1.00	Very limited small stones (very limited) large stones (slightly limited)	1.00 0.30	Limited small stones (limited)	0.78
75416: Gladden-----	Very limited flooding (very limited)	1.00	Not limited		Moderately limited flooding (moderately limited)	0.60	Not limited	
75417: Relfe-----	Very limited flooding (very limited) small stones (very limited)	1.00 1.00	Very limited small stones (very limited) flooding (moderately limited)	1.00 0.60	Very limited flooding (very limited) small stones (very limited)	1.00 1.00	Moderately limited flooding (moderately limited) small stones (moderately limited)	0.60 0.56
Sandbur-----	Very limited flooding (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60	Very limited flooding (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60
75426: Gabriel-----	Limited wetness (limited) flooding (rare) (limited) percs slowly (slightly limited)	0.96 0.90 0.13	Limited wetness (limited) percs slowly (slightly limited)	0.61 0.13	Limited wetness (limited) percs slowly (slightly limited)	0.96 0.13	Limited wetness (limited)	0.61

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75428:								
Tilk-----	Very limited flooding (very limited) small stones (limited)	1.00 0.82	Limited small stones (limited)	0.82	Very limited small stones (very limited) flooding (moderately limited) large stones (slightly limited)	1.00 0.60 0.30	Not limited	
Cornwall-----	Very limited wetness (very limited) percs slowly (moderately limited) slope (slightly limited)	1.00 0.39 0.04	Limited wetness (limited) percs slowly (moderately limited) slope (slightly limited)	0.68 0.39 0.04	Very limited wetness (very limited) slope (very limited) percs slowly (moderately limited)	1.00 1.00 0.39	Limited wetness (limited)	0.68
Poynor-----	Limited slope (limited) small stones (moderately limited) too acid (slightly limited)	0.63 0.33 0.18	Limited slope (limited) small stones (moderately limited) too acid (slightly limited)	0.63 0.33 0.18	Very limited slope (very limited) small stones (very limited) too acid (slightly limited)	1.00 1.00 0.18	Not limited	
75429:								
Tilk-----	Very limited flooding (very limited) small stones (very limited)	1.00 1.00	Very limited small stones (very limited)	1.00	Very limited small stones (very limited) flooding (moderately limited) large stones (slightly limited)	1.00 0.60 0.01	Limited small stones (limited)	0.77
Secesh-----	Limited flooding (rare) (limited) small stones (moderately limited) large stones (slightly limited)	0.90 0.37 0.17	Moderately limited small stones (moderately limited) large stones (slightly limited)	0.37 0.17	Very limited large stones >25% (very limited) small stones (very limited)	1.00 1.00	Slightly limited large stones (slightly limited)	0.17

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75430: Wideman-----	Very limited flooding (very limited)	1.00	Not limited		Moderately limited flooding (moderately limited)	0.60	Not limited	
75432: Batcave-----	Very limited flooding (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited wetness (very limited)	1.00
	wetness (very limited)	1.00	flooding (moderately limited)	0.60	wetness (very limited)	1.00	flooding (moderately limited)	0.60
	small stones (moderately limited)	0.48	small stones (moderately limited)	0.48	small stones (very limited)	1.00		
Farewell-----	Very limited flooding (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited wetness (very limited)	1.00
	wetness (very limited)	1.00	small stones (very limited)	1.00	small stones (very limited)	1.00	flooding (moderately limited)	0.60
	small stones (very limited)	1.00	flooding (moderately limited)	0.60	wetness (very limited)	1.00	small stones (moderately limited)	0.56
75451: Gladden-----	Very limited flooding (very limited)	1.00	Not limited		Moderately limited flooding (moderately limited)	0.60	Not limited	
75462: Huzzah-----	Very limited flooding (very limited)	1.00	Not limited		Moderately limited flooding (moderately limited)	0.60	Not limited	
75463: Huzzah-----	Limited flooding (rare) (limited)	0.90	Not limited		Not limited		Not limited	
75464: Cedargap-----	Limited flooding (rare) (limited)	0.90	Slightly limited small stones (slightly limited)	0.06	Very limited small stones (limited)	1.00	Not limited	
	small stones (slightly limited)	0.06						

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75465:								
Raftville-----	Limited flooding (rare) (limited)	0.90	Not limited		Limited depth to bedrock (limited)	0.66	Not limited	
Gabriel-----	Limited wetness (limited)	0.96	Limited wetness (limited)	0.61	Limited wetness (limited)	0.96	Limited wetness (limited)	0.61
	flooding (rare) (limited)	0.90	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13		
	percs slowly (slightly limited)	0.13						
75466:								
Midco-----	Very limited flooding (very limited)	1.00	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Limited small stones (limited)	0.67
	small stones (very limited)	1.00			flooding (moderately limited)	0.60		
75470:								
Farewell-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	flooding (rare) (limited)	0.90	small stones (moderately limited)	0.55	small stones (very limited)	1.00		
	small stones (moderately limited)	0.55						
77000:								
Killarney-----	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00
	large surface stones (very limited)	1.00	slope (very limited)	1.00	percs slowly (very limited)	1.00	slope (very limited)	1.00
	percs slowly (very limited)	1.00	percs slowly (very limited)	1.00	large stones >25% (very limited)	1.00	large stones (moderately limited)	0.31
Frenchmill-----	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00
	large surface stones (very limited)	1.00	slope (very limited)	1.00	small stones (very limited)	1.00	slope (very limited)	1.00
	small stones (moderately limited)	0.46	small stones (moderately limited)	0.46	large stones (limited)	0.95		

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77003:								
Delassus-----	Very limited percs slowly (very limited) large surface stones (limited) slope (limited)	1.00 0.70 0.63	Very limited percs slowly (very limited) large surface stones (limited) slope (limited)	1.00 0.70 0.63	Very limited slope (very limited) percs slowly (very limited) large stones >25% (very limited)	1.00 1.00 1.00	Limited large surface stones (limited) large stones (moderately limited) wetness (slightly limited)	0.70 0.38 0.19
77004:								
Irondale-----	Very limited slope (very limited) large surface stones (very limited) small stones (moderately limited)	1.00 1.00 0.54	Very limited slope (very limited) large surface stones (very limited) small stones (moderately limited)	1.00 1.00 0.54	Very limited slope (very limited) small stones (very limited) large stones >25% (very limited)	1.00 1.00 1.00	Very limited large surface stones (very limited) slope (limited) large stones (slightly limited)	1.00 0.92 0.17
77007:								
Taumsauk-----	Very limited slope (very limited) large surface stones (very limited) shallow to bedrock (limited)	1.00 1.00 0.90	Very limited slope (very limited) large surface stones (very limited) shallow to bedrock (limited)	1.00 1.00 0.90	Very limited slope (very limited) shallow to bedrock (very limited) small stones (limited)	1.00 1.00 0.98	Very limited large surface stones (very limited) slope (limited)	1.00 0.92
Irondale-----	Very limited slope (very limited) large surface stones (very limited) small stones (moderately limited)	1.00 1.00 0.49	Very limited slope (very limited) large surface stones (very limited) small stones (moderately limited)	1.00 1.00 0.49	Very limited slope (very limited) large stones >25% (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited large surface stones (very limited) slope (limited) large stones (moderately limited)	1.00 0.92 0.32
Rock outcrop-----	Not rated		Not rated		Not rated		Not rated	

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77009:								
Trackler-----	Moderately limited wetness (moderately limited)	0.41	Slightly limited wetness (slightly limited)	0.19	Limited slope (limited)	0.98	Slightly limited wetness (slightly limited)	0.19
	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13	wetness (moderately limited)	0.41		
					percs slowly (slightly limited)	0.13		
77011:								
Taumsauk-----	Limited shallow to bedrock (limited)	0.90	Limited shallow to bedrock (limited)	0.90	Very limited shallow to bedrock (very limited)	1.00	Not limited	
	small stones (moderately limited)	0.31	small stones (moderately limited)	0.31	small stones (very limited)	1.00		
	slope (slightly limited)	0.04	slope (slightly limited)	0.04	slope (very limited)	1.00		
Irondale-----	Moderately limited small stones (moderately limited)	0.37	Moderately limited small stones (moderately limited)	0.37	Very limited small stones (very limited)	1.00	Not limited	
	percs slowly (slightly limited)	0.17	percs slowly (slightly limited)	0.17	slope (very limited)	1.00		
	slope (slightly limited)	0.04	slope (slightly limited)	0.04	depth to bedrock (moderately limited)	0.42		
Rock outcrop-----	Not rated		Not rated		Not rated		Not rated	
77012:								
Mudlick-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00
	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large stones (limited)	0.68	slope (moderately limited)	0.50
	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13	small stones (limited)	0.66		
Irondale-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00
	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large stones >25% (very limited)	1.00	slope (limited)	0.92
	large stones (moderately limited)	0.40	large stones (moderately limited)	0.40	depth to bedrock (limited)	0.86	large stones (moderately limited)	0.40

Table 10.--Recreational Site Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds		Paths and trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77012: Killarney-----	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00
	large surface stones (very limited)	1.00	slope (very limited)	1.00	percs slowly (very limited)	1.00	slope (very limited)	1.00
	percs slowly (very limited)	1.00	percs slowly (very limited)	1.00	large stones >25% (very limited)	1.00	large stones (slightly limited)	0.17
77013: Mudlick-----	Limited large surface stones (limited)	0.70	Limited large surface stones (limited)	0.70	Very limited slope (very limited)	1.00	Limited large surface stones (limited)	0.70
	slope (limited)	0.63	slope (limited)	0.63	large stones >25% (very limited)	1.00	large stones (moderately limited)	0.40
	too acid (moderately limited)	0.44	too acid (moderately limited)	0.44	too acid (moderately limited)	0.44		
99001: Water-----	Not rated		Not rated		Not rated		Not rated	
99006: Psammets-----	Not rated		Not rated		Not rated		Not rated	
99007: Dam-----	Not rated		Not rated		Not rated		Not rated	
99010: Pits-----	Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated	
99013: Riverwash-----	Not rated		Not rated		Not rated		Not rated	

Table 11a.--Wildlife Habitat

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042:										
Niangua-----	Very limited small stones (very limited) droughty (very limited) slope (limited)	1.00 1.00 0.91	Very limited small stones (very limited) slope (limited) high erodibility (limited)	1.00 0.91 0.80	Moderately limited small stones (moderately limited)	0.42	Slightly limited small stones (slightly limited)	0.30	Not limited	
Bardley-----	Very limited droughty (very limited) slope (limited) high erodibility (limited)	1.00 0.91 0.80	Limited slope (limited) high erodibility (limited) droughty (limited)	0.91 0.80 0.66	Limited droughty (limited)	0.66	Limited droughty (limited) depth to bedrock (moderately limited)	0.66 0.46	Limited droughty (limited) depth to bedrock (moderately limited)	0.66 0.46
73055:										
Alred-----	Very limited small stones (very limited) droughty (limited) high erodibility (limited)	1.00 0.99 0.80	Very limited small stones (very limited) high erodibility (limited) slope (moderately limited)	1.00 0.80 0.60	Moderately limited small stones (moderately limited)	0.31	Slightly limited small stones (slightly limited)	0.12	Not limited	
Rueter-----	Very limited small stones (very limited) droughty (limited) high erodibility (limited)	1.00 0.86 0.80	Very limited small stones (very limited) high erodibility (limited) slope (moderately limited)	1.00 0.80 0.60	Slightly limited small stones (slightly limited)	0.28	Slightly limited small stones (slightly limited)	0.08	Not limited	

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73139:										
Poynor-----	Limited droughty (limited)	0.96	Limited high erodibility (limited)	0.80	Slightly limited small stones (slightly limited)	0.14	Not limited		Not limited	
	high erodibility (limited)	0.80	small stones (limited)	0.69						
	small stones (limited)	0.69								
Clarksville---	Limited droughty (very limited)	0.99	Limited high erodibility (limited)	0.80	Slightly limited small stones (slightly limited)	0.04	Not limited		Not limited	
	high erodibility (limited)	0.80	small stones (moderately limited)	0.31						
	small stones (moderately limited)	0.31								
Scholten-----	Very limited droughty (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Limited wetness (limited)	0.78	Limited wetness (limited)	0.78	Very limited wetness (very limited)	1.00
	percs slowly (very limited)	1.00	high erodibility (limited)	0.80	droughty (moderately limited)	0.45	droughty (moderately limited)	0.45	droughty (moderately limited)	0.45
	high erodibility (limited)	0.80	wetness (limited)	0.78	small stones (slightly limited)	0.06				
73140:										
Clarksville---	Limited droughty (limited)	0.90	Limited high erodibility (limited)	0.80	Slightly limited small stones (slightly limited)	0.13	Not limited		Not limited	
	high erodibility (limited)	0.80	slope (limited)	0.79						
	slope (limited)	0.79	small stones (limited)	0.65						
Scholten-----	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Moderately limited small stones (moderately limited)	0.55	Moderately limited small stones (moderately limited)	0.51	Moderately limited wetness (moderately limited)	0.39
	droughty (very limited)	1.00	small stones (very limited)	1.00	wetness (slightly limited)	0.17	wetness (slightly limited)	0.17	droughty (slightly limited)	0.05
	small stones (very limited)	1.00	high erodibility (limited)	0.80	droughty (slightly limited)	0.05	droughty (slightly limited)	0.05		

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73143: Courtois-----	Limited high erodibility (limited) droughty (slightly limited)	0.80 0.22	Limited high erodibility (limited)	0.80	Not limited		Not limited		Not limited	
73144: Courtois-----	Limited high erodibility (limited) droughty (slightly limited)	0.80 0.22	Limited high erodibility (limited)	0.80	Not limited		Not limited		Not limited	
73147: Fourche-----	Limited high erodibility (limited) wetness (slightly limited) percs slowly (slightly limited)	0.80 0.28 0.13	Limited high erodibility (limited) wetness (slightly limited) percs slowly (slightly limited)	0.80 0.28 0.13	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Moderately limited wetness (moderately limited)	0.45
73155: Gasconade-----	Very limited droughty (very limited) shallow to bedrock (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited droughty (very limited) shallow to bedrock (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited droughty (very limited) too clayey (moderately limited)	1.00 0.36	Very limited droughty (very limited) shallow to bedrock (very limited) too clayey (moderately limited)	1.00 1.00 0.36	Very limited shallow to bedrock (very limited) droughty (very limited)	1.00 1.00
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73156: Alred-----	Limited droughty (limited) high erodibility (limited) percs slowly (moderately limited)	0.98 0.80 0.39	Limited high erodibility (limited) percs slowly (moderately limited)	0.80 0.39	Not limited		Not limited		Not limited	

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73156: Gepp-----	Very limited small stones (very limited) droughty (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) high erodibility (limited)	1.00 0.80	Moderately limited small stones (moderately limited)	0.31	Slightly limited small stones (slightly limited)	0.12	Not limited	
73157: Captina-----	Limited high erodibility (limited) percs slowly (moderately limited) wetness (moderately limited)	0.80 0.39 0.36	Limited high erodibility (limited) percs slowly (moderately limited) wetness (moderately limited)	0.80 0.39 0.36	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.51
73159: Yelton-----	Limited droughty (limited) high erodibility (limited) wetness (moderately limited)	0.88 0.80 0.58	Limited high erodibility (limited) wetness (moderately limited) percs slowly (moderately limited)	0.80 0.58 0.39	Moderately limited wetness (moderately limited)	0.58	Moderately limited wetness (moderately limited)	0.58	Limited wetness (limited)	0.93
73197: Viburnum-----	Moderately limited wetness (moderately limited) moderate erodibility (moderately limited) percs slowly (slightly limited)	0.60 0.50 0.13	Moderately limited wetness (moderately limited) moderate erodibility (moderately limited) percs slowly (slightly limited)	0.60 0.50 0.13	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60	Limited wetness (limited)	0.99
73222: Splitlimb-----	Very limited ponded (wetness) (very limited) wetness (moderately limited) percs slowly (slightly limited)	1.00 0.55 0.13	Very limited ponded (wetness) (very limited) wetness (moderately limited) percs slowly (slightly limited)	1.00 0.55 0.13	Limited seasonally ponded (limited) wetness (moderately limited)	0.80 0.55	Limited seasonally ponded (limited) wetness (moderately limited)	0.80 0.55	Limited wetness (limited) seasonally ponded (limited)	0.85 0.80

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73223:										
Coulstone-----	Very limited droughty (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) droughty (very limited) high erodibility (limited)	1.00 1.00 0.80	Limited droughty (very limited) small stones (moderately limited)	1.00 0.60	Limited droughty (very limited) small stones (moderately limited)	1.00 0.60	Limited droughty (very limited)	1.00
Bender-----	Very limited droughty (very limited) high erodibility (limited) slope (limited)	1.00 0.80 0.79	Very limited droughty (very limited) high erodibility (limited) slope (limited)	1.00 0.80 0.79	Very limited droughty (very limited) large stones (moderately limited) small stones (slightly limited)	1.00 0.40 0.14	Very limited droughty (very limited) large stones (moderately limited) depth to bedrock (moderately limited)	1.00 0.40 0.32	Very limited droughty (very limited) large stones (moderately limited) depth to bedrock (moderately limited)	1.00 0.40 0.32
73269:										
Brussels-----	Very limited droughty (very limited) slope (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited slope (very limited) high erodibility (limited) small stones (moderately limited)	1.00 0.80 0.57	Slightly limited small stones (slightly limited) droughty (slightly limited)	0.11 0.08	Slightly limited droughty (slightly limited)	0.08	Slightly limited droughty (slightly limited)	0.08
Gasconade-----	Very limited droughty (very limited) shallow to bedrock (very limited) slope (very limited)	1.00 1.00 1.00	Very limited droughty (very limited) shallow to bedrock (very limited) slope (very limited)	1.00 1.00 1.00	Very limited droughty (very limited) too clayey (limited) small stones (slightly limited)	1.00 0.76 0.01	Very limited droughty (very limited) shallow to bedrock (very limited) too clayey (limited)	1.00 1.00 0.76	Very limited shallow to bedrock (very limited) droughty (very limited)	1.00 1.00
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73290: Gatewood-----	Limited droughty (limited) high erodibility (limited) wetness (moderately limited)	0.92 0.80 0.36	Limited high erodibility (limited) wetness (moderately limited) percs slowly (slightly limited)	0.80 0.36 0.15	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited)	0.36 0.09	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited)	0.51 0.09
Aaron-----	Limited high erodibility (limited) wetness (moderately limited) percs slowly (slightly limited)	0.80 0.36 0.15	Limited high erodibility (limited) wetness (moderately limited) percs slowly (slightly limited)	0.80 0.36 0.15	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.51
73291: Gatewood-----	Very limited droughty (very limited) high erodibility (limited) wetness (moderately limited)	1.00 0.80 0.36	Limited high erodibility (limited) wetness (moderately limited) droughty (moderately limited)	0.80 0.36 0.32	Moderately limited wetness (moderately limited) droughty (moderately limited)	0.36 0.32	Moderately limited wetness (moderately limited) droughty (moderately limited) depth to bedrock (slightly limited)	0.36 0.32 0.13	Moderately limited wetness (moderately limited) droughty (moderately limited) depth to bedrock (slightly limited)	0.51 0.32 0.13
Aaron-----	Limited high erodibility (limited) droughty (moderately limited) wetness (moderately limited)	0.80 0.54 0.36	Limited high erodibility (limited) wetness (moderately limited) percs slowly (slightly limited)	0.80 0.36 0.15	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.51
73295: Taterhill-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited		Not limited		Not limited	

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73298:										
Tonti-----	Very limited percs slowly (very limited) droughty (limited) high erodibility (limited)	1.00 0.90 0.80	Very limited percs slowly (very limited) high erodibility (limited) wetness (moderately limited)	1.00 0.80 0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
Hogcreek-----	Very limited percs slowly (very limited) droughty (limited) high erodibility (limited)	1.00 0.98 0.80	Very limited percs slowly (very limited) high erodibility (limited) wetness (moderately limited)	1.00 0.80 0.55	Moderately limited wetness (moderately limited)	0.55	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited)	0.55 0.18	Limited wetness (limited) depth to bedrock (slightly limited)	0.85 0.18
73310:										
Scholten-----	Very limited droughty (very limited) percs slowly (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited percs slowly (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Limited droughty (limited) wetness (moderately limited) small stones (moderately limited)	0.70 0.58 0.42	Limited droughty (limited) wetness (moderately limited) small stones (slightly limited)	0.70 0.58 0.30	Limited wetness (limited) droughty (limited)	0.93 0.70
Bendavis-----	Limited droughty (limited) high erodibility (limited) small stones (moderately limited)	0.95 0.80 0.33	Limited high erodibility (limited) small stones (moderately limited) wetness (slightly limited)	0.80 0.33 0.28	Slightly limited wetness (slightly limited) small stones (slightly limited)	0.28 0.04	Slightly limited wetness (slightly limited) depth to bedrock (slightly limited)	0.28 0.27	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited)	0.45 0.27
Poynor-----	Very limited small stones (very limited) high erodibility (limited) droughty (moderately limited)	1.00 0.80 0.47	Very limited small stones (very limited) high erodibility (limited)	1.00 0.80	Limited small stones (limited)	0.67	Limited small stones (limited)	0.67	Not limited	

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73311:										
Scholten-----	Very limited droughty (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Limited droughty (limited)	0.70	Limited droughty (limited)	0.70	Limited wetness (limited)	0.93
	percs slowly (very limited)	1.00	small stones (very limited)	1.00	wetness (moderately limited)	0.58	wetness (moderately limited)	0.58	droughty (limited)	0.70
	small stones (very limited)	1.00	high erodibility (limited)	0.80	small stones (moderately limited)	0.38	small stones (slightly limited)	0.24		
Bendavis-----	Very limited droughty (very limited)	1.00	Limited high erodibility (limited)	0.80	Moderately limited droughty (moderately limited)	0.45	Moderately limited depth to bedrock (moderately limited)	0.58	Moderately limited depth to bedrock (moderately limited)	0.58
	high erodibility (limited)	0.80	depth to bedrock (moderately limited)	0.58	wetness (slightly limited)	0.28	droughty (moderately limited)	0.45	droughty (moderately limited)	0.45
	depth to bedrock (moderately limited)	0.58	droughty (moderately limited)	0.45			wetness (slightly limited)	0.28	wetness (moderately limited)	0.45
Poynor-----	Very limited droughty (very limited)	1.00	Very limited small stones (very limited)	1.00	Moderately limited droughty (moderately limited)	0.57	Moderately limited droughty (moderately limited)	0.57	Moderately limited droughty (moderately limited)	0.57
	small stones (very limited)	1.00	high erodibility (limited)	0.80	small stones (moderately limited)	0.42	small stones (slightly limited)	0.30		
	high erodibility (limited)	0.80	droughty (moderately limited)	0.57						
73333:										
Taterhill-----	Not limited		Not limited		Not limited		Not limited		Not limited	
73334:										
Horneybuck----	Moderately limited wetness (moderately limited)	0.55	Moderately limited wetness (moderately limited)	0.55	Moderately limited wetness (moderately limited)	0.55	Moderately limited wetness (moderately limited)	0.55	Limited wetness (limited)	0.85
	moderate erodibility (moderately limited)	0.50	moderate erodibility (moderately limited)	0.50						
	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13						

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73335: Hobson-----	Moderately limited moderate erodibility (moderately limited) wetness (moderately limited) percs slowly (moderately limited)	0.50 0.44 0.39	Moderately limited moderate erodibility (moderately limited) wetness (moderately limited) percs slowly (moderately limited)	0.50 0.44 0.39	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
Rueter-----	Very limited small stones (very limited) droughty (very limited) moderate erodibility (moderately limited)	1.00 1.00 0.50	Very limited small stones (very limited) moderate erodibility (moderately limited) percs slowly (slightly limited)	1.00 0.50 0.18	Moderately limited small stones (moderately limited) droughty (slightly limited)	0.38 0.04	Slightly limited small stones (slightly limited) droughty (slightly limited)	0.24 0.04	Slightly limited droughty (slightly limited)	0.04
73336: Rueter-----	Limited high erodibility (limited) small stones (moderately limited) droughty (slightly limited)	0.80 0.33 0.19	Limited high erodibility (limited) small stones (moderately limited) percs slowly (slightly limited)	0.80 0.33 0.18	Slightly limited small stones (slightly limited)	0.04	Not limited		Not limited	
Gepp-----	Limited droughty (limited) high erodibility (limited) small stones (slightly limited)	0.93 0.80 0.30	Limited high erodibility (limited) small stones (slightly limited)	0.80 0.30	Slightly limited small stones (slightly limited)	0.03	Not limited		Not limited	
73337: Tonti-----	Very limited percs slowly (very limited) high erodibility (limited) wetness (moderately limited)	1.00 0.80 0.44	Very limited percs slowly (very limited) high erodibility (limited) wetness (moderately limited)	1.00 0.80 0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73337: Portia-----	Limited high erodibility (limited)	0.80	Limited high erodibility (limited)	0.80	Not limited		Not limited		Not limited	
73338: Portia-----	Limited high erodibility (limited)	0.80	Limited high erodibility (limited)	0.80	Not limited		Not limited		Not limited	
Hobson-----	Limited high erodibility (limited) wetness (moderately limited) percs slowly (moderately limited)	0.80 0.44 0.39	Limited high erodibility (limited) wetness (moderately limited) percs slowly (moderately limited)	0.80 0.44 0.39	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
73339: Arkana-----	Very limited droughty (very limited) percs slowly (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited percs slowly (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Limited small stones (limited) droughty (slightly limited)	0.70 0.16	Limited small stones (limited) depth to bedrock (slightly limited) droughty (slightly limited)	0.71 0.29 0.16	Slightly limited depth to bedrock (slightly limited) droughty (slightly limited)	0.29 0.16
Gepp-----	Very limited small stones (very limited) droughty (limited) high erodibility (limited)	1.00 0.93 0.80	Very limited small stones (very limited) high erodibility (limited)	1.00 0.80	Moderately limited small stones (moderately limited)	0.56	Moderately limited small stones (moderately limited)	0.54	Not limited	
73340: Rueter-----	Very limited small stones (very limited) high erodibility (limited) droughty (moderately limited)	1.00 0.80 0.58	Very limited small stones (very limited) high erodibility (limited) percs slowly (slightly limited)	1.00 0.80 0.18	Moderately limited small stones (moderately limited)	0.50	Moderately limited small stones (moderately limited)	0.44	Not limited	

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73340: Gepp-----	Very limited droughty (very limited) high erodibility (limited) small stones (limited)	1.00 0.80 0.75	Limited high erodibility (limited) small stones (limited) droughty (slightly limited)	0.80 0.75 0.06	Slightly limited small stones (slightly limited) droughty (slightly limited)	0.15 0.06	Slightly limited droughty (slightly limited)	0.06	Slightly limited droughty (slightly limited)	0.06
73341: Gepp-----	Very limited droughty (very limited) small stones (very limited) slope (limited)	1.00 1.00 0.99	Very limited small stones (very limited) slope (limited) high erodibility (limited)	1.00 0.99 0.80	Limited small stones (limited) droughty (slightly limited)	0.70 0.09	Limited small stones (limited) droughty (slightly limited)	0.70 0.09	Slightly limited droughty (slightly limited)	0.09
Arkana-----	Very limited droughty (very limited) percs slowly (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited percs slowly (very limited) small stones (very limited) slope (limited)	1.00 1.00 0.99	Moderately limited small stones (moderately limited) droughty (moderately limited)	0.57 0.34	Moderately limited small stones (moderately limited) droughty (moderately limited) depth to bedrock (slightly limited)	0.55 0.34 0.29	Moderately limited droughty (moderately limited) depth to bedrock (slightly limited)	0.34 0.29
73342: Alred-----	Very limited small stones (very limited) droughty (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) high erodibility (limited) percs slowly (slightly limited)	1.00 0.80 0.18	Moderately limited small stones (moderately limited) droughty (slightly limited)	0.42 0.01	Slightly limited small stones (slightly limited) droughty (slightly limited)	0.30 0.01	Slightly limited droughty (slightly limited)	0.01
Arkana-----	Very limited droughty (very limited) percs slowly (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited percs slowly (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Limited droughty (limited) small stones (moderately limited)	0.78 0.31	Limited droughty (limited) depth to bedrock (slightly limited) small stones (slightly limited)	0.78 0.29 0.12	Limited droughty (limited) depth to bedrock (slightly limited)	0.78 0.29

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74636: Lecoma-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited		Not limited		Not limited	
74637: Lecoma-----	Limited high erodibility (limited)	0.80	Limited high erodibility (limited)	0.80	Not limited		Not limited		Not limited	
74643: Lecoma-----	Not limited		Not limited		Not limited		Not limited		Not limited	
74644: Deible-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	percs slowly (very limited)	1.00	percs slowly (very limited)	1.00						
	moderate erodibility (moderately limited)	0.50	moderate erodibility (moderately limited)	0.50						
74646: Cornwall-----	Limited high erodibility (limited)	0.80	Limited high erodibility (limited)	0.80	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.51
	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39						
	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36						
74648: Aslinger-----	Very limited droughty (very limited)	1.00	Limited high erodibility (limited)	0.80	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
	high erodibility (limited)	0.80	wetness (moderately limited)	0.44	droughty (slightly limited)	0.01	droughty (slightly limited)	0.01	droughty (slightly limited)	0.01
	wetness (moderately limited)	0.44	percs slowly (slightly limited)	0.13						

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74649: Aslinger-----	Very limited droughty (very limited)	1.00	Limited high erodibility (limited)	0.80	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
	high erodibility (limited)	0.80	wetness (moderately limited)	0.44	droughty (slightly limited)	0.06	droughty (slightly limited)	0.06	droughty (slightly limited)	0.06
	wetness (moderately limited)	0.44	percs slowly (slightly limited)	0.13						
Waben-----	Very limited droughty (very limited)	1.00	Limited high erodibility (limited)	0.80	Slightly limited droughty (slightly limited)	0.01	Slightly limited droughty (slightly limited)	0.01	Slightly limited droughty (slightly limited)	0.01
	high erodibility (limited)	0.80	droughty (slightly limited)	0.01						
74651: Waben-----	Very limited droughty (very limited)	1.00	Moderately limited moderate erodibility (moderately limited)	0.50	Slightly limited small stones (slightly limited)	0.05	Slightly limited droughty (slightly limited)	0.02	Slightly limited droughty (slightly limited)	0.02
	moderate erodibility (moderately limited)	0.50	small stones (moderately limited)	0.36	droughty (slightly limited)	0.02				
	small stones (moderately limited)	0.36	droughty (slightly limited)	0.02						
74658: Zanoni-----	Slightly limited droughty (slightly limited)	0.26	Not limited		Not limited		Not limited		Not limited	
74679: Higdon-----	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60	Limited wetness (limited)	0.99
	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13						
74680: Moniteau-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13						

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75381: Bearthicket---	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited		Not limited		Not limited	
75394: Relfe-----	Very limited droughty (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited droughty (very limited)	1.00
	small stones (moderately limited)	0.55	small stones (moderately limited)	0.55	small stones (slightly limited)	0.10				
75395: Jamesfin-----	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited)	0.60	Not limited		Not limited		Not limited	
	moderate erodibility (moderately limited)	0.50	moderate erodibility (moderately limited)	0.50						
75408: Secesh-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited		Not limited		Not limited	
75409: Relfe-----	Very limited droughty (very limited)	1.00	Limited droughty (limited)	0.84	Limited droughty (limited)	0.84	Limited droughty (limited)	0.84	Limited droughty (limited)	0.84
	flooding (moderately limited)	0.60	flooding (moderately limited)	0.60						
	moderate erodibility (moderately limited)	0.50	moderate erodibility (moderately limited)	0.50						
75411: Tilk-----	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Limited small stones (limited)	0.77	Limited small stones (limited)	0.78	Slightly limited droughty (slightly limited)	0.04
	droughty (very limited)	1.00	moderate erodibility (moderately limited)	0.50	droughty (slightly limited)	0.04	droughty (slightly limited)	0.04		
	moderate erodibility (moderately limited)	0.50	droughty (slightly limited)	0.04						

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75416: Gladden-----	Moderately limited flooding (moderately limited) moderate erodibility (moderately limited)	0.60 0.50	Moderately limited flooding (moderately limited) moderate erodibility (moderately limited)	0.60 0.50	Not limited		Not limited		Not limited	
75417: Relfe-----	Very limited droughty (very limited) small stones (very limited) flooding (limited)	1.00 1.00 0.90	Very limited droughty (very limited) small stones (very limited) flooding (limited)	1.00 1.00 0.90	Very limited droughty (very limited) small stones (moderately limited)	1.00 0.58	Very limited droughty (very limited) small stones (moderately limited)	1.00 0.56	Very limited droughty (very limited)	1.00
Sandbur-----	Limited flooding (limited) droughty (moderately limited)	0.90 0.34	Limited flooding (limited)	0.90	Not limited		Not limited		Not limited	
75426: Gabriel-----	Moderately limited wetness (moderately limited) percs slowly (slightly limited)	0.60 0.13	Moderately limited wetness (moderately limited) percs slowly (slightly limited)	0.60 0.13	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60	Limited wetness (limited)	0.99
75428: Tilk-----	Very limited droughty (very limited) small stones (limited) flooding (moderately limited)	1.00 0.82 0.60	Limited small stones (limited) flooding (moderately limited) droughty (moderately limited)	0.82 0.60 0.55	Moderately limited droughty (moderately limited) small stones (slightly limited)	0.55 0.17	Moderately limited droughty (moderately limited)	0.55	Moderately limited droughty (moderately limited)	0.55
Cornwall-----	Limited wetness (limited) percs slowly (moderately limited)	0.68 0.39	Limited wetness (limited) percs slowly (moderately limited)	0.68 0.39	Limited wetness (limited)	0.68	Limited wetness (limited)	0.68	Very limited wetness (very limited)	1.00

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75428: Poynor-----	Very limited droughty (very limited) small stones (moderately limited)	1.00 0.33	Moderately limited droughty (moderately limited) small stones (moderately limited)	0.44 0.33	Moderately limited droughty (moderately limited) small stones (slightly limited)	0.44 0.04	Moderately limited droughty (moderately limited)	0.44	Moderately limited droughty (moderately limited)	0.44
75429: Tilk-----	Very limited small stones (very limited) droughty (very limited) flooding (moderately limited)	1.00 1.00 0.60	Very limited small stones (very limited) flooding (moderately limited)	1.00 0.60	Limited small stones (limited)	0.77	Limited small stones (limited)	0.77	Not limited	
Secesh-----	Moderately limited large stones (moderately limited) small stones (moderately limited)	0.45 0.37	Moderately limited large stones (moderately limited) small stones (moderately limited)	0.45 0.37	Slightly limited large stones (slightly limited) small stones (slightly limited)	0.17 0.05	Slightly limited large stones (slightly limited)	0.17	Slightly limited large stones (slightly limited)	0.17
75430: Wideman-----	Limited droughty (limited) flooding (moderately limited)	0.65 0.60	Moderately limited flooding (moderately limited)	0.60	Not limited		Not limited		Not limited	
75432: Batcave-----	Very limited wetness (very limited) flooding (limited) small stones (moderately limited)	1.00 0.90 0.48	Very limited wetness (very limited) flooding (limited) small stones (moderately limited)	1.00 0.90 0.48	Very limited wetness (very limited) small stones (slightly limited)	1.00 0.08	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75432: Farewell-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	small stones (very limited)	1.00	small stones (very limited)	1.00	small stones (moderately limited)	0.58	small stones (moderately limited)	0.56		
	flooding (limited)	0.90	flooding (limited)	0.90						
75451: Gladden-----	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited)	0.60	Not limited		Not limited		Not limited	
	droughty (slightly limited)	0.01								
75462: Huzzah-----	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited)	0.60	Not limited		Not limited		Not limited	
75463: Huzzah-----	Not limited		Not limited		Not limited		Not limited		Not limited	
75464: Cedargap-----	Moderately limited droughty (moderately limited)	0.58	Slightly limited small stones (slightly limited)	0.06	Slightly limited small stones (slightly limited)	0.01	Not limited		Not limited	
	small stones (slightly limited)	0.06								
75465: Raftville-----	Very limited droughty (very limited)	1.00	Limited depth to bedrock (limited)	0.66	Slightly limited droughty (slightly limited)	0.03	Limited depth to bedrock (limited)	0.66	Limited depth to bedrock (limited)	0.66
	depth to bedrock (limited)	0.66	moderate erodibility (moderately limited)	0.50			droughty (slightly limited)	0.03	droughty (slightly limited)	0.03
	moderate erodibility (moderately limited)	0.50	droughty (slightly limited)	0.03						

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75465: Gabriel-----	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60	Limited wetness (limited)	0.99
	moderate erodibility (moderately limited)	0.50	moderate erodibility (moderately limited)	0.50						
	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13						
75466: Midco-----	Very limited droughty (very limited)	1.00	Very limited small stones (very limited)	1.00	Limited small stones (limited)	0.67	Limited small stones (limited)	0.67	Limited droughty (limited)	0.61
	small stones (very limited)	1.00	droughty (limited)	0.61	droughty (limited)	0.61	droughty (limited)	0.61		
	flooding (moderately limited)	0.60	flooding (moderately limited)	0.60						
75470: Farewell-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	small stones (moderately limited)	0.55	small stones (moderately limited)	0.55	small stones (slightly limited)	0.10				
	droughty (slightly limited)	0.14								
77000: Killarney-----	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Moderately limited large stones (moderately limited)	0.31	Moderately limited large stones (moderately limited)	0.31	Moderately limited wetness (moderately limited)	0.45
	droughty (limited)	0.88	high erodibility (limited)	0.80	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	large stones (moderately limited)	0.31
	high erodibility (limited)	0.80	slope (limited)	0.79	small stones (slightly limited)	0.11				
Frenchmill----	Limited high erodibility (limited)	0.80	Limited high erodibility (limited)	0.80	Slightly limited small stones (slightly limited)	0.08	Not limited		Not limited	
	slope (limited)	0.79	slope (limited)	0.79						
	droughty (limited)	0.61	small stones (moderately limited)	0.46						

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77003: Delassus-----	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Moderately limited wetness (moderately limited)	0.39	Moderately limited wetness (moderately limited)	0.39	Moderately limited wetness (moderately limited)	0.54
	high erodibility (limited)	0.80	high erodibility (limited)	0.80	large stones (moderately limited)	0.38	large stones (moderately limited)	0.38	large stones (moderately limited)	0.38
	large stones (limited)	0.70	large stones (limited)	0.70	small stones (slightly limited)	0.09				
77004: Irondale-----	Very limited droughty (very limited)	1.00	Limited depth to bedrock (limited)	0.86	Limited droughty (limited)	0.66	Limited depth to bedrock (limited)	0.86	Limited depth to bedrock (limited)	0.86
	depth to bedrock (limited)	0.86	high erodibility (limited)	0.80	large stones (slightly limited)	0.17	droughty (limited)	0.66	droughty (limited)	0.66
	high erodibility (limited)	0.80	droughty (limited)	0.66	small stones (slightly limited)	0.10	large stones (slightly limited)	0.17	large stones (slightly limited)	0.17
77007: Taumsauk-----	Very limited droughty (very limited)	1.00	Very limited shallow to bedrock (very limited)	1.00	Limited droughty (very limited)	1.00	Very limited shallow to bedrock (very limited)	1.00	Very limited shallow to bedrock (very limited)	1.00
	shallow to bedrock (very limited)	1.00	droughty (very limited)	1.00			droughty (very limited)	1.00	droughty (very limited)	1.00
	high erodibility (limited)	0.80	high erodibility (limited)	0.80						
Irondale-----	Very limited droughty (very limited)	1.00	Limited depth to bedrock (limited)	0.86	Limited droughty (limited)	0.76	Limited depth to bedrock (limited)	0.86	Limited depth to bedrock (limited)	0.86
	depth to bedrock (limited)	0.86	high erodibility (limited)	0.80	large stones (moderately limited)	0.32	droughty (limited)	0.76	droughty (limited)	0.76
	high erodibility (limited)	0.80	droughty (limited)	0.76	small stones (slightly limited)	0.09	large stones (moderately limited)	0.32	large stones (moderately limited)	0.32
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77009: Trackler-----	Limited droughty (limited) high erodibility (limited) wetness (moderately limited)	0.82 0.80 0.39	Limited high erodibility (limited) wetness (moderately limited) percs slowly (slightly limited)	0.80 0.39 0.13	Moderately limited wetness (moderately limited)	0.39	Moderately limited wetness (moderately limited)	0.39	Moderately limited wetness (moderately limited)	0.54
77011: Taumsauk-----	Very limited droughty (very limited) shallow to bedrock (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited droughty (very limited) shallow to bedrock (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited droughty (very limited) small stones (slightly limited)	1.00 0.04	Very limited droughty (very limited) shallow to bedrock (very limited)	1.00 1.00	Very limited shallow to bedrock (very limited) droughty (very limited)	1.00 1.00
Irondale-----	Very limited droughty (very limited) high erodibility (limited) depth to bedrock (moderately limited)	1.00 0.80 0.42	Limited high erodibility (limited) depth to bedrock (moderately limited) small stones (moderately limited)	0.80 0.42 0.37	Slightly limited small stones (slightly limited) droughty (slightly limited)	0.05 0.02	Moderately limited depth to bedrock (moderately limited) droughty (slightly limited)	0.42 0.02	Moderately limited depth to bedrock (moderately limited) droughty (slightly limited)	0.42 0.02
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77012: Mudlick-----	Limited high erodibility (limited) slope (moderately limited) percs slowly (slightly limited)	0.80 0.31 0.13	Limited high erodibility (limited) slope (moderately limited) percs slowly (slightly limited)	0.80 0.31 0.13	Not limited		Not limited		Not limited	
Irondale-----	Very limited droughty (very limited) depth to bedrock (limited) high erodibility (limited)	1.00 0.86 0.80	Limited depth to bedrock (limited) high erodibility (limited) large stones (limited)	0.86 0.80 0.73	Moderately limited large stones (moderately limited) droughty (moderately limited)	0.40 0.32	Limited depth to bedrock (limited) large stones (moderately limited) droughty (moderately limited)	0.86 0.40 0.32	Limited depth to bedrock (limited) large stones (moderately limited) droughty (moderately limited)	0.86 0.40 0.32

Table 11a.--Wildlife Habitat--Continued

Map symbol and soil name	Grain and seed crops (for use as food and cover)		Domestic grasses and legumes (for use as food and cover)		Upland wild herbaceous plants		Upland shrubs and vines		Upland deciduous trees	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77012: Killarney-----	Very limited percs slowly (very limited) droughty (limited) high erodibility (limited)	1.00 0.95 0.80	Very limited percs slowly (very limited) high erodibility (limited) slope (limited)	1.00 0.80 0.79	Moderately limited wetness (moderately limited) large stones (slightly limited) small stones (slightly limited)	0.31 0.17 0.01	Moderately limited wetness (moderately limited) large stones (slightly limited)	0.31 0.17	Moderately limited wetness (moderately limited) large stones (slightly limited)	0.46 0.17
77013: Mudlick-----	Limited high erodibility (limited) large stones (limited) percs slowly (slightly limited)	0.80 0.73 0.13	Limited high erodibility (limited) large stones (limited) percs slowly (slightly limited)	0.80 0.73 0.13	Moderately limited large stones (moderately limited)	0.40	Moderately limited large stones (moderately limited)	0.40	Moderately limited large stones (moderately limited)	0.40
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99006: Psamments-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99007: Dam-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99010: Pits-----	Not rated		Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99013: Riverwash-----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 11b.--Wildlife Habitat

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042: Niangua-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited) small stones (slightly limited)	1.00 0.80 0.30	Slightly limited small stones (slightly limited)	0.30	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (slightly limited)	1.00 0.18
Bardley-----	Limited droughty (limited) depth to bedrock (moderately limited)	0.66 0.46	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Limited droughty (limited)	0.66	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
73055: Alred-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited) small stones (slightly limited)	1.00 0.80 0.12	Slightly limited small stones (slightly limited)	0.12	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
Rueter-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited) small stones (slightly limited)	1.00 0.80 0.08	Slightly limited small stones (slightly limited)	0.08	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
73139: Poynor-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73139: Clarksville---	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
Scholten-----	Very limited wetness (very limited) droughty (moderately limited)	1.00 0.45	Limited infrequent flooding (limited) deep to water (slightly limited)	0.80 0.17	Moderately limited droughty (moderately limited)	0.45	Slightly limited deep to water (slightly limited) soil reaction (slightly limited)	0.17 0.12	Very limited slope (very limited) soil reaction (slightly limited)	1.00 0.12
73140: Clarksville---	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited) soil reaction (slightly limited)	1.00 0.06	Very limited slope (very limited) seepage (moderately limited) soil reaction (slightly limited)	1.00 0.45 0.06
Scholten-----	Moderately limited wetness (moderately limited) droughty (slightly limited)	0.39 0.05	Limited infrequent flooding (limited) deep to water (limited) small stones (moderately limited)	0.80 0.77 0.51	Moderately limited small stones (moderately limited) droughty (slightly limited)	0.51 0.05	Limited deep to water (limited)	0.77	Very limited slope (very limited)	1.00
73143: Courtois-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Limited slope (limited) seepage (moderately limited)	0.66 0.45
73144: Courtois-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73147: Fourche-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited) deep to water (limited)	0.80 0.61	Not limited		Limited deep to water (limited)	0.61	Limited slope (limited) seepage (slightly limited)	0.66 0.18
73155: Gasconade-----	Very limited shallow to bedrock (very limited) droughty (very limited)	1.00 1.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Very limited droughty (very limited)	1.00	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73156: Alred-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
Gepp-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited) small stones (slightly limited)	1.00 0.80 0.12	Slightly limited small stones (slightly limited)	0.12	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
73157: Captina-----	Moderately limited wetness (moderately limited)	0.51	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.53	Not limited		Moderately limited deep to water (moderately limited)	0.53	Limited slope (limited)	0.91
73159: Yelton-----	Limited wetness (limited)	0.93	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.32	Not limited		Moderately limited deep to water (moderately limited)	0.32	Limited slope (limited)	0.66

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73197: Viburnum-----	Limited wetness (limited)	0.99	Limited infrequent flooding (limited) deep to water (slightly limited)	0.80 0.30	Not limited		Slightly limited deep to water (slightly limited)	0.30	Moderately limited slope (moderately limited) seepage (slightly limited)	0.31 0.18
73222: Splitlimb-----	Limited wetness (limited) seasonally ponded (limited)	0.85 0.80	Limited seasonally ponded (limited) infrequent flooding (limited) deep to water (moderately limited)	0.80 0.80 0.35	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited) deep to water (moderately limited)	0.80 0.35	Limited seasonally ponded (limited) seepage (slightly limited)	0.80 0.18
73223: Coulstone-----	Limited droughty (very limited)	1.00	Very limited deep to water (very limited) infrequent flooding (limited) small stones (moderately limited)	1.00 0.80 0.60	Limited droughty (very limited) small stones (moderately limited)	1.00 0.60	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (limited)	1.00 0.68
Bender-----	Very limited droughty (very limited) large stones (moderately limited) depth to bedrock (moderately limited)	1.00 0.40 0.32	Very limited deep to water (very limited) infrequent flooding (limited) large stones (moderately limited)	1.00 0.80 0.40	Very limited droughty (very limited) large stones (moderately limited)	1.00 0.40	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (limited)	1.00 0.89
73269: Brussels-----	Slightly limited droughty (slightly limited)	0.08	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Slightly limited droughty (slightly limited)	0.08	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (slightly limited)	1.00 0.18

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73269:										
Gasconade-----	Very limited shallow to bedrock (very limited)	1.00	Very limited deep to water (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
	droughty (very limited)	1.00	infrequent flooding (limited)	0.80			soil reaction (slightly limited)	0.01	seepage (slightly limited)	0.18
									soil reaction (slightly limited)	0.01
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73290:										
Gatewood-----	Moderately limited wetness (moderately limited)	0.51	Limited infrequent flooding (limited)	0.80	Not limited		Moderately limited deep to water (moderately limited)	0.53	Limited slope (limited)	0.91
	depth to bedrock (slightly limited)	0.09	deep to water (moderately limited)	0.53					seepage (slightly limited)	0.16
Aaron-----	Moderately limited wetness (moderately limited)	0.51	Limited infrequent flooding (limited)	0.80	Not limited		Moderately limited deep to water (moderately limited)	0.53	Limited slope (limited)	0.91
			deep to water (moderately limited)	0.53					seepage (slightly limited)	0.16
73291:										
Gatewood-----	Moderately limited wetness (moderately limited)	0.51	Limited infrequent flooding (limited)	0.80	Moderately limited droughty (moderately limited)	0.32	Moderately limited deep to water (moderately limited)	0.53	Very limited slope (very limited)	1.00
	droughty (moderately limited)	0.32	deep to water (moderately limited)	0.53					seepage (slightly limited)	0.16
	depth to bedrock (slightly limited)	0.13								
Aaron-----	Moderately limited wetness (moderately limited)	0.51	Limited infrequent flooding (limited)	0.80	Not limited		Moderately limited deep to water (moderately limited)	0.53	Very limited slope (very limited)	1.00
			deep to water (moderately limited)	0.53					seepage (slightly limited)	0.16

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73295: Taterhill-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Limited slope (limited) seepage (moderately limited)	0.91 0.48
73298: Tonti-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited		Moderately limited deep to water (moderately limited)	0.45	Limited slope (limited)	0.66
Hogcreek-----	Limited wetness (limited) depth to bedrock (slightly limited)	0.85 0.18	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.35	Not limited		Moderately limited deep to water (moderately limited)	0.35	Moderately limited slope (moderately limited)	0.31
73310: Scholten-----	Limited wetness (limited) droughty (limited)	0.93 0.70	Limited infrequent flooding (limited) deep to water (moderately limited) small stones (slightly limited)	0.80 0.32 0.30	Limited droughty (limited) small stones (slightly limited)	0.70 0.30	Moderately limited deep to water (moderately limited)	0.32	Limited slope (limited)	0.66
Bendavis-----	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited)	0.45 0.27	Limited infrequent flooding (limited) deep to water (limited)	0.80 0.61	Not limited		Limited deep to water (limited)	0.61	Limited slope (limited) seepage (moderately limited)	0.66 0.54
Poynor-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited) small stones (limited)	1.00 0.80 0.67	Limited small stones (limited)	0.67	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited) slope (moderately limited)	0.36 0.31

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73311: Scholten-----	Limited wetness (limited) droughty (limited)	0.93 0.70	Limited infrequent flooding (limited) deep to water (moderately limited) small stones (slightly limited)	0.80 0.32 0.24	Limited droughty (limited) small stones (slightly limited)	0.70 0.24	Moderately limited deep to water (moderately limited)	0.32	Very limited slope (very limited)	1.00
Bendavis-----	Moderately limited depth to bedrock (moderately limited) droughty (moderately limited) wetness (moderately limited)	0.58 0.45 0.45	Limited infrequent flooding (limited) deep to water (limited)	0.80 0.61	Moderately limited droughty (moderately limited)	0.45	Limited deep to water (limited)	0.61	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
Poynor-----	Moderately limited droughty (moderately limited)	0.57	Very limited deep to water (very limited) infrequent flooding (limited) small stones (slightly limited)	1.00 0.80 0.30	Moderately limited droughty (moderately limited) small stones (slightly limited)	0.57 0.30	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.36
73333: Taterhill-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
73334: Horneybuck----	Limited wetness (limited)	0.85	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.35	Not limited		Moderately limited deep to water (moderately limited)	0.35	Limited slope (limited) seepage (slightly limited)	0.66 0.18

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73335: Hobson-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited		Moderately limited deep to water (moderately limited)	0.45	Limited slope (limited)	0.91
Rueter-----	Slightly limited droughty (slightly limited)	0.04	Very limited deep to water (very limited) infrequent flooding (limited) small stones (slightly limited)	1.00 0.80 0.24	Slightly limited small stones (slightly limited) droughty (slightly limited)	0.24 0.04	Very limited deep to water (very limited)	1.00	Limited slope (limited) seepage (slightly limited)	0.91 0.14
73336: Rueter-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (slightly limited)	1.00 0.14
Gepp-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
73337: Tonti-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited		Moderately limited deep to water (moderately limited)	0.45	Limited slope (limited)	0.91
Portia-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Limited slope (limited) seepage (moderately limited)	0.66 0.45

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73338: Portia-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
Hobson-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited		Moderately limited deep to water (moderately limited)	0.45	Very limited slope (very limited)	1.00
73339: Arkana-----	Slightly limited depth to bedrock (slightly limited) droughty (slightly limited)	0.29 0.16	Very limited deep to water (very limited) infrequent flooding (limited) small stones (limited)	1.00 0.80 0.71	Limited small stones (limited) droughty (slightly limited)	0.71 0.16	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
Gepp-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited) small stones (moderately limited)	1.00 0.80 0.54	Moderately limited small stones (moderately limited)	0.54	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
73340: Rueter-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited) small stones (moderately limited)	1.00 0.80 0.44	Moderately limited small stones (moderately limited)	0.44	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (slightly limited)	1.00 0.14
Gepp-----	Slightly limited droughty (slightly limited)	0.06	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Slightly limited droughty (slightly limited)	0.06	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73341: Gepp-----	Slightly limited droughty (slightly limited)	0.09	Very limited deep to water (very limited) infrequent flooding (limited) small stones (limited)	1.00 0.80 0.70	Limited small stones (limited) droughty (slightly limited)	0.70 0.09	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
Arkana-----	Moderately limited droughty (moderately limited) depth to bedrock (slightly limited)	0.34 0.29	Very limited deep to water (very limited) infrequent flooding (limited) small stones (moderately limited)	1.00 0.80 0.55	Moderately limited small stones (moderately limited) droughty (moderately limited)	0.55 0.34	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
73342: Alred-----	Slightly limited droughty (slightly limited)	0.01	Very limited deep to water (very limited) infrequent flooding (limited) small stones (slightly limited)	1.00 0.80 0.30	Slightly limited small stones (slightly limited) droughty (slightly limited)	0.30 0.01	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (slightly limited)	1.00 0.14
Arkana-----	Limited droughty (limited) depth to bedrock (slightly limited)	0.78 0.29	Very limited deep to water (very limited) infrequent flooding (limited) small stones (slightly limited)	1.00 0.80 0.12	Limited droughty (limited) small stones (slightly limited)	0.78 0.12	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
74636: Lecoma-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Limited slope (limited) seepage (moderately limited)	0.91 0.45

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74637: Lecoma-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
74643: Lecoma-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
74644: Deible-----	Very limited wetness (very limited)	1.00	Not limited		Not limited		Not limited		Not limited	
74646: Cornwall-----	Moderately limited wetness (moderately limited)	0.51	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.53	Not limited		Moderately limited deep to water (moderately limited)	0.53	Limited slope (limited)	0.91
74648: Aslinger-----	Moderately limited wetness (moderately limited) droughty (slightly limited)	0.59 0.01	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Slightly limited droughty (slightly limited)	0.01	Moderately limited deep to water (moderately limited)	0.45	Limited slope (limited) seepage (slightly limited)	0.91 0.18
74649: Aslinger-----	Moderately limited wetness (moderately limited) droughty (slightly limited)	0.59 0.06	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Slightly limited droughty (slightly limited)	0.06	Moderately limited deep to water (moderately limited)	0.45	Very limited slope (very limited) seepage (slightly limited)	1.00 0.18
Waben-----	Slightly limited droughty (slightly limited)	0.01	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Slightly limited droughty (slightly limited)	0.01	Very limited deep to water (very limited)	1.00	Limited seepage (limited) slope (limited)	0.79 0.66

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74651: Waben-----	Slightly limited droughty (slightly limited)	0.02	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Slightly limited droughty (slightly limited)	0.02	Very limited deep to water (very limited)	1.00	Limited slope (limited) seepage (limited)	0.91 0.79
74658: Zanoni-----	Not limited		Very limited deep to water (very limited)	1.00	Not limited		Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.82
74679: Higdon-----	Limited wetness (limited)	0.99	Slightly limited deep to water (slightly limited)	0.30	Not limited		Slightly limited deep to water (slightly limited)	0.30	Slightly limited seepage (slightly limited)	0.18
74680: Moniteau-----	Very limited wetness (very limited)	1.00	Not limited		Not limited		Not limited		Slightly limited seepage (slightly limited)	0.18
75381: Bearthicket---	Not limited		Very limited deep to water (very limited)	1.00	Not limited		Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
75394: Relfe-----	Very limited droughty (very limited)	1.00	Very limited deep to water (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.75
75395: Jamesfin-----	Not limited		Very limited deep to water (very limited) infrequent flooding (moderately limited)	1.00 0.50	Very limited deep to water (very limited)	1.00	Very limited deep to water (very limited)	1.00	Very limited deep to water (very limited) seepage (moderately limited)	1.00 0.45
75408: Secesh-----	Not limited		Very limited deep to water (very limited)	1.00	Not limited		Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75409: Relfe-----	Limited droughty (limited)	0.84	Very limited deep to water (very limited) infrequent flooding (moderately limited)	1.00 0.50	Limited droughty (limited)	0.84	Very limited deep to water (very limited)	1.00	Very limited seepage (very limited)	1.00
75411: Tilk-----	Slightly limited droughty (slightly limited)	0.04	Very limited deep to water (very limited) small stones (limited)	1.00 0.78	Limited small stones (limited) droughty (slightly limited)	0.78 0.04	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.79
75416: Gladden-----	Not limited		Very limited deep to water (very limited) infrequent flooding (moderately limited)	1.00 0.50	Not limited		Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
75417: Relfe-----	Very limited droughty (very limited)	1.00	Very limited deep to water (very limited) small stones (moderately limited)	1.00 0.56	Very limited droughty (very limited) small stones (moderately limited)	1.00 0.56	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.75
Sandbur-----	Not limited		Very limited deep to water (very limited)	1.00	Not limited		Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.79
75426: Gabriel-----	Limited wetness (limited)	0.99	Slightly limited deep to water (slightly limited)	0.30	Not limited		Slightly limited deep to water (slightly limited)	0.30	Slightly limited seepage (slightly limited)	0.18
75428: Tilk-----	Moderately limited droughty (moderately limited)	0.55	Very limited deep to water (very limited) infrequent flooding (moderately limited)	1.00 0.50	Moderately limited droughty (moderately limited)	0.55	Very limited deep to water (very limited)	1.00	Limited seepage (limited) slope (slightly limited)	0.79 0.08

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75428: Cornwall-----	Very limited wetness (very limited)	1.00	Limited infrequent flooding (limited) deep to water (slightly limited)	0.80 0.24	Not limited		Slightly limited deep to water (slightly limited)	0.24	Very limited slope (very limited)	1.00
Poynor-----	Moderately limited droughty (moderately limited)	0.44	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Moderately limited droughty (moderately limited)	0.44	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.36
75429: Tilk-----	Not limited		Very limited deep to water (very limited) small stones (limited) infrequent flooding (moderately limited)	1.00 0.77 0.50	Limited small stones (limited)	0.77	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.79
Secesh-----	Slightly limited large stones (slightly limited)	0.17	Very limited deep to water (very limited) large stones (slightly limited)	1.00 0.17	Slightly limited large stones (slightly limited)	0.17	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
75430: Wideman-----	Not limited		Very limited deep to water (very limited) infrequent flooding (moderately limited)	1.00 0.50	Not limited		Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.79
75432: Batcave-----	Very limited wetness (very limited)	1.00	Not limited		Not limited		Not limited		Moderately limited seepage (moderately limited)	0.45
Farewell-----	Very limited wetness (very limited)	1.00	Moderately limited small stones (moderately limited)	0.56	Moderately limited small stones (moderately limited)	0.56	Not limited		Moderately limited seepage (moderately limited)	0.42

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75451: Gladden-----	Not limited		Very limited deep to water (very limited) infrequent flooding (moderately limited)	1.00 0.50	Not limited		Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
75462: Huzzah-----	Not limited		Very limited deep to water (very limited) infrequent flooding (moderately limited)	1.00 0.50	Not limited		Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
75463: Huzzah-----	Not limited		Very limited deep to water (very limited)	1.00	Not limited		Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
75464: Cedargap-----	Not limited		Very limited deep to water (very limited)	1.00	Not limited		Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.54
75465: Raftville-----	Limited depth to bedrock (limited) droughty (slightly limited)	0.66 0.03	Very limited deep to water (very limited)	1.00	Slightly limited droughty (slightly limited)	0.03	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.73
Gabriel-----	Limited wetness (limited)	0.99	Slightly limited deep to water (slightly limited)	0.30	Not limited		Slightly limited deep to water (slightly limited)	0.30	Slightly limited seepage (slightly limited)	0.18
75466: Midco-----	Limited droughty (limited)	0.61	Very limited deep to water (very limited) small stones (limited) infrequent flooding (moderately limited)	1.00 0.67 0.50	Limited small stones (limited) droughty (limited)	0.67 0.61	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.79

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75470: Farewell-----	Very limited wetness (very limited)	1.00	Not limited		Not limited		Not limited		Moderately limited seepage (moderately limited)	0.42
77000: Killarney-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited)	0.80	Moderately limited large stones (moderately limited)	0.31	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
	large stones (moderately limited)	0.31	deep to water (limited)	0.61	large stones (moderately limited)	0.31				
Frenchmill----	Not limited		Very limited deep to water (very limited)	1.00	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
			infrequent flooding (limited)	0.80					seepage (moderately limited)	0.45
77003: Delassus-----	Moderately limited wetness (moderately limited)	0.54	Limited infrequent flooding (limited)	0.80	Moderately limited large stones (moderately limited)	0.38	Moderately limited deep to water (moderately limited)	0.50	Very limited slope (very limited)	1.00
	large stones (moderately limited)	0.38	deep to water (moderately limited)	0.50	large stones (moderately limited)	0.38				
77004: Irondale-----	Limited depth to bedrock (limited)	0.86	Very limited deep to water (very limited)	1.00	Limited droughty (limited)	0.66	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
	droughty (limited)	0.66	infrequent flooding (limited)	0.80	large stones (slightly limited)	0.17			seepage (moderately limited)	0.45
	large stones (slightly limited)	0.17	large stones (slightly limited)	0.17						

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77007:										
Taumsauk-----	Very limited shallow to bedrock (very limited)	1.00	Very limited deep to water (very limited)	1.00	Limited droughty (very limited)	1.00	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
	droughty (very limited)	1.00	infrequent flooding (limited)	0.80					seepage (moderately limited)	0.45
Irondale-----	Limited depth to bedrock (limited)	0.86	Very limited deep to water (very limited)	1.00	Limited droughty (limited)	0.76	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
	droughty (limited)	0.76	infrequent flooding (limited)	0.80	large stones (moderately limited)	0.32			seepage (slightly limited)	0.15
	large stones (moderately limited)	0.32	large stones (moderately limited)	0.32						
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77009:										
Trackler-----	Moderately limited wetness (moderately limited)	0.54	Limited infrequent flooding (limited)	0.80	Not limited		Moderately limited deep to water (moderately limited)	0.50	Limited slope (limited)	0.91
			deep to water (moderately limited)	0.50					seepage (slightly limited)	0.18
77011:										
Taumsauk-----	Very limited shallow to bedrock (very limited)	1.00	Very limited deep to water (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
	droughty (very limited)	1.00	infrequent flooding (limited)	0.80					seepage (moderately limited)	0.45
Irondale-----	Moderately limited depth to bedrock (moderately limited)	0.42	Very limited deep to water (very limited)	1.00	Slightly limited droughty (slightly limited)	0.02	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
	droughty (slightly limited)	0.02	infrequent flooding (limited)	0.80					seepage (slightly limited)	0.15
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77012:										
Mudlick-----	Not limited		Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited		Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (slightly limited)	1.00 0.18
Irondale-----	Limited depth to bedrock (limited) large stones (moderately limited) droughty (moderately limited)	0.86 0.40 0.32	Very limited deep to water (very limited) infrequent flooding (limited) large stones (moderately limited)	1.00 0.80 0.40	Moderately limited large stones (moderately limited) droughty (moderately limited)	0.40 0.32	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
Killarney-----	Moderately limited wetness (moderately limited) large stones (slightly limited)	0.46 0.17	Limited infrequent flooding (limited) deep to water (moderately limited) large stones (slightly limited)	0.80 0.58 0.17	Slightly limited large stones (slightly limited)	0.17	Moderately limited deep to water (moderately limited)	0.58	Very limited slope (very limited)	1.00
77013:										
Mudlick-----	Moderately limited large stones (moderately limited)	0.40	Very limited deep to water (very limited) infrequent flooding (limited) large stones (moderately limited)	1.00 0.80 0.40	Moderately limited large stones (moderately limited)	0.40	Very limited deep to water (very limited) soil reaction (slightly limited)	1.00 0.06	Very limited slope (very limited) seepage (slightly limited) soil reaction (slightly limited)	1.00 0.18 0.06
99001:										
Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99006:										
Psammets-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99007:										
Dam-----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 11b.--Wildlife Habitat--Continued

Map symbol and soil name	Upland mixed deciduous-conifer trees		Riparian herbaceous plants		Riparian shrubs, vines, and trees		Freshwater wetland plants		Irrigated freshwater wetland plants	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
99010:										
Pits-----	Not rated		Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99013:										
Riverwash----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 12.--Building Site Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042:										
Niangua-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited low strength (very limited)	1.00	Very limited slope (very limited)	1.00
	shrink-swell (moderately limited)	0.45	depth to bedrock (moderately limited)	0.54	shrink-swell (moderately limited)	0.45	slope (very limited)	1.00	small stones (very limited)	1.00
			shrink-swell (moderately limited)	0.36			shrink-swell (moderately limited)	0.45		
Bardley-----	Very limited slope (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited low strength (very limited)	1.00	Very limited slope (very limited)	1.00
	depth to bedrock (moderately limited)	0.53	slope (very limited)	1.00	depth to bedrock (moderately limited)	0.53	slope (very limited)	1.00	droughty (limited)	0.66
	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	depth to bedrock (moderately limited)	0.53	depth to bedrock (moderately limited)	0.46
73055:										
Alred-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
			shrink-swell (slightly limited)	0.10					small stones (very limited)	1.00
Rueter-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
									small stones (very limited)	1.00
									large stones (moderately limited)	0.60

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73139:										
Poynor-----	Limited slope (limited) shrink-swell (moderately limited)	0.76 0.45	Limited slope (limited) shrink-swell (slightly limited)	0.76 0.21	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited low strength (very limited) slope (limited) shrink-swell (moderately limited)	1.00 0.63 0.45	Limited small stones (limited) slope (limited) large stones (slightly limited)	0.69 0.63 0.07
Clarksville---	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Limited slope (limited) small stones (moderately limited) too acid (slightly limited)	0.63 0.31 0.30
Scholten-----	Very limited wetness (very limited) slope (limited)	1.00 0.76	Very limited wetness (very limited) slope (limited)	1.00 0.76	Very limited slope (very limited) wetness (limited)	1.00 0.78	Limited wetness (limited) slope (limited)	0.78 0.63	Limited wetness (limited) too acid (limited) slope (limited)	0.78 0.76 0.63
73140:										
Clarksville---	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited) too acid (limited) small stones (limited)	1.00 0.68 0.65
Scholten-----	Very limited slope (very limited) wetness (moderately limited)	1.00 0.39	Very limited slope (very limited) wetness (limited)	1.00 0.99	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited) small stones (very limited) too acid (moderately limited)	1.00 1.00 0.42

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73143: Courtois-----	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited)	0.36	Moderately limited slope (moderately limited) shrink-swell (moderately limited)	0.45 0.45	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00 0.45	Not limited	
73144: Courtois-----	Limited slope (limited) shrink-swell (moderately limited)	0.68 0.45	Limited slope (limited) shrink-swell (moderately limited)	0.68 0.36	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited low strength (very limited) shrink-swell (moderately limited) slope (moderately limited)	1.00 0.45 0.37	Moderately limited slope (moderately limited)	
73147: Fourche-----	Moderately limited wetness (moderately limited)	0.45	Very limited wetness (very limited)	1.00	Moderately limited slope (moderately limited)	0.45	Very limited low strength (very limited)	1.00	Not limited	
73155: Gasconade-----	Very limited hard bedrock <20" (very limited) slope (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited hard bedrock <40" (very limited) slope (very limited) shrink-swell (slightly limited)	1.00 1.00 0.10	Very limited hard bedrock <20" (very limited) slope (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited hard bedrock <20" (very limited) slope (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited shallow to bedrock (very limited) too clayey (very limited) droughty (very limited)	
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73156: Alred-----	Limited slope (limited)	0.76	Limited slope (limited) shrink-swell (slightly limited)	0.76 0.09	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Limited slope (limited) too acid (slightly limited)	

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73156: Gepp-----	Limited slope (limited) shrink-swell (moderately limited)	0.76 0.45	Limited slope (limited) shrink-swell (moderately limited)	0.76 0.45	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited low strength (very limited) slope (limited) shrink-swell (moderately limited)	1.00 0.63 0.45	Very limited small stones (very limited) slope (limited) too acid (limited)	1.00 0.63 0.61
73157: Captina-----	Moderately limited wetness (moderately limited)	0.51	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.08	Limited slope (limited) wetness (slightly limited)	0.68 0.13	Very limited low strength (very limited) wetness (slightly limited)	1.00 0.13	Slightly limited wetness (slightly limited)	0.13
73159: Yelton-----	Limited wetness (limited)	0.93	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.12	Moderately limited wetness (moderately limited) slope (moderately limited)	0.56 0.45	Moderately limited wetness (moderately limited)	0.56	Moderately limited wetness (moderately limited)	0.56
73197: Viburnum-----	Limited wetness (limited) shrink-swell (moderately limited)	0.99 0.45	Very limited wetness (very limited) shrink-swell (moderately limited)	1.00 0.45	Limited wetness (limited) shrink-swell (moderately limited) slope (slightly limited)	0.61 0.45 0.15	Limited wetness (limited) shrink-swell (moderately limited)	0.61 0.45	Limited wetness (limited)	0.61
73222: Splitlimb-----	Very limited ponded (very limited) wetness (limited) shrink-swell (moderately limited)	1.00 0.85 0.45	Very limited ponded (very limited) wetness (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited ponded (wetness) (very limited) wetness (moderately limited) shrink-swell (moderately limited)	1.00 0.49 0.45	Very limited low strength (very limited) ponded (wetness) (very limited) wetness (moderately limited)	1.00 1.00 0.49	Very limited ponded (wetness) (very limited) wetness (moderately limited)	1.00 0.49

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73223:										
Coulstone-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited) small stones (very limited) droughty (very limited)	1.00 1.00 1.00
Bender-----	Very limited slope (very limited) large stones (limited) depth to bedrock (moderately limited)	1.00 0.76 0.46	Very limited hard bedrock <40" (very limited) slope (very limited) large stones (limited)	1.00 1.00 0.76	Very limited slope (very limited) large stones (limited) depth to bedrock (moderately limited)	1.00 0.76 0.46	Very limited slope (very limited) large stones (limited) depth to bedrock (moderately limited)	1.00 0.76 0.46	Very limited large stones >30% (very limited) slope (very limited) droughty (very limited)	1.00 1.00 1.00
73269:										
Brussels-----	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited slope (very limited) small stones (moderately limited) droughty (slightly limited)	1.00 0.57 0.08
Gasconade-----	Very limited hard bedrock <20" (very limited) slope (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited hard bedrock <40" (very limited) slope (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited hard bedrock <20" (very limited) slope (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited hard bedrock <20" (very limited) slope (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited slope (very limited) shallow to bedrock (very limited) too clayey (very limited)	1.00 1.00 1.00
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73290:										
Gatewood-----	Very limited shrink-swell (very limited) wetness (moderately limited) depth to bedrock (slightly limited)	1.00 0.51 0.18	Very limited hard bedrock <40" (very limited) wetness (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited shrink-swell (very limited) slope (limited) depth to bedrock (slightly limited)	1.00 0.68 0.18	Very limited low strength (very limited) shrink-swell (very limited) depth to bedrock (slightly limited)	1.00 1.00 0.18	Slightly limited wetness (slightly limited) depth to bedrock (slightly limited)	0.13 0.09

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73290: Aaron-----	Very limited shrink-swell (very limited) wetness (moderately limited)	1.00 0.51	Very limited wetness (very limited) shrink-swell (limited) depth to bedrock (limited)	1.00 1.00 0.75	Very limited shrink-swell (very limited) slope (limited) wetness (slightly limited)	1.00 0.68 0.13	Very limited low strength (very limited) shrink-swell (very limited) wetness (slightly limited)	1.00 1.00 0.13	Slightly limited wetness (slightly limited)	0.13
73291: Gateway-----	Very limited shrink-swell (very limited) slope (limited) wetness (moderately limited)	1.00 0.76 0.51	Very limited hard bedrock <40" (very limited) wetness (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited slope (very limited) shrink-swell (very limited) depth to bedrock (slightly limited)	1.00 1.00 0.25	Very limited low strength (very limited) shrink-swell (very limited) slope (limited)	1.00 1.00 0.63	Limited slope (limited) droughty (moderately limited) wetness (slightly limited)	0.63 0.32 0.13
Aaron-----	Very limited shrink-swell (very limited) slope (limited) wetness (moderately limited)	1.00 0.76 0.51	Very limited wetness (very limited) shrink-swell (very limited) slope (limited)	1.00 1.00 0.76	Very limited slope (very limited) shrink-swell (very limited) wetness (slightly limited)	1.00 1.00 0.13	Very limited low strength (very limited) shrink-swell (very limited) slope (limited)	1.00 1.00 0.63	Limited slope (limited) wetness (slightly limited)	0.63 0.13
73295: Taterhill-----	Not limited		Not limited		Limited slope (limited)	0.68	Very limited low strength (very limited)	1.00	Not limited	
73298: Tonti-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.04	Moderately limited slope (moderately limited) wetness (slightly limited)	0.45 0.28	Slightly limited wetness (slightly limited)	0.28	Slightly limited too acid (slightly limited) wetness (slightly limited)	0.30 0.28
Hogcreek-----	Limited wetness (limited) depth to bedrock (moderately limited)	0.85 0.33	Very limited hard bedrock <40" (very limited) wetness (very limited)	1.00 1.00	Moderately limited wetness (moderately limited) depth to bedrock (moderately limited) slope (slightly limited)	0.49 0.33 0.15	Moderately limited wetness (moderately limited) depth to bedrock (moderately limited)	0.49 0.33	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited) too acid (slightly limited)	0.49 0.18 0.18

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73310: Scholten-----	Limited wetness (limited)	0.93	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.04	Moderately limited wetness (moderately limited) slope (moderately limited)	0.56 0.45	Moderately limited wetness (moderately limited)	0.56	Very limited small stones (very limited) droughty (limited) wetness (moderately limited)	1.00 0.70 0.56
Bendavis-----	Moderately limited wetness (moderately limited) depth to bedrock (moderately limited)	0.45 0.42	Very limited hard bedrock <40" (very limited) wetness (very limited)	1.00 1.00	Moderately limited slope (moderately limited) depth to bedrock (moderately limited)	0.45 0.42	Moderately limited depth to bedrock (moderately limited)	0.42	Moderately limited small stones (moderately limited) too acid (slightly limited) depth to bedrock (slightly limited)	0.33 0.30 0.27
Poynor-----	Not limited		Slightly limited shrink-swell (slightly limited)	0.14	Slightly limited slope (slightly limited)	0.15	Not limited		Very limited small stones (very limited) too acid (moderately limited)	1.00 0.42
73311: Scholten-----	Limited wetness (limited) slope (limited)	0.93 0.76	Very limited wetness (very limited) slope (limited) shrink-swell (slightly limited)	1.00 0.76 0.04	Very limited slope (very limited) wetness (moderately limited)	1.00 0.56	Limited slope (limited) wetness (moderately limited)	0.63 0.56	Very limited small stones (very limited) droughty (limited) slope (limited)	1.00 0.70 0.63
Bendavis-----	Limited slope (limited) depth to bedrock (moderately limited) wetness (moderately limited)	0.76 0.59 0.45	Very limited hard bedrock <40" (very limited) wetness (very limited) slope (limited)	1.00 1.00 0.76	Very limited slope (very limited) depth to bedrock (moderately limited)	1.00 0.59	Limited slope (limited) depth to bedrock (moderately limited)	0.63 0.59	Limited slope (limited) depth to bedrock (moderately limited) droughty (moderately limited)	0.63 0.58 0.45

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73311: Poynor-----	Limited slope (limited)	0.76	Limited slope (limited) shrink-swell (slightly limited)	0.76 0.14	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Very limited small stones (very limited) slope (limited) droughty (moderately limited)	1.00 0.63 0.57
73333: Taterhill-----	Not limited		Not limited		Not limited		Not limited		Not limited	
73334: Horneybuck----	Limited wetness (limited)	0.85	Very limited wetness (very limited)	1.00	Moderately limited wetness (moderately limited) slope (moderately limited)	0.49 0.45	Moderately limited wetness (moderately limited) low strength (slightly limited)	0.49 0.22	Moderately limited wetness (moderately limited)	0.49
73335: Hobson-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.18	Limited slope (limited) wetness (slightly limited)	0.68 0.28	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28
Rueter-----	Not limited		Not limited		Limited slope (limited)	0.68	Not limited		Very limited small stones (very limited) too acid (limited) droughty (slightly limited)	1.00 0.61 0.04
73336: Rueter-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Very limited slope (very limited)	1.00	Very limited low strength (very limited) slope (limited)	1.00 0.63	Limited slope (limited) too acid (moderately limited) small stones (moderately limited)	0.63 0.42 0.33

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73336: Gepp-----	Limited slope (limited) shrink-swell (moderately limited)	0.76 0.45	Limited slope (limited) shrink-swell (moderately limited)	0.76 0.45	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited low strength (very limited) slope (limited) shrink-swell (moderately limited)	1.00 0.63 0.45	Limited slope (limited) too acid (limited) small stones (slightly limited)	0.63 0.61 0.30
73337: Tonti-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.01	Limited slope (limited) wetness (slightly limited)	0.68 0.28	Very limited low strength (very limited) wetness (slightly limited)	1.00 0.28	Slightly limited too acid (slightly limited) wetness (slightly limited)	0.30 0.28
Portia-----	Moderately limited shrink-swell (moderately limited)	0.45	Slightly limited shrink-swell (slightly limited)	0.25	Moderately limited slope (moderately limited) shrink-swell (moderately limited)	0.45 0.45	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00 0.45	Slightly limited too acid (slightly limited)	0.24
73338: Portia-----	Moderately limited slope (moderately limited) shrink-swell (moderately limited)	0.60 0.45	Moderately limited slope (moderately limited) shrink-swell (slightly limited)	0.60 0.25	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited low strength (very limited) shrink-swell (moderately limited) slope (slightly limited)	1.00 0.45 0.16	Slightly limited slope (slightly limited)	0.16
Hobson-----	Limited slope (limited) wetness (moderately limited)	0.76 0.59	Very limited wetness (very limited) slope (limited) shrink-swell (moderately limited)	1.00 0.76 0.40	Very limited slope (very limited) wetness (slightly limited)	1.00 0.28	Limited slope (limited) wetness (slightly limited)	0.63 0.28	Limited slope (limited) wetness (slightly limited)	0.63 0.28

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73339:										
Arkana-----	Very limited shrink-swell (very limited) slope	1.00	Very limited hard bedrock <40" (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited low strength (very limited)	1.00	Very limited small stones (very limited)	1.00
	depth to bedrock (moderately limited)	0.76	shrink-swell (very limited) slope (limited)	1.00	shrink-swell (very limited) depth to bedrock (moderately limited)	1.00	shrink-swell (very limited) slope (limited)	1.00	slope (limited) depth to bedrock (slightly limited)	0.63
		0.44		0.76		0.44		0.63		0.29
Gepp-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Very limited slope (very limited)	1.00	Very limited low strength (very limited)	1.00	Very limited small stones (very limited)	1.00
	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	slope (limited) shrink-swell (moderately limited)	0.63	slope (limited)	0.63
								0.45		
73340:										
Rueter-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Very limited small stones (very limited)	1.00
									slope (limited)	0.63
									too acid (slightly limited)	0.30
Gepp-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Very limited slope (very limited)	1.00	Very limited low strength (very limited)	1.00	Limited small stones (limited)	0.75
	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	slope (limited) shrink-swell (moderately limited)	0.63	slope (limited) droughty (slightly limited)	0.63
								0.45		0.06
73341:										
Gepp-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited low strength (very limited)	1.00	Very limited slope (very limited)	1.00
	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	slope (very limited) shrink-swell (moderately limited)	1.00	small stones (very limited)	1.00
								0.45	too acid (slightly limited)	0.30

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73341:										
Arkana-----	Very limited shrink-swell (very limited) slope (very limited) depth to bedrock (moderately limited)	1.00 1.00 0.44	Very limited hard bedrock <40" (very limited) slope (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited slope (very limited) shrink-swell (very limited) depth to bedrock (moderately limited)	1.00 1.00 0.44	Very limited low strength (very limited) slope (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited slope (very limited) small stones (very limited) droughty (moderately limited)	1.00 1.00 0.34
73342:										
Alred-----	Limited slope (limited) shrink-swell (moderately limited)	0.76 0.45	Limited slope (limited) shrink-swell (slightly limited)	0.76 0.20	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited low strength (very limited) slope (limited) shrink-swell (moderately limited)	1.00 0.63 0.45	Very limited small stones (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.12
Arkana-----	Very limited shrink-swell (very limited) slope (limited) depth to bedrock (moderately limited)	1.00 0.76 0.44	Very limited hard bedrock <40" (very limited) slope (limited) shrink-swell (moderately limited)	1.00 0.76 0.43	Very limited slope (very limited) shrink-swell (very limited) depth to bedrock (moderately limited)	1.00 1.00 0.44	Very limited low strength (very limited) shrink-swell (very limited) slope (limited)	1.00 1.00 0.63	Very limited small stones (very limited) droughty (limited) slope (limited)	1.00 0.78 0.63
74636:										
Lecoma-----	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited)	0.45	Limited slope (limited) shrink-swell (moderately limited)	0.68 0.45	Moderately limited shrink-swell (moderately limited) low strength (slightly limited)	0.45 0.22	Not limited	
74637:										
Lecoma-----	Moderately limited slope (moderately limited) shrink-swell (moderately limited)	0.60 0.45	Moderately limited slope (moderately limited) shrink-swell (moderately limited)	0.60 0.45	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Moderately limited shrink-swell (moderately limited) slope (slightly limited)	0.45 0.16	Slightly limited slope (slightly limited)	0.16

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74643: Lecoma-----	Moderately limited shrink-swell (moderately limited)	0.45	Slightly limited shrink-swell (slightly limited)	0.20	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited) low strength (slightly limited)	0.45 0.22	Not limited	
74644: Deible-----	Very limited wetness (very limited) shrink-swell (very limited)	1.00 1.00	Very limited wetness (very limited) shrink-swell (limited)	1.00 0.83	Very limited wetness (very limited) shrink-swell (very limited)	1.00 1.00	Very limited low strength (very limited) wetness (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited wetness (very limited) 1.00	
74646: Cornwall-----	Moderately limited wetness (moderately limited)	0.51	Very limited wetness (very limited)	1.00	Limited slope (limited) wetness (slightly limited)	0.68 0.13	Very limited low strength (very limited) wetness (slightly limited)	1.00 0.13	Slightly limited wetness (slightly limited) 0.13	
74648: Aslinger-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited)	1.00	Limited slope (limited) wetness (slightly limited)	0.68 0.28	Very limited low strength (very limited) wetness (slightly limited)	1.00 0.28	Slightly limited wetness (slightly limited) 0.28 droughty (slightly limited) 0.01	
74649: Aslinger-----	Moderately limited wetness (moderately limited) slope (moderately limited)	0.59 0.45	Very limited wetness (very limited) slope (moderately limited)	1.00 0.45	Very limited slope (very limited) wetness (slightly limited)	1.00 0.28	Slightly limited wetness (slightly limited) slope (slightly limited)	0.28 0.04	Limited too acid (limited) wetness (slightly limited) droughty (slightly limited)	
Waben-----	Slightly limited large stones (slightly limited)	0.01	Slightly limited large stones (slightly limited)	0.01	Moderately limited slope (moderately limited) large stones (slightly limited)	0.45 0.01	Slightly limited large stones (slightly limited)	0.01	Slightly limited large stones (slightly limited) 0.19 droughty (slightly limited) 0.01	

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74651: Waben-----	Not limited		Not limited		Limited slope (limited)	0.68	Not limited		Moderately limited small stones (moderately limited) too acid (slightly limited) droughty (slightly limited)	0.36 0.18 0.02
74658: Zanoni-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Limited flooding (rare) (limited)	0.90	Not limited	
74679: Higdon-----	Very limited flooding (very limited) wetness (limited) shrink-swell (moderately limited)	1.00 0.99 0.45	Very limited flooding (very limited) wetness (very limited) shrink-swell (moderately limited)	1.00 1.00 0.39	Very limited flooding (very limited) wetness (limited) shrink-swell (moderately limited)	1.00 0.61 0.45	Limited flooding (rare) (limited) wetness (limited) shrink-swell (moderately limited)	0.90 0.61 0.45	Limited wetness (limited)	0.61
74680: Moniteau-----	Very limited wetness (very limited) flooding (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited flooding (very limited) wetness (very limited) shrink-swell (slightly limited)	1.00 1.00 0.23	Very limited flooding (very limited) wetness (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited low strength (very limited) wetness (very limited) flooding (rare) (limited)	1.00 1.00 0.90	Very limited wetness (very limited) too acid (slightly limited)	1.00 0.12
75381: Bearthicket---	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited low strength (very limited) flooding (rare) (limited)	1.00 0.90	Not limited	

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75394: Relfe-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Limited flooding (rare) (limited)	0.90	Very limited droughty (very limited) small stones (moderately limited)	1.00 0.55
75395: Jamesfin-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited) wetness (slightly limited)	1.00 0.16	Very limited flooding (very limited)	1.00	Very limited flooding (very limited) low strength (slightly limited)	1.00 0.22	Moderately limited flooding (moderately limited)	0.60
75408: Secesh-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Limited flooding (rare) (limited)	0.90	Not limited	
75409: Relfe-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Limited droughty (limited) flooding (moderately limited)	0.84 0.60
75411: Tilk-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Limited flooding (rare) (limited)	0.90	Very limited small stones (very limited) large stones (moderately limited) too acid (slightly limited)	1.00 0.31 0.18
75416: Gladden-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75417:										
Relfe-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited) droughty (very limited) small stones (very limited)	1.00 1.00 1.00
Sandbur-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00
75426:										
Gabriel-----	Very limited flooding (very limited) wetness (limited) shrink-swell (moderately limited)	1.00 0.99 0.45	Very limited flooding (very limited) wetness (very limited) shrink-swell (moderately limited)	1.00 1.00 0.37	Very limited flooding (very limited) wetness (limited) shrink-swell (moderately limited)	1.00 0.61 0.45	Very limited low strength (very limited) flooding (rare) (limited) wetness (limited)	1.00 0.90 0.61	Limited wetness (limited)	0.61
75428:										
Tilk-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Limited small stones (limited) flooding (moderately limited) droughty (moderately limited)	0.82 0.60 0.55
Cornwall-----	Very limited wetness (very limited) slope (moderately limited)	1.00 0.45	Very limited wetness (very limited) slope (moderately limited)	1.00 0.45	Very limited slope (very limited) wetness (limited)	1.00 0.68	Limited wetness (limited) slope (slightly limited)	0.68 0.04	Limited wetness (limited) too acid (slightly limited) slope (slightly limited)	0.68 0.24 0.04

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value						
75428: Poynor-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Limited slope (limited)	0.63
	large stones (slightly limited)	0.01	shrink-swell (slightly limited)	0.17	large stones (slightly limited)	0.01	large stones (slightly limited)	0.01	too acid (moderately limited)	0.48
			large stones (slightly limited)	0.01					droughty (moderately limited)	0.44
75429: Tilk-----	Very limited flooding (very limited)	1.00	Very limited small stones (very limited)	1.00						
									flooding (moderately limited)	0.60
									large stones (slightly limited)	0.01
Secesh-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Limited flooding (rare) (limited)	0.90	Limited large stones (limited)	0.99
	large stones (slightly limited)	0.12	small stones (moderately limited)	0.37						
75430: Wideman-----	Very limited flooding (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60						
75432: Batcave-----	Very limited wetness (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	flooding (very limited)	1.00	wetness (very limited)	1.00	wetness (very limited)	1.00	flooding (very limited)	1.00	flooding (very limited)	1.00
									small stones (moderately limited)	0.48

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value						
75432: Farewell-----	Very limited wetness (very limited) flooding (very limited) shrink-swell (moderately limited)	1.00 1.00 0.31	Very limited flooding (very limited) wetness (very limited) shrink-swell (moderately limited)	1.00 1.00 0.39	Very limited flooding (very limited) wetness (very limited) shrink-swell (moderately limited)	1.00 1.00 0.31	Very limited wetness (very limited) flooding (very limited) shrink-swell (moderately limited)	1.00 1.00 0.31	Very limited wetness (very limited) flooding (very limited) small stones (very limited)	1.00 1.00 1.00
75451: Gladden-----	Very limited flooding (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60						
75462: Huzzah-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited) low strength (slightly limited)	1.00 0.22	Moderately limited flooding (moderately limited)	0.60
75463: Huzzah-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Limited flooding (rare) (limited) low strength (slightly limited)	0.90 0.22	Not limited	
75464: Cedargap-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Limited flooding (rare) (limited)	0.90	Slightly limited small stones (slightly limited)	0.06
75465: Raftville-----	Very limited flooding (very limited) depth to bedrock (limited)	1.00 0.66	Very limited hard bedrock <40" (very limited) flooding (very limited)	1.00 1.00	Very limited flooding (very limited) depth to bedrock (limited)	1.00 0.66	Limited flooding (rare) (limited) depth to bedrock (limited)	0.90 0.66	Limited depth to bedrock (limited) too acid (slightly limited) droughty (slightly limited)	0.66 0.24 0.03

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75465: Gabriel-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited low strength (very limited)	1.00	Limited wetness (limited)	0.60
	wetness (limited)	0.99	wetness (very limited)	1.00	wetness (limited)	0.61	flooding (rare) (limited)	0.90		
	shrink-swell (moderately limited)	0.45	shrink-swell (slightly limited)	0.29	shrink-swell (moderately limited)	0.45	wetness (limited)	0.61		
75466: Midco-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited small stones (very limited)	1.00
									droughty (limited)	0.61
									flooding (moderately limited)	0.60
75470: Farewell-----	Very limited wetness (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	flooding (very limited)	1.00	wetness (very limited)	1.00	wetness (very limited)	1.00	flooding (rare) (limited)	0.90	small stones (moderately limited)	0.55
	shrink-swell (moderately limited)	0.31	shrink-swell (moderately limited)	0.39	shrink-swell (moderately limited)	0.31	shrink-swell (moderately limited)	0.31		
77000: Killarney-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	wetness (moderately limited)	0.45	wetness (very limited)	1.00	large stones (slightly limited)	0.12	large stones (slightly limited)	0.12	large stones >30% (very limited)	1.00
	large stones (slightly limited)	0.12	large stones (slightly limited)	0.12					small stones (moderately limited)	0.56
Frenchmill-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	large stones (slightly limited)	0.14	large stones (slightly limited)	0.14	large stones (slightly limited)	0.14	large stones (slightly limited)	0.14	large stones (limited)	0.76
									small stones (moderately limited)	0.46

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value								
77003:										
Delassus-----	Limited slope (limited)	0.76	Very limited wetness (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Very limited large stones >30% (very limited)	1.00
	wetness (moderately limited)	0.54	slope (limited)	0.76	wetness (slightly limited)	0.19	wetness (slightly limited)	0.19	slope (limited)	0.63
			depth to bedrock (slightly limited)	0.27					small stones (moderately limited)	0.51
77004:										
Irondale-----	Very limited slope (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	depth to bedrock (limited)	0.86	slope (very limited)	1.00	depth to bedrock (limited)	0.86	depth to bedrock (limited)	0.86	large stones (limited)	0.99
	large stones (slightly limited)	0.01	depth to bedrock (limited)	0.86						
77007:										
Taumsauk-----	Very limited hard bedrock <20" (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00	Very limited hard bedrock <20" (very limited)	1.00	Very limited hard bedrock <20" (very limited)	1.00	Very limited slope (very limited)	1.00
	slope (very limited)	1.00	shallow to bedrock (very limited)	1.00						
	large stones (slightly limited)	0.20	droughty (very limited)	1.00						
Irondale-----	Very limited slope (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	depth to bedrock (limited)	0.86	slope (very limited)	1.00	depth to bedrock (limited)	0.86	depth to bedrock (limited)	0.86	large stones >30% (very limited)	1.00
	large stones (moderately limited)	0.52	depth to bedrock (limited)	0.86						
Rock outcrop--	Not rated									

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77009: Trackler-----	Moderately limited wetness (moderately limited) large stones (slightly limited)	0.54 0.19	Very limited wetness (very limited) depth to bedrock (limited) large stones (slightly limited)	1.00 0.79 0.19	Limited slope (limited) large stones (slightly limited) wetness (slightly limited)	0.68 0.19 0.19	Slightly limited large stones (slightly limited) wetness (slightly limited)	0.19 0.19	Slightly limited wetness (slightly limited)	0.19
77011: Taumsauk-----	Very limited hard bedrock <20" (very limited) slope (moderately limited) large stones (moderately limited)	1.00 0.45 0.38	Very limited hard bedrock <40" (very limited) slope (moderately limited) large stones (moderately limited)	1.00 0.45 0.38	Very limited hard bedrock <20" (very limited) slope (very limited) large stones (moderately limited)	1.00 1.00 0.38	Very limited hard bedrock <20" (very limited) large stones (moderately limited) slope (slightly limited)	1.00 0.38 0.04	Very limited shallow to bedrock (very limited) droughty (very limited) small stones (moderately limited)	1.00 1.00 0.31
Irondale-----	Moderately limited depth to bedrock (moderately limited) slope (moderately limited)	0.51 0.45	Very limited hard bedrock <40" (very limited) slope (moderately limited)	1.00 0.45	Very limited slope (very limited) depth to bedrock (moderately limited)	1.00 0.51	Moderately limited depth to bedrock (moderately limited) slope (slightly limited)	0.51 0.04	Moderately limited depth to bedrock (moderately limited) small stones (moderately limited) slope (slightly limited)	0.42 0.37 0.04
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77012: Mudlick-----	Very limited slope (very limited)	1.00	Very limited slope (very limited) shrink-swell (slightly limited)	1.00 0.01	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited) large stones (moderately limited) too acid (slightly limited)	1.00 0.51 0.24

Table 12.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77012:										
Irondale-----	Very limited slope (very limited) depth to bedrock (limited) large stones (slightly limited)	1.00 0.86 0.04	Very limited hard bedrock <40" (very limited) slope (very limited) large stones (slightly limited)	1.00 1.00 0.04	Very limited slope (very limited) depth to bedrock (limited) large stones (slightly limited)	1.00 0.86 0.04	Very limited slope (very limited) depth to bedrock (limited) large stones (slightly limited)	1.00 0.86 0.04	Very limited slope (very limited) large stones >30% (very limited) depth to bedrock (limited)	1.00 1.00 0.86
Killarney-----	Very limited slope (very limited) wetness (moderately limited) large stones (slightly limited)	1.00 0.46 0.02	Very limited wetness (very limited) slope (very limited) large stones (slightly limited)	1.00 1.00 0.02	Very limited slope (very limited) wetness (slightly limited) large stones (slightly limited)	1.00 0.04 0.02	Very limited slope (very limited) wetness (slightly limited) large stones (slightly limited)	1.00 0.04 0.02	Very limited slope (very limited) large stones (limited) small stones (slightly limited)	1.00 0.99 0.11
77013:										
Mudlick-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Very limited large stones >30% (very limited) too acid (limited) slope (limited)	1.00 0.68 0.63
99001:										
Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99006:										
Psammments-----	Not rated		Not rated		Not limited		Not limited		Not rated	
99007:										
Dam-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99010:										
Pits-----	Not rated		Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99013:										
Riverwash-----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 13.--Sanitary Facilities

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042:										
Niangua-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	percs slowly (limited)	0.71	depth to bedrock (moderately limited)	0.54	depth to bedrock (very limited)	1.00	depth to bedrock (moderately limited)	0.39	too clayey (very limited)	1.00
	depth to bedrock (moderately limited)	0.54			too clayey (very limited)	1.00			hard to pack (limited)	0.70
Bardley-----	Very limited depth to bedrock (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	slope (very limited)	1.00	depth to bedrock (very limited)	1.00	depth to bedrock (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	percs slowly (slightly limited)	0.25	seepage (moderately limited)	0.50	too clayey (very limited)	1.00			too clayey (very limited)	1.00
73055:										
Alred-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	percs slowly (limited)	0.93	seepage (moderately limited)	0.50	too clayey (very limited)	1.00			too clayey (very limited)	1.00
					too acid (slightly limited)	0.18			small stones (limited)	0.73
Rueter-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	percs slowly (slightly limited)	0.25	seepage (very limited)	1.00	too clayey (very limited)	1.00	seepage (limited)	0.75	too clayey (very limited)	1.00
					too acid (slightly limited)	0.18			small stones (limited)	0.99

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73139:										
Poynor-----	Limited slope (limited) percs slowly (slightly limited)	0.63 0.25	Very limited slope (very limited) seepage (very limited)	1.00 1.00	Very limited too clayey (very limited) slope (limited) too acid (moderately limited)	1.00 0.63 0.36	Limited seepage (limited) slope (limited)	0.75 0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63
Clarksville---	Limited slope (limited) percs slowly (slightly limited)	0.63 0.25	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Limited too clayey (limited) slope (limited)	0.74 0.63	Limited slope (limited)	0.63	Limited slope (limited) small stones (moderately limited) too clayey (moderately limited)	0.63 0.56 0.51
Scholten-----	Very limited wetness (very limited) percs slowly (very limited) slope (limited)	1.00 1.00 0.63	Very limited slope (very limited) seepage (very limited) wetness (moderately limited)	1.00 1.00 0.50	Very limited wetness (very limited) too clayey (limited) seepage (limited)	1.00 0.89 0.79	Very limited wetness (very limited) slope (limited)	1.00 0.63	Limited too clayey (limited) wetness (limited) hard to pack (limited)	0.78 0.78 0.70
73140:										
Clarksville---	Very limited slope (very limited) percs slowly (slightly limited)	1.00 0.25	Very limited slope (very limited) seepage (very limited)	1.00 1.00	Very limited slope (very limited) too clayey (limited) too acid (slightly limited)	1.00 0.84 0.24	Very limited slope (very limited) seepage (limited)	1.00 0.75	Very limited slope (very limited) small stones >35% (very limited) too clayey (limited)	1.00 1.00 0.68
Scholten-----	Very limited slope (very limited) wetness (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited slope (very limited) wetness (very limited) seepage (very limited)	1.00 1.00 1.00	Very limited slope (very limited) seepage (limited) wetness (limited)	1.00 0.79 0.72	Very limited slope (very limited) wetness (moderately limited)	1.00 0.48	Very limited slope (very limited) small stones >35% (very limited) wetness (moderately limited)	1.00 1.00 0.36

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73143: Courtois-----	Slightly limited percs slowly (slightly limited)	0.25	Limited slope (limited) seepage (moderately limited)	0.66 0.50	Very limited too clayey (very limited) too acid (slightly limited)	1.00 0.24	Not limited		Very limited too clayey (very limited) hard to pack (limited) too acid (slightly limited)	1.00 0.70 0.24
73144: Courtois-----	Moderately limited slope (moderately limited) percs slowly (slightly limited)	0.37 0.25	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) slope (moderately limited) too acid (slightly limited)	1.00 0.37 0.24	Moderately limited slope (moderately limited)	0.37	Very limited too clayey (very limited) hard to pack (limited) slope (moderately limited)	1.00 0.70 0.37
73147: Fourche-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.71	Very limited wetness (very limited) slope (limited)	1.00 0.66	Very limited too clayey (very limited) wetness (limited) too acid (limited)	1.00 0.79 0.61	Limited wetness (limited)	0.61	Very limited too clayey (very limited) too acid (limited) wetness (moderately limited)	1.00 0.61 0.40
73155: Gasconade-----	Very limited depth to bedrock (very limited) slope (very limited)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) too clayey (limited)	1.00 1.00 0.62	Very limited depth to bedrock (very limited) slope (very limited)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) small stones (slightly limited)	1.00 1.00 0.16
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73156: Alred-----	Limited percs slowly (limited) slope (limited)	0.93 0.63	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.18	Limited slope (limited)	0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63
Gepp-----	Limited slope (limited) percs slowly (slightly limited)	0.63 0.25	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.24	Limited slope (limited)	0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63
73157: Captina-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.93	Very limited wetness (very limited) slope (limited) seepage (moderately limited)	1.00 0.91 0.50	Limited too clayey (limited) wetness (limited) too acid (moderately limited)	0.93 0.89 0.54	Limited wetness (limited)	0.69	Limited too clayey (limited) too acid (moderately limited) wetness (moderately limited)	0.85 0.54 0.45
73159: Yelton-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.93	Very limited wetness (very limited) slope (limited)	1.00 0.66	Very limited wetness (very limited) too acid (slightly limited) too clayey (slightly limited)	1.00 0.30 0.10	Limited wetness (limited)	0.96	Moderately limited wetness (moderately limited) too acid (slightly limited)	0.59 0.30
73197: Viburnum-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.71	Very limited wetness (very limited) slope (moderately limited)	1.00 0.31	Very limited wetness (very limited) too clayey (limited) too acid (limited)	1.00 0.90 0.76	Limited wetness (limited)	0.99	Limited small stones (limited) too clayey (limited) too acid (limited)	0.98 0.79 0.76

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73222:										
Splitlimb-----	Very limited ponded (wetness) (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited ponded (wetness) (very limited)	1.00	Very limited ponded (wetness) (very limited)	1.00	Very limited ponded (wetness) (very limited)	1.00
	wetness (very limited)	1.00	ponded (wetness) (very limited)	1.00	wetness (very limited)	1.00	wetness (limited)	0.93	wetness (moderately limited)	0.57
	percs slowly (limited)	0.71	seepage (moderately limited)	0.32	too acid (moderately limited)	0.48			too acid (moderately limited)	0.48
73223:										
Coulstone-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
			seepage (very limited)	1.00	seepage (limited)	0.67	seepage (limited)	0.75	small stones (limited)	0.83
					too clayey (slightly limited)	0.19			seepage (slightly limited)	0.09
Bender-----	Very limited depth to bedrock (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	slope (very limited)	1.00	depth to bedrock (very limited)	1.00	depth to bedrock (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	large stones (limited)	0.76	seepage (very limited)	1.00	seepage (limited)	0.96	seepage (limited)	0.97	seepage (limited)	0.99
73269:										
Brussels-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	percs slowly (limited)	0.71			too clayey (moderately limited)	0.36			small stones (limited)	0.76
									too clayey (slightly limited)	0.18
Gasconade-----	Very limited depth to bedrock (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	slope (very limited)	1.00	depth to bedrock (very limited)	1.00	depth to bedrock (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
					too clayey (limited)	0.86			small stones (slightly limited)	0.26
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73290:										
Gatewood-----	Very limited depth to bedrock (very limited) wetness (very limited) percs slowly (limited)	1.00 1.00 0.73	Very limited wetness (very limited) depth to bedrock (very limited) slope (limited)	1.00 1.00 0.91	Very limited depth to bedrock (very limited) too clayey (very limited) wetness (limited)	1.00 1.00 0.89	Very limited depth to bedrock (very limited) wetness (limited)	1.00 0.69	Very limited depth to bedrock (very limited) too clayey (very limited) hard to pack (limited)	1.00 1.00 0.70
Aaron-----	Very limited wetness (very limited) depth to bedrock (limited) percs slowly (limited)	1.00 0.75 0.73	Very limited wetness (very limited) slope (limited) depth to bedrock (limited)	1.00 0.91 0.75	Very limited depth to bedrock (very limited) too clayey (limited) wetness (limited)	1.00 0.89 0.89	Limited wetness (limited) depth to bedrock (moderately limited)	0.69 0.57	Limited too clayey (limited) hard to pack (limited) depth to bedrock (moderately limited)	0.78 0.70 0.57
73291:										
Gatewood-----	Very limited depth to bedrock (very limited) wetness (very limited) percs slowly (limited)	1.00 1.00 0.73	Very limited slope (very limited) wetness (very limited) depth to bedrock (very limited)	1.00 1.00 1.00	Very limited depth to bedrock (very limited) too clayey (very limited) wetness (limited)	1.00 1.00 0.89	Very limited depth to bedrock (very limited) wetness (limited) slope (limited)	1.00 0.69 0.63	Very limited depth to bedrock (very limited) too clayey (very limited) hard to pack (limited)	1.00 1.00 0.70
Aaron-----	Very limited wetness (very limited) percs slowly (limited) slope (limited)	1.00 0.73 0.63	Very limited slope (very limited) wetness (very limited) depth to bedrock (moderately limited)	1.00 1.00 0.54	Very limited depth to bedrock (very limited) too clayey (limited) wetness (limited)	1.00 0.89 0.89	Limited wetness (limited) slope (limited) depth to bedrock (moderately limited)	0.69 0.63 0.39	Limited too clayey (limited) hard to pack (limited) slope (limited)	0.78 0.70 0.63
73295:										
Taterhill-----	Slightly limited percs slowly (slightly limited)	0.20	Limited seepage (limited) slope (limited)	0.92 0.91	Slightly limited too acid (slightly limited) too clayey (slightly limited)	0.30 0.04	Not limited		Slightly limited too acid (slightly limited) small stones (slightly limited)	0.30 0.07

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73298:										
Tonti-----	Very limited wetness (very limited) perc's slowly (very limited)	1.00 1.00	Very limited wetness (very limited) slope (limited) seepage (moderately limited)	1.00 0.66 0.50	Limited wetness (limited) too clayey (limited) too acid (moderately limited)	0.99 0.96 0.54	Limited wetness (limited)	0.80	Limited small stones (limited) too clayey (limited) too acid (moderately limited)	0.98 0.91 0.54
Hogcreek-----	Very limited perc's slowly (very limited) depth to bedrock (very limited) wetness (very limited)	1.00 1.00 1.00	Very limited wetness (very limited) depth to bedrock (very limited) seepage (limited)	1.00 1.00 0.68	Very limited wetness (very limited) depth to bedrock (very limited)	1.00 1.00	Very limited depth to bedrock (very limited) wetness (limited)	1.00 0.93	Very limited depth to bedrock (very limited) wetness (moderately limited)	1.00 0.57
73310:										
Scholten-----	Very limited wetness (very limited) perc's slowly (very limited)	1.00 1.00	Very limited wetness (very limited) seepage (limited) slope (limited)	1.00 0.68 0.66	Very limited wetness (very limited) too clayey (limited) too acid (moderately limited)	1.00 0.88 0.48	Limited wetness (limited)	0.96	Very limited small stones >35% (very limited) too clayey (limited) wetness (moderately limited)	1.00 0.76 0.59
Bendavis-----	Very limited depth to bedrock (very limited) wetness (very limited) perc's slowly (slightly limited)	1.00 1.00 0.10	Very limited wetness (very limited) depth to bedrock (very limited) seepage (limited)	1.00 1.00 0.92	Very limited depth to bedrock (very limited) wetness (limited) too acid (slightly limited)	1.00 0.79 0.30	Very limited depth to bedrock (very limited) wetness (limited)	1.00 0.61	Very limited depth to bedrock (very limited) small stones (limited) wetness (moderately limited)	1.00 0.98 0.40
Poynor-----	Moderately limited perc's slowly (moderately limited)	0.45	Limited seepage (limited) slope (moderately limited)	0.82 0.31	Very limited too clayey (very limited) too acid (moderately limited)	1.00 0.42	Not limited		Very limited too clayey (very limited) small stones (limited) hard to pack (limited)	1.00 0.96 0.70

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73311:										
Scholten-----	Very limited wetness (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.96	Very limited small stones >35% (very limited)	1.00
	percs slowly (very limited)	1.00	wetness (very limited)	1.00	too clayey (limited)	0.88	slope (limited)	0.63	too clayey (limited)	0.76
	slope (limited)	0.63	seepage (limited)	0.68	slope (limited)	0.63			slope (limited)	0.63
Bendavis-----	Very limited depth to bedrock (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	wetness (very limited)	1.00	wetness (very limited)	1.00	wetness (limited)	0.79	slope (limited)	0.63	small stones >35% (very limited)	1.00
	slope (limited)	0.63	depth to bedrock (very limited)	1.00	slope (limited)	0.63	wetness (limited)	0.61	slope (limited)	0.63
Poynor-----	Limited slope (limited)	0.63	Very limited slope (very limited)	1.00	Very limited too clayey (very limited)	1.00	Limited slope (limited)	0.63	Very limited too clayey (very limited)	1.00
	percs slowly (moderately limited)	0.45	seepage (moderately limited)	0.50	slope (limited)	0.63			hard to pack (limited)	0.70
					too acid (moderately limited)	0.42			slope (limited)	0.63
73333:										
Taterhill-----	Slightly limited percs slowly (slightly limited)	0.25	Moderately limited seepage (moderately limited)	0.50	Moderately limited too acid (moderately limited)	0.42	Not limited		Moderately limited too acid (moderately limited)	0.42
					too clayey (slightly limited)	0.15			too clayey (slightly limited)	0.03
73334:										
Horneybuck----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.93	Moderately limited wetness (moderately limited)	0.57
	percs slowly (limited)	0.71	slope (limited)	0.66	too clayey (limited)	0.62			too acid (moderately limited)	0.48
			seepage (moderately limited)	0.50	too acid (moderately limited)	0.48			too clayey (moderately limited)	0.33

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73335: Hobson-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.93	Very limited wetness (very limited) slope (limited) seepage (moderately limited)	1.00 0.91 0.50	Limited wetness (limited) too clayey (limited) too acid (slightly limited)	0.99 0.72 0.24	Limited wetness (limited)	0.80	Moderately limited wetness (moderately limited) too clayey (moderately limited) small stones (moderately limited)	0.50 0.48 0.31
Rueter-----	Limited percs slowly (limited)	0.75	Limited slope (limited) seepage (moderately limited)	0.91 0.50	Very limited too clayey (very limited) too acid (slightly limited) large stones (slightly limited)	1.00 0.24 0.02	Not limited		Very limited too clayey (very limited) small stones (limited) too acid (slightly limited)	1.00 0.98 0.24
73336: Rueter-----	Limited percs slowly (limited) slope (limited)	0.75 0.63	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) slope (limited) large stones (slightly limited)	1.00 0.63 0.11	Limited slope (limited)	0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63
Gepp-----	Limited slope (limited) percs slowly (slightly limited)	0.63 0.25	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.24	Limited slope (limited)	0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63
73337: Tonti-----	Very limited wetness (very limited) percs slowly (very limited)	1.00 1.00	Very limited wetness (very limited) slope (limited) seepage (moderately limited)	1.00 0.91 0.50	Limited wetness (limited) too clayey (limited) too acid (limited)	0.99 0.98 0.83	Limited wetness (limited)	0.80	Limited too clayey (limited) too acid (limited) wetness (moderately limited)	0.94 0.83 0.50

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73337: Portia-----	Slightly limited percs slowly (slightly limited)	0.25	Limited slope (limited) seepage (moderately limited)	0.66 0.50	Very limited too clayey (very limited) too acid (limited)	1.00 0.61	Not limited		Very limited too clayey (very limited) hard to pack (limited) too acid (limited)	1.00 0.70 0.61
73338: Portia-----	Slightly limited percs slowly (slightly limited) slope (slightly limited)	0.25 0.16	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) too acid (moderately limited) slope (slightly limited)	1.00 0.42 0.16	Slightly limited slope (slightly limited)	0.16	Very limited too clayey (very limited) hard to pack (limited) too acid (moderately limited)	1.00 0.70 0.42
Hobson-----	Very limited wetness (very limited) percs slowly (limited) slope (limited)	1.00 0.93 0.63	Very limited slope (very limited) wetness (very limited) seepage (moderately limited)	1.00 1.00 0.50	Very limited too clayey (very limited) wetness (limited) slope (limited)	1.00 0.99 0.63	Limited wetness (limited) slope (limited)	0.80 0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63
73339: Arkana-----	Very limited depth to bedrock (very limited) slope (limited) percs slowly (slightly limited)	1.00 0.63 0.25	Very limited slope (very limited) depth to bedrock (very limited) seepage (moderately limited)	1.00 1.00 0.50	Very limited depth to bedrock (very limited) too clayey (very limited) slope (limited)	1.00 1.00 0.63	Very limited depth to bedrock (very limited) slope (limited)	1.00 0.63	Very limited depth to bedrock (very limited) too clayey (very limited) hard to pack (limited)	1.00 1.00 0.70
Gepp-----	Limited slope (limited) percs slowly (slightly limited)	0.63 0.25	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) slope (limited)	1.00 0.63	Limited slope (limited)	0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73340: Rueter-----	Limited percs slowly (limited) slope (limited)	0.75 0.63	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.24	Limited slope (limited)	0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63
Gepp-----	Limited slope (limited) percs slowly (slightly limited)	0.63 0.25	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.24	Limited slope (limited)	0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63
73341: Gepp-----	Very limited slope (very limited) percs slowly (slightly limited)	1.00 0.25	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited slope (very limited) too clayey (very limited) too acid (slightly limited)	1.00 1.00 0.24	Very limited slope (very limited)	1.00	Very limited slope (very limited) too clayey (very limited) hard to pack (limited)	1.00 1.00 0.70
Arkana-----	Very limited depth to bedrock (very limited) slope (very limited) percs slowly (slightly limited)	1.00 1.00 0.25	Very limited slope (very limited) depth to bedrock (very limited) seepage (moderately limited)	1.00 1.00 0.50	Very limited slope (very limited) depth to bedrock (very limited) too clayey (very limited)	1.00 1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) too clayey (very limited)	1.00 1.00 1.00
73342: Alred-----	Limited percs slowly (limited) slope (limited)	0.75 0.63	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited too clayey (very limited) slope (limited)	1.00 0.63	Limited slope (limited)	0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00 0.70 0.63

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73342: Arkana-----	Very limited depth to bedrock (very limited) slope (limited) percs slowly (slightly limited)	1.00 0.63 0.25	Very limited slope (very limited) depth to bedrock (very limited) seepage (moderately limited)	1.00 1.00 0.50	Very limited depth to bedrock (very limited) too clayey (very limited) slope (limited)	1.00 1.00 0.63	Very limited depth to bedrock (very limited) slope (limited)	1.00 0.63	Very limited depth to bedrock (very limited) too clayey (very limited) hard to pack (limited)	1.00 1.00 0.70
74636: Lecoma-----	Slightly limited percs slowly (slightly limited)	0.25	Limited slope (limited) seepage (moderately limited)	0.91 0.50	Slightly limited too acid (slightly limited) too clayey (slightly limited)	0.12 0.02	Not limited		Slightly limited too acid (slightly limited)	0.12
74637: Lecoma-----	Slightly limited percs slowly (slightly limited) slope (slightly limited)	0.25 0.16	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Slightly limited slope (slightly limited) too acid (slightly limited) too clayey (slightly limited)	0.16 0.12 0.02	Slightly limited slope (slightly limited)	0.16	Slightly limited slope (slightly limited) too acid (slightly limited)	0.16 0.12
74643: Lecoma-----	Slightly limited percs slowly (slightly limited)	0.25	Moderately limited seepage (moderately limited)	0.50	Slightly limited too acid (slightly limited) too clayey (slightly limited)	0.24 0.07	Not limited		Slightly limited too acid (slightly limited)	0.24
74644: Deible-----	Very limited wetness (very limited) percs slowly (very limited)	1.00 1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited) too clayey (moderately limited)	1.00 0.40	Very limited wetness (very limited)	1.00	Very limited wetness (very limited) too clayey (slightly limited)	1.00 0.20

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74646: Cornwall-----	Very limited wetness (very limited) perc's slowly (limited)	1.00 0.93	Very limited wetness (very limited) slope (limited) seepage (moderately limited)	1.00 0.91 0.50	Limited wetness (limited) too acid (slightly limited) too clayey (slightly limited)	0.89 0.18 0.15	Limited wetness (limited)	0.69	Moderately limited wetness (moderately limited) too acid (slightly limited)	0.45 0.18
74648: Aslinger-----	Very limited wetness (very limited) perc's slowly (limited)	1.00 0.71	Very limited wetness (very limited) slope (limited) seepage (moderately limited)	1.00 0.91 0.50	Limited wetness (limited) too clayey (limited) too acid (moderately limited)	0.99 0.68 0.48	Limited wetness (limited)	0.80	Limited small stones (limited) wetness (moderately limited) too acid (moderately limited)	0.64 0.50 0.48
74649: Aslinger-----	Very limited wetness (very limited) perc's slowly (limited) slope (slightly limited)	1.00 0.71 0.04	Very limited wetness (very limited) slope (very limited) seepage (moderately limited)	1.00 1.00 0.50	Limited wetness (limited) too clayey (limited) slope (slightly limited)	0.99 0.87 0.04	Limited wetness (limited) slope (slightly limited)	0.80 0.04	Limited too clayey (limited) wetness (moderately limited) slope (slightly limited)	0.73 0.50 0.04
Waben-----	Slightly limited large stones (slightly limited)	0.01	Very limited seepage (very limited) slope (limited) large stones (slightly limited)	1.00 0.66 0.03	Limited seepage (limited) too clayey (slightly limited) too acid (slightly limited)	0.79 0.24 0.12	Limited seepage (limited)	0.75	Limited small stones (limited) seepage (moderately limited) too acid (slightly limited)	0.99 0.50 0.12
74651: Waben-----	Not limited		Very limited seepage (very limited) slope (limited)	1.00 0.91	Limited seepage (limited) too acid (slightly limited) too clayey (slightly limited)	0.79 0.30 0.24	Limited seepage (limited)	0.75	Very limited small stones >35% (very limited) seepage (moderately limited) too acid (slightly limited)	1.00 0.50 0.30

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74658: Zanoni-----	Moderately limited flooding (rare) (moderately limited)	0.60	Very limited seepage (very limited)	1.00	Very limited seepage (very limited) flooding (rare) (moderately limited)	1.00 0.60	Limited seepage (limited) flooding (rare) (moderately limited)	0.88 0.60	Very limited seepage (very limited) small stones (slightly limited)	1.00 0.17
74679: Higdon-----	Very limited wetness (very limited) percs slowly (limited) flooding (rare) (moderately limited)	1.00 0.71 0.60	Very limited wetness (very limited)	1.00	Very limited wetness (very limited) flooding (rare) (moderately limited) too clayey (slightly limited)	1.00 0.60 0.09	Limited wetness (limited) flooding (rare) (moderately limited)	0.99 0.60	Moderately limited wetness (moderately limited)	0.60
74680: Moniteau-----	Very limited wetness (very limited) percs slowly (limited) flooding (rare) (moderately limited)	1.00 0.71 0.60	Very limited wetness (very limited)	1.00	Very limited wetness (very limited) flooding (rare) (moderately limited) too clayey (slightly limited)	1.00 0.60 0.04	Very limited wetness (very limited) flooding (rare) (moderately limited)	1.00 0.60	Very limited wetness (very limited)	1.00
75381: Bearthicket---	Moderately limited flooding (rare) (moderately limited) percs slowly (slightly limited)	0.60 0.25	Moderately limited seepage (moderately limited)	0.50	Moderately limited flooding (rare) (moderately limited)	0.60	Moderately limited flooding (rare) (moderately limited)	0.60	Not limited	
75394: Relfe-----	Very limited poor filter (very limited) flooding (rare) (moderately limited)	1.00 0.60	Very limited seepage (very limited)	1.00	Very limited too sandy (very limited) seepage (very limited) flooding (rare) (moderately limited)	1.00 1.00 0.60	Very limited seepage (very limited) flooding (rare) (moderately limited)	1.00 0.60	Very limited seepage (very limited) too sandy (very limited) small stones >35% (very limited)	1.00 1.00 1.00

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75395: Jamesfin-----	Very limited flooding (very limited) wetness (moderately limited) percs slowly (slightly limited)	1.00 0.31 0.25	Very limited flooding (very limited) seepage (moderately limited)	1.00 0.50	Very limited flooding (very limited) wetness (slightly limited)	1.00 0.15	Very limited flooding (very limited)	1.00	Not limited	
75408: Secesh-----	Moderately limited flooding (rare) (moderately limited) percs slowly (slightly limited)	0.60 0.25	Very limited seepage (very limited)	1.00	Limited seepage (limited) flooding (rare) (moderately limited) too acid (slightly limited)	0.79 0.60 0.06	Limited seepage (limited) flooding (rare) (moderately limited)	0.75 0.60	Limited small stones (limited) seepage (moderately limited) too acid (slightly limited)	0.95 0.50 0.06
75409: Relfe-----	Very limited flooding (very limited) poor filter (very limited)	1.00 1.00	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited) too sandy (very limited) seepage (very limited)	1.00 1.00 1.00	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited seepage (very limited) too sandy (very limited) small stones >35% (very limited)	1.00 1.00 1.00
75411: Tilk-----	Moderately limited flooding (rare) (moderately limited)	0.60	Very limited seepage (very limited)	1.00	Very limited seepage (very limited) flooding (rare) (moderately limited) too acid (moderately limited)	1.00 0.60 0.36	Limited seepage (limited) flooding (rare) (moderately limited)	0.75 0.60	Very limited small stones >35% (very limited) seepage (moderately limited) too acid (moderately limited)	1.00 0.50 0.36
75416: Gladden-----	Very limited flooding (very limited) percs slowly (slightly limited)	1.00 0.25	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited)	1.00	Not limited	

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value						
75417:										
Relfe-----	Very limited flooding (very limited)	1.00	Very limited seepage (very limited)	1.00						
	poor filter (very limited)	1.00	seepage (very limited)	1.00	seepage (very limited)	1.00	seepage (very limited)	1.00	small stones >35% (very limited)	1.00
					too sandy (moderately limited)	0.60			too sandy (moderately limited)	0.60
Sandbur-----	Very limited flooding (very limited)	1.00	Very limited too sandy (very limited)	1.00						
			seepage (very limited)	1.00	too sandy (very limited)	1.00	seepage (limited)	0.75	seepage (moderately limited)	0.50
					seepage (limited)	0.67				
75426:										
Gabriel-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.99	Moderately limited wetness (moderately limited)	0.60
	percs slowly (limited)	0.71			flooding (rare) (moderately limited)	0.60	flooding (rare) (moderately limited)	0.60	too acid (slightly limited)	0.12
	flooding (rare) (moderately limited)	0.60			too acid (slightly limited)	0.12				
75428:										
Tilk-----	Very limited flooding (very limited)	1.00	Very limited small stones >35% (very limited)	1.00						
			seepage (very limited)	1.00	seepage (limited)	0.79	seepage (limited)	0.75	seepage (moderately limited)	0.50
			slope (slightly limited)	0.08	too acid (slightly limited)	0.24			too acid (slightly limited)	0.24
Cornwall-----	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.68						
	percs slowly (limited)	0.93	slope (very limited)	1.00	too acid (moderately limited)	0.36	slope (slightly limited)	0.04	too acid (moderately limited)	0.36
	slope (slightly limited)	0.04	seepage (moderately limited)	0.50	too clayey (slightly limited)	0.20			small stones (slightly limited)	0.08

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75428: Poynor-----	Limited slope (limited) percs slowly (moderately limited) large stones (slightly limited)	0.63 0.45 0.01	Very limited slope (very limited) seepage (moderately limited) large stones (moderately limited)	1.00 0.50 0.41	Limited too clayey (limited) slope (limited) too acid (slightly limited)	0.70 0.63 0.30	Limited slope (limited)	0.63	Limited hard to pack (limited) slope (limited) too clayey (moderately limited)	0.70 0.63 0.45
75429: Tilk-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited) seepage (limited)	1.00 0.79	Very limited flooding (very limited) seepage (limited)	1.00 0.75	Very limited small stones >35% (very limited) seepage (moderately limited)	1.00 0.50
Secesh-----	Moderately limited flooding (rare) (moderately limited) percs slowly (slightly limited) large stones (slightly limited)	0.60 0.25 0.12	Very limited seepage (very limited) large stones (slightly limited)	1.00 0.01	Limited seepage (limited) flooding (rare) (moderately limited) large stones (moderately limited)	0.79 0.60 0.42	Limited seepage (limited) flooding (rare) (moderately limited)	0.75 0.60	Moderately limited seepage (moderately limited) small stones (slightly limited) large stones (slightly limited)	0.50 0.17 0.12
75430: Wideman-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited) too sandy (very limited) seepage (limited)	1.00 1.00 0.79	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited seepage (very limited) too sandy (very limited)	1.00 1.00
75432: Batcave-----	Very limited wetness (very limited) flooding (very limited) percs slowly (slightly limited)	1.00 1.00 0.25	Very limited flooding (very limited) wetness (very limited) seepage (moderately limited)	1.00 1.00 0.50	Very limited wetness (very limited) flooding (very limited) too clayey (slightly limited)	1.00 1.00 0.11	Very limited flooding (very limited) wetness (very limited)	1.00 1.00	Very limited wetness (very limited) small stones (moderately limited)	1.00 0.53

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75432: Farewell-----	Very limited wetness (very limited) flooding (very limited) percs slowly (moderately limited)	1.00 1.00 0.45	Very limited flooding (very limited) wetness (very limited) seepage (moderately limited)	1.00 1.00 0.32	Very limited wetness (very limited) flooding (very limited)	1.00 1.00	Very limited flooding (very limited) wetness (very limited)	1.00 1.00	Very limited wetness (very limited) small stones (moderately limited)	1.00 0.31
75451: Gladden-----	Very limited flooding (very limited) percs slowly (slightly limited)	1.00 0.25	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited)	1.00	Moderately limited small stones (moderately limited)	0.47
75462: Huzzah-----	Very limited flooding (very limited) percs slowly (slightly limited)	1.00 0.25	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited)	1.00	Not limited	
75463: Huzzah-----	Moderately limited flooding (rare) (moderately limited) percs slowly (slightly limited)	0.60 0.25	Very limited seepage (very limited)	1.00	Very limited seepage (very limited) flooding (rare) (moderately limited) too sandy (moderately limited)	1.00 0.60 0.60	Very limited seepage (very limited) flooding (rare) (moderately limited)	1.00 0.60	Very limited seepage (very limited) too sandy (moderately limited)	1.00 0.60
75464: Cedargap-----	Moderately limited flooding (rare) (moderately limited) percs slowly (slightly limited)	0.60 0.10	Very limited seepage (very limited)	1.00	Moderately limited flooding (rare) (moderately limited) too clayey (slightly limited)	0.60 0.10	Limited seepage (limited) flooding (rare) (moderately limited)	0.88 0.60	Very limited small stones >35% (very limited)	1.00

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75465: Raftville-----	Very limited depth to bedrock (very limited) flooding (rare) (moderately limited)	1.00 0.60	Very limited depth to bedrock (very limited) seepage (very limited)	1.00 1.00	Very limited depth to bedrock (very limited) seepage (limited) flooding (rare) (moderately limited)	1.00 0.79 0.60	Very limited depth to bedrock (very limited) seepage (limited) flooding (rare) (moderately limited)	1.00 0.75 0.60	Very limited depth to bedrock (very limited) seepage (moderately limited) too acid (moderately limited)	1.00 0.50 0.36
Gabriel-----	Very limited wetness (very limited) percs slowly (limited) flooding (rare) (moderately limited)	1.00 0.71 0.60	Very limited wetness (very limited)	1.00	Very limited wetness (very limited) flooding (rare) (moderately limited) too clayey (slightly limited)	1.00 0.60 0.20	Limited wetness (limited) flooding (rare) (moderately limited)	0.99 0.60	Moderately limited wetness (moderately limited) too clayey (slightly limited)	0.60 0.07
75466: Midco-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited) seepage (limited)	1.00 0.79	Very limited flooding (very limited) seepage (limited)	1.00 0.75	Very limited small stones >35% (very limited) seepage (moderately limited)	1.00 0.50
75470: Farewell-----	Very limited wetness (very limited) flooding (rare) (moderately limited) percs slowly (moderately limited)	1.00 0.60 0.45	Very limited wetness (very limited) seepage (moderately limited)	1.00 0.32	Very limited wetness (very limited) flooding (rare) (moderately limited)	1.00 0.60	Very limited wetness (very limited) flooding (rare) (moderately limited)	1.00 0.60	Very limited wetness (very limited) small stones (limited)	1.00 0.78
77000: Killarney-----	Very limited slope (very limited) wetness (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited slope (very limited) wetness (very limited) large stones (limited)	1.00 1.00 0.97	Very limited slope (very limited) wetness (limited) too acid (moderately limited)	1.00 0.79 0.48	Very limited slope (very limited) wetness (limited)	1.00 0.61	Very limited slope (very limited) small stones (limited) too acid (moderately limited)	1.00 0.98 0.48

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77000:										
Frenchmill----	Very limited slope (very limited) percs slowly (slightly limited) large stones (slightly limited)	1.00 0.25 0.14	Very limited slope (very limited) large stones (limited) seepage (moderately limited)	1.00 0.68 0.50	Very limited slope (very limited) too acid (moderately limited) too clayey (slightly limited)	1.00 0.48 0.04	Very limited slope (very limited)	1.00	Very limited slope (very limited) too acid (moderately limited)	1.00 0.48
77003:										
Delassus-----	Very limited wetness (very limited) percs slowly (very limited) slope (limited)	1.00 1.00 0.63	Very limited slope (very limited) wetness (very limited) seepage (moderately limited)	1.00 1.00 0.50	Very limited depth to bedrock (very limited) wetness (limited) slope (limited)	1.00 0.92 0.63	Limited wetness (limited) slope (limited)	0.73 0.63	Limited slope (limited) small stones (moderately limited) too acid (moderately limited)	0.63 0.55 0.48
77004:										
Irondale-----	Very limited depth to bedrock (very limited) slope (very limited) large stones (slightly limited)	1.00 1.00 0.01	Very limited slope (very limited) depth to bedrock (very limited) seepage (moderately limited)	1.00 1.00 0.50	Very limited slope (very limited) depth to bedrock (very limited) too acid (moderately limited)	1.00 1.00 0.42	Very limited depth to bedrock (very limited) slope (very limited)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) small stones (moderately limited)	1.00 1.00 0.56
77007:										
Taumsauk-----	Very limited depth to bedrock (very limited) slope (very limited) large stones (slightly limited)	1.00 1.00 0.20	Very limited slope (very limited) depth to bedrock (very limited) large stones (slightly limited)	1.00 1.00 0.29	Very limited slope (very limited) depth to bedrock (very limited) too acid (moderately limited)	1.00 1.00 0.48	Very limited depth to bedrock (very limited) slope (very limited)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) too acid (moderately limited)	1.00 1.00 0.48
Irondale-----	Very limited depth to bedrock (very limited) slope (very limited) large stones (moderately limited)	1.00 1.00 0.52	Very limited slope (very limited) depth to bedrock (very limited) large stones (limited)	1.00 1.00 0.98	Very limited slope (very limited) depth to bedrock (very limited) too acid (slightly limited)	1.00 1.00 0.24	Very limited depth to bedrock (very limited) slope (very limited)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) too acid (slightly limited)	1.00 1.00 0.24
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value								
77009:										
Trackler-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Limited wetness (limited)	0.73	Limited depth to bedrock (limited)	0.60
	depth to bedrock (limited)	0.79	slope (limited)	0.91	wetness (limited)	0.92	depth to bedrock (limited)	0.61	wetness (moderately limited)	0.47
	percs slowly (limited)	0.71	depth to bedrock (limited)	0.79	large stones (moderately limited)	0.35			too acid (slightly limited)	0.30
77011:										
Taumsauk-----	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	large stones (moderately limited)	0.38	slope (very limited)	1.00	too acid (moderately limited)	0.42	slope (slightly limited)	0.04	small stones (limited)	0.68
	slope (slightly limited)	0.04	large stones (limited)	0.91	large stones (moderately limited)	0.41			too acid (moderately limited)	0.42
Irondale-----	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	percs slowly (limited)	0.74	slope (very limited)	1.00	too acid (moderately limited)	0.54	slope (slightly limited)	0.04	small stones (limited)	0.64
	slope (slightly limited)	0.04			too clayey (slightly limited)	0.20			too acid (moderately limited)	0.54
Rock outcrop--	Not rated									
77012:										
Mudlick-----	Very limited slope (very limited)	1.00								
	percs slowly (limited)	0.71	seepage (moderately limited)	0.50	too acid (limited)	0.61			too acid (limited)	0.61
					too clayey (moderately limited)	0.37			too clayey (slightly limited)	0.18
Irondale-----	Very limited depth to bedrock (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	slope (very limited)	1.00	depth to bedrock (very limited)	1.00	depth to bedrock (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	large stones (slightly limited)	0.04	seepage (moderately limited)	0.50	too acid (slightly limited)	0.18			too acid (slightly limited)	0.18

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption field		Sewage lagoons		Sanitary landfill (trench)		Sanitary landfill (area)		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77012: Killarney-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	wetness (very limited)	1.00	wetness (very limited)	1.00	wetness (limited)	0.82	wetness (limited)	0.63	small stones (limited)	0.74
	percs slowly (very limited)	1.00	large stones (moderately limited)	0.48	too acid (moderately limited)	0.54			too acid (moderately limited)	0.54
77013: Mudlick-----	Limited percs slowly (limited)	0.71	Very limited slope (very limited)	1.00	Limited too acid (limited)	0.83	Limited slope (limited)	0.63	Limited too acid (limited)	0.83
	slope (limited)	0.63	seepage (moderately limited)	0.50	slope (limited)	0.63			slope (limited)	0.63
					too clayey (slightly limited)	0.09				
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99006: Psammments-----	Not limited		Slightly limited slope (slightly limited)	0.08	Not rated		Not limited		Not rated	
99007: Dam-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99010: Pits-----	Not rated		Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99013: Riverwash-----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 14.--Construction Materials and Excavating

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042:										
Niangua-----	Very limited low strength (very limited) slope (very limited) depth to bedrock (moderately limited)	1.00 1.00 0.39	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited slope (very limited) too clayey (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) cutbanks cave (very limited) too clayey (very limited)	1.00 1.00 1.00
Bardley-----	Very limited low strength (very limited) depth to bedrock (very limited) slope (very limited)	1.00 1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) too clayey (very limited)	1.00 1.00 1.00	Very limited hard bedrock <40" (very limited) slope (very limited) too clayey (very limited)	1.00 1.00 1.00
73055:										
Alred-----	Very limited low strength (very limited) slope (limited) shrink-swell (slightly limited)	1.00 0.92 0.10	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	1.00 0.79	Very limited slope (very limited) small stones (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) cutbanks cave (very limited) too clayey (very limited)	1.00 1.00 1.00
Rueter-----	Limited slope (limited) low strength (slightly limited)	0.92 0.22	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) excess fines (bottom layer)	0.89 0.65	Very limited slope (very limited) small stones (very limited) area reclaim (very limited)	1.00 1.00 1.00	Very limited slope (very limited) cutbanks cave (very limited) too clayey (very limited)	1.00 1.00 1.00

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73139:										
Poynor-----	Very limited low strength (very limited) shrink-swell (slightly limited)	1.00 0.21	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Probable excess fines (bottom layer) probable source (thickest layer)	1.00 0.37	Very limited too clayey (very limited) slope (limited) too acid (moderately limited)	1.00 0.63 0.36	Very limited cutbanks cave (very limited) too clayey (very limited) slope (limited)	1.00 1.00 0.63
Clarksville---	Not limited		Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited small stones (very limited) slope (limited) too sandy (slightly limited)	1.00 0.63 0.30	Very limited cutbanks cave (very limited) slope (limited) too clayey (moderately limited)	1.00 0.63 0.51
Scholten-----	Limited wetness (limited)	0.96	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited small stones (very limited) wetness (limited) slope (limited)	1.00 0.96 0.63	Very limited wetness (very limited) cutbanks cave (very limited) too clayey (limited)	1.00 1.00 0.78
73140:										
Clarksville---	Very limited slope (very limited)	1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Probable excess fines (bottom layer) probable source (thickest layer)	1.00 0.50	Very limited slope (very limited) small stones (very limited) area reclaim (very limited)	1.00 1.00 1.00	Very limited slope (very limited) cutbanks cave (very limited) too clayey (limited)	1.00 1.00 0.68
Scholten-----	Limited slope (limited) wetness (slightly limited)	0.92 0.04	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited slope (very limited) small stones (very limited) area reclaim (very limited)	1.00 1.00 1.00	Very limited slope (very limited) cutbanks cave (very limited) wetness (limited)	1.00 1.00 0.99

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73143: Courtois-----	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00 0.36	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) too acid (slightly limited) area reclaim (slightly limited)	1.00 0.24 0.08	Very limited cutbanks cave (very limited) too clayey (very limited)	1.00 1.00
73144: Courtois-----	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00 0.36	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) slope (moderately limited) too acid (slightly limited)	1.00 0.37 0.24	Very limited cutbanks cave (very limited) too clayey (very limited) slope (moderately limited)	1.00 1.00 0.37
73147: Fourche-----	Very limited low strength (very limited) wetness (slightly limited)	1.00 0.12	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Moderately limited too clayey (moderately limited) wetness (slightly limited) too acid (slightly limited)	0.43 0.12 0.06	Very limited too clayey (very limited) wetness (very limited) cutbanks cave (slightly limited)	1.00 1.00 0.29
73155: Gasconade-----	Very limited depth to bedrock (very limited) slope (moderately limited) shrink-swell (slightly limited)	1.00 0.33 0.10	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited depth to bedrock (very limited) small stones (very limited) too clayey (very limited)	1.00 1.00 1.00	Very limited hard bedrock <40" (very limited) slope (very limited) cutbanks cave (slightly limited)	1.00 1.00 0.29
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73156: Alred-----	Very limited low strength (very limited) shrink-swell (slightly limited)	1.00 0.09	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	1.00 0.94	Very limited small stones (very limited) slope (limited) too acid (moderately limited)	1.00 0.63 0.36	Very limited cutbanks cave (very limited) too clayey (very limited) slope (limited)	1.00 1.00 0.63
Gepp-----	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00 0.45	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.24	Very limited too clayey (very limited) slope (limited) cutbanks cave (slightly limited)	1.00 0.63 0.29
73157: Captina-----	Very limited low strength (very limited) wetness (slightly limited) shrink-swell (slightly limited)	1.00 0.26 0.08	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Limited area reclaim (limited) too clayey (moderately limited) too acid (slightly limited)	0.92 0.53 0.30	Very limited wetness (very limited) cutbanks cave (very limited) too clayey (limited)	1.00 1.00 0.85
73159: Yelton-----	Limited wetness (limited) shrink-swell (slightly limited)	0.82 0.12	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited dense layer <20" (very limited) wetness (limited) small stones (moderately limited)	1.00 0.82 0.50	Very limited dense layer <20" (very limited) wetness (very limited) cutbanks cave (slightly limited)	1.00 1.00 0.29
73197: Viburnum-----	Limited wetness (limited) shrink-swell (moderately limited)	0.86 0.45	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.87	Very limited too clayey (very limited) area reclaim (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited wetness (very limited) cutbanks cave (very limited) too clayey (limited)	1.00 1.00 0.79

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73222: Splitlimb-----	Very limited low strength (very limited) wetness (limited) shrink-swell (moderately limited)	1.00 0.76 0.45	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Limited wetness (limited) too acid (moderately limited) too clayey (moderately limited)	0.76 0.48 0.33	Very limited ponded (wetness) (very limited) wetness (very limited) cutbanks cave (slightly limited)	1.00 1.00 0.29
73223: Coulstone-----	Very limited low strength (very limited) slope (limited)	1.00 0.92	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (bottom layer) excess fines (thickest layer) small stones (thickest layer)	1.00 0.75 0.50	Very limited slope (very limited) small stones (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) cutbanks cave (very limited) too clayey (slightly limited)	1.00 1.00 0.06
Bender-----	Very limited depth to bedrock (very limited) slope (very limited) large stones (limited)	1.00 1.00 0.76	Improbable excess fines (thickest layer) excess fines (bottom layer) small stones (thickest layer)	1.00 1.00 0.60	Possible excess fines (bottom layer) excess fines (thickest layer) small stones (thickest layer)	0.75 0.75 0.60	Very limited depth to bedrock (very limited) slope (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited hard bedrock <40" (very limited) slope (very limited) large stones (limited)	1.00 1.00 0.76
73269: Brussels-----	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited slope (very limited) small stones (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) cutbanks cave (very limited) too clayey (slightly limited)	1.00 1.00 0.18
Gasconade-----	Very limited slope (very limited) depth to bedrock (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) too clayey (very limited)	1.00 1.00 1.00	Very limited hard bedrock <40" (very limited) slope (very limited) cutbanks cave (slightly limited)	1.00 1.00 0.29
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73290:										
Gatewood-----	Very limited low strength (very limited) depth to bedrock (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) depth to bedrock (limited) too acid (limited)	1.00 0.62 0.60	Very limited hard bedrock <40" (very limited) wetness (very limited) too clayey (very limited)	1.00 1.00 1.00
Aaron-----	Very limited low strength (very limited) shrink-swell (limited) depth to bedrock (moderately limited)	1.00 1.00 0.57	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) too acid (moderately limited) wetness (slightly limited)	1.00 0.36 0.26	Very limited wetness (very limited) too clayey (limited) depth to bedrock (limited)	1.00 0.78 0.75
73291:										
Gatewood-----	Very limited low strength (very limited) depth to bedrock (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) depth to bedrock (limited) slope (limited)	1.00 0.68 0.63	Very limited hard bedrock <40" (very limited) wetness (very limited) too clayey (very limited)	1.00 1.00 1.00
Aaron-----	Very limited low strength (very limited) shrink-swell (very limited) depth to bedrock (moderately limited)	1.00 1.00 0.39	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) slope (limited) too acid (moderately limited)	1.00 0.63 0.36	Very limited wetness (very limited) too clayey (limited) slope (limited)	1.00 0.78 0.63
73295:										
Taterhill-----	Not limited		Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Limited area reclaim (limited) too acid (slightly limited)	0.92 0.12	Very limited cutbanks cave (very limited)	1.00

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73298:										
Tonti-----	Moderately limited wetness (moderately limited) shrink-swell (slightly limited)	0.48 0.04	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.75	Very limited small stones (very limited) dense layer <20" (very limited) area reclaim (very limited)	1.00 1.00 1.00	Very limited dense layer <20" (very limited) wetness (very limited) cutbanks cave (very limited)	1.00 1.00 1.00
Hogcreek-----	Very limited depth to bedrock (very limited) wetness (limited)	1.00 0.76	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.75	Very limited small stones (very limited) dense layer <20" (very limited) wetness (limited)	1.00 1.00 0.93	Very limited dense layer <20" (very limited) hard bedrock <40" (very limited) wetness (very limited)	1.00 1.00 1.00
73310:										
Scholten-----	Limited wetness (limited) shrink-swell (slightly limited)	0.82 0.04	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.62	Very limited small stones (very limited) area reclaim (very limited) dense layer (limited)	1.00 1.00 1.00	Very limited wetness (very limited) cutbanks cave (very limited) dense layer (limited)	1.00 1.00 1.00
Bendavis-----	Very limited depth to bedrock (very limited) wetness (slightly limited)	1.00 0.12	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited small stones (very limited) depth to bedrock (limited) too acid (slightly limited)	1.00 0.93 0.30	Very limited hard bedrock <40" (very limited) cutbanks cave (very limited) wetness (very limited)	1.00 1.00 1.00
Poynor-----	Very limited low strength (very limited) shrink-swell (slightly limited)	1.00 0.14	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Probable excess fines (bottom layer) probable source (thickest layer)	1.00 0.50	Very limited small stones (very limited) too acid (moderately limited) area reclaim (moderately limited)	1.00 0.36 0.32	Very limited cutbanks cave (very limited) too clayey (very limited)	1.00 1.00

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73311:										
Scholten-----	Limited wetness (limited) shrink-swell (slightly limited)	0.82 0.04	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.62	Very limited small stones (very limited) area reclaim (very limited) dense layer (limited)	1.00 1.00 1.00	Very limited wetness (very limited) cutbanks cave (very limited) dense layer (limited)	1.00 1.00 1.00
Bendavis-----	Very limited depth to bedrock (very limited) wetness (slightly limited)	1.00 0.12	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	0.75 0.75	Very limited depth to bedrock (very limited) small stones (very limited) slope (limited)	1.00 1.00 0.63	Very limited hard bedrock <40" (very limited) cutbanks cave (very limited) wetness (very limited)	1.00 1.00 1.00
Poynor-----	Very limited low strength (very limited) shrink-swell (slightly limited)	1.00 0.14	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited small stones (very limited) slope (limited) too acid (moderately limited)	1.00 0.63 0.42	Very limited cutbanks cave (very limited) too clayey (very limited) slope (limited)	1.00 1.00 0.63
73333:										
Taterhill-----	Not limited		Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Not limited		Very limited cutbanks cave (very limited) too clayey (slightly limited)	1.00 0.03
73334:										
Horneybuck----	Limited wetness (limited) low strength (slightly limited)	0.76 0.22	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Limited small stones (limited) wetness (limited) area reclaim (moderately limited)	0.82 0.76 0.32	Very limited wetness (very limited) cutbanks cave (very limited) too clayey (moderately limited)	1.00 1.00 0.33

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73335:										
Hobson-----	Very limited low strength (very limited) wetness (moderately limited) shrink-swell (slightly limited)	1.00 0.48 0.18	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Very limited dense layer <20" (very limited) area reclaim (very limited) wetness (moderately limited)	1.00 1.00 0.48	Very limited dense layer <20" (very limited) wetness (very limited) cutbanks cave (very limited)	1.00 1.00 1.00
Rueter-----	Not limited		Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (bottom layer) small stones (thickest layer) small stones (bottom layer)	0.75 0.66 0.66	Very limited small stones (very limited) area reclaim (very limited) too acid (moderately limited)	1.00 1.00 0.48	Very limited cutbanks cave (very limited) too clayey (very limited)	1.00 1.00
73336:										
Rueter-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited small stones (very limited) too clayey (limited) slope (limited)	1.00 0.95 0.63	Very limited cutbanks cave (very limited) too clayey (very limited) slope (limited)	1.00 1.00 0.63
Gepp-----	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00 0.45	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.24	Very limited too clayey (very limited) slope (limited) cutbanks cave (slightly limited)	1.00 0.63 0.29
73337:										
Tonti-----	Moderately limited wetness (moderately limited) shrink-swell (slightly limited)	0.48 0.01	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Very limited dense layer <20" (very limited) area reclaim (very limited) wetness (moderately limited)	1.00 1.00 0.48	Very limited dense layer <20" (very limited) wetness (very limited) cutbanks cave (very limited)	1.00 1.00 1.00

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73337: Portia-----	Very limited low strength (very limited) shrink-swell (slightly limited)	1.00 0.25	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) too acid (limited) too sandy (slightly limited)	1.00 0.60 0.15	Very limited too clayey (very limited) cutbanks cave (slightly limited)	1.00 0.29
73338: Portia-----	Very limited low strength (very limited) shrink-swell (slightly limited)	1.00 0.25	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited too clayey (very limited) too acid (moderately limited) slope (slightly limited)	1.00 0.36 0.16	Very limited too clayey (very limited) cutbanks cave (slightly limited) slope (slightly limited)	1.00 0.29 0.16
Hobson-----	Very limited low strength (very limited) wetness (moderately limited) shrink-swell (moderately limited)	1.00 0.48 0.40	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Very limited dense layer <20" (very limited) slope (limited) wetness (moderately limited)	1.00 0.63 0.48	Very limited dense layer <20" (very limited) wetness (very limited) cutbanks cave (very limited)	1.00 1.00 1.00
73339: Arkana-----	Very limited low strength (very limited) depth to bedrock (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	1.00 0.70	Very limited too clayey (very limited) depth to bedrock (limited) slope (limited)	1.00 0.97 0.63	Very limited hard bedrock <40" (very limited) too clayey (very limited) slope (limited)	1.00 1.00 0.63
Gepp-----	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00 0.45	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	1.00 0.94	Very limited too clayey (very limited) slope (limited)	1.00 0.63	Very limited too clayey (very limited) slope (limited) cutbanks cave (slightly limited)	1.00 0.63 0.29

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73340: Rueter-----	Not limited		Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited small stones (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	slope (limited)	0.63	too clayey (very limited)	1.00
							too acid (slightly limited)	0.24	slope (limited)	0.63
Gepp-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited too clayey (very limited)	1.00	Very limited too clayey (very limited)	1.00
	shrink-swell (moderately limited)	0.45	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	slope (limited)	0.63	slope (limited)	0.63
							too acid (slightly limited)	0.24	cutbanks cave (slightly limited)	0.29
73341: Gepp-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	slope (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too clayey (very limited)	1.00	too clayey (very limited)	1.00
	shrink-swell (moderately limited)	0.45					too acid (slightly limited)	0.24	cutbanks cave (slightly limited)	0.29
Arkana-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Possible excess fines (bottom layer)	1.00	Very limited slope (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00
	depth to bedrock (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.65	too clayey (very limited)	1.00	slope (very limited)	1.00
	shrink-swell (very limited)	1.00					depth to bedrock (limited)	0.97	too clayey (very limited)	1.00
73342: Alred-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Possible excess fines (bottom layer)	1.00	Very limited too clayey (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
	shrink-swell (slightly limited)	0.20	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.55	slope (limited)	0.63	too clayey (very limited)	1.00
									slope (limited)	0.63

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73342:										
Arkana-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited too clayey (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00
	depth to bedrock (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	depth to bedrock (limited)	0.97	too clayey (very limited)	1.00
	shrink-swell (moderately limited)	0.43					small stones (limited)	0.95	slope (limited)	0.63
74636:										
Lecoma-----	Moderately limited shrink-swell (moderately limited)	0.45	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Not limited		Slightly limited cutbanks cave (slightly limited)	0.29
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00				
74637:										
Lecoma-----	Moderately limited shrink-swell (moderately limited)	0.45	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Slightly limited slope (slightly limited)	0.16	Slightly limited cutbanks cave (slightly limited)	0.29
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00			slope (slightly limited)	0.16
74643:										
Lecoma-----	Slightly limited low strength (slightly limited)	0.22	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Moderately limited too clayey (moderately limited)	0.40	Slightly limited cutbanks cave (slightly limited)	0.29
	shrink-swell (slightly limited)	0.20	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too acid (slightly limited)	0.24		
74644:										
Deible-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	wetness (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too clayey (limited)	0.86	cutbanks cave (slightly limited)	0.29
	shrink-swell (limited)	0.83					too acid (slightly limited)	0.30	too clayey (slightly limited)	0.20

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74646: Cornwall-----	Very limited low strength (very limited) wetness (slightly limited)	1.00 0.26	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Slightly limited wetness (slightly limited) too acid (slightly limited)	0.26 0.18	Very limited wetness (very limited) cutbanks cave (slightly limited)	1.00 0.29
74648: Aslinger-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer) excess fines (bottom layer) small stones (bottom layer)	1.00 1.00 0.66	Possible excess fines (bottom layer) small stones (bottom layer) excess fines (thickest layer)	0.75 0.66 0.60	Very limited area reclaim (very limited) wetness (moderately limited) too clayey (slightly limited)	1.00 0.48 0.17	Very limited wetness (very limited) cutbanks cave (very limited) too clayey (moderately limited)	1.00 1.00 0.41
74649: Aslinger-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer) excess fines (bottom layer) small stones (thickest layer)	1.00 1.00 0.66	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Limited small stones (limited) area reclaim (limited) wetness (moderately limited)	0.88 0.68 0.48	Very limited wetness (very limited) cutbanks cave (very limited) too clayey (limited)	1.00 1.00 0.73
Waben-----	Slightly limited large stones (slightly limited)	0.01	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Very limited small stones (very limited) area reclaim (very limited) large stones (slightly limited)	1.00 1.00 0.18	Very limited cutbanks cave (very limited) too clayey (slightly limited) large stones (slightly limited)	1.00 0.10 0.01
74651: Waben-----	Not limited		Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.94	Very limited small stones (very limited) area reclaim (very limited) too acid (slightly limited)	1.00 1.00 0.24	Very limited cutbanks cave (very limited) too clayey (slightly limited)	1.00 0.10

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74658: Zanoni-----	Not limited		Improbable excess fines (thickest layer)	1.00	Probable excess fines (thickest layer)	1.00	Very limited area reclaim (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	probable source (bottom layer)	0.33	too sandy (limited)	0.63		
74679: Higdon-----	Limited wetness (limited)	0.86	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Limited wetness (limited)	0.86	Very limited wetness (very limited)	1.00
	shrink-swell (moderately limited)	0.39	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too acid (slightly limited)	0.24	cutbanks cave (slightly limited)	0.29
							too clayey (slightly limited)	0.05		
74680: Moniteau-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	wetness (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too clayey (moderately limited)	0.34	cutbanks cave (slightly limited)	0.29
	shrink-swell (slightly limited)	0.23								
75381: Bearthicket---	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Not limited		Slightly limited cutbanks cave (slightly limited)	0.29
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00				
75394: Relfe-----	Not limited		Probable excess fines (thickest layer)	1.00	Probable excess fines (thickest layer)	1.00	Very limited too sandy (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			probable source (bottom layer)	0.26	probable source (bottom layer)	0.50	small stones (very limited)	1.00		
							area reclaim (very limited)	1.00		

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75395: Jamesfin-----	Slightly limited low strength (slightly limited)	0.22	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Not limited		Moderately limited flooding (moderately limited) cutbanks cave (slightly limited) wetness (slightly limited)	0.60 0.29 0.16
75408: Secesh-----	Not limited		Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Very limited area reclaim (very limited) small stones (limited)	1.00 0.92	Very limited cutbanks cave (very limited)	1.00
75409: Relfe-----	Not limited		Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.25	Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.40	Very limited too sandy (very limited) small stones (very limited) area reclaim (very limited)	1.00 1.00 1.00	Very limited cutbanks cave (very limited) flooding (moderately limited)	1.00 0.60
75411: Tilk-----	Not limited		Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.42	Very limited small stones (very limited) area reclaim (very limited) too sandy (moderately limited)	1.00 1.00 0.38	Very limited cutbanks cave (very limited)	1.00
75416: Gladden-----	Not limited		Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.01	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Not limited		Very limited cutbanks cave (very limited) flooding (moderately limited)	1.00 0.60

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75417: Relfe-----	Not limited		Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.26	Probable excess fines (thickest layer) probable source (bottom layer)	0.75 0.25	Very limited too sandy (very limited) small stones (very limited) area reclaim (very limited)	1.00 1.00 1.00	Very limited cutbanks cave (very limited) flooding (moderately limited)	1.00 0.60
Sandbur-----	Not limited		Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Very limited area reclaim (very limited) too sandy (limited)	1.00 0.76	Very limited cutbanks cave (very limited) flooding (moderately limited)	1.00 0.60
75426: Gabriel-----	Very limited low strength (very limited) wetness (limited) shrink-swell (moderately limited)	1.00 0.86 0.37	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Limited wetness (limited) too clayey (moderately limited)	0.86 0.33	Very limited wetness (very limited) cutbanks cave (slightly limited)	1.00 0.29
75428: Tilk-----	Not limited		Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.43	Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.75	Very limited small stones (very limited) area reclaim (very limited) too sandy (limited)	1.00 1.00 0.61	Very limited cutbanks cave (very limited) flooding (moderately limited)	1.00 0.60
Cornwall-----	Limited wetness (limited)	0.91	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Very limited area reclaim (very limited) wetness (limited) too clayey (moderately limited)	1.00 0.91 0.40	Very limited wetness (very limited) cutbanks cave (very limited) too clayey (slightly limited)	1.00 1.00 0.07

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75428: Poynor-----	Slightly limited shrink-swell (slightly limited)	0.17	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited small stones (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
	large stones (slightly limited)	0.01	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	slope (limited)	0.63	slope (limited)	0.63
							too acid (slightly limited)	0.18	too clayey (moderately limited)	0.45
75429: Tilk-----	Not limited		Improbable excess fines (thickest layer)	1.00	Probable excess fines (bottom layer)	0.75	Very limited small stones (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	probable source (thickest layer)	0.42	area reclaim (very limited)	1.00	flooding (moderately limited)	0.60
							too sandy (limited)	0.66		
Secesh-----	Slightly limited large stones (slightly limited)	0.12	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Very limited large stones >25% (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	small stones (very limited)	1.00	large stones (slightly limited)	0.12
							area reclaim (very limited)	1.00		
75430: Wideman-----	Not limited		Probable excess fines (bottom layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited too sandy (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			probable source (thickest layer)	0.29	excess fines (thickest layer)	1.00	area reclaim (slightly limited)	0.08	flooding (moderately limited)	0.60
75432: Batcave-----	Very limited wetness (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Possible excess fines (thickest layer)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.75	small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
							area reclaim (very limited)	1.00	flooding (moderately limited)	0.60

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75432: Farewell-----	Very limited wetness (very limited) shrink-swell (moderately limited) low strength (slightly limited)	1.00 0.39 0.22	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.75	Very limited wetness (very limited) area reclaim (very limited) small stones (moderately limited)	1.00 1.00 0.50	Very limited wetness (very limited) cutbanks cave (very limited) flooding (moderately limited)	1.00 1.00 0.60
75451: Gladden-----	Not limited		Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.73	Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.42	Very limited area reclaim (very limited) small stones (very limited)	1.00 1.00	Very limited cutbanks cave (very limited) flooding (moderately limited)	1.00 0.60
75462: Huzzah-----	Slightly limited low strength (slightly limited)	0.22	Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.28	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Limited too sandy (limited)	0.94	Very limited cutbanks cave (very limited) flooding (moderately limited)	1.00 0.60
75463: Huzzah-----	Not limited		Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.38	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Limited too sandy (limited)	0.64	Very limited cutbanks cave (very limited)	1.00
75464: Cedargap-----	Not limited		Possible excess fines (bottom layer) excess fines (thickest layer)	1.00 0.83	Probable excess fines (thickest layer) probable source (bottom layer)	0.65 0.48	Very limited small stones (very limited) area reclaim (very limited) too sandy (limited)	1.00 1.00 0.93	Very limited cutbanks cave (very limited)	1.00

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75465: Raftville-----	Very limited depth to bedrock (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too acid (moderately limited)	0.36	cutbanks cave (very limited)	1.00
									too clayey (slightly limited)	0.10
Gabriel-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Limited wetness (limited)	0.86	Very limited wetness (very limited)	1.00
	wetness (limited)	0.86	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too clayey (limited)	0.63	cutbanks cave (slightly limited)	0.29
	shrink-swell (slightly limited)	0.29							too clayey (slightly limited)	0.07
75466: Midco-----	Not limited		Improbable excess fines (thickest layer)	1.00	Probable excess fines (thickest layer)	1.00	Very limited small stones (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	probable source (bottom layer)	0.42	area reclaim (very limited)	1.00	flooding (moderately limited)	0.60
							too sandy (limited)	0.61		
75470: Farewell-----	Very limited wetness (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
	shrink-swell (moderately limited)	0.39	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
							area reclaim (very limited)	1.00		
77000: Killarney-----	Very limited slope (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Probable excess fines (thickest layer)	0.84	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	wetness (slightly limited)	0.12	excess fines (bottom layer)	1.00	probable source (bottom layer)	0.50	small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
	large stones (slightly limited)	0.12					large surface stones (very limited)	1.00	wetness (very limited)	1.00

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77000:										
Frenchmill----	Very limited slope (very limited) large stones (slightly limited)	1.00 0.14	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited slope (very limited) large surface stones (very limited) large stones (limited)	1.00 1.00 0.95	Very limited slope (very limited) cutbanks cave (very limited) large stones (slightly limited)	1.00 1.00 0.14
77003:										
Delassus-----	Moderately limited wetness (moderately limited)	0.33	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited dense layer <20" (very limited) small stones (very limited) large stones >25% (very limited)	1.00 1.00 1.00	Very limited dense layer <20" (very limited) wetness (very limited) cutbanks cave (very limited)	1.00 1.00 1.00
77004:										
Irondale-----	Very limited depth to bedrock (very limited) slope (limited) large stones (slightly limited)	1.00 0.92 0.01	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited hard bedrock <40" (very limited) slope (very limited) cutbanks cave (very limited)	1.00 1.00 1.00
77007:										
Taumsauk-----	Very limited depth to bedrock (very limited) slope (limited) large stones (slightly limited)	1.00 0.92 0.20	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	0.75 0.75	Very limited depth to bedrock (very limited) slope (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited hard bedrock <40" (very limited) slope (very limited) cutbanks cave (slightly limited)	1.00 1.00 0.29
Irondale-----	Very limited depth to bedrock (very limited) slope (limited) large stones (moderately limited)	1.00 0.92 0.52	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) small stones (very limited)	1.00 1.00 1.00	Very limited hard bedrock <40" (very limited) slope (very limited) large stones (moderately limited)	1.00 1.00 0.52

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77007: Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77009: Trackler-----	Limited depth to bedrock (limited) wetness (moderately limited) large stones (slightly limited)	0.61 0.33 0.19	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) excess fines (bottom layer)	1.00 0.70	Very limited small stones (very limited) area reclaim (very limited) wetness (moderately limited)	1.00 1.00 0.33	Very limited wetness (very limited) depth to bedrock (limited) cutbanks cave (slightly limited)	1.00 0.79 0.29
77011: Taumsauk-----	Very limited depth to bedrock (very limited) large stones (moderately limited)	1.00 0.38	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Possible excess fines (thickest layer) small stones (thickest layer)	1.00 0.66	Very limited depth to bedrock (very limited) small stones (very limited) too clayey (limited)	1.00 1.00 0.77	Very limited hard bedrock <40" (very limited) large stones (moderately limited) cutbanks cave (slightly limited)	1.00 0.38 0.29
Irondale-----	Very limited depth to bedrock (very limited)	1.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited depth to bedrock (very limited) small stones (very limited) too clayey (limited)	1.00 1.00 0.62	Very limited hard bedrock <40" (very limited) cutbanks cave (very limited) too clayey (slightly limited)	1.00 1.00 0.07
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77012: Mudlick-----	Moderately limited slope (moderately limited) shrink-swell (slightly limited)	0.50 0.01	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (bottom layer) excess fines (thickest layer)	1.00 1.00	Very limited slope (very limited) large surface stones (very limited) small stones (limited)	1.00 1.00 0.98	Very limited slope (very limited) cutbanks cave (very limited) too clayey (slightly limited)	1.00 1.00 0.18

Table 14.--Construction Materials and Excavating--Continued

Map symbol and soil name	Roadfill		Sand		Gravel		Topsoil		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77012:										
Irondale-----	Very limited depth to bedrock (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00
	slope (limited)	0.92	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	large stones (slightly limited)	0.04					large surface stones (very limited)	1.00	cutbanks cave (very limited)	1.00
Killarney-----	Very limited slope (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	wetness (slightly limited)	0.15	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	small stones (very limited)	1.00	wetness (very limited)	1.00
	large stones (slightly limited)	0.02					large surface stones (very limited)	1.00	cutbanks cave (very limited)	1.00
77013:										
Mudlick-----	Not limited		Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited large stones >25% (very limited)	1.00	Limited slope (limited)	0.63
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too acid (limited)	0.76	cutbanks cave (slightly limited)	0.29
							large surface stones (limited)	0.70		
99001:										
Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99006:										
Psammments-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99007:										
Dam-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99010:										
Pits-----	Not rated		Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99013:										
Riverwash-----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 15.--Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042: Niangua-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	depth to bedrock (moderately limited)	0.50	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00
			percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13	depth to bedrock (moderately limited)	0.39	depth to bedrock (moderately limited)	0.50
Bardley-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	depth to bedrock (limited)	0.89	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	depth to bedrock (very limited)	1.00	large surface stones (very limited)	1.00
	seepage (moderately limited)	0.50	depth to bedrock (moderately limited)	0.46	droughty (limited)	0.66	large surface stones (very limited)	1.00	depth to bedrock (limited)	0.89
73055: Alred-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	seepage (moderately limited)	0.50	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70
			percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39				
Rueter-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	seepage (very limited)	1.00	large stones (very limited)	1.00	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70
			large surface stones (limited)	0.70						

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73139:										
Poynor-----	Very limited seepage (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.99	Limited slope (limited)	0.99
	slope (limited)	0.99	large surface stones (slightly limited)	0.17	large surface stones (slightly limited)	0.17	large surface stones (slightly limited)	0.17	large surface stones (slightly limited)	0.17
Clarksville---	Limited slope (limited)	0.99	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.99	Limited slope (limited)	0.99
	seepage (moderately limited)	0.50	large surface stones (slightly limited)	0.17	large surface stones (slightly limited)	0.17	large surface stones (slightly limited)	0.17	large surface stones (slightly limited)	0.17
			large stones (slightly limited)	0.12						
Scholten-----	Very limited seepage (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.99	Limited slope (limited)	0.99
	slope (limited)	0.99	percs slowly (very limited)	1.00	percs slowly (very limited)	1.00	wetness (limited)	0.78	rooting depth (limited)	0.80
			large surface stones (slightly limited)	0.17	droughty (moderately limited)	0.45	large surface stones (slightly limited)	0.17	wetness (limited)	0.78
73140:										
Clarksville---	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	seepage (very limited)	1.00	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70
Scholten-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	seepage (very limited)	1.00	percs slowly (very limited)	1.00	percs slowly (very limited)	1.00	large surface stones (limited)	0.70	rooting depth (limited)	0.80
			large surface stones (limited)	0.70	large surface stones (limited)	0.70	wetness (slightly limited)	0.17	large surface stones (limited)	0.70
73143:										
Courtois-----	Moderately limited seepage (moderately limited)	0.50	Limited slope (limited)	0.78	Limited slope (limited)	0.78	Slightly limited slope (slightly limited)	0.20	Slightly limited slope (slightly limited)	0.20
	slope (slightly limited)	0.20								

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73144: Courtois-----	Limited slope (limited) seepage (moderately limited)	0.89 0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.89	Limited slope (limited)	0.89
73147: Fourche-----	Slightly limited slope (slightly limited)	0.20	Limited slope (limited) percs slowly (slightly limited)	0.78 0.13	Limited slope (limited) erodes easily (moderately limited) percs slowly (slightly limited)	0.78 0.60 0.13	Moderately limited erodes easily (moderately limited) wetness (slightly limited) slope (slightly limited)	0.60 0.28 0.20	Moderately limited erodes easily (moderately limited) wetness (slightly limited) slope (slightly limited)	0.60 0.28 0.20
73155: Gasconade-----	Very limited bedrock <20 in. (very limited) slope (very limited)	1.00 1.00	Very limited shallow to bedrock (very limited) percs slowly (very limited) slope (very limited)	1.00 1.00 1.00	Very limited shallow to bedrock (very limited) droughty (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) large stones (moderately limited)	1.00 1.00 0.35	Very limited bedrock <20 in. (very limited) droughty (very limited) slope (very limited)	1.00 1.00 1.00
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73156: Alred-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited) percs slowly (moderately limited) large surface stones (slightly limited)	1.00 0.39 0.17	Very limited slope (very limited) percs slowly (moderately limited) large surface stones (slightly limited)	1.00 0.39 0.17	Limited slope (limited) large surface stones (slightly limited)	0.99 0.17	Limited slope (limited) large surface stones (slightly limited)	0.99 0.17
Gepp-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited) large surface stones (slightly limited)	1.00 0.17	Very limited slope (very limited) large surface stones (slightly limited)	1.00 0.17	Limited slope (limited) large surface stones (slightly limited)	0.99 0.17	Limited slope (limited) large surface stones (slightly limited)	0.99 0.17

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73157: Captina-----	Moderately limited seepage (moderately limited)	0.50	Limited slope (limited)	0.98	Limited slope (limited)	0.98	Moderately limited erodes easily (moderately limited)	0.60	Limited rooting depth (limited)	0.80
	slope (moderately limited)	0.31	percs slowly (moderately limited)	0.39	erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.36	erodes easily (moderately limited)	0.60
					percs slowly (moderately limited)	0.39	slope (moderately limited)	0.31	wetness (moderately limited)	0.36
73159: Yelton-----	Slightly limited slope (slightly limited)	0.20	Limited slope (limited)	0.78	Limited slope (limited)	0.78	Moderately limited erodes easily (moderately limited)	0.60	Limited rooting depth (limited)	0.80
			percs slowly (moderately limited)	0.39	erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.58	erodes easily (moderately limited)	0.60
					percs slowly (moderately limited)	0.39	slope (slightly limited)	0.20	wetness (moderately limited)	0.58
73197: Viburnum-----	Slightly limited slope (slightly limited)	0.10	Moderately limited slope (moderately limited)	0.40	Moderately limited slope (moderately limited)	0.40	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60
			percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13	slope (slightly limited)	0.10	slope (slightly limited)	0.10
73222: Splitlimb-----	Moderately limited seepage (moderately limited)	0.32	Very limited ponded (wetness) (very limited)	1.00	Very limited ponded (wetness) (very limited)	1.00	Very limited ponded (wetness) (very limited)	1.00	Moderately limited erodes easily (moderately limited)	0.60
			percs slowly (slightly limited)	0.13	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.55
					percs slowly (slightly limited)	0.13	wetness (moderately limited)	0.55		
73223: Coulstone-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	seepage (very limited)	1.00	large stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00
			large surface stones (very limited)	1.00	droughty (very limited)	1.00			droughty (very limited)	1.00

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73223:										
Bender-----	Very limited slope (very limited) seepage (very limited) depth to bedrock (limited)	1.00 1.00 0.86	Very limited slope (very limited) large stones (very limited) large surface stones (moderately limited)	1.00 1.00 0.43	Very limited slope (very limited) droughty (very limited) large stones (limited)	1.00 1.00 0.76	Very limited slope (very limited) depth to bedrock (very limited) large stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) droughty (very limited) large stones (very limited)	1.00 1.00 1.00
73269:										
Brussels-----	Very limited slope (very limited)	1.00	Very limited slope (very limited) large surface stones (very limited) percs slowly (slightly limited)	1.00 1.00 0.13	Very limited slope (very limited) large surface stones (very limited) percs slowly (slightly limited)	1.00 1.00 0.13	Very limited slope (very limited) large surface stones (very limited)	1.00 1.00	Very limited slope (very limited) droughty (slightly limited)	1.00 0.08
Gasconade-----	Very limited bedrock <20 in. (very limited) slope (very limited)	1.00 1.00	Very limited slope (very limited) shallow to bedrock (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited shallow to bedrock (very limited) droughty (very limited) slope (very limited)	1.00 1.00 1.00	Very limited slope (very limited) depth to bedrock (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited bedrock <20 in. (very limited) slope (very limited) droughty (very limited)	1.00 1.00 1.00
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73290:										
Gatewood-----	Limited depth to bedrock (limited) slope (moderately limited)	0.75 0.31	Limited slope (limited) percs slowly (slightly limited) depth to bedrock (slightly limited)	0.98 0.15 0.09	Limited slope (limited) erodes easily (moderately limited) percs slowly (slightly limited)	0.98 0.60 0.15	Very limited depth to bedrock (very limited) erodes easily (moderately limited) wetness (moderately limited)	1.00 0.60 0.36	Limited depth to bedrock (limited) erodes easily (moderately limited) wetness (moderately limited)	0.75 0.60 0.36
Aaron-----	Limited depth to bedrock (limited) slope (moderately limited)	0.63 0.31	Limited slope (limited) percs slowly (slightly limited)	0.98 0.15	Limited slope (limited) erodes easily (moderately limited) percs slowly (slightly limited)	0.98 0.60 0.15	Moderately limited erodes easily (moderately limited) depth to bedrock (moderately limited) wetness (moderately limited)	0.60 0.57 0.36	Limited depth to bedrock (limited) erodes easily (moderately limited) wetness (moderately limited)	0.63 0.60 0.36

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73291:										
Gatewood-----	Limited slope (limited)	0.99	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Limited slope (limited)	0.99
	depth to bedrock (limited)	0.77	percs slowly (slightly limited)	0.15	erodes easily (moderately limited)	0.60	slope (limited)	0.99	depth to bedrock (limited)	0.77
			depth to bedrock (slightly limited)	0.13	droughty (moderately limited)	0.32	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60
Aaron-----	Limited slope (limited)	0.99	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.99	Limited slope (limited)	0.99
	depth to bedrock (moderately limited)	0.50	percs slowly (slightly limited)	0.15	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60
					percs slowly (slightly limited)	0.15	depth to bedrock (moderately limited)	0.39	depth to bedrock (moderately limited)	0.50
73295:										
Taterhill-----	Limited seepage (limited)	0.92	Limited slope (limited)	0.98	Limited slope (limited)	0.98	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	slope (moderately limited)	0.31			erodes easily (moderately limited)	0.60	slope (moderately limited)	0.31	slope (moderately limited)	0.31
73298:										
Tonti-----	Moderately limited seepage (moderately limited)	0.50	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Moderately limited erodes easily (moderately limited)	0.60	Limited rooting depth (limited)	0.80
	slope (slightly limited)	0.20	slope (limited)	0.78	slope (limited)	0.78	wetness (moderately limited)	0.44	erodes easily (moderately limited)	0.60
					erodes easily (moderately limited)	0.60	slope (slightly limited)	0.20	wetness (moderately limited)	0.44
Hogcreek-----	Limited depth to bedrock (limited)	0.80	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Limited rooting depth (limited)	0.80
	seepage (limited)	0.68	slope (moderately limited)	0.40	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60	depth to bedrock (limited)	0.80
	slope (slightly limited)	0.10	depth to bedrock (slightly limited)	0.18	slope (moderately limited)	0.40	wetness (moderately limited)	0.55	erodes easily (moderately limited)	0.60

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73310:										
Scholten-----	Limited seepage (limited) slope (slightly limited)	0.68 0.20	Very limited percs slowly (very limited) slope (limited)	1.00 0.78	Very limited percs slowly (very limited) slope (limited) droughty (limited)	1.00 0.78 0.70	Moderately limited wetness (moderately limited) slope (slightly limited)	0.58 0.20	Limited rooting depth (limited) droughty (limited) wetness (moderately limited)	0.80 0.70 0.58
Bendavis-----	Limited seepage (limited) depth to bedrock (limited) slope (slightly limited)	0.92 0.84 0.20	Limited slope (limited) depth to bedrock (slightly limited)	0.78 0.27	Limited slope (limited) depth to bedrock (slightly limited)	0.78 0.27	Very limited depth to bedrock (very limited) wetness (slightly limited) slope (slightly limited)	1.00 0.28 0.20	Limited depth to bedrock (limited) wetness (slightly limited) slope (slightly limited)	0.84 0.28 0.20
Poynor-----	Limited seepage (limited) slope (slightly limited)	0.82 0.10	Moderately limited slope (moderately limited)	0.40	Moderately limited slope (moderately limited)	0.40	Slightly limited slope (slightly limited)	0.10	Slightly limited slope (slightly limited)	0.10
73311:										
Scholten-----	Limited slope (limited) seepage (limited)	0.99 0.68	Very limited slope (very limited) percs slowly (very limited) large stones (moderately limited)	1.00 1.00 0.51	Very limited slope (very limited) percs slowly (very limited) droughty (limited)	1.00 1.00 0.70	Limited slope (limited) wetness (moderately limited) large stones (slightly limited)	0.99 0.58 0.17	Limited slope (limited) rooting depth (limited) droughty (limited)	0.99 0.80 0.70
Bendavis-----	Limited slope (limited) depth to bedrock (limited) seepage (moderately limited)	0.99 0.92 0.50	Very limited slope (very limited) depth to bedrock (moderately limited) large surface stones (slightly limited)	1.00 0.58 0.13	Very limited slope (very limited) depth to bedrock (moderately limited) droughty (moderately limited)	1.00 0.58 0.45	Very limited depth to bedrock (very limited) slope (limited) wetness (slightly limited)	1.00 0.99 0.28	Limited slope (limited) depth to bedrock (limited) droughty (moderately limited)	0.99 0.92 0.45

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73311: Poynor-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited) droughty (moderately limited)	1.00 0.57	Limited slope (limited)	0.99	Limited slope (limited) droughty (moderately limited)	0.99 0.57
73333: Taterhill-----	Moderately limited seepage (moderately limited)	0.50	Not limited		Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
73334: Horneybuck----	Moderately limited seepage (moderately limited) slope (slightly limited)	0.50 0.20	Limited slope (limited) percs slowly (slightly limited)	0.78 0.13	Limited slope (limited) erodes easily (moderately limited) percs slowly (slightly limited)	0.78 0.60 0.13	Moderately limited erodes easily (moderately limited) wetness (moderately limited) slope (slightly limited)	0.60 0.55 0.20	Moderately limited erodes easily (moderately limited) wetness (moderately limited) slope (slightly limited)	0.60 0.55 0.20
73335: Hobson-----	Moderately limited seepage (moderately limited) slope (moderately limited)	0.50 0.31	Limited slope (limited) large stones (moderately limited) percs slowly (moderately limited)	0.98 0.43 0.39	Limited slope (limited) erodes easily (moderately limited) percs slowly (moderately limited)	0.98 0.60 0.39	Moderately limited erodes easily (moderately limited) wetness (moderately limited) slope (moderately limited)	0.60 0.44 0.31	Limited rooting depth (limited) erodes easily (moderately limited) wetness (moderately limited)	0.80 0.60 0.44
Rueter-----	Moderately limited seepage (moderately limited) slope (moderately limited)	0.50 0.31	Very limited large stones (very limited) slope (limited) percs slowly (slightly limited)	1.00 0.98 0.18	Limited slope (limited) percs slowly (slightly limited) droughty (slightly limited)	0.98 0.18 0.04	Moderately limited slope (moderately limited)	0.31	Moderately limited slope (moderately limited) droughty (slightly limited)	0.31 0.04

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73336:										
Rueter-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited) large stones (limited) percs slowly (slightly limited)	1.00 0.84 0.18	Very limited slope (very limited) percs slowly (slightly limited)	1.00 0.18	Limited slope (limited) large stones (limited)	0.99 0.98	Limited slope (limited) large stones (limited)	0.99 0.98
Gepp-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.99	Limited slope (limited)	0.99
73337:										
Tonti-----	Moderately limited seepage (moderately limited) slope (moderately limited)	0.50 0.31	Very limited percs slowly (very limited) slope (limited)	1.00 0.98	Very limited percs slowly (very limited) slope (limited) erodes easily (moderately limited)	1.00 0.60	Moderately limited erodes easily (moderately limited) wetness (moderately limited) slope (moderately limited)	0.60 0.44 0.31	Limited rooting depth (limited) erodes easily (moderately limited) wetness (moderately limited)	0.80 0.60 0.44
Portia-----	Moderately limited seepage (moderately limited) slope (slightly limited)	0.50 0.20	Limited slope (limited)	0.78	Limited slope (limited) erodes easily (moderately limited)	0.78 0.60	Moderately limited erodes easily (moderately limited) slope (slightly limited)	0.60 0.20	Moderately limited erodes easily (moderately limited) slope (slightly limited)	0.60 0.20
73338:										
Portia-----	Limited slope (limited) seepage (moderately limited)	0.80 0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited) erodes easily (moderately limited)	1.00 0.60	Limited slope (limited) erodes easily (moderately limited)	0.80 0.60	Limited slope (limited) erodes easily (moderately limited)	0.80 0.60
Hobson-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited) percs slowly (moderately limited)	1.00 0.39	Very limited slope (very limited) erodes easily (moderately limited) percs slowly (moderately limited)	1.00 0.60 0.39	Limited slope (limited) erodes easily (moderately limited) wetness (moderately limited)	0.99 0.60 0.44	Limited slope (limited) rooting depth (limited) erodes easily (moderately limited)	0.99 0.80 0.60

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73339:										
Arkana-----	Limited slope (limited) depth to bedrock seepage (moderately limited)	0.99 0.85 0.50	Very limited slope (very limited) percs slowly (very limited) depth to bedrock (slightly limited)	1.00 1.00 0.29	Very limited percs slowly (very limited) slope (very limited) depth to bedrock (slightly limited)	1.00 1.00 0.29	Very limited depth to bedrock (very limited) slope (limited)	1.00 0.99	Limited slope (limited) depth to bedrock (limited) droughty (slightly limited)	0.99 0.85 0.16
Gepp-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.99	Limited slope (limited)	0.99
73340:										
Rueter-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited) percs slowly (slightly limited)	1.00 0.18	Very limited slope (very limited) percs slowly (slightly limited)	1.00 0.18	Limited slope (limited)	0.99	Limited slope (limited)	0.99
Gepp-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited) droughty (slightly limited)	1.00 0.06	Limited slope (limited)	0.99	Limited slope (limited) droughty (slightly limited)	0.99 0.06
73341:										
Gepp-----	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited) droughty (slightly limited)	1.00 0.09	Very limited slope (very limited)	1.00	Very limited slope (very limited) droughty (slightly limited)	1.00 0.09
Arkana-----	Very limited slope (very limited) depth to bedrock (limited) seepage (moderately limited)	1.00 0.85 0.50	Very limited slope (very limited) percs slowly (very limited) depth to bedrock (slightly limited)	1.00 1.00 0.29	Very limited percs slowly (very limited) slope (very limited) droughty (moderately limited)	1.00 1.00 0.34	Very limited slope (very limited) depth to bedrock (very limited)	1.00 1.00	Very limited slope (very limited) depth to bedrock (limited) droughty (moderately limited)	1.00 0.85 0.34

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73342: Alred-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited) percs slowly (slightly limited)	1.00 0.18	Very limited slope (very limited) percs slowly (slightly limited) droughty (slightly limited)	1.00 0.18 0.01	Limited slope (limited)	0.99	Limited slope (limited) droughty (slightly limited)	0.99 0.01
Arkana-----	Limited slope (limited) depth to bedrock (limited) seepage (moderately limited)	0.99 0.85 0.50	Very limited slope (very limited) percs slowly (very limited) depth to bedrock (slightly limited)	1.00 1.00 0.29	Very limited percs slowly (very limited) slope (very limited) droughty (limited)	1.00 1.00 0.78	Very limited depth to bedrock (very limited) slope (limited)	1.00 0.99	Limited slope (limited) depth to bedrock (limited) droughty (limited)	0.99 0.85 0.78
74636: Lecoma-----	Moderately limited seepage (moderately limited) slope (moderately limited)	0.50 0.31	Limited slope (limited)	0.98	Limited slope (limited)	0.98	Moderately limited slope (moderately limited)	0.31	Moderately limited slope (moderately limited)	0.31
74637: Lecoma-----	Limited slope (limited) seepage (moderately limited)	0.80 0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.80	Limited slope (limited)	0.80
74643: Lecoma-----	Moderately limited seepage (moderately limited)	0.50	Not limited		Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
74644: Deible-----	Not limited		Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited) erodes easily (moderately limited)	1.00 0.60	Very limited wetness (very limited) erodes easily (moderately limited)	1.00 0.60	Very limited wetness (very limited) erodes easily (moderately limited)	1.00 0.60

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74646: Cornwall-----	Moderately limited seepage (moderately limited)	0.50	Limited slope (limited)	0.98	Limited slope (limited)	0.98	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	slope (moderately limited)	0.31	percs slowly (moderately limited)	0.39	erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36
					percs slowly (moderately limited)	0.39	slope (moderately limited)	0.31	slope (moderately limited)	0.31
74648: Aslinger-----	Moderately limited seepage (moderately limited)	0.50	Limited slope (limited)	0.98	Limited slope (limited)	0.98	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	slope (moderately limited)	0.31	percs slowly (slightly limited)	0.13	erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44
					percs slowly (slightly limited)	0.13	slope (moderately limited)	0.31	slope (moderately limited)	0.31
74649: Aslinger-----	Limited slope (limited)	0.70	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.70	Limited slope (limited)	0.70
	seepage (moderately limited)	0.50	percs slowly (slightly limited)	0.13	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60
					percs slowly (slightly limited)	0.13	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44
Waben-----	Very limited seepage (very limited)	1.00	Limited slope (limited)	0.78	Limited slope (limited)	0.78	Very limited large stones (very limited)	1.00	Very limited large stones (very limited)	1.00
	slope (slightly limited)	0.20	large stones (moderately limited)	0.51	droughty (slightly limited)	0.01	slope (slightly limited)	0.20	slope (slightly limited)	0.20
					large stones (slightly limited)	0.01	droughty (slightly limited)	0.01	droughty (slightly limited)	0.01
74651: Waben-----	Very limited seepage (very limited)	1.00	Limited slope (limited)	0.98	Limited slope (limited)	0.98	Moderately limited slope (moderately limited)	0.31	Moderately limited slope (moderately limited)	0.31
	slope (moderately limited)	0.31	large stones (moderately limited)	0.51	droughty (slightly limited)	0.02	large stones (slightly limited)	0.04	large stones (slightly limited)	0.04
								droughty (slightly limited)	droughty (slightly limited)	0.02

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74658: Zanoni-----	Very limited seepage (very limited)	1.00	Not limited		Not limited		Not limited		Not limited	
74679: Higdon-----	Not limited		Slightly limited percs slowly (slightly limited)	0.13	Moderately limited erodes easily (moderately limited) percs slowly (slightly limited)	0.60 0.13	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.60	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.60
74680: Moniteau-----	Not limited		Slightly limited percs slowly (slightly limited)	0.13	Moderately limited erodes easily (moderately limited) percs slowly (slightly limited)	0.60 0.13	Very limited wetness (very limited) erodes easily (moderately limited)	1.00 0.60	Very limited wetness (very limited) erodes easily (moderately limited)	1.00 0.60
75381: Bearthicket---	Moderately limited seepage (moderately limited)	0.50	Not limited		Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
75394: Relfe-----	Very limited seepage (very limited)	1.00	Not limited		Very limited droughty (very limited)	1.00	Very limited too sandy (very limited)	1.00	Very limited droughty (very limited)	1.00
75395: Jamesfin-----	Moderately limited seepage (moderately limited)	0.50	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited) erodes easily (moderately limited)	0.60 0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
75408: Secesh-----	Very limited seepage (very limited)	1.00	Not limited		Not limited		Not limited		Not limited	

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75409: Relfe-----	Very limited seepage (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60	Limited droughty (limited) flooding (moderately limited)	0.84 0.60	Very limited too sandy (very limited)	1.00	Limited droughty (limited)	0.84
75411: Tilk-----	Very limited seepage (very limited)	1.00	Moderately limited large stones (moderately limited)	0.51	Slightly limited droughty (slightly limited)	0.04	Limited large stones (limited)	0.90	Limited large stones (limited) droughty (slightly limited)	0.90 0.04
75416: Gladden-----	Very limited seepage (very limited)	1.00	Limited cutbanks cave (limited) flooding (moderately limited)	0.90 0.60	Moderately limited flooding (moderately limited)	0.60	Not limited		Not limited	
75417: Relfe-----	Very limited seepage (very limited)	1.00	Limited flooding (limited)	0.90	Very limited droughty (very limited) flooding (limited)	1.00 0.90	Moderately limited too sandy (moderately limited)	0.60	Very limited droughty (very limited)	1.00
Sandbur-----	Very limited seepage (very limited)	1.00	Limited flooding (limited)	0.90	Limited flooding (limited)	0.90	Very limited too sandy (very limited)	1.00	Not limited	
75426: Gabriel-----	Not limited		Slightly limited percs slowly (slightly limited)	0.13	Moderately limited erodes easily (moderately limited) percs slowly (slightly limited)	0.60 0.13	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.60	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.60

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75428:										
Tilk-----	Very limited seepage (very limited)	1.00	Moderately limited flooding (moderately limited) large stones (slightly limited) slope (slightly limited)	0.60 0.18 0.10	Moderately limited flooding (moderately limited) droughty (moderately limited) slope (slightly limited)	0.60 0.55 0.10	Moderately limited large stones (moderately limited)	0.53	Moderately limited droughty (moderately limited) large stones (moderately limited)	0.55 0.53
Cornwall-----	Limited slope (limited) seepage (moderately limited)	0.70 0.50	Very limited slope (very limited) perc's slowly (moderately limited)	1.00 0.39	Very limited slope (very limited) perc's slowly (moderately limited)	1.00 0.39	Limited slope (limited) wetness (limited)	0.70 0.68	Limited slope (limited) wetness (limited)	0.70 0.68
Poynor-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited) droughty (moderately limited) large stones (slightly limited)	1.00 0.44 0.01	Very limited large stones (very limited) slope (limited)	1.00 0.99	Very limited large stones (very limited) slope (limited) droughty (moderately limited)	1.00 0.99 0.44
75429:										
Tilk-----	Very limited seepage (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited)	0.60	Not limited		Not limited	
Secesh-----	Very limited seepage (very limited)	1.00	Very limited large stones (very limited)	1.00	Slightly limited large stones (slightly limited)	0.12	Very limited large stones (very limited)	1.00	Very limited large stones (very limited)	1.00
75430:										
Wideman-----	Very limited seepage (very limited)	1.00	Limited cutbanks cave (limited) flooding (moderately limited)	0.90 0.60	Moderately limited flooding (moderately limited)	0.60	Very limited too sandy (very limited)	1.00	Not limited	
75432:										
Batcave-----	Moderately limited seepage (moderately limited)	0.50	Limited flooding (limited)	0.90	Limited flooding (limited)	0.90	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75432: Farewell-----	Moderately limited seepage (moderately limited)	0.32	Limited flooding (limited)	0.90	Limited flooding (limited)	0.90	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
75451: Gladden-----	Very limited seepage (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited) erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
75462: Huzzah-----	Very limited seepage (very limited)	1.00	Limited cutbanks cave (limited flooding (moderately limited))	0.90 0.60	Moderately limited flooding (moderately limited)	0.60	Not limited		Not limited	
75463: Huzzah-----	Very limited seepage (very limited)	1.00	Limited cutbanks cave (limited)	0.90	Not limited		Moderately limited too sandy (moderately limited)	0.60	Not limited	
75464: Cedargap-----	Very limited seepage (very limited)	1.00	Not limited		Not limited		Not limited		Not limited	
75465: Raftville-----	Very limited seepage (very limited) depth to bedrock (limited)	1.00 0.94	Limited depth to bedrock (limited)	0.66	Limited depth to bedrock (limited) droughty (slightly limited)	0.66 0.03	Very limited depth to bedrock (very limited)	1.00	Limited depth to bedrock (limited) droughty (slightly limited)	0.94 0.03
Gabriel-----	Not limited		Slightly limited percs slowly (slightly limited)	0.13	Moderately limited erodes easily (moderately limited) percs slowly (slightly limited)	0.60 0.13	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.60	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.60

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75466: Midco-----	Very limited seepage (very limited)	1.00	Limited cutbanks cave (limited flooding (moderately limited) large stones (slightly limited)	0.90 0.60 0.30	Limited droughty (limited) flooding (moderately limited)	0.61 0.60	Moderately limited large stones (moderately limited)	0.46	Limited droughty (limited) large stones (moderately limited)	0.61 0.46
75470: Farewell-----	Moderately limited seepage (moderately limited)	0.32	Not limited		Moderately limited erodes easily (moderately limited)	0.60	Very limited wetness (very limited) erodes easily (moderately limited)	1.00 0.60	Very limited wetness (very limited) erodes easily (moderately limited)	1.00 0.60
77000: Killarney-----	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited slope (very limited) large surface stones (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) large stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) large stones (very limited)	1.00 1.00 1.00
Frenchmill----	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited slope (very limited) large surface stones (very limited) large stones (limited)	1.00 1.00 0.79	Very limited slope (very limited) large surface stones (very limited) large stones (slightly limited)	1.00 1.00 0.14	Very limited slope (very limited) large surface stones (very limited) large stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) large stones (very limited)	1.00 1.00 1.00
77003: Delassus-----	Limited slope (limited) seepage (moderately limited) depth to bedrock (slightly limited)	0.99 0.50 0.27	Very limited slope (very limited) percs slowly (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) percs slowly (very limited) large surface stones (limited)	1.00 1.00 0.70	Limited slope (limited) large surface stones (limited) wetness (moderately limited)	0.99 0.70 0.39	Limited slope (limited) rooting depth (limited) large surface stones (limited)	0.99 0.80 0.70

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77004:										
Irondale-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	depth to bedrock (limited)	0.97	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	depth to bedrock (very limited)	1.00	large surface stones (very limited)	1.00
	seepage (moderately limited)	0.50	depth to bedrock (limited)	0.86	depth to bedrock (limited)	0.86	large surface stones (very limited)	1.00	large stones (very limited)	0.99
77007:										
Taumsauk-----	Very limited bedrock <20 in. (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited shallow to bedrock (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited bedrock <20 in. (very limited)	1.00
	slope (very limited)	1.00	shallow to bedrock (very limited)	1.00	slope (very limited)	1.00	depth to bedrock (very limited)	1.00	slope (very limited)	1.00
			large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00
Irondale-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	depth to bedrock (limited)	0.97	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	depth to bedrock (very limited)	1.00	large surface stones (very limited)	1.00
			large stones (very limited)	1.00	depth to bedrock (limited)	0.86	large surface stones (very limited)	1.00	large stones (very limited)	1.00
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77009:										
Trackler-----	Limited depth to bedrock (limited)	0.64	Limited slope (limited)	0.98	Limited slope (limited)	0.98	Very limited large stones (very limited)	1.00	Very limited large stones (very limited)	1.00
	slope (moderately limited)	0.31	large stones (moderately limited)	0.51	erodes easily (moderately limited)	0.60	depth to bedrock (limited)	0.61	depth to bedrock (limited)	0.64
			percs slowly (slightly limited)	0.13	large stones (slightly limited)	0.19	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77011:										
Taumsauk-----	Very limited bedrock <20 in. (very limited) slope (limited)	1.00 0.70	Very limited shallow to bedrock (very limited) large stones (very limited) slope (very limited)	1.00 1.00 1.00	Very limited shallow to bedrock (very limited) droughty (very limited) slope (very limited)	1.00 1.00 1.00	Very limited depth to bedrock (very limited) large stones (very limited) slope (limited)	1.00 1.00 0.70	Very limited large stones (very limited) bedrock <20 in. (very limited) droughty (very limited)	1.00 1.00 1.00
Irondale-----	Limited depth to bedrock (limited) slope (limited)	0.88 0.70	Very limited slope (very limited) depth to bedrock (moderately limited) large stones (slightly limited)	1.00 0.42 0.30	Very limited slope (very limited) depth to bedrock (moderately limited) percs slowly (slightly limited)	1.00 0.42 0.17	Very limited depth to bedrock (very limited) slope (limited) large stones (limited)	1.00 0.70 0.65	Limited depth to bedrock (limited) slope (limited) large stones (limited)	0.88 0.70 0.65
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
77012:										
Mudlick-----	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited slope (very limited) large surface stones (very limited) percs slowly (slightly limited)	1.00 1.00 0.13	Very limited slope (very limited) large surface stones (very limited) percs slowly (slightly limited)	1.00 1.00 0.13	Very limited slope (very limited) large surface stones (very limited) large stones (slightly limited)	1.00 1.00 0.08	Very limited slope (very limited) large surface stones (very limited) large stones (slightly limited)	1.00 1.00 0.08
Irondale-----	Very limited slope (very limited) depth to bedrock (limited) seepage (moderately limited)	1.00 0.97 0.50	Very limited slope (very limited) large surface stones (very limited) depth to bedrock (limited)	1.00 1.00 0.86	Very limited slope (very limited) large surface stones (very limited) depth to bedrock (limited)	1.00 1.00 0.86	Very limited slope (very limited) depth to bedrock (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) large stones (very limited)	1.00 1.00 1.00
Killarney-----	Very limited slope (very limited)	1.00	Very limited slope (very limited) large surface stones (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) percs slowly (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) large stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) large stones (very limited)	1.00 1.00 1.00

Table 15.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas		Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77013: Mudlick-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited) large surface stones (limited) percs slowly (slightly limited)	1.00 0.70 0.13	Very limited slope (very limited) large surface stones (limited) percs slowly (slightly limited)	1.00 0.70 0.13	Limited slope (limited) large surface stones (limited) large stones (slightly limited)	0.99 0.70 0.11	Limited slope (limited) large surface stones (limited) large stones (slightly limited)	0.99 0.70 0.11
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99006: Psammets-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99007: Dam-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99010: Pits-----	Not rated		Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99013: Riverwash-----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 16.--Waste Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73042:										
Niangua-----	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	large surface stones (very limited)	1.00	slope (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	slope (very limited)	1.00
							depth to bedrock (moderately limited)	0.39	depth to bedrock (very limited)	1.00
Bardley-----	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	large surface stones (very limited)	1.00	slope (very limited)	1.00	large surface stones (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	droughty (limited)	0.66	droughty (limited)	0.66	droughty (limited)	0.66	large surface stones (very limited)	1.00	depth to bedrock (very limited)	1.00
73055:										
Alred-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	slope (very limited)	1.00
	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70
Rueter-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	slope (very limited)	1.00
	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value						
73139:										
Poynor-----	Very limited poor filter (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.76 0.17	Very limited poor filter (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.76 0.17	Very limited poor filter (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.99 0.17	Very limited poor filter (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.99 0.17	Very limited slope (very limited) percs slowly (moderately limited) large surface stones (slightly limited)	1.00 0.32 0.17
Clarksville----	Very limited poor filter (very limited) slope (limited) too acid (slightly limited)	1.00 0.76 0.30	Very limited poor filter (very limited) slope (limited) too acid (slightly limited)	1.00 0.76 0.30	Very limited poor filter (very limited) slope (limited) too acid (slightly limited)	1.00 0.99 0.30	Very limited poor filter (very limited) slope (limited) too acid (slightly limited)	1.00 0.99 0.30	Very limited percs slowly (very limited) slope (very limited) large surface stones (slightly limited)	1.00 1.00 0.17
Scholten-----	Very limited poor filter (very limited) wetness (limited) too acid (limited)	1.00 0.78 0.76	Very limited poor filter (very limited) wetness (limited) too acid (limited)	1.00 0.78 0.76	Very limited poor filter (very limited) slope (limited) wetness (limited)	1.00 0.99 0.78	Very limited poor filter (very limited) slope (limited) wetness (limited)	1.00 0.99 0.78	Very limited percs slowly (very limited) slope (very limited) wetness (very limited)	1.00 1.00 1.00
73140:										
Clarksville----	Very limited slope (very limited) poor filter (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) poor filter (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) poor filter (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) poor filter (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited percs slowly (very limited) slope (very limited) large surface stones (limited)	1.00 1.00 0.70
Scholten-----	Very limited slope (very limited) poor filter (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) poor filter (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) poor filter (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) poor filter (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited percs slowly (very limited) slope (very limited) wetness (very limited)	1.00 1.00 1.00

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value						
73143: Courtois-----	Not limited		Not limited		Slightly limited slope (slightly limited)	0.20	Slightly limited slope (slightly limited)	0.20	Very limited percs slowly (very limited) slope (limited)	1.00 0.66
73144: Courtois-----	Limited slope (limited)	0.68	Limited slope (limited)	0.68	Limited slope (limited)	0.89	Limited slope (limited)	0.89	Very limited percs slowly (very limited) slope (very limited)	1.00 1.00
73147: Fourche-----	Limited percs slowly (limited) wetness (slightly limited)	0.61 0.28	Limited percs slowly (limited) wetness (slightly limited)	0.61 0.28	Limited percs slowly (limited) wetness (slightly limited) slope (slightly limited)	0.61 0.28 0.20	Limited percs slowly (limited) wetness (slightly limited) slope (slightly limited)	0.61 0.28 0.20	Very limited percs slowly (very limited) wetness (very limited) slope (limited)	1.00 1.00 0.66
73155: Gasconade-----	Very limited shallow to bedrock (very limited) droughty (very limited) slope (very limited)	1.00 1.00 1.00	Very limited droughty (very limited) shallow to bedrock (very limited) slope (very limited)	1.00 1.00 1.00	Very limited droughty (very limited) shallow to bedrock (very limited) slope (very limited)	1.00 1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) percs slowly (limited)	1.00 1.00 0.61	Very limited percs slowly (very limited) depth to bedrock (very limited) slope (very limited)	1.00 1.00 1.00
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73156: Alred-----	Very limited poor filter (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.76 0.17	Very limited poor filter (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.76 0.17	Very limited poor filter (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.99 0.17	Very limited poor filter (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.99 0.17	Very limited percs slowly (very limited) slope (very limited) large surface stones (slightly limited)	1.00 1.00 0.17

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value						
73156: Gepp-----	Very limited poor filter (very limited) slope (limited) too acid (limited)	1.00 0.76 0.61	Very limited poor filter (very limited) slope (limited) too acid (limited)	1.00 0.76 0.61	Very limited poor filter (very limited) slope (limited) too acid (limited)	1.00 0.99 0.61	Very limited poor filter (very limited) slope (limited) too acid (limited)	1.00 0.99 0.61	Very limited percs slowly (very limited) slope (very limited) too acid (slightly limited)	1.00 1.00 0.21
73157: Captina-----	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited) slope (moderately limited)	0.36 0.31	Moderately limited wetness (moderately limited) slope (moderately limited)	0.36 0.31	Very limited percs slowly (very limited) wetness (very limited) slope (limited)	1.00 1.00 0.91
73159: Yelton-----	Moderately limited wetness (moderately limited)	0.58	Moderately limited wetness (moderately limited)	0.58	Moderately limited wetness (moderately limited) slope (slightly limited)	0.58 0.20	Moderately limited wetness (moderately limited) slope (slightly limited)	0.58 0.20	Very limited percs slowly (very limited) wetness (very limited) slope (limited)	1.00 1.00 0.66
73197: Viburnum-----	Limited percs slowly (limited) wetness (moderately limited)	0.61 0.60	Limited percs slowly (limited) wetness (moderately limited)	0.61 0.60	Limited percs slowly (limited) wetness (moderately limited) slope (slightly limited)	0.61 0.60 0.10	Limited percs slowly (limited) wetness (moderately limited) slope (slightly limited)	0.61 0.60 0.10	Very limited percs slowly (very limited) wetness (very limited) too acid (moderately limited)	1.00 1.00 0.42
73222: Splitlimb-----	Very limited ponded (wetness) (very limited) percs slowly (limited) wetness (moderately limited)	1.00 0.61 0.55	Very limited ponded (wetness) (very limited) percs slowly (limited) wetness (moderately limited)	1.00 0.61 0.55	Very limited ponded (wetness) (very limited) percs slowly (limited) wetness (moderately limited)	1.00 0.61 0.55	Very limited ponded (wetness) (very limited) percs slowly (limited) wetness (moderately limited)	1.00 0.61 0.55	Very limited percs slowly (very limited) ponded (wetness) (very limited) wetness (very limited)	1.00 1.00 1.00

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73223:										
Coulstone-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00
	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	percs slowly (moderately limited)	0.32
Bender-----	Very limited droughty (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited slope (very limited)	1.00
	slope (very limited)	1.00	slope (very limited)	1.00	droughty (very limited)	1.00	slope (very limited)	1.00	depth to bedrock (very limited)	1.00
	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	too cobbly (very limited)	1.00
73269:										
Brussels-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	slope (very limited)	1.00
	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	large surface stones (very limited)	1.00
Gasconade-----	Very limited slope (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	shallow to bedrock (very limited)	1.00	shallow to bedrock (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	droughty (very limited)	1.00	slope (very limited)	1.00	shallow to bedrock (very limited)	1.00	large surface stones (very limited)	1.00	depth to bedrock (very limited)	1.00
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73290:										
Gatewood-----	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.36	Moderately limited wetness (moderately limited)	0.36	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	depth to bedrock (slightly limited)	0.09	depth to bedrock (slightly limited)	0.09	slope (moderately limited)	0.31	wetness (moderately limited)	0.36	depth to bedrock (very limited)	1.00
					depth to bedrock (slightly limited)	0.09	slope (moderately limited)	0.31	wetness (very limited)	1.00
Aaron-----	Limited percs slowly (limited)	0.61	Limited percs slowly (limited)	0.61	Limited percs slowly (limited)	0.61	Limited percs slowly (limited)	0.61	Very limited percs slowly (very limited)	1.00
	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	depth to bedrock (moderately limited)	0.57	depth to bedrock (very limited)	1.00
					slope (moderately limited)	0.31	wetness (moderately limited)	0.36	wetness (very limited)	1.00
73291:										
Gatewood-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Limited slope (limited)	0.99	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	percs slowly (limited)	0.61	percs slowly (limited)	0.61	percs slowly (limited)	0.61	slope (limited)	0.99	slope (very limited)	1.00
	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	percs slowly (limited)	0.61	depth to bedrock (very limited)	1.00
Aaron-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Limited slope (limited)	0.99	Limited slope (limited)	0.99	Very limited percs slowly (very limited)	1.00
	percs slowly (limited)	0.61	percs slowly (limited)	0.61	percs slowly (limited)	0.61	percs slowly (limited)	0.61	slope (very limited)	1.00
	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	depth to bedrock (moderately limited)	0.39	depth to bedrock (very limited)	1.00
73295:										
Taterhill-----	Not limited		Not limited		Moderately limited slope (moderately limited)	0.31	Moderately limited slope (moderately limited)	0.31	Very limited percs slowly (very limited)	0.99
									slope (limited)	0.91

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73298:										
Tonti-----	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Very limited percs slowly (very limited)	1.00
	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	wetness (very limited)	1.00
					slope (slightly limited)	0.20	slope (slightly limited)	0.20	slope (limited)	0.66
Hogcreek-----	Moderately limited wetness (moderately limited)	0.55	Moderately limited wetness (moderately limited)	0.55	Moderately limited wetness (moderately limited)	0.55	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	depth to bedrock (slightly limited)	0.18	depth to bedrock (slightly limited)	0.18	depth to bedrock (slightly limited)	0.18	wetness (moderately limited)	0.55	wetness (very limited)	1.00
	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	percs slowly (limited)	0.92
73310:										
Scholten-----	Limited droughty (limited)	0.70	Limited droughty (limited)	0.70	Limited droughty (limited)	0.70	Moderately limited wetness (moderately limited)	0.58	Very limited wetness (very limited)	1.00
	wetness (moderately limited)	0.58	wetness (moderately limited)	0.58	wetness (moderately limited)	0.58	too acid (moderately limited)	0.42	percs slowly (limited)	0.78
	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	slope (slightly limited)	0.20	slope (limited)	0.66
Bendavis-----	Slightly limited too acid (slightly limited)	0.30	Slightly limited too acid (slightly limited)	0.30	Slightly limited too acid (slightly limited)	0.30	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	too acid (slightly limited)	0.30	wetness (very limited)	1.00
	depth to bedrock (slightly limited)	0.27	depth to bedrock (slightly limited)	0.27	depth to bedrock (slightly limited)	0.27	wetness (slightly limited)	0.28	percs slowly (limited)	0.78
Poynor-----	Moderately limited too acid (moderately limited)	0.42	Moderately limited too acid (moderately limited)	0.42	Moderately limited too acid (moderately limited)	0.42	Moderately limited too acid (moderately limited)	0.42	Limited percs slowly (limited)	0.73
					slope (slightly limited)	0.10	slope (slightly limited)	0.10	slope (moderately limited)	0.31
									too acid (slightly limited)	0.03

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73311: Scholten-----	Limited slope (limited) droughty (limited) wetness (moderately limited)	0.76 0.70 0.58	Limited slope (limited) droughty (limited) wetness (moderately limited)	0.76 0.70 0.58	Limited slope (limited) droughty (limited) wetness (moderately limited)	0.99 0.70 0.58	Limited slope (limited) wetness (moderately limited) too acid (moderately limited)	0.99 0.58 0.42	Very limited slope (very limited) wetness (very limited) percs slowly (limited)	1.00 1.00 0.78
Bendavis-----	Limited slope (limited) depth to bedrock (moderately limited) droughty (moderately limited)	0.76 0.58 0.45	Limited slope (limited) depth to bedrock (moderately limited) droughty (moderately limited)	0.76 0.58 0.45	Limited slope (limited) depth to bedrock (moderately limited) droughty (moderately limited)	0.99 0.58 0.45	Very limited depth to bedrock (very limited) slope (limited) wetness (slightly limited)	1.00 0.99 0.28	Very limited slope (very limited) depth to bedrock (very limited) wetness (very limited)	1.00 1.00 1.00
Poynor-----	Limited slope (limited) droughty (moderately limited) too acid (moderately limited)	0.76 0.57 0.42	Limited slope (limited) droughty (moderately limited) too acid (moderately limited)	0.76 0.57 0.42	Limited slope (limited) droughty (moderately limited) too acid (moderately limited)	0.99 0.57 0.42	Limited slope (limited) too acid (moderately limited)	0.99 0.42	Very limited slope (very limited) percs slowly (limited) too acid (slightly limited)	1.00 0.78 0.03
73333: Taterhill-----	Not limited		Not limited		Not limited		Not limited		Very limited percs slowly (very limited) too acid (slightly limited)	1.00 0.03
73334: Horneybuck-----	Limited percs slowly (limited) wetness (moderately limited) slope (slightly limited)	0.61 0.55 0.20	Limited percs slowly (limited) wetness (moderately limited)	0.61 0.55	Limited percs slowly (limited) wetness (moderately limited) slope (slightly limited)	0.61 0.55 0.20	Limited percs slowly (limited) wetness (moderately limited) slope (slightly limited)	0.61 0.55 0.20	Very limited percs slowly (very limited) wetness (very limited) slope (limited)	1.00 1.00 0.66

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73335: Hobson-----	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited) slope (moderately limited)	0.44 0.31	Moderately limited wetness (moderately limited) slope (moderately limited)	0.44 0.31	Very limited percs slowly (very limited) wetness (very limited) slope (limited)	1.00 1.00 0.91
Rueter-----	Limited percs slowly (limited) too acid (limited) droughty (slightly limited)	0.61 0.61 0.04	Limited percs slowly (limited) too acid (limited) droughty (slightly limited)	0.61 0.61 0.04	Limited percs slowly (limited) too acid (limited) slope (moderately limited)	0.61 0.61 0.31	Limited percs slowly (limited) too acid (limited) slope (moderately limited)	0.61 0.61 0.31	Very limited percs slowly (very limited) slope (limited) too acid (slightly limited)	1.00 0.91 0.21
73336: Rueter-----	Limited slope (limited) percs slowly (limited) too acid (moderately limited)	0.76 0.60 0.42	Limited slope (limited) percs slowly (limited) too acid (moderately limited)	0.76 0.61 0.42	Limited slope (limited) percs slowly (limited) too acid (moderately limited)	0.99 0.61 0.42	Limited slope (limited) percs slowly (limited) too acid (moderately limited)	0.99 0.61 0.42	Very limited percs slowly (very limited) slope (very limited) too cobbly (moderately limited)	1.00 1.00 0.33
Gepp-----	Limited slope (limited) too acid (limited)	0.76 0.61	Limited slope (limited) too acid (limited)	0.76 0.61	Limited slope (limited) too acid (limited)	0.99 0.61	Limited slope (limited) too acid (limited)	0.99 0.61	Very limited percs slowly (very limited) slope (very limited) too acid (slightly limited)	1.00 1.00 0.07
73337: Tonti-----	Moderately limited wetness (moderately limited) too acid (slightly limited)	0.44 0.30	Moderately limited wetness (moderately limited) too acid (slightly limited)	0.44 0.30	Moderately limited wetness (moderately limited) slope (moderately limited) too acid (slightly limited)	0.44 0.31 0.30	Moderately limited wetness (moderately limited) slope (moderately limited) too acid (slightly limited)	0.44 0.31 0.30	Very limited percs slowly (very limited) wetness (very limited) slope (limited)	1.00 1.00 0.91

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73337:										
Portia-----	Slightly limited too acid (slightly limited)	0.24	Slightly limited too acid (slightly limited)	0.24	Slightly limited too acid (slightly limited)	0.24	Slightly limited too acid (slightly limited)	0.24	Very limited percs slowly (very limited)	1.00
					slope (slightly limited)	0.20	slope (slightly limited)	0.20	slope (limited)	0.66
									too acid (slightly limited)	0.21
73338:										
Portia-----	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited)	0.60	Limited slope (limited)	0.80	Limited slope (limited)	0.80	Very limited percs slowly (very limited)	1.00
									slope (very limited)	1.00
									too acid (slightly limited)	0.03
Hobson-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Limited slope (limited)	0.99	Limited slope (limited)	0.99	Very limited percs slowly (very limited)	1.00
	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	slope (very limited)	1.00
									wetness (very limited)	1.00
73339:										
Arkana-----	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	slope (limited)	0.76	slope (limited)	0.76	slope (limited)	0.99	poor filter (very limited)	1.00	slope (very limited)	1.00
	depth to bedrock (slightly limited)	0.29	depth to bedrock (slightly limited)	0.29	depth to bedrock (slightly limited)	0.29	slope (limited)	0.99	depth to bedrock (very limited)	1.00
Gepp-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Limited slope (limited)	0.99	Limited slope (limited)	0.99	Very limited percs slowly (very limited)	1.00
									slope (very limited)	1.00

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73340:										
Rueter-----	Limited slope (limited) percs slowly (limited) too acid (slightly limited)	0.76 0.61 0.30	Limited slope (limited) percs slowly (limited) (slightly limited)	0.76 0.61 0.30	Limited slope (limited) percs slowly (limited) (slightly limited)	0.99 0.61 0.30	Limited slope (limited) percs slowly (limited) (slightly limited)	0.99 0.61 0.30	Very limited percs slowly (very limited) slope (very limited) too acid (slightly limited)	1.00 1.00 0.01
Gepp-----	Limited slope (limited) droughty (slightly limited)	0.76 0.06	Limited slope (limited) droughty (slightly limited)	0.76 0.06	Limited slope (limited) droughty (slightly limited)	0.99 0.06	Limited slope (limited) droughty (slightly limited)	0.99	Very limited percs slowly (very limited) slope (very limited)	1.00 1.00
73341:										
Gepp-----	Very limited slope (very limited) too acid (slightly limited) droughty (slightly limited)	1.00 0.30 0.09	Very limited slope (very limited) too acid (slightly limited) droughty (slightly limited)	1.00 0.30 0.09	Very limited slope (very limited) too acid (slightly limited) droughty (slightly limited)	1.00 0.30 0.09	Very limited slope (very limited) too acid (slightly limited) droughty (slightly limited)	1.00 0.30	Very limited percs slowly (very limited) slope (very limited) too acid (slightly limited)	1.00 1.00 0.14
Arkana-----	Very limited slope (very limited) poor filter (very limited) droughty (moderately limited)	1.00 1.00 0.34	Very limited slope (very limited) poor filter (very limited) droughty (moderately limited)	1.00 1.00 0.34	Very limited slope (very limited) poor filter (very limited) droughty (moderately limited)	1.00 1.00 0.34	Very limited slope (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) depth to bedrock (very limited)	1.00 1.00 1.00
73342:										
Alred-----	Limited slope (limited) too acid (slightly limited) droughty (slightly limited)	0.76 0.12 0.01	Limited slope (limited) too acid (slightly limited) droughty (slightly limited)	0.76 0.12 0.01	Limited slope (limited) too acid (slightly limited) droughty (slightly limited)	0.99 0.12 0.01	Limited slope (limited) too acid (slightly limited) droughty (slightly limited)	0.99 0.12	Very limited percs slowly (very limited) slope (very limited) too acid (slightly limited)	1.00 1.00 0.03

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73342:										
Arkana-----	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	droughty (limited)	0.78	droughty (limited)	0.78	slope (limited)	0.99	poor filter (very limited)	1.00	slope (very limited)	1.00
	slope (limited)	0.76	slope (limited)	0.76	droughty (limited)	0.78	slope (limited)	0.99	depth to bedrock (very limited)	1.00
74636:										
Lecoma-----	Not limited		Not limited		Moderately limited slope (moderately limited)	0.31	Moderately limited slope (moderately limited)	0.31	Very limited percs slowly (very limited)	1.00
									slope (limited)	0.91
74637:										
Lecoma-----	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited)	0.60	Limited slope (limited)	0.80	Limited slope (limited)	0.80	Very limited percs slowly (very limited)	1.00
									slope (very limited)	1.00
74643:										
Lecoma-----	Not limited		Not limited		Not limited		Not limited		Very limited percs slowly (very limited)	1.00
74644:										
Deible-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited percs slowly (very limited)	1.00
									wetness (very limited)	1.00
74646:										
Cornwall-----	Limited percs slowly (limited)	0.99	Limited percs slowly (limited)	0.99	Limited percs slowly (limited)	0.99	Limited percs slowly (limited)	0.99	Very limited percs slowly (very limited)	1.00
	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	wetness (very limited)	1.00
					slope (moderately limited)	0.31	slope (moderately limited)	0.31	slope (limited)	0.91

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74648:										
Aslinger-----	Limited		Limited		Limited		Limited		Very limited	
	percs slowly (limited)	0.61	percs slowly (limited)	0.61	percs slowly (limited)	0.61	percs slowly (limited)	0.61	percs slowly (very limited)	1.00
	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	wetness (very limited)	1.00
	droughty (slightly limited)	0.01	droughty (slightly limited)	0.01	slope (moderately limited)	0.31	slope (moderately limited)	0.31	slope (limited)	0.91
74649:										
Aslinger-----	Limited		Limited		Limited		Limited		Very limited	
	percs slowly (limited)	0.61	percs slowly (limited)	0.61	slope (limited)	0.70	slope (limited)	0.70	percs slowly (very limited)	1.00
	too acid (limited)	0.61	too acid (limited)	0.61	percs slowly (limited)	0.61	percs slowly (limited)	0.61	wetness (very limited)	1.00
	slope (moderately limited)	0.45	slope (moderately limited)	0.45	too acid (limited)	0.61	too acid (limited)	0.61	slope (very limited)	1.00
Waben-----	Not limited		Slightly limited		Slightly limited		Slightly limited		Limited	
	droughty (slightly limited)	0.01	droughty (slightly limited)	0.01	slope (slightly limited)	0.20	slope (slightly limited)	0.20	slope (limited)	0.66
					droughty (slightly limited)	0.01			percs slowly (moderately limited)	0.32
									too cobbly (slightly limited)	0.01
74651:										
Waben-----	Slightly limited		Slightly limited		Moderately limited		Moderately limited		Limited	
	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	slope (moderately limited)	0.31	slope (moderately limited)	0.31	slope (limited)	0.91
	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	percs slowly (moderately limited)	0.32
					droughty (slightly limited)	0.02			too acid (slightly limited)	0.01
74658:										
Zanoni-----	Slightly limited		Slightly limited		Slightly limited		Slightly limited		Slightly limited	
	flooding (slightly limited)	0.30	flooding (slightly limited)	0.30	flooding (slightly limited)	0.30	flooding (slightly limited)	0.30	percs slowly (slightly limited)	0.22

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74679:										
Higdon-----	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.61 0.60 0.30	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.61 0.60 0.30	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.61 0.60 0.30	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.61 0.60 0.30	Very limited percs slowly (very limited) wetness (very limited)	1.00 1.00
74680:										
Moniteau-----	Very limited wetness (very limited) percs slowly (limited) flooding (slightly limited)	1.00 0.61 0.30	Very limited wetness (very limited) percs slowly (limited) flooding (slightly limited)	1.00 0.61 0.30	Very limited wetness (very limited) percs slowly (limited) flooding (slightly limited)	1.00 0.61 0.30	Very limited wetness (very limited) percs slowly (limited) flooding (slightly limited)	1.00 0.61 0.30	Very limited percs slowly (very limited) wetness (very limited)	1.00 1.00
75381:										
Bearthicket----	Slightly limited flooding (slightly limited)	0.30	Slightly limited flooding (slightly limited)	0.30	Slightly limited flooding (slightly limited)	0.30	Slightly limited flooding (slightly limited)	0.30	Very limited percs slowly (very limited)	1.00
75394:										
Relfe-----	Very limited droughty (very limited) poor filter (very limited) flooding (slightly limited)	1.00 1.00 0.30	Very limited droughty (very limited) poor filter (very limited) flooding (slightly limited)	1.00 1.00 0.30	Very limited droughty (very limited) poor filter (very limited) flooding (slightly limited)	1.00 1.00 0.30	Very limited poor filter (very limited) flooding (slightly limited)	1.00 0.30	Limited percs slowly (moderately limited)	0.50
75395:										
Jamesfin-----	Limited flooding (limited)	0.90	Limited flooding (limited)	0.90	Limited flooding (limited)	0.90	Limited flooding (limited)	0.90	Very limited percs slowly (very limited) wetness (limited) flooding (moderately limited)	1.00 0.61 0.60

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value						
75408: Secesh-----	Slightly limited flooding (slightly limited)	0.30	Very limited percs slowly (very limited)	1.00						
75409: Relfe-----	Very limited poor filter (very limited) flooding (limited) droughty (limited)	1.00 0.90 0.84	Very limited poor filter (very limited) flooding (limited) droughty (limited)	1.00 0.90 0.84	Very limited poor filter (very limited) flooding (limited) droughty (limited)	1.00 0.90 0.84	Very limited poor filter (very limited) flooding (limited)	1.00 0.90	Limited flooding (moderately limited)	0.60
75411: Tilk-----	Very limited poor filter (very limited) flooding (slightly limited) too acid (slightly limited)	1.00 0.30 0.18	Very limited poor filter (very limited) flooding (slightly limited) too acid (slightly limited)	1.00 0.30 0.18	Very limited poor filter (very limited) flooding (slightly limited) too acid (slightly limited)	1.00 0.30 0.18	Very limited poor filter (very limited) flooding (slightly limited) too acid (slightly limited)	1.00 0.30 0.18	Slightly limited percs slowly (moderately limited) too acid (slightly limited)	0.32 0.01
75416: Gladden-----	Very limited poor filter (very limited) flooding (limited)	1.00 0.90	Very limited poor filter (very limited) flooding (limited)	1.00 0.90	Very limited poor filter (very limited) flooding (limited)	1.00 0.90	Very limited poor filter (very limited) flooding (limited)	1.00 0.90	Very limited percs slowly (very limited) flooding (moderately limited)	1.00 0.60
75417: Relfe-----	Very limited flooding (very limited) droughty (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited flooding (very limited) droughty (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited flooding (very limited) droughty (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited flooding (very limited) poor filter (very limited)	1.00 1.00	Very limited flooding (very limited) percs slowly (moderately limited)	1.00 0.50
Sandbur-----	Very limited flooding (very limited)	1.00	Very limited flooding (very limited) percs slowly (moderately limited)	1.00 0.32						

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value						
75426: Gabriel-----	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.61 0.60 0.30	Very limited percs slowly (very limited) wetness (very limited)	1.00 1.00						
75428: Tilk-----	Limited flooding (limited) droughty (moderately limited) too acid (slightly limited)	0.90 0.55 0.24	Limited flooding (limited) droughty (moderately limited) too acid (slightly limited)	0.90 0.55 0.24	Limited flooding (limited) droughty (moderately limited) too acid (slightly limited)	0.90 0.55 0.24	Limited flooding (limited) too acid (slightly limited)	0.90 0.24	Limited flooding (moderately limited) percs slowly (moderately limited) too acid (slightly limited)	0.60 0.32 0.21
Cornwall-----	Limited wetness (limited) slope (moderately limited) too acid (slightly limited)	0.68 0.45 0.24	Limited wetness (limited) slope (moderately limited) too acid (slightly limited)	0.68 0.45 0.24	Limited slope (limited) wetness (limited) too acid (slightly limited)	0.70 0.68 0.24	Limited slope (limited) wetness (limited) too acid (slightly limited)	0.70 0.68 0.24	Very limited percs slowly (very limited) wetness (very limited) slope (very limited)	1.00 1.00 1.00
Poynor-----	Very limited poor filter (very limited) slope (limited) too acid (moderately limited)	1.00 0.76 0.48	Very limited poor filter (very limited) slope (limited) too acid (moderately limited)	1.00 0.76 0.48	Very limited poor filter (very limited) slope (limited) too acid (moderately limited)	1.00 0.99 0.48	Very limited poor filter (very limited) slope (limited) too acid (moderately limited)	1.00 0.99 0.48	Very limited slope (very limited) percs slowly (limited) too acid (slightly limited)	1.00 0.78 0.07
75429: Tilk-----	Limited flooding (limited)	0.90	Limited flooding (limited)	0.90	Limited flooding (limited)	0.90	Limited flooding (limited)	0.90	Limited flooding (moderately limited) percs slowly (moderately limited)	0.60 0.32

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value						
75429: Secesh-----	Moderately limited large stones (moderately limited)	0.45	Moderately limited large stones (moderately limited)	0.45	Moderately limited large stones (moderately limited)	0.45	Moderately limited large stones (moderately limited)	0.45	Very limited percs slowly (very limited)	1.00
	flooding (slightly limited)	0.30	too cobbly (limited)	0.92						
75430: Wideman-----	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Limited flooding (moderately limited)	0.60
	flooding (limited)	0.90	percs slowly (moderately limited)	0.32						
75432: Batcave-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	flooding (very limited)	1.00	flooding (very limited)	1.00	flooding (very limited)	1.00	wetness (very limited)	1.00	wetness (very limited)	1.00
									flooding (very limited)	1.00
Farewell-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited flooding (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	flooding (very limited)	1.00	flooding (very limited)	1.00	flooding (very limited)	1.00	wetness (very limited)	1.00	wetness (very limited)	1.00
									flooding (very limited)	1.00
75451: Gladden-----	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	flooding (limited)	0.90	flooding (moderately limited)	0.60						
75462: Huzzah-----	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	flooding (limited)	0.90	flooding (moderately limited)	0.60						

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75463: Huzzah-----	Very limited poor filter (very limited) flooding (slightly limited)	1.00 0.30	Very limited poor filter (very limited) flooding (slightly limited)	1.00 0.30	Very limited poor filter (very limited) flooding (slightly limited)	1.00 0.30	Very limited poor filter (very limited) flooding (slightly limited)	1.00 0.30	Very limited percs slowly (very limited)	1.00
75464: Cedargap-----	Slightly limited flooding (slightly limited)	0.30	Slightly limited flooding (slightly limited)	0.30	Slightly limited flooding (slightly limited)	0.30	Slightly limited flooding (slightly limited)	0.30	Limited percs slowly (limited)	0.78
75465: Raftville-----	Limited depth to bedrock (limited) flooding (slightly limited) too acid (slightly limited)	0.66 0.30 0.24	Limited depth to bedrock (limited) flooding (slightly limited) too acid (slightly limited)	0.66 0.30 0.24	Limited depth to bedrock (limited) flooding (slightly limited) too acid (slightly limited)	0.66 0.30 0.24	Very limited depth to bedrock (very limited) flooding (slightly limited) too acid (slightly limited)	1.00 0.30 0.24	Very limited depth to bedrock (very limited) percs slowly (limited) too acid (slightly limited)	1.00 0.62 0.01
Gabriel-----	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.61 0.60 0.30	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.61 0.60 0.30	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.61 0.60 0.30	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.61 0.60 0.30	Very limited percs slowly (very limited) wetness (very limited)	1.00 1.00
75466: Midco-----	Limited flooding (limited) droughty (limited)	0.90 0.61	Limited flooding (limited) droughty (limited)	0.90 0.61	Limited flooding (limited) droughty (limited)	0.90 0.61	Limited flooding (limited)	0.90	Limited flooding (moderately limited) percs slowly (moderately limited)	0.60 0.32
75470: Farewell-----	Very limited wetness (very limited) flooding (slightly limited)	1.00 0.30	Very limited wetness (very limited) flooding (slightly limited)	1.00 0.30	Very limited wetness (very limited) flooding (slightly limited)	1.00 0.30	Very limited wetness (very limited) flooding (slightly limited)	1.00 0.30	Very limited percs slowly (very limited) wetness (very limited)	1.00 1.00

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77000:										
Killarney-----	Very limited large surface stones (very limited) slope (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited large surface stones (very limited) slope (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) poor filter (very limited)	1.00 1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) poor filter (very limited)	1.00 1.00 1.00 1.00	Very limited percs slowly (very limited) slope (very limited) wetness (very limited)	1.00 1.00 1.00 1.00
Frenchmill-----	Very limited large surface stones (very limited) slope (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited large surface stones (very limited) slope (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) poor filter (very limited)	1.00 1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) poor filter (very limited)	1.00 1.00 1.00 1.00	Very limited percs slowly (very limited) slope (very limited) large surface stones (very limited)	1.00 1.00 1.00 1.00
77003:										
Delassus-----	Limited slope (limited) large stones (limited) large surface stones (limited)	0.76 0.70 0.70	Limited slope (limited) large stones (limited) large surface stones (limited)	0.76 0.70 0.70	Limited slope (limited) large stones (limited) large surface stones (limited)	0.99 0.70 0.70	Limited slope (limited) large stones (limited) large surface stones (limited)	0.99 0.70 0.70	Very limited percs slowly (very limited) slope (very limited) depth to bedrock (very limited)	1.00 1.00 1.00
77004:										
Irondale-----	Very limited slope (very limited) large surface stones (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited large surface stones (very limited) slope (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) poor filter (very limited)	1.00 1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited percs slowly (very limited) slope (very limited) depth to bedrock (very limited)	1.00 1.00 1.00
77007:										
Taumsauk-----	Very limited shallow to bedrock (very limited) slope (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited shallow to bedrock (very limited) large surface stones (very limited) slope (very limited)	1.00 1.00 1.00	Very limited slope (very limited) shallow to bedrock (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited depth to bedrock (very limited) slope (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited percs slowly (very limited) slope (very limited) depth to bedrock (very limited)	1.00 1.00 1.00

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77007:										
Irondale-----	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	large surface stones (very limited)	1.00	slope (very limited)	1.00	large surface stones (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	large surface stones (very limited)	1.00	depth to bedrock (very limited)	1.00
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
77009:										
Trackler-----	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited too stony (very limited)	1.00
	percs slowly (limited)	0.61	percs slowly (limited)	0.61	percs slowly (limited)	0.61	percs slowly (limited)	0.61	percs slowly (very limited)	1.00
	wetness (moderately limited)	0.39	wetness (moderately limited)	0.39	wetness (moderately limited)	0.39	depth to bedrock (limited)	0.61	depth to bedrock (very limited)	1.00
77011:										
Taumsauk-----	Very limited shallow to bedrock (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited droughty (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	droughty (very limited)	1.00	shallow to bedrock (very limited)	1.00	shallow to bedrock (very limited)	1.00	slope (limited)	0.70	depth to bedrock (very limited)	1.00
	slope (moderately limited)	0.45	slope (moderately limited)	0.45	slope (limited)	0.70	too acid (slightly limited)	0.30	slope (very limited)	1.00
Irondale-----	Moderately limited slope (moderately limited)	0.45	Moderately limited slope (moderately limited)	0.45	Limited slope (limited)	0.70	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	depth to bedrock (moderately limited)	0.42	depth to bedrock (moderately limited)	0.42	depth to bedrock (moderately limited)	0.42	slope (limited)	0.70	depth to bedrock (very limited)	1.00
	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02			slope (very limited)	1.00
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77012:										
Mudlick-----	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	large surface stones (very limited)	1.00	slope (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	slope (very limited)	1.00
	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	large surface stones (very limited)	1.00
Irondale-----	Very limited slope (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	large surface stones (very limited)	1.00	slope (very limited)	1.00	large surface stones (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	large surface stones (very limited)	1.00	depth to bedrock (very limited)	1.00
Killarney-----	Very limited large surface stones (very limited)	1.00	Very limited large surface stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	slope (very limited)	1.00	slope (very limited)	1.00	large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	slope (very limited)	1.00
	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	poor filter (very limited)	1.00	wetness (very limited)	1.00
77013:										
Mudlick-----	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited poor filter (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	slope (limited)	0.76	slope (limited)	0.76	slope (limited)	0.99	slope (limited)	0.99	slope (very limited)	1.00
	large stones (limited)	0.73	large stones (limited)	0.73	large stones (limited)	0.73	large stones (limited)	0.73	large surface stones (limited)	0.70
99001:										
Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99006:										
Psammets-----	Not rated		Not rated		Not rated		Not rated		Not rated slope (slightly limited)	0.08

Table 16.--Waste Management--Continued

Map symbol and soil name	Land application of manure and food-processing waste		Land application of municipal sewage sludge		Disposal of wastewater by irrigation		Treatment of wastewater by slow rate process		Treatment of wastewater by rapid infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
99007:										
Dam-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99010:										
Pits-----	Not rated		Not rated		Not rated		Not rated		Not rated	
Dumps-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99013:										
Riverwash-----	Not rated		Not rated		Not rated		Not rated		Not rated	

Table 17.--Engineering Index Properties

(Absence of an entry indicates that data were not estimated. For an explanation of the abbreviations in the USDA texture column, see "Texture, soil" in the Glossary)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73042: Niangua-----	0-3	GRV-SIL	GC-GM, GC	A-1-b, A-6, A-2-4	0-5	0-20	35-55	30-50	25-45	20-40	22-39	6-15
	3-14	GRV-SIL, GRX-SIL	GC, GC-GM	A-1-b, A-6, A-2-4	0-5	0-20	35-55	25-50	25-50	20-45	21-34	6-15
	14-52	GR-C, C	CH	A-7-6	0-5	0-10	65-100	60-100	55-90	50-85	66-90	43-62
	52-80	UWB	---	---	---	---	---	---	---	---	---	---
Bardley-----	0-4	GRV-SIL	GC	A-2-4, A-6	0-15	0-5	35-60	30-50	30-50	25-45	30-45	10-20
	4-8	GRX-SIL, GRV-L	GC, GP-GC	A-2-4, A-2-6	0-15	0-5	25-35	20-30	20-30	12-25	28-41	10-19
	8-27	C, GR-C	CH	A-7-6	0	0-5	75-100	70-100	65-95	60-85	66-94	43-66
	27-80	UWB	---	---	---	---	---	---	---	---	---	---
73055: Alred-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-7	GRV-SIL	GC-GM, GM	A-4, A-1-b, A-2-4	0-7	0-25	35-55	30-50	30-50	25-45	18-44	2-9
	7-11	GR-SIL, GRV-SIL	CL, GC, GM	A-2-4, A-4	0-7	0-20	45-75	35-70	35-70	30-65	17-28	2-10
	11-30	GRV-L, GRX-L, GRV-SIL, GRX-SIL	GP-GC, GC	A-2-6, A-1-a, A-6	0-10	0-40	30-65	20-50	20-50	10-45	21-38	6-19
	30-80	C, GR-C, CB-C	CH	A-7-6	0-7	0-18	80-100	70-100	65-95	60-90	52-93	30-66
Rueter-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-4	GRV-SIL	GC-GM, GM	A-4, A-1-b, A-2-4	0-7	0-25	35-55	30-50	30-50	25-45	23-48	2-9
	4-17	GRV-SIL, GR-SIL	CL-ML, GM, GC, CL	A-2-4, A-4	0-7	0-25	50-75	35-70	35-70	30-65	16-33	2-10
	17-32	GRV-L, CBV-SIL, GRV-SIL, GRX-L	GC-GM, GC	A-2-4, A-2-6, A-1-a, A-6	0-10	0-40	25-55	20-50	20-50	15-45	21-39	6-19
	32-43	GRV-CL, GRV-SICL, CBV-SIC, GRV-C	GC	A-7-6, A-2-6, A-2-7	0-10	0-40	35-55	30-50	30-50	20-45	35-57	18-36
	43-71	C, GR-C, CB-C, GRV-C, CBV-C	GC, CH	A-2-7	0-10	0-40	35-95	30-90	30-90	25-85	65-95	43-67

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73139: Poynor-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-4	GR-SIL	GM	A-1-b, A-2-4, A-4	0-2	0-15	60-80	50-75	45-75	20-70	20-44	2-9
	4-13	GRV-SIL, GR-SIL	GC-GM, GM, CL	A-2-4, A-4	0-7	0-25	45-75	35-70	35-70	30-65	16-31	2-10
	13-24	GRV-SICL, GRX-SIL	GC	A-2-6, A-6, A-2-4	0-10	0-40	30-55	20-50	20-50	15-45	25-41	9-21
	24-80	C, CB-C, GR-C	CH	A-7-6	0-12	0-15	80-100	70-100	65-100	60-95	52-93	32-66
Clarksville-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-5	GR-SIL	GM, SC-SM	A-4	0-2	0-10	60-80	50-75	50-75	45-70	23-48	4-9
	5-8	GR-SIL, GRV-SIL	CL, GM, GC	A-1-b, A-4	0-7	0-20	50-75	35-70	30-70	25-65	19-31	3-10
	8-18	GR-L, GR-SIL, GRV-L, GRV-SIL	CL, GC-GM, GC	A-2-6, A-1-b, A-6	0-7	0-25	45-75	35-70	30-65	25-60	22-39	6-19
	18-42	GRV-L, GRV-SIL, GRV-CL, GRV-SICL, GRX-CL	GC, GP-GC, GC-GM	A-2-6, A-7-6	0-10	0-30	25-55	20-50	15-45	10-40	29-44	13-25
	42-65	C, GR-C, GRV-C	CL, CH, GC	A-7-6	0-7	0-15	40-95	35-90	35-85	30-80	48-71	28-47
Scholten-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-3	GR-SIL	GM	A-4	0-2	0-15	60-80	50-75	50-75	45-70	20-41	2-9
	3-8	GRV-SIL, GR-SIL	CL-ML, GM, GC, CL	A-2-4, A-4	0-7	0-25	50-75	35-70	35-70	30-65	18-31	2-10
	8-17	GRV-SICL, GRV-SIL	GC-GM, GC	A-1-b, A-6	0-7	0-25	35-50	30-50	30-50	25-45	22-48	6-25
	17-41	GRX-SIL, GRV-SIL, GRV-SICL, CBV-SIL, CBV-SICL	GC, GP-GC	A-6, A-2-4, A-2-6	0-7	0-25	25-50	20-50	20-50	12-45	25-40	9-21
	41-80	GR-SICL, GRV-SICL, GR-C, GRV-C, GR-SIC	CH, GC	A-7-6	0-7	0-25	45-80	35-75	35-75	30-70	43-84	25-59
73140: Clarksville-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-6	GR-SIL	GM	A-4	0-2	0-10	55-80	50-75	50-75	45-70	20-48	2-9
	6-13	GR-SIL, GRV-SIL	CL, GC-GM, GM	A-2-4, A-1-b, A-4	0-7	0-25	45-75	35-70	30-70	25-65	17-31	2-10
	13-21	GR-L, GR-SIL, GRV-L, GRV-SIL	CL, GC-GM, GC	A-1-b, A-2-4, A-6	0-7	0-25	45-75	35-70	30-70	25-65	21-39	6-19
	21-43	GRV-L, GRV-SIL, GRV-CL, GRV-SICL, GRX-CL	GC, GP-GC	A-7-6, A-2-7, A-2-6	0-10	0-25	25-55	20-50	15-45	10-40	29-49	13-28
	43-66	C, GR-C, GRV-C	GC, CL, CH	A-7-6	0-7	0-25	40-95	35-90	35-90	30-85	48-67	28-44

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73140: Scholten-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-6	GRV-SIL	GC-GM, GM	A-4, A-1-b, A-2-4	0-7	0-25	35-55	30-50	30-50	25-45	20-37	2-10
	6-13	GRV-SIL, GR-SIL	GM, GC-GM, CL, GC	A-2-4, A-4	0-7	0-25	45-75	35-70	35-70	30-65	17-31	2-10
	13-34	GRX-L, GRX-CL, GRV-SIL, GRV- CL	GP-GC, GC	A-2-6, A-1-a, A-6	0-7	0-25	25-55	20-50	15-50	10-45	20-40	6-21
	34-58	GRX-SIL, GRX- CL, GRV-SIL, GRV-CL, GRV-L, GRX-L	GC, GP-GC	A-2-4, A-6, A-2-6	0-7	0-20	25-50	20-50	15-50	10-45	25-40	9-21
	58-80	GRV-C, GR-C, GR-SICL, GRV- CL, GR-CL	GC, CL, CH	A-2-6, A-7-6	0-10	0-40	45-80	35-75	35-75	30-70	40-84	25-59
73143: Courtois-----	0-7	SIL	CL, CL-ML	A-6, A-4	0	0	80-100	75-100	65-95	55-80	22-58	6-18
	7-15	SIL, SICL, SIC	CL	A-7-6	0	0	85-100	85-100	70-95	60-90	34-54	17-28
	15-32	SICL, C, SIC, GR-CL, GRV-CL	GC, CL	A-7-6, A-2-6	0	0-25	50-100	35-100	35-95	30-95	40-60	25-36
	32-80	C, GR-C	CH	A-7-6	0	0-10	70-100	60-100	60-100	55-95	65-94	43-66
73144: Courtois-----	0-7	SIL	CL, CL-ML	A-6, A-4	0	0	80-100	75-100	65-100	55-95	25-55	6-16
	7-15	SICL, SIL, SIC	CL	A-7-6	0	0	90-100	85-100	85-100	80-95	34-54	17-28
	15-32	SICL, C, SIC, GR-CL, GRV-CL	GC, CL	A-7-6, A-2-6	0	0-25	45-100	35-100	35-95	30-95	40-60	25-36
	32-80	C, GR-C	CH	A-7-6	0	0-10	70-100	60-100	60-95	55-95	65-94	43-66
73147: Fourche-----	0-6	SIL	CL-ML, CL	A-4	0	0	100	95-100	90-100	85-100	22-41	6-13
	6-30	SIL, SICL	CL	A-4, A-6	0	0	100	95-100	90-100	85-100	30-45	10-25
	30-54	SIL, SICL, SIC	CL	A-6, A-7-6	0	0-2	85-100	85-100	80-100	75-95	30-57	17-36
	54-66	SIC, C	CH	A-7-6	0	0-2	85-100	75-100	70-100	65-95	52-84	32-59
73155: Gasconade-----	0-4	SIC	CH	A-7-6	0-5	0-10	90-100	85-95	80-85	75-80	60-89	28-42
	4-13	CBV-CL, GRV-C, GRV-SIC, FLV- SIC	GC, GM	A-7-5, A-2-7	0-25	10-50	35-60	30-55	30-55	25-45	47-94	24-49
	13-80	UWB	---	---	---	---	---	---	---	---	---	---
Rock outcrop.												

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73156: Alred-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-6	GRV-SIL	GM, GC-GM	A-1-b, A-2-4, A-4	0-7	0-20	35-50	30-50	30-50	25-45	20-48	2-9
	6-11	GR-SIL, GRV-SIL	CL-ML, GM, CL	A-4, A-2-4	0-7	0-25	45-75	35-70	35-70	30-65	17-31	2-10
	11-31	GRV-L, GRX-L, GRV-SIL, GRX- SIL	GC, GC-GM	A-2-6, A-1-a, A-6	0-10	0-35	25-55	20-50	20-50	15-45	21-39	6-19
	31-79	C, GR-C, CB-C	CH	A-7-6	0-7	0-15	80-100	70-100	65-100	60-95	52-93	32-66
Gepp-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-6	GRV-SIL	GM, GC-GM	A-1-b, A-2-4, A-4	0-7	0-25	35-50	30-50	30-50	25-45	23-50	4-11
	6-12	GR-CL, GR-SICL, SIC, C	MH, GC, CH	A-6, A-7-6	0	0-7	60-100	50-100	45-100	40-95	40-73	21-47
	12-67	C	CH	A-7-6	0-2	0-10	85-100	75-100	70-100	65-95	65-93	43-66
73157: Captina-----	0-5	SIL	ML, CL-ML	A-4	0	0	98-100	95-100	95-100	90-95	20-39	2-9
	5-25	SIL, SICL	CL	A-6, A-4	0	0	95-100	90-100	85-100	80-95	30-45	10-25
	25-31	SIL, SICL, GRV- SIL, GR-SIL, GRV-SICL	GC, SC, CL	A-2-6, A-6, A-2-4	0	0-25	35-100	30-95	30-95	25-90	30-45	10-25
	31-78	GR-C, CB-CL, CBV-C, GRV-C, GR-SIC, GRV- SIC	GC, SC, CL	A-2-6, A-7-6	0	0-30	45-80	35-75	35-75	30-70	40-76	25-51
73159: Yelton-----	0-3	SIL	CL-ML, ML, CL	A-4	0	0	95-100	90-100	85-95	75-85	20-37	4-13
	3-8	SIL, L	CL, ML, CL-ML	A-4	0	0	95-100	90-100	75-95	55-85	19-35	3-13
	8-19	SICL, L	CL	A-6, A-7-6, A-4	0	0	85-100	80-100	75-95	55-90	30-47	10-25
	19-38	L, SL, GR-L, GRV-SL	CL, GC-GM	A-6, A-4, A-1-a	0	0-5	40-95	35-90	25-80	15-60	20-38	6-19
	38-65	SCL, L, GR-L, GRV-CL	GC, CL	A-6, A-2-4	0	0-5	40-95	35-90	30-80	15-60	30-46	10-25
73197: Viburnum-----	0-6	SIL	CL	A-4	0	0	90-100	80-100	75-95	60-90	27-41	9-17
	6-18	SICL, GR-SICL	CL	A-6, A-7-6	0	0-5	70-100	60-100	55-90	55-85	40-51	21-29
	18-35	GR-SICL, SIC, GR-SIC, GRV- SIC	GC, CL, CH	A-2-7, A-7-6	0	0-10	50-95	40-90	35-85	30-75	44-63	25-40
	35-80	GRV-SIC, GRV-C, GR-C, GRX-C	GC, CH, GP-GC	A-2-7, A-7-6	0	0-7	25-75	20-60	20-60	12-55	48-76	28-51

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73222: Splitlimb-----	0-10	SIL	ML, CL-ML	A-4	0	0	95-100	95-100	90-100	85-95	22-37	5-12
	10-20	SIL, SICL	CL	A-6, A-4	0	0	95-100	95-100	90-100	85-95	26-45	9-23
	20-29	SIL, SICL	CL	A-6, A-7-6, A-4	0	0	95-100	90-100	85-100	80-95	27-46	10-25
	29-80	SICL, SIL	CL	A-6, A-7-6	0	0	90-100	85-100	80-100	75-95	32-47	14-26
73223: Coulstone-----	0-1	MPM	---	---	---	---	---	---	---	---	---	---
	1-4	GRV-SL	GW-GM, GM	A-1-a, A-2-4, A-1-b	0-10	0-15	35-55	30-50	20-40	10-20	18-30	2-7
	4-11	GRX-SL, GRV-L, CBV-L, GR-SL	SC, SC-SM, GW-GM	A-1-b, A-2-4, A-1-a	0-25	0-40	35-80	30-75	15-45	10-30	17-36	3-16
	11-31	CBV-L, GRV-L, GRV-SL, CBV-CL	GP-GC, GC-GM	A-7-6, A-1-a, A-2-4	0-25	0-45	30-60	25-55	15-50	10-40	24-44	6-25
	31-39	CBV-L, GRX-L, GRV-SCL, CBV- CL	GP-GC, GC-GM	A-7-6, A-1-a, A-2-4	0-25	0-40	30-60	25-55	15-50	10-40	24-48	6-28
	39-80	GRV-L, GRV-C, CB-SCL, CBV- SCL, CBV-L	GC, GC-GM	A-6, A-7-6, A-2-4	0-20	0-40	35-70	30-65	25-55	20-45	30-59	10-36
Bender-----	0-1	MPM	---	---	---	---	---	---	---	---	---	---
	1-5	CBX-SL	GW-GM, GP-GM, GC-GM	A-1-a	0-20	35-55	35-50	25-40	15-25	10-15	0-27	NP-4
	5-21	CBX-SL, CBX- FSL, GRV-L	GM, GC-GM, GP-GM	A-2-4, A-1-a	0-30	0-55	35-60	25-50	15-40	10-30	0-29	NP-10
	21-31	CBX-SL, GRV- FSL, GRX-COSL, GRX-L	GP-GM, GC-GM, GM	A-1-a, A-2-4	0-20	0-60	35-55	25-50	15-40	10-20	0-36	NP-17
	31-80	UWB	---	---	---	---	---	---	---	---	---	---
73269: Brussels-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-10	GR-SICL	CL, GC	A-6, A-7-6	0-5	0-15	50-80	50-70	50-65	45-60	40-66	15-30
	10-49	GRV-SICL, GRV- SIC, GRV-C	GC	A-2-6, A-7-6	0-5	0-15	35-60	30-50	30-50	25-45	40-66	24-36
	49-70	GR-SICL, GR- SIC, C	CL, GC	A-7-6	0-5	0-15	55-95	50-90	50-85	45-80	38-53	19-29
Gasconade-----	0-9	GR-C	CH, OH	A-7-6, A-7-5	0-5	0-15	70-85	60-80	50-75	50-70	60-94	28-49
	9-14	CBV-CL, CBV-C, GRV-SIC, GRV-C	GC, GM	A-2-6, A-7-6, A-7-5	0-10	0-40	35-65	30-60	30-60	25-50	40-90	20-50
	14-80	UWB	---	---	---	---	---	---	---	---	---	---
Rock outcrop.												

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73290:												
Gatewood-----	0-3	SIL	CL-ML, CL	A-6, A-4	0	0	100	100	95-100	90-95	25-45	6-17
	3-7	SIL	CL-ML, CL	A-6, A-4	0	0	100	100	95-100	90-95	22-41	6-17
	7-37	C	CH	A-7-6	0	0	85-100	80-100	75-95	70-95	68-83	44-55
	37-80	UWB	---	---	---	---	---	---	---	---	---	---
Aaron-----												
	0-7	SIL	CL-ML, CL	A-4, A-6	0	0	100	100	90-100	85-95	25-43	6-17
	7-12	SIL	CL-ML, CL	A-6, A-4	0	0	100	100	90-100	85-95	21-36	6-17
	12-25	SIL, SICL	CL	A-4, A-7-6	0	0	100	100	90-100	80-95	31-46	10-25
	25-46	SIC, C	CH	A-7-6	0	0	85-100	80-100	75-100	70-95	54-73	32-48
46-80	UWB	---	---	---	---	---	---	---	---	---	---	
73291:												
Gatewood-----	0-1	SIL	CL-ML, CL	A-6, A-4	0	0	100	100	95-100	90-95	21-39	6-17
	1-25	C	CH	A-7-6	0	0	85-100	80-100	75-95	70-90	68-83	44-55
	25-36	CN-C	CH	A-7-6	0	10-30	60-85	55-80	55-80	50-75	65-80	40-55
	36-80	UWB	---	---	---	---	---	---	---	---	---	---
Aaron-----												
	0-2	SIL	CL-ML, CL	A-4, A-6	0	0	100	100	95-100	90-95	21-39	6-17
	2-10	SICL	CL	A-7-6, A-6	0	0	100	100	95-100	85-95	40-50	21-29
	10-52	SIC, C	CH	A-7-6	0	0	85-100	80-100	75-100	70-95	54-73	32-48
	52-80	UWB	---	---	---	---	---	---	---	---	---	---
73295:												
Taterhill-----	0-9	SIL	ML, CL-ML	A-4	0	0	80-100	75-100	65-95	50-90	22-37	6-12
	9-30	SIL, GR-SIL, SICL, GR-SICL, GR-L	CL, GC-GM	A-4, A-6	0	0-10	60-100	50-95	45-90	40-80	23-41	8-21
	30-80	GR-CL, GRV-L, GRV-CL	GC	A-2-4, A-6, A-7-6	0	0-15	40-80	30-75	25-70	25-55	30-50	10-30
73298:												
Tonti-----	0-8	SIL	CL, CL-ML	A-4, A-6	0	0-5	80-100	75-100	70-95	65-85	22-37	6-13
	8-20	GR-SICL, GR- SIL, SICL	CL, GC	A-4, A-6	0	0-5	65-100	60-100	55-95	45-85	30-45	10-25
	20-34	GRX-SIL, GRV- SICL	GC-GM, CL, GC	A-2-4, A-4, A-6	0-5	0-10	35-75	30-70	25-70	20-65	25-44	9-25
	34-80	GRX-SIC, GRV-C	CH, GW-GC, GC	A-2-7, A-7-6	0-5	0-10	25-70	20-70	20-70	12-65	48-85	28-58

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73298:												
Hogcreek-----	0-5	SIL	ML, CL-ML	A-4	0	0	90-100	75-100	70-100	60-90	21-33	4-10
	5-16	SIL, GR-SIL, SICL	CL, GC, GC-GM	A-4, A-6	0	0	65-100	60-100	55-95	45-85	23-41	7-21
	16-22	GR-SICL, SICL, SIL, GRV-SICL	CL, GC, GC-GM	A-2-4, A-7-6, A-6	0	0-7	35-75	30-70	30-70	25-65	27-47	10-27
	22-28	GRX-SIL, GRV- SIL, GRX-L, GRX-CL	GC, GC-GM	A-2-4, A-6, A-1-a	0	0-10	25-70	20-50	20-45	15-40	22-41	6-22
	28-80	UWB	---	---	---	---	---	---	---	---	---	---
73310:												
Scholten-----	0-7	GRV-SIL	GM, SC-SM	A-4, A-1-b, A-2-4	0-3	0-15	35-80	30-50	30-50	25-45	20-33	3-10
	7-21	GRV-SIL, GRX- SIL, CBV-SICL	GC-GM, CL, GP-GC	A-4, A-1-a, A-6	0-4	0-35	25-75	20-65	20-65	12-60	22-41	6-21
	21-34	GRX-SIL, GRV- SIL, GRX-SICL	CL, GC, GC-GM	A-2-4, A-7-6	0-5	0-15	25-65	20-60	20-60	20-55	27-48	10-28
	34-80	GR-C, GRV-C, GRX-C, CBV-C, CBX-C	CH, CL, GC, GP-GC	A-2-7, A-7-6	0-10	0-50	25-65	20-60	20-60	12-55	48-80	28-55
Bendavis-----	0-8	GR-SIL	ML, CL, GM	A-4	0-5	0-5	55-80	50-75	45-70	40-65	18-33	2-10
	8-10	GRV-SIL, GR- SIL, SIL	GM, ML, CL	A-4, A-1-b	0-5	0-15	35-90	30-85	25-80	20-75	17-31	2-10
	10-31	GRV-SIL, GRX- SICL, CBV-SIL, GRX-CL	GC-GM, GP-GC, CL	A-1-a, A-4, A-6	0-60	0-30	25-70	20-60	15-60	12-55	21-41	6-21
	31-80	UWB	---	---	---	---	---	---	---	---	---	---
Poynor-----	0-4	GRV-SIL	CL-ML, GM, GC-GM	A-1-b, A-2-4, A-4	0-10	0-7	35-65	30-60	30-60	25-55	18-33	2-10
	4-10	GRV-SIL, GR-SIL	CL-ML, GC-GM, GM	A-1-b, A-2-4, A-4	0-2	0-7	35-65	30-60	30-60	25-55	18-31	2-10
	10-28	GRV-SIL, GRX- SIL, CBX-SICL, GRV-L	GC	A-2-4, A-7-6, A-1-a	0-2	0-40	25-65	20-60	20-55	15-50	21-45	6-25
	28-80	GR-C, CB-C, GRV-C, GRX-C, CBX-C	GC, CH, GW-GC	A-7-6, A-2-7	0-3	0-55	20-80	10-75	10-75	5-70	52-90	32-63

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73311: Scholten-----	0-7	GRV-SIL	GC-GM, GM	A-2-4, A-4	0	0-7	45-60	35-50	35-50	30-45	18-33	2-10
	7-21	GRV-SIL, CBX-SIL, GRV-SICL	GC-GM, CL	A-4, A-1-b, A-6	0-4	0-30	35-75	30-65	30-65	25-60	22-40	6-21
	21-34	GRX-SIL, GRV-SIL, GRX-SICL	CL, GC, GC-GM	A-2-4, A-7-6	0-3	0-20	25-65	20-60	20-60	15-55	27-48	10-28
	34-80	GR-C, GRV-C, GRX-C, CBV-C, CBX-C	CH, GC	A-2-7, A-7-6	0-10	0-30	20-65	20-60	20-60	15-55	48-80	28-55
Bendavis-----	0-5	GRV-SIL	GC, GC-GM, GM	A-1-b, A-2-4	0-5	0-5	35-50	30-45	30-45	25-35	20-33	3-10
	5-9	GRV-SIL, GR-SIL	CL, GC-GM, GC, GM	A-4, A-2-4, A-1-b	0-5	0-5	35-65	30-60	30-60	25-55	19-31	3-10
	9-25	GRV-SIL, GRV-SICL	GC, GC-GM	A-1-b, A-2-6, A-2-4	0-5	0-5	35-50	30-45	30-45	25-35	25-41	6-21
	25-80	UWB	---	---	---	---	---	---	---	---	---	---
Poynor-----	0-4	GRV-SIL	GM, CL, GC-GM	A-1-b, A-2-4, A-4	0-3	0-15	40-70	30-60	30-60	25-55	18-33	2-10
	4-10	GRV-SIL, GRX-SIL	CL, GC-GM	A-1-a, A-2-4, A-4	0-3	0-15	40-85	15-75	15-75	10-65	19-39	4-19
	10-28	GRV-SICL, GRX-SIL	GC, CL	A-2-6, A-6, A-2-4	0-5	0-25	35-70	25-60	25-55	20-55	19-45	4-25
	28-80	C, CB-C	CH	A-7-6	0	0-15	80-100	75-100	70-100	60-100	52-89	32-62
73333: Taterhill-----	0-11	SIL	CL, CL-ML	A-4	0	0	95-100	85-100	85-100	80-95	22-35	6-13
	11-15	SIL	CL, CL-ML	A-4	0	0	95-100	85-100	85-100	80-95	21-33	6-13
	15-28	SIL, SICL, GR-SIL, GR-SICL	CL, GC	A-6, A-4	0	0-7	60-100	50-95	45-90	40-85	25-41	9-21
	28-48	GRV-L, GR-SIL, GR-CL, GRV-SICL	CL, GC	A-2-4, A-6, A-7-6	0	0-7	35-80	30-75	25-75	20-55	25-49	10-28
	48-80	GR-L, SIL, GR-CL, SICL	CL, GC	A-7-6, A-6, A-4	0	0-10	60-100	50-95	45-90	40-85	27-49	10-28
73334: Horneybuck-----	0-6	SIL	CL-ML, CL	A-4	0	0	90-100	85-100	85-100	80-95	25-39	6-13
	6-26	GR-SIL, GR-SICL, SIL, SICL	GC, CL	A-4, A-6	0	0	60-100	55-100	50-100	45-95	27-41	10-21
	26-37	GR-SIL, GR-SICL, GRV-SIL, SICL	GC, CL	A-2-4, A-6	0	0	40-100	35-95	30-95	25-90	30-44	10-25
	37-60	GR-SIC, GRV-SICL, GRV-SIC	GC, CL	A-2-7, A-2-6, A-7-6	0	0-15	35-80	30-75	25-75	20-70	37-59	19-36

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73335:												
Hobson-----	0-10	SIL	CL, CL-ML	A-4	0	0	85-100	85-100	80-100	60-90	21-37	4-12
	10-16	SIL	CL, CL-ML	A-4	0	0	85-100	85-100	80-100	60-90	20-33	4-12
	16-32	L, SIL, CL, GR- SICL	CL	A-4, A-6	0	0	70-100	70-100	65-95	50-85	25-40	10-21
	32-42	GR-L, GRV-SIL, GRV-CL, GR- SICL	GC	A-2-6, A-2-4, A-6	0	0-15	25-80	25-70	20-70	15-50	25-44	9-25
	42-80	C, GR-C, GRV-C	CH, GC	A-2-7	0	0-15	25-100	25-90	25-90	20-85	50-90	30-65
Rueter-----	0-4	GRV-SIL	GM, GC-GM	A-4, A-1-b, A-2	0-7	0-25	35-55	30-50	30-50	25-45	20-48	2-9
	4-17	GR-SIL, GRV-SIL	CL-ML, GM, CL	A-2-4, A-4	0-7	0-25	45-75	35-70	35-70	30-65	16-31	2-10
	17-32	GRV-SIL, GRV-L, CBV-SIL	GC-GM, GC	A-1-b, A-6, A-2-4, A-2-6	0-10	0-40	35-55	30-50	25-50	20-45	21-39	6-19
	32-43	CBV-SIC, GRV-C, GRV-SICL, GRV- SIC, GRV-CL	GC	A-2-7, A-2-6, A-7-6	0-10	0-40	35-55	30-50	25-50	20-45	40-66	24-43
	43-71	C, GR-C, CB-C, GRV-C, CBV-C	GC, CH	A-2-7	0-10	0-45	35-95	30-90	30-90	25-85	65-93	43-66
73336:												
Rueter-----	0-5	GR-SIL	GM, CL-ML	A-4	0-7	0-10	60-80	50-75	50-75	45-70	23-48	4-9
	5-12	GR-SIL, GRV-SIL	CL	A-2-4, A-4	0-7	0-25	45-80	35-75	35-75	30-70	21-31	6-10
	12-24	GRV-SIL, CBV- SIL, GRV-L	CL, GP-GC, GC	A-2, A-6, A-1-a	0-10	0-40	25-65	20-60	20-60	12-55	24-39	6-19
	24-43	CBV-SIC, GRV- SICL, GRV-C, GRV-SIC, GRV- CL	GC	A-2-6, A-7-6	0-10	0-35	30-55	25-50	25-50	20-45	35-58	18-36
	43-80	C, GR-C, CB-C, GRV-C, CBV-C	GC, CH	A-2-7, A-7-5	0-10	0-40	35-95	30-90	30-90	25-85	70-93	40-66
Gepp-----	0-5	GR-SIL	CL-ML, GM	A-4	0-5	0-5	60-85	50-75	50-75	45-70	23-50	4-11
	5-10	SIL, GR-SIL, GRV-SIL	GC-GM, GM, CL	A-1-b, A-4	0-7	0-10	35-90	30-85	30-85	25-80	17-33	2-13
	10-16	GR-CL, GR-SICL, SIC, GR-C	GC, MH, CH	A-2-6, A-7-6	0	0-7	60-100	50-100	40-95	30-90	37-72	19-47
	16-76	C	CH	A-7-5, A-7-6	0	0-10	85-100	75-100	70-100	65-90	70-95	40-67

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73337:												
Tonti-----	0-10	SIL	CL, CL-ML	A-4, A-6	0	0-5	80-100	75-100	70-95	65-85	21-39	4-13
	10-25	GR-SICL, GR-SIL, SICL	CL, GC, SC	A-4, A-6	0	0-5	65-100	60-100	55-100	45-95	30-45	10-25
	25-36	GR-SIL, GRV-SIL, GRV-SICL, GRX-SICL, GRX-SIL	GC, GC-GM, CL	A-2-4, A-4, A-6	0-5	0-10	35-75	30-70	30-70	25-65	25-44	9-25
	36-80	GRX-SIC, GRV-C, GR-C, GRX-C	CH, GC, GW-GC	A-2-7, A-7, A-7-6	0-5	0-10	25-75	20-70	20-70	12-65	48-85	28-58
Portia-----												
	0-6	SIL	ML, CL-ML	A-4	0	0	90-100	85-100	85-100	80-95	20-33	3-10
	6-16	L, SIL	CL	A-4	0	0	90-100	85-100	70-95	50-90	24-39	9-19
	16-21	SCL, L, CL	CL, SC-SM	A-4, A-6	0	0	90-100	85-100	70-95	40-90	30-44	10-25
	21-31	GR-SC, CL, C	CL, SC	A-7-6	0	0	75-100	60-100	50-95	35-90	40-63	25-40
	31-80	C	CH	A-7-5, A-7-6	0	0	90-100	85-100	80-95	75-90	70-95	40-67
73338:												
Portia-----	0-6	SIL	SM, CL-ML	A-4, A-1-b	0	0	90-100	85-100	50-90	25-70	20-33	3-10
	6-16	L, SIL	CL	A-4	0	0	90-100	85-100	80-100	75-95	24-39	9-19
	16-21	SCL, L, CL	CL, SC-SM	A-2-4, A-6	0	0	85-100	80-100	65-95	30-75	30-44	10-25
	21-31	GR-SC, CL, C	CL, SC	A-7-6	0	0	75-100	60-100	50-100	25-90	40-63	25-40
	31-80	C	CH	A-7-5, A-7-6	0-2	0	85-100	75-100	70-95	65-85	70-93	40-66
Hobson-----												
	0-8	SIL	CL, CL-ML	A-4	0	0	90-100	85-100	80-100	75-95	21-37	4-12
	8-13	SIL	CL, CL-ML	A-4	0	0	90-100	85-100	80-100	75-95	19-31	4-12
	13-27	L, CL, GR-SIL, GR-SICL	CL	A-6, A-4	0	0	70-100	70-100	65-95	50-90	25-40	10-21
	27-36	GRV-L, GR-SIL, GRV-CL, GR-SICL	CL, GC	A-2-6, A-2-4, A-6	0	0-15	30-80	30-70	25-70	20-65	25-44	9-25
	36-70	GRV-C, GR-C, C	GC, CH	A-7-5	0	0-15	40-100	35-90	35-90	30-85	60-91	30-63
73339:												
Arkana-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-7	GRV-SIL	GC	A-2-4, A-6	0	0-10	35-50	30-50	30-50	25-45	29-53	5-18
	7-12	SIC, GR-SICL, GR-C, GRV-C	CL, CH, GC	A-7-6, A-6, A-2-6	0	0-5	35-80	30-75	30-75	25-70	40-78	23-47
	12-30	C	CH	A-7-5, A-7-6	0	0	95-100	85-100	80-100	75-95	68-97	44-66
	30-80	UWB	---	---	---	---	---	---	---	---	---	---
Gepp-----												
	0-10	GRV-SIL	GM	A-4, A-1-b, A-2-4	0-7	0-15	35-55	30-50	30-50	25-45	23-50	4-11
	10-19	GR-CL, GR-SICL, SIC, C	GC, CL, MH	A-6	0	0-7	60-100	50-100	50-95	45-90	30-70	15-40
	19-60	C	CH	A-7-5, A-7-6	0	0-10	85-100	75-100	70-95	65-90	70-93	40-66

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73340: Rueter-----	0-6	GRV-SIL	GC-GM, GM	A-4, A-2-4, A-1-b, A-2	0-7	0-20	35-55	30-50	30-50	25-45	23-48	4-9
	6-10	GR-SIL, GRV-SIL	CL, GC-GM, GC	A-2-4, A-4	0-7	0-25	45-75	35-70	35-70	30-65	19-31	4-10
	10-28	GRV-L, CBV-SIL, GRV-SIL	CL, GC-GM, GC	A-4, A-1-b, A-6	0-10	0-40	35-70	30-60	25-60	20-55	22-39	6-19
	28-42	CBV-SIC, GRV- SICL, GRV-SIC, GRV-CL, GRV-C	GC	A-7-6, A-2-6	0-10	0-40	35-65	25-50	25-50	20-40	40-62	24-39
	42-80	C, GR-C, CB-C, GRV-C, CBV-C	GC, CH	A-2-7, A-7-5	0-10	0-40	35-100	25-95	25-95	25-95	70-97	40-70
Gepp-----	0-4	GR-SIL	GM	A-4	0-7	0-25	55-90	50-75	50-75	45-70	23-50	4-11
	4-9	GRV-SIL	GC	A-4, A-1-b, A-2-4	0-7	0-15	35-60	30-50	30-50	25-45	21-33	6-13
	9-17	GR-CL, GR-SICL, SIC, C, GR-C	GC, CL	A-6, A-7-6	0	0-7	60-100	50-100	50-95	45-90	40-72	25-47
	17-72	C	CH	A-7-6, A-7-5	0-2	0-10	85-100	75-100	70-100	65-95	70-96	40-68
73341: Gepp-----	0-4	GRV-SIL	GM	A-6, A-1-b, A-2-6	0-7	0-25	35-60	30-55	25-55	20-50	23-50	4-11
	4-15	GR-CL, GR-SICL, SIC, C	GC, CL	A-6, A-7-6	0	0-7	60-100	50-100	50-95	45-85	40-68	20-44
	15-68	C	CH	A-7-5, A-7-6	0-2	0-10	85-100	75-100	70-95	65-85	70-96	40-68
Arkana-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-9	GRV-SIL	GC, GC-GM	A-2-6, A-6, A-1-b	0	0-10	35-50	30-50	25-50	20-45	29-53	5-18
	9-14	SIC, GR-SICL, GR-C, GRV-C	CH, SC, GC	A-7-6, A-6, A-2-6	0	0-5	35-80	30-75	25-75	20-70	39-76	19-47
	14-29	C	CH	A-7-6, A-7-5	0	0	95-100	85-100	80-95	70-90	68-99	44-67
	29-80	UWB	---	---	---	---	---	---	---	---	---	---
73342: Alred-----	0-8	GRV-SIL	GM	A-4, A-2-4, A-1-b	0-7	0-25	35-50	30-50	25-50	20-45	21-44	4-9
	8-11	GR-SIL, GRV-SIL	CL, GC	A-2-4, A-4	0-7	0-25	50-75	35-70	35-70	30-65	20-28	4-10
	11-24	GRV-L, GRX-L, GRV-SIL, GRX- SIL	GC-GM, GC	A-6, A-2-6, A-1-a	0-10	0-30	25-50	20-50	20-50	15-45	21-38	6-19
	24-67	C, GR-C, CB-C	CH	A-7-5, A-7-6	0-2	0-15	80-100	70-100	65-100	60-95	60-95	30-67

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
73342: Arkana-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-5	GRV-SIL	GC, GC-GM	A-1-b, A-6	0-1	0-10	35-70	30-50	30-50	25-45	29-53	5-18
	5-17	C, GR-SICL, GR-SIC, GRV-C	CL, GC, CH	A-7-6, A-6, A-2-6	0	0-5	35-75	30-75	30-70	20-65	40-76	21-47
	17-25	C	CH	A-7-6, A-7-5	0	0	95-100	85-100	80-95	75-90	68-100	44-68
	25-80	UWB	---	---	---	---	---	---	---	---	---	---
74636: Lecoma-----	0-9	L	CL-ML, CL	A-4	0	0	90-100	90-100	80-95	55-65	21-33	4-12
	9-31	L, CL	CL	A-6, A-4	0	0	90-100	90-100	65-100	55-80	26-42	10-21
	31-80	L, SCL, CL	CL, SC	A-6, A-4	0	0	90-100	85-100	70-95	45-80	29-46	10-25
74637: Lecoma-----	0-7	L	CL-ML, CL	A-4	0	0	90-100	90-100	80-95	55-65	21-33	4-12
	7-24	L, CL	CL	A-6, A-4	0	0	90-100	90-100	75-100	55-80	26-42	10-21
	24-80	L, SCL, CL	CL, SC	A-6, A-4	0	0	85-100	80-100	65-95	45-75	29-46	10-25
74643: Lecoma-----	0-9	SIL	CL-ML, CL	A-4	0	0	100	100	90-100	70-90	21-33	4-12
	9-24	L, SIL, SICL	CL	A-6, A-4	0	0	95-100	90-100	85-95	75-85	28-40	10-21
	24-80	L, SIL, CL, SICL	CL	A-6, A-7-6, A-4	0	0	90-100	85-100	75-95	55-85	31-50	10-29
74644: Deible-----	0-7	SIL	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	80-100	80-95	22-45	6-18
	7-16	SIL	CL, CL-ML	A-6, A-4	0	0	85-100	75-100	70-100	65-95	21-39	6-19
	16-40	SICL, SIC	CL, CH	A-7-6, A-6	0	0	100	95-100	90-100	80-95	40-70	25-44
	40-65	SIL, CL, SICL, GR-CL	CL	A-7-6, A-6	0	0	85-100	75-100	70-100	60-95	35-50	17-29
74646: Cornwall-----	0-5	SIL	CL, CL-ML	A-4	0	0	85-100	80-100	80-100	75-95	22-37	6-13
	5-17	SIL, SICL	CL	A-6, A-4	0	0	85-100	80-100	80-100	75-95	30-45	10-25
	17-39	SIL, SICL, GR-SIL, GRV-SIL	CL, SC, GC	A-6, A-2-4, A-4	0-2	0-15	35-100	30-100	25-100	20-95	30-40	10-21
	39-60	GRX-CL, GRV-SICL, GR-SICL, SICL, GRV-C	CL, GC	A-7-6, A-6	0-2	0-15	30-90	25-85	20-85	15-80	35-57	15-36

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
74648:												
Aslinger-----	0-4	SIL	CL, CL-ML	A-4	0	0	95-100	90-100	90-100	85-95	25-39	6-13
	4-8	SIL	CL, CL-ML	A-4	0	0	95-100	90-100	85-100	80-95	21-35	6-13
	8-21	SIL, SICL	CL	A-6, A-4	0	0	80-100	75-100	70-100	65-95	30-45	10-25
	21-29	GR-L, GR-SIL, GRV-L, GRV- SIL, GRX-L, GRX-SIL	GC-GM, GC, CL	A-2-6, A-6, A-1-a	0-2	0-15	30-85	25-75	20-70	15-65	22-37	6-19
	29-55	GR-L, GR-CL, GRV-L, GRV-CL	GC, CL	A-2-6, A-6, A-2-4	0-2	0-15	35-80	30-75	25-70	20-65	25-44	10-25
	55-70	GR-SICL, GR-C, GRV-CL, GRX-C, CBX-C	GC	A-2-7, A-2-6, A-7-6	0-10	0-40	35-65	25-60	25-55	20-50	40-63	25-40
74649:												
Aslinger-----	0-3	SIL	CL, CL-ML	A-4	0	0	95-100	90-100	85-100	80-90	25-39	6-13
	3-8	SIL	CL, CL-ML	A-4	0	0	95-100	90-100	85-100	80-95	22-35	6-13
	8-20	SIL, SICL	CL	A-6, A-4	0	0	80-100	75-100	70-100	65-95	30-45	10-25
	20-39	GR-L, GR-SIL, GRV-L, GRV- SIL, GRX-L, GRX-SIL	GC, GC-GM, CL	A-1-a, A-6	0-2	0-15	30-85	25-75	20-75	15-70	22-38	6-19
	39-52	GR-L, GR-CL, GRV-L, GRV-CL	GC, SC, CL	A-6, A-2-4	0-2	0-15	35-80	25-75	25-70	20-65	25-44	10-25
	52-80	GR-SICL, GR-C, GRV-CL, GRX-C, CBX-C	GC, SC, CH	A-2-6, A-7-6	0-10	0-40	35-65	25-60	25-55	20-50	40-63	25-40
Waben-----	0-6	GR-SIL	GM, CL-ML, CL	A-4	0-5	0-10	60-90	50-75	50-75	45-70	22-33	6-10
	6-15	GR-SIL, GRV-L, GRV-SIL	GC-GM, GC	A-1-b, A-2-4, A-4	0-5	0-25	35-80	30-50	25-50	20-45	23-34	6-15
	15-54	GRV-L, GRV-SIL	GC, GC-GM	A-2-6, A-6, A-1-b	0-5	0-40	35-60	30-50	25-50	20-45	26-39	6-19
	54-80	GRV-SCL, GRV- CL, GRX-CL	GC, GC-GM	A-2-7, A-7-6	0-5	0-40	30-60	25-50	25-50	20-40	35-49	18-28
74651:												
Waben-----	0-4	GR-SIL	GM, CL-ML, ML, CL	A-4	0-5	0-5	60-90	50-75	50-75	45-70	22-33	6-10
	4-22	GR-SIL, GRV-L, GRV-SIL	GC-GM, GC, SC	A-1-b, A-2-4, A-4	0-5	0-25	35-80	30-50	25-50	20-45	23-34	6-15
	22-47	GRV-L, GRV-SIL	GC, GC-GM	A-2-6, A-6, A-1-b	0-5	0-40	35-60	30-50	25-50	20-45	25-38	6-19
	47-80	GRV-SCL, GRV- CL, GRX-CL	GC	A-7-6, A-2-7, A-2-6	0-5	0-40	30-60	25-50	25-50	20-45	35-49	18-28

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
74658:												
Zanoni-----	0-7	FSL	CL-ML, ML, SM	A-4	0	0	85-100	75-100	60-85	40-55	20-32	3-7
	7-36	FSL, L, GR-SL, SL	CL, SM, SC	A-4, A-2-4	0	0	75-100	65-100	55-85	35-55	17-32	3-13
	36-50	SL, FSL, GR-SL, L, SCL	GM, SC	A-6, A-2-4, A-1-b	0	0	60-100	50-95	35-80	20-50	17-33	3-15
	50-80	SR- GRX-LS GR-L	GP-GC, SC, GP-GM	A-2-6, A-1-a	0	0	20-80	15-75	10-40	5-25	17-31	3-13
74679:												
Higdon-----	0-7	SIL	ML, CL, CL-ML	A-4	0	0	98-100	95-100	90-100	85-95	22-37	6-13
	7-13	SIL	CL, CL-ML	A-4	0	0	98-100	95-100	95-100	85-95	21-35	6-13
	13-43	SIL, SICL	CL	A-6, A-4	0	0	98-100	95-100	90-100	80-95	30-47	10-25
	43-80	L, SIL, CL, SICL	CL	A-6, A-4	0	0	80-100	75-100	70-100	65-95	26-46	10-25
74680:												
Moniteau-----	0-6	SIL	ML, CL, CL-ML	A-4, A-6	0	0	100	95-100	90-100	85-95	18-35	2-13
	6-15	SIL	CL, CL-ML	A-4, A-6	0	0	100	95-100	90-100	85-95	20-32	6-13
	15-52	SICL, SIL	CL	A-6, A-7-6	0	0	100	95-100	95-100	85-95	31-46	13-25
	52-78	GR-L, SIL, SICL	CL	A-4, A-6	0	0	65-100	60-100	60-100	55-95	25-40	9-21
75381:												
Bearthicket----	0-6	SIL	CL-ML, CL	A-4	0	0	100	95-100	95-100	90-95	22-39	6-13
	6-19	SIL	CL-ML, CL	A-4	0	0	100	95-100	95-100	90-95	21-35	6-13
	19-45	SIL, SICL	CL	A-6, A-4	0	0	95-100	95-100	90-100	85-95	25-41	9-21
	45-64	L, SIL	CL-ML, CL	A-4, A-6	0	0	95-100	90-100	90-100	65-95	21-36	6-17
	64-80	COSL, FSL, L, SL, GR-SL, GR- FSL, GRV-SL	GC-GM, SC, CL-ML, CL	A-2-4, A-6, A-1-b	0	0-10	60-100	50-100	35-90	20-65	16-32	2-13
75394:												
Relfe-----	0-6	GR-SL	GC-GM, GM, SC-SM, SC	A-1-a, A-2-4, A-1-b	0-1	0-10	55-85	50-75	30-55	15-30	17-35	1-10
	6-80	SR- CBX-COS GRV-LS	GW, GC, GW- GM, GP-GC	A-1-a, A-2-4	0-5	0-40	30-65	20-50	10-40	4-20	0-26	NP-8
75395:												
Jamesfin-----	0-6	SIL	CL, CL-ML	A-4	0	0	95-100	95-100	90-100	85-95	25-39	6-13
	6-15	SIL	CL, CL-ML	A-4	0	0	95-100	95-100	90-100	85-95	22-35	6-13
	15-53	SIL	CL	A-4, A-6	0	0	95-100	95-100	90-100	85-95	25-39	9-19
	53-62	FSL, L, SIL	CL, CL-ML, SC-SM	A-4, A-6, A-2-4	0	0	95-100	90-100	60-100	35-90	18-39	3-19

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
75408: Secesh-----	0-4	SIL	CL-ML, CL	A-4	0	0	80-100	75-100	70-100	65-95	25-39	6-13
	4-10	L, SIL	CL-ML, CL	A-4	0	0	80-100	75-100	70-95	50-90	21-35	6-13
	10-26	L, SIL, GR-L, GR-SIL	CL, GC	A-4, A-6	0	0-10	70-100	60-90	55-90	40-85	25-39	10-19
	26-36	L, SCL, GR-L, GRV-SL	SC, GW-GC, CL, GC	A-2-6, A-6, A-2-4	0-7	0-25	50-100	35-90	25-80	10-60	25-38	9-19
	36-80	GRV-SL, GRV- COSL, GRX- COSL, GRX-SCL	GC, GP-GC	A-2-6, A-1-a	0-7	0-40	25-55	20-50	10-40	5-25	21-38	6-19
75409: Relfe-----	0-7	SL	SC-SM	A-4, A-2-4, A-1-b	0-1	0-10	75-100	75-100	45-65	20-40	17-31	1-6
	7-64	GRV-LCOS, GRV- COS, GRX-S, GRX-LCOS	GW, GW-GM, GP, SP-SC	A-1-a	0-7	0-30	20-80	15-55	10-35	2-6	0-23	NP-6
75411: Tilk-----	0-8	GRV-SL	GC-GM	A-2-4, A-1-a	0	0-15	30-90	20-50	10-35	5-20	20-44	2-9
	8-16	GRV-L, CBV-L, GRX-L, GRV- COSL	SC, GC-GM, GW-GC	A-2-4, A-1-a	0	0-15	30-90	20-50	10-45	5-35	18-31	2-10
	16-47	CBV-L, GRX-L, GRV-L, GRX-SL, GRV-SL	SC, SC-SM, GC, GW-GC	A-2-6, A-1-a	0-5	0-40	30-90	20-50	10-45	5-35	18-33	3-13
	47-70	GRX-LCOS, CBX- LCOS, GRV- COSL, GRX- COSL, CBX- COSL, GRX-SL	GW-GC, GC, GP-GC	A-2-6, A-1-a	0-30	0-40	20-50	15-40	10-30	5-20	16-27	2-12
75416: Gladden-----	0-5	L	CL, CL-ML	A-4	0	0	90-100	80-100	70-90	50-65	22-33	6-10
	5-26	L, SIL	CL, CL-ML	A-4	0	0	90-100	80-100	70-100	60-95	21-28	6-10
	26-58	SL, FSL, L	CL, CL-ML, SM, SC-SM	A-2-4, A-4	0	0	90-100	80-100	50-95	30-70	16-33	2-13
	58-77	COS, S, LS	SM, SP-SM, SC-SM	A-1-b, A-2-4	0	0	80-100	75-100	5-85	5-35	0-22	NP-6
75417: Relfe-----	0-6	GRV-SL	GP-GM, GC, GC-GM	A-2-4, A-1-a	0-1	0-5	30-55	25-50	15-35	10-20	17-35	1-10
	6-80	SR- CBX-COS, GRV-LS	GC, GW-GM, GW	A-1-a, A-2-4	0-5	0-40	25-60	15-55	5-40	3-15	0-27	NP-8

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
75417: Sandbur-----	0-8	FSL	CL, ML, SM	A-4, A-2-4	0	0	80-100	75-100	60-80	35-55	18-37	2-12
	8-50	SR- FS SIL	CL, ML, SM	A-4, A-2-4	0	0-5	80-100	75-100	55-95	20-85	17-31	2-12
	50-80	CBX-L, GRX- COSL, GRV-SL, STX-L	GW-GM, GC-GM, GC	A-1-a, A-2-4	0-38	0-30	30-60	20-55	10-30	5-20	16-38	2-19
75426: Gabriel-----	0-14	SIL	CL, CL-ML	A-6, A-4	0	0	100	95-100	90-100	85-95	26-45	7-18
	14-46	SIL, CL, SICL	CL	A-7-6, A-6	0	0	100	100	90-100	70-95	37-49	17-25
	46-81	SIL, CL, SICL	CL	A-7-6, A-6	0	0	100	100	90-100	70-95	35-47	17-25
75428: Tilk-----	0-4	GRV-L	GC-GM	A-2-4, A-4, A-1-b	0	0-15	40-60	30-55	25-50	20-40	20-44	2-9
	4-10	CBV-L, GRV- COSL, GRX-L, CBV-SL	GP-GC, GC-GM, GC	A-2-4, A-1-a	0	0-35	25-55	20-50	10-45	5-35	18-31	2-10
	10-35	CBV-L, GRX-L, GRV-L, GRX-SL, GRV-SL	GP-GC, GC	A-6, A-2-6, A-1-a	0-5	0-35	20-60	15-55	10-50	5-40	21-33	6-13
	35-65	GRX-LCOS, CBX- LCOS, GRV- COSL, GRX- COSL, CBX- COSL, GRX-SL	GC, GP-GC	A-2-6, A-1-a	0-30	0-50	20-60	15-55	10-35	5-20	16-27	2-12
Cornwall-----	0-8	SIL	CL, CL-ML	A-4	0	0	85-100	80-100	75-100	70-95	22-43	6-13
	8-35	SICL, SIL	CL	A-6, A-4	0	0	85-100	80-100	80-100	75-95	30-45	10-25
	35-62	GRV-SICL, GRV- SIL, SIL, SICL, GR-SIL	CL, SC, GC	A-6, A-2-4	0-2	0-15	35-100	30-100	25-100	20-95	30-40	10-21
	62-80	GRX-CL, GRV- SICL, GR-SICL, GRV-C, SICL, GRX-C	CL, GC	A-7-6, A-6	0-2	0-15	30-85	20-85	20-85	15-80	35-57	18-36
Poynor-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-4	GR-SIL	GC-GM, SC-SM	A-4	0-1	0-5	60-80	50-75	45-65	40-55	20-44	2-9
	4-9	GR-SIL, GRV- SIL, CBV-SIL	GC, GC-GM, SC-SM, SC	A-1-b, A-4	0	5-35	40-80	35-75	25-65	20-50	16-31	2-10
	9-26	CBV-SIL, GRV- SICL, GRX-SIL	GC	A-2-6, A-6	0-10	5-40	25-60	20-55	20-55	15-50	25-42	9-21
	26-80	GR-C, C, CB-C	CH	A-7-6	0-10	0-10	75-100	70-100	65-90	50-85	52-89	32-62

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
75429: Tilk-----	0-8	GR-L	GC-GM, GM	A-2-4, A-4	0	0-15	60-80	55-75	45-60	30-45	20-48	2-13
	8-14	CBV-L, GRV-L, GRV-SL, GRX- SL, GRX-L	GP-GM, GM, GC, GC-GM	A-2-4, A-1-a	0	0-35	30-60	25-55	15-40	10-25	17-33	2-13
	14-37	GRV-SL, GRX-SL, GRV-L	GW-GC	A-2-4, A-1-a	0-5	0-35	30-55	25-50	15-45	10-35	21-33	6-13
	37-80	GRX-LCOS, CBX- LCOS, GRV- COSL, GRX- COSL, CBX- COSL, GRV-SL	GC, GC-GM, GM	A-2-4, A-1-a, A-2-6	0-10	0-35	30-55	25-50	20-40	15-30	16-36	2-17
Secesh-----	0-10	GR-SIL	CL-ML, ML, CL	A-4	0	0-20	80-100	60-85	55-75	50-70	25-39	6-13
	10-16	SIL, GR-SIL	CL	A-6, A-4	0	0-20	80-100	60-95	55-85	50-75	28-40	10-19
	16-36	GR-SIL, L, SIL, GR-L	SC-SM, CL	A-2-4, A-4, A-6	0-2	7-40	70-100	50-95	40-85	30-75	28-40	10-19
	36-80	GR-L, GR-SIL, GRV-SL, GRV- SCL	GC, GW-GC, SC	A-2-6, A-1-a	0-7	7-40	50-100	15-75	10-40	10-30	25-38	6-19
75430: Wideman-----	0-5	FSL	SM, SC-SM	A-4, A-2-4	0	0	95-100	85-100	60-90	35-50	18-33	2-10
	5-13	FSL	SM, SC-SM	A-4, A-2-4	0	0	95-100	85-100	60-90	35-50	18-31	2-10
	13-21	L, FSL	SM, ML, CL-ML	A-4, A-2-4	0	0	95-100	85-100	60-95	35-75	16-35	2-13
	21-49	S, FS, LS, LFS	SM, SC-SM	A-2-4, A-1-b	0	0	95-100	85-100	50-85	15-35	0-24	NP-6
	49-71	GR-FS, GR-LS, LFS, GR-SL, FSL	SP-SM, SC-SM	A-1-b, A-4	0	0	95-100	50-100	35-85	5-50	0-28	NP-10
75432: Batcave-----	0-11	GR-L	SM, GM	A-4, A-2-4	0	0-10	60-85	50-75	45-70	35-50	28-47	7-17
	11-36	GR-L, GRV-SIL	GM, ML	A-4, A-1-b, A-2	0	0-15	35-85	30-75	25-70	20-60	26-56	6-24
	36-60	GRX-L, GRV-SIL	GC, GP-GC	A-2-6, A-2-4, A-6	0-20	0-20	30-70	20-60	15-55	10-50	28-43	10-18
	60-80	GRV-CL, GRX- SCL, GRV-SICL, GRV-C	GC, GP-GC	A-6, A-2-6	0-20	0-20	20-60	15-50	15-50	10-40	36-58	18-32

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
75432:												
Farewell-----	0-8	SIL	CL-ML, CL	A-6, A-4	0	0	100	95-100	90-95	85-90	28-49	7-18
	8-18	SIL, GR-SIL, L, GR-L	CL-ML, CL, GC-GM	A-4, A-6	0	0	70-100	60-100	55-95	40-90	24-49	7-24
	18-39	SIL, GR-CL, GR- L, SICL	CL, GC	A-4, A-2-4, A-6, A-7-6	0	0-5	55-95	50-90	50-85	35-80	30-50	10-30
	39-80	GR-L, GRV-CL, GRV-L, GRV-SCL	GC	A-2-4, A-2-6, A-7-6	0-2	0-10	35-55	30-50	20-45	15-40	27-53	10-29
75451:												
Gladden-----	0-5	SIL	ML, CL, CL-ML	A-4	0	0	90-100	85-100	65-100	65-90	25-41	6-13
	5-53	GR-L, GR-SIL	CL, ML, SM, SC-SM	A-2-4, A-4, A-1-b	0	0-15	65-100	50-75	45-75	25-65	17-33	2-13
	53-80	GRX-COSL, GRV- SL, GRV-L	GP-GM, GM, GW-GM, SC-SM	A-4, A-2-4, A-1-a, A-1-b	0	0-15	30-90	20-50	10-50	5-40	16-33	2-13
75462:												
Huzzah-----	0-6	SL	SC, SC-SM, SM	A-4, A-2-4	0	0	90-100	85-100	60-90	25-40	18-35	2-10
	6-23	SL, FSL, L	SC-SM, CL, SM	A-4, A-2-4	0	0	90-100	85-100	60-90	25-65	17-33	2-10
	23-47	SL, FSL, GR-L, SIL	SC-SM, CL, SM	A-4, A-2, A-1-b	0	0-5	65-100	65-100	50-95	20-70	17-31	2-10
	47-60	GRV-S, FS, LS, LFS, GR-SL, FSL	GM, GP-GM, SM, SC-SM	A-1-a, A-2-4, A-4	0	0-15	40-100	35-100	25-90	10-40	0-25	NP-7
75463:												
Huzzah-----	0-10	SL	SC, SC-SM, SM	A-4, A-2-4	0	0	90-100	85-100	60-90	25-40	18-35	2-10
	10-24	SL, FSL, L	SC-SM, CL, SM	A-4, A-2-4	0	0	90-100	85-100	60-90	25-65	18-33	2-10
	24-38	SL, FSL, GR-L, SIL	SC-SM, CL, SM	A-4, A-2, A-1-b	0	0-5	65-100	65-100	50-95	20-70	17-31	2-10
	38-60	GRV-S, FS, LS, LFS, GR-SL, FSL	GM, GP-GM, SM, SC-SM	A-1-a, A-2-4, A-4	0	0-15	40-100	35-100	25-90	10-40	0-25	NP-7
75464:												
Cedargap-----	0-6	GR-L	GC-GM, SC, CL, SC-SM	A-6, A-2-4	0	0	65-90	50-75	40-65	35-60	27-49	6-18
	6-20	CL, GR-L	SC, CL, SC-SM	A-6, A-2-4	0	0-5	80-100	50-95	40-90	35-85	22-49	6-24
	20-36	GRV-COSL, GRX- SL, GRX-SCL	GC, GW-GC	A-2-6, A-2-7, A-2-4	0	0-7	35-65	15-50	10-40	5-30	25-47	9-24
	36-60	GRX-L, GRX-SCL, GRV-CL	GW-GC, GC, GP-GC	A-2-7, A-2-4	0	0-25	25-50	15-50	15-45	5-35	30-44	10-25

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
75465: Raftville-----	0-9	SL	SM, SC-SM	A-2-4, A-4, A-1-b	0	0-5	80-100	75-100	50-65	20-40	18-31	2-10
	9-24	SIL, L	ML, CL	A-4	0	0-5	80-100	75-100	70-100	50-95	19-33	3-13
	24-39	GR-SCL, GR-L, GRV-L, GRV-CL	GC	A-2-6, A-2-4, A-6	0	0-30	35-80	30-75	25-70	20-50	30-44	10-25
	39-80	UWB	---	---	---	---	---	---	---	---	---	---
Gabriel-----	0-9	SIL	CL, SC-SM	A-4, A-6, A-2-4	0	0	100	100	85-100	30-65	25-47	6-17
	9-19	SIL	CL, CL-ML	A-6, A-4	0	0	100	100	90-100	70-90	26-45	7-18
	19-25	SIL	CL	A-7-6, A-6, A-4	0	0	100	100	90-100	70-95	25-42	7-19
	25-63	SICL	CL	A-7-6, A-6	0	0	100	100	90-100	70-95	37-47	19-25
75466: Midco-----	0-8	GRV-L	GM, GP-GM	A-2-4, A-1-a, A-1-b	0	0-10	35-60	30-50	20-45	12-35	19-31	3-10
	8-26	GRV-L, GRV-SL	GM, GW-GM, GC-GM	A-1-b, A-2-4, A-4, A-1-a	0	0-35	35-70	30-65	20-60	12-45	16-28	2-10
	26-60	GRV-L, GRV-LS, GRX-SL	GC-GM, GP-GM	A-1-a, A-2-4	0	0-25	25-65	15-55	10-50	5-35	0-28	NP-10
75470: Farewell-----	0-8	GR-SIL	CL-ML, CL, GC-GM	A-6, A-4	0	0	55-85	50-75	45-75	40-70	28-49	7-18
	8-18	SIL, GR-SIL, L, GR-L	CL-ML, CL	A-4, A-6	0	0	90-100	60-100	55-100	50-95	26-43	7-18
	18-39	SIL, GR-L, GR- CL, SICL	CL, SC, GC	A-7-6, A-2-6, A-2-4	0	0-10	50-95	50-90	40-85	35-80	30-50	10-29
	39-80	GRV-SL, GRV-L, SIL, GR-SCL, GRV-CL	CL, GC, GW-GC	A-7-6, A-2-6, A-2-4	0-2	0-10	40-100	30-100	25-95	10-90	27-52	10-29

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
77000: Killarney-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-5	CBV-SIL	GC-GM, GM	A-2-4, A-4, A-1-b	0-25	15-60	50-70	35-60	30-55	25-50	23-39	2-9
	5-16	GR-SIL, CBV-SIL, GRV-SIL	CL, GM, GC-GM	A-4, A-2-4	0-10	0-60	45-90	40-85	40-85	35-80	17-31	2-10
	16-32	GRV-SIL, CBV-SIL	GC, GC-GM	A-2-4, A-1-b, A-6	0-10	0-60	40-70	35-60	30-55	25-50	21-39	6-19
	32-48	GR-L, CBV-SIL, CBV-L, GRV-SIL, GRV-L, GRX-SIL	GC	A-2-6, A-6, A-2-4	0-10	0-60	25-80	20-70	15-65	15-50	20-37	6-19
	48-80	GR-L, GR-CL, GRV-L, GRV-CL, CBV-L	CL, GC	A-2-6, A-2-4, A-7-6	0	0-45	40-90	35-80	25-75	20-65	24-48	9-28
Frenchmill-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-6	CBV-SIL	GM	A-1-b, A-4	0-10	20-60	50-70	35-60	30-55	20-50	18-44	2-9
	6-19	GR-SIL, GRV-SIL, CBV-L	GM, CL	A-2-4, A-4	0-10	0-60	50-95	45-85	35-75	30-70	17-31	2-10
	19-27	CBV-SIL, GRV-SIL	GC-GM, GC	A-2-4, A-1-b, A-6	0-10	0-60	40-70	35-60	30-55	25-50	21-38	6-19
	27-58	GRV-L, CBV-L, GRV-CL, CBX-CL	GC	A-2-4, A-6	0-10	0-60	40-70	35-60	25-55	20-50	22-40	7-21
	58-80	SCL, CL, GR-SCL, GR-CL, CB-CL	GC, CL	A-7-6, A-6, A-2-4	0-10	0-40	65-100	60-100	35-85	30-80	30-48	10-28
77003: Delassus-----	0-8	GR-SIL	ML	A-4	0	0-15	75-95	60-80	55-80	55-75	20-37	2-10
	8-13	SIL, GR-SIL	CL-ML, CL	A-4	0	0-15	75-100	70-90	65-90	60-85	21-35	6-13
	13-20	L, SIL, GR-L, GR-SIL	CL	A-6, A-4	0	0-15	75-100	70-90	55-90	50-85	28-45	10-25
	20-59	SIL, GR-L, SL, GR-COSL, GR-SIL, CBV-L	CL, SC, GC-GM, CL-ML	A-6, A-2-4, A-1-b	0-10	0-40	45-90	40-80	25-75	20-65	18-37	3-19
	59-78	CB-L, GRV-SIL, GR-SICL, CBV-SICL	GC, SC, CL	A-6, A-2-6, A-2-4	0-10	0-50	40-90	35-80	30-75	25-70	25-44	9-25

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
77004: Irondale-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-4	GR-SIL	ML	A-4	0-5	0-8	65-95	60-85	55-85	50-80	25-48	2-9
	4-9	GR-SIL, GRV- SIL, CB-SIL, CBV-SIL	CL, GC, GM	A-4, A-2-4	0-10	5-50	50-95	45-85	40-85	35-80	18-33	2-10
	9-15	GRV-SIL, CBV- SIL	CL, GC-GM, GC	A-2-4, A-6	0-10	10-40	40-70	35-60	35-60	30-55	22-39	6-19
	15-22	GRV-SIL, GRV-L, CBV-SICL	GC	A-2-4, A-6	0-5	10-50	40-70	30-60	25-55	20-50	27-45	10-25
	22-80	UWB	---	---	---	---	---	---	---	---	---	---
77007: Taumsauk-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-5	CB-SIL	CL, CL-ML, ML	A-4	0-5	15-35	65-95	60-85	55-85	50-80	25-48	6-13
	5-17	CBX-SICL, GRV- SIL, GRV-CL, GRV-SICL, CBV- SIL, CBV-SICL	GC	A-2-4, A-2-6, A-7-6	0-15	15-60	40-70	35-60	30-55	30-50	26-47	9-24
	17-80	UWB	---	---	---	---	---	---	---	---	---	---
Irondale-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-5	CBV-SIL	GC-GM, GM	A-2-4, A-4	0-10	30-50	45-70	40-60	40-60	35-55	25-48	2-9
	5-10	GRV-SIL, GR- SIL, CB-SIL, CBV-SIL	GM, GC, CL, GC-GM	A-4, A-2-4	0-10	3-50	50-90	45-85	40-85	35-80	18-33	2-10
	10-17	GRV-SIL, CBV- SIL	GC-GM, CL, GC	A-2-4, A-6	0-10	15-50	40-70	35-60	30-60	30-55	21-41	6-19
	17-35	GRV-CL, GRV-L, CBV-SICL	GC	A-2-4, A-2-6, A-6	0-10	15-50	40-70	25-60	20-55	15-50	27-45	10-25
	35-80	UWB	---	---	---	---	---	---	---	---	---	---
Rock outcrop.												

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
77009: Trackler-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-2	SIL	CL	A-4	0-3	0-5	95-100	90-100	85-100	80-95	27-52	6-13
	2-8	SIL	CL-ML, CL	A-4	0-3	0-5	95-100	90-100	85-100	80-95	22-35	6-13
	8-14	SIL, SICL, GR- SICL	CL	A-6, A-4	0-3	3-10	80-100	75-100	70-100	65-100	25-45	9-25
	14-23	GR-SIL, CL, CB- SIL, GR-CL, SICL, CB-SICL, GR-SICL, GR-C	CL, GC, SC	A-6, A-7-6	0-10	10-25	60-100	50-95	45-95	40-90	33-54	17-32
	23-45	GRV-L, GRV- COSL, STX-L, CBV-L	SC, SP-SC, GP-GC, GC	A-2-6, A-6, A-2-4	40-60	10-30	35-70	30-60	20-55	10-40	16-38	2-19
	45-80	UWB	---	---	---	---	---	---	---	---	---	---
77011: Taumsauk-----	0-4	GR-SIL	CL-ML, CL, ML	A-4	0-20	5-15	60-85	55-80	55-80	50-75	25-48	6-13
	4-15	CBX-SICL, CBV- SICL, CBV-SIL	GC-GM, GC	A-7-6, A-2-7	0-20	20-65	30-70	25-60	25-55	20-50	28-47	10-25
	15-80	UWB	---	---	---	---	---	---	---	---	---	---
Irondale-----	0-3	GR-SIL	ML	A-4	0	0-5	65-85	60-75	60-75	55-70	25-48	2-9
	3-6	GR-SIL, CBV- SIL, CB-SIL, GRV-SIL	GM, CL	A-4, A-2-4	0-5	0-35	50-95	40-85	40-80	35-75	18-33	2-10
	6-13	GRV-SIL, CBV- SIL	GC-GM, GC, CL	A-2-4, A-6	2-5	10-30	45-70	35-60	33-60	30-55	22-39	6-19
	13-28	GRV-L, GRV-CL, CBV-SICL, GRV- SICL	GC, CL	A-7-6, A-2-6	2-9	9-30	45-65	35-55	30-55	25-50	28-45	12-25
	28-80	UWB	---	---	---	---	---	---	---	---	---	---
Rock outcrop.												

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
77012: Mudlick-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-4	CB-SIL	CL-ML, ML	A-4	0-5	12-25	65-90	60-80	60-80	55-75	25-48	4-13
	4-15	CB-SIL, GR-SIL, SIL	CL-ML, CL, ML	A-4	0-5	0-25	65-90	60-85	60-85	55-80	21-35	4-13
	15-36	SIL, GR-SIL, CB-SIL, SICL, GR-SICL, CB- SICL	CL	A-6, A-4	0-5	0-30	75-95	70-90	60-85	55-80	25-39	9-19
	36-46	ST-CL, CB-CL, SICL, ST-SICL, CB-SICL, CL, ST-L, CB-L, L	CL	A-6, A-7-6	0-25	0-30	80-100	75-95	75-95	50-90	35-50	17-29
	46-80	ST-CL, CB-CL, CB-L, ST-L, CB-C, ST-C, CL, L, C	CL	A-7-6, A-6	0-30	0-30	80-100	75-95	75-95	50-90	35-59	17-36
Irondale-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-4	GRV-SIL	GC-GM, GM	A-4	0-5	0-20	55-70	50-65	45-65	40-60	25-44	6-9
	4-11	GR-SIL, GRV- SIL, CB-SIL, CBV-SIL	GM, CL, CL-ML	A-4, A-2-4	0-5	0-35	55-85	45-80	40-80	35-75	22-33	6-10
	11-18	STV-SIL, GRV- SIL, CBV-SIL	GC-GM, GC, CL-ML, CL	A-4, A-6, A-2-4	0-20	0-30	55-80	40-75	35-60	30-55	21-39	6-19
	18-29	GRV-L, GRV-CL, STV-SIL, CBV- SICL	CL, GC	A-6, A-2-4	0-20	0-30	55-80	40-75	30-70	25-65	27-47	10-25
	29-80	UWB	---	---	---	---	---	---	---	---	---	---
Killarney-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-8	CBV-SIL	GC-GM	A-1-b, A-4, A-2-4	0-10	20-40	40-70	35-65	30-65	25-60	23-43	2-13
	8-12	GR-SIL, CBV- SIL, GRV-SIL	CL-ML, CL, GC-GM	A-4, A-2-4	0-10	10-40	50-80	45-75	40-70	35-65	17-35	2-13
	12-26	CBV-SIL, GRV- SIL	CL, GC	A-2-4, A-6, A-4	0-10	10-40	50-75	45-70	40-70	35-65	21-38	6-19
	26-65	BYV-L, GR-L, CBV-L, GRV-L, GRV-SIL, CBV- SIL, GRX-SIL	GP-GC, GC, CL	A-1-a, A-2-4, A-6	0-10	10-40	25-65	20-60	15-60	10-55	20-38	6-19

Table 17.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
77013: Mudlick-----	0-1	SPM	---	---	---	---	---	---	---	---	---	---
	1-8	CBV-SIL	CL-ML, SC-SM	A-2-4, A-4	0-10	25-50	70-90	45-80	40-80	35-75	23-43	4-13
	8-14	GR-SIL, SIL, CB-SIL	CL-ML, CL, GC-GM	A-4	0-5	0-20	65-90	60-85	60-85	50-80	20-35	4-13
	14-39	SIL, GR-SIL, CB-SIL, SICL, GR-SICL, CB- SICL	CL	A-4, A-6	0-5	0-30	80-95	75-90	70-90	65-85	27-45	10-25
	39-68	L, ST-L, CB-L, CL, ST-CL, C, CB-C, ST-C, CB-CL	CL, GC, GC-GM	A-7-6, A-2-4, A-6	0-30	0-25	65-95	60-90	55-90	35-85	22-59	6-36
99001. Water												
99006. Psamments												
99007. Dam												
99010. Pits and Dumps												
99013. Riverwash												

Table 18.--Physical Properties of the Soils

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
73042:														
Niangua-----	0-3	10-25	55-80	10-22	1.10-1.40	4.00-14.00	0.10-0.17	0.1-2.9	1.0-3.0	.24	.49	3	8	0
	3-14	10-25	55-80	10-22	1.10-1.40	4.00-14.00	0.09-0.14	0.1-2.9	0.5-1.0	.24	.43			
	14-52	2-10	10-30	60-85	1.10-1.30	1.40-4.00	0.07-0.10	3.0-5.9	0.5-1.0	.10	.17			
	52-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Bardley-----	0-4	5-15	52-75	18-27	1.40-1.55	4.00-14.00	0.12-0.17	0.1-2.9	2.0-4.0	.28	.37	2	8	0
	4-8	10-30	45-75	18-27	1.40-1.55	4.00-14.00	0.06-0.08	0.1-2.9	0.5-2.0	.28	.37			
	8-27	2-15	5-25	60-90	1.20-1.40	4.00-14.00	0.08-0.12	3.0-5.9	0.5-1.0	.17	.17			
	27-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73055:														
Alred-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	4	8	0
	1-7	10-30	50-80	5-15	1.20-1.45	4.00-14.00	0.09-0.15	0.1-2.9	1.0-8.0	.20	.43			
	7-11	10-30	50-80	5-15	1.25-1.45	4.00-14.00	0.12-0.17	0.1-2.9	0.5-1.0	.20	.49			
	11-30	10-25	40-80	10-27	1.40-1.55	4.00-14.00	0.06-0.15	0.1-2.9	0.2-0.5	.15	.49			
	30-80	2-20	5-40	45-90	1.50-1.65	0.42-1.40	0.07-0.09	3.0-5.9	0.1-0.5	.10	.17			
Rueter-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	8	0
	1-4	10-30	55-80	5-15	1.05-1.25	14.00-42.00	0.09-0.15	0.1-2.9	3.0-10	.15	.37			
	4-17	10-30	55-80	5-15	1.05-1.25	14.00-42.00	0.12-0.18	0.1-2.9	0.2-3.0	.32	.55			
	17-32	10-30	40-75	10-27	1.15-1.35	14.00-42.00	0.06-0.15	0.1-2.9	0.2-1.0	.15	.49			
	32-43	5-25	25-50	27-50	1.30-1.50	4.00-14.00	0.05-0.08	0.1-2.9	0.2-0.5	.10	.32			
	43-71	1-15	5-35	60-92	1.50-1.70	4.00-14.00	0.04-0.09	3.0-5.9	0.2-0.5	.05	.10			
73139:														
Poynor-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	8	0
	1-4	10-33	50-80	5-15	1.20-1.45	14.00-42.00	0.15-0.20	0.1-2.9	2.0-8.0	.15	.32			
	4-13	10-30	50-80	5-15	1.25-1.45	14.00-42.00	0.12-0.18	0.1-2.9	0.2-2.0	.20	.43			
	13-24	10-30	40-70	15-30	1.40-1.55	14.00-42.00	0.05-0.12	0.1-2.9	0.2-1.0	.10	.43			
	24-80	1-15	10-35	45-90	1.50-1.65	4.00-14.00	0.07-0.09	3.0-5.9	0.2-0.3	.05	.10			
Clarksville-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	8	0
	1-5	10-33	50-70	8-15	1.20-1.40	14.00-42.00	0.15-0.20	0.1-2.9	2.0-10	.17	.28			
	5-8	10-35	50-70	7-15	1.20-1.40	14.00-42.00	0.12-0.18	0.1-2.9	0.5-2.0	.17	.37			
	8-18	10-35	40-70	12-27	1.30-1.45	14.00-42.00	0.09-0.14	0.1-2.9	0.1-1.0	.10	.32			
	18-42	15-50	20-55	20-35	1.35-1.55	4.00-14.00	0.05-0.12	0.1-2.9	0.1-0.5	.10	.28			
	42-65	9-25	15-40	40-65	1.35-1.55	4.00-14.00	0.04-0.08	3.0-5.9	0.1-0.2	.20	.24			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
73139: Scholten-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	8	0
	1-3	10-25	55-80	5-15	1.20-1.40	14.00-42.00	0.15-0.20	0.1-2.9	2.0-7.0	.28	.43			
	3-8	10-25	55-80	5-15	1.20-1.40	4.00-14.00	0.12-0.18	0.1-2.9	1.0-2.0	.37	.55			
	8-17	5-20	50-70	10-36	1.30-1.45	4.00-14.00	0.08-0.12	0.1-2.9	0.7-2.0	.17	.37			
	17-41	5-30	50-70	15-30	1.55-1.75	0.01-0.42	0.02-0.06	0.1-2.9	0.2-0.3	.17	.43			
	41-80	5-20	12-50	35-80	1.35-1.55	14.00-42.00	0.01-0.05	3.0-5.9	0.0-0.2	.15	.24			
73140: Clarksville-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	8	0
	1-6	10-30	50-75	5-15	1.20-1.40	14.00-42.00	0.15-0.20	0.0-2.9	2.0-10	.15	.37			
	6-13	10-30	50-75	5-15	1.20-1.40	14.00-42.00	0.12-0.18	0.0-2.9	0.5-2.0	.20	.49			
	13-21	10-30	40-70	10-27	1.30-1.45	14.00-42.00	0.09-0.14	0.0-2.9	0.2-1.0	.15	.49			
	21-43	15-35	20-55	20-40	1.35-1.55	4.00-14.00	0.05-0.12	0.0-2.9	0.2-0.5	.05	.28			
	43-66	10-35	15-35	40-60	1.35-1.55	4.00-14.00	0.04-0.08	3.0-5.9	0.1-0.2	.05	.15			
Scholten-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	8	0
	1-6	15-40	50-70	5-15	1.20-1.40	14.00-42.00	0.09-0.15	0.0-2.9	2.0-5.0	.10	.37			
	6-13	15-40	50-70	5-15	1.20-1.40	4.00-14.00	0.12-0.18	0.0-2.9	0.6-2.0	.15	.43			
	13-34	20-52	20-50	10-30	1.30-1.45	4.00-14.00	0.06-0.10	0.0-2.9	0.1-0.7	.05	.32			
	34-58	15-45	20-50	15-30	1.55-1.75	0.01-0.42	0.02-0.06	0.0-2.9	0.1-0.5	.17	.43			
	58-80	10-40	10-50	35-80	1.35-1.55	14.00-42.00	0.01-0.05	3.0-5.9	0.0-0.3	.15	.32			
73143: Courtois-----	0-7	5-20	50-80	10-27	1.20-1.40	4.00-14.00	0.18-0.23	0.0-2.9	1.0-10	.28	.43	4	5	56
	7-15	4-20	50-75	25-40	1.25-1.55	4.00-14.00	0.17-0.21	0.0-2.9	0.5-3.0	.37	.37			
	15-32	4-25	35-60	35-50	1.40-1.60	4.00-14.00	0.06-0.14	3.0-5.9	0.2-1.0	.20	.20			
	32-80	2-25	5-40	60-90	1.30-1.60	4.00-14.00	0.06-0.10	3.0-5.9	0.1-1.0	.10	.15			
73144: Courtois-----	0-7	6-20	55-80	10-24	1.20-1.40	4.00-14.00	0.18-0.23	0.0-2.9	2.0-10	.28	.43	4	5	56
	7-15	5-20	50-75	25-40	1.25-1.55	4.00-14.00	0.17-0.21	0.0-2.9	0.5-3.0	.32	.32			
	15-32	6-25	35-60	35-50	1.40-1.60	4.00-14.00	0.06-0.14	3.0-5.9	0.2-1.0	.20	.20			
	32-80	1-25	10-35	60-90	1.30-1.60	4.00-14.00	0.06-0.10	3.0-5.9	0.1-1.0	.10	.15			
73147: Fourche-----	0-6	2-20	55-80	10-20	1.00-1.20	4.00-14.00	0.20-0.22	0.0-2.9	1.0-5.0	.43	.43	5	5	56
	6-30	2-20	55-75	20-35	1.20-1.45	1.40-4.00	0.16-0.20	0.0-2.9	0.2-0.9	.43	.43			
	30-54	2-20	40-70	25-50	1.30-1.60	1.40-4.00	0.14-0.18	0.0-2.9	0.2-0.3	.37	.37			
	54-66	1-25	10-45	45-80	1.30-1.60	1.40-4.00	0.08-0.12	3.0-5.9	0.2-0.3	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
73155: Gasconade-----	0-4	5-20	40-60	40-60	1.35-1.50	4.00-14.00	0.11-0.15	3.0-5.9	6.0-12	.15	.15	1	8	0
	4-13	5-35	20-60	35-70	1.45-1.70	1.40-4.00	0.04-0.10	3.0-5.9	2.0-10	.05	.10			
	13-80	---	---	---	---	0.00-0.42	---	---	---	---	---			
Rock outcrop-----	0-80	---	---	---	---	0.00-0.42	---	---	---	---	---	--	---	---
73156: Alred-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	4	8	0
	1-6	12-40	50-80	5-15	1.20-1.45	4.00-14.00	0.09-0.15	0.0-2.9	2.0-10	.15	.37			
	6-11	12-40	50-80	5-15	1.25-1.45	4.00-14.00	0.12-0.17	0.0-2.9	0.5-2.0	.24	.49			
	11-31	10-35	40-70	10-27	1.40-1.55	4.00-14.00	0.06-0.15	0.0-2.9	0.2-1.0	.15	.43			
	31-79	2-16	5-35	45-90	1.50-1.65	0.42-1.40	0.07-0.09	3.0-5.9	0.1-0.5	.15	.20			
Gepp-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	4	8	0
	1-6	10-33	50-80	8-18	0.95-1.05	4.00-14.00	0.09-0.15	0.0-2.9	2.0-10	.15	.37			
	6-12	5-25	30-55	30-65	1.25-1.40	4.00-14.00	0.09-0.16	3.0-5.9	0.3-1.0	.05	.10			
	12-67	1-25	5-35	60-90	1.20-1.40	4.00-14.00	0.07-0.10	3.0-5.9	0.2-0.5	.10	.10			
73157: Captina-----	0-5	5-25	60-80	5-15	0.95-1.15	4.00-14.00	0.22-0.24	0.0-2.9	2.0-6.0	.49	.49	3	5	56
	5-25	2-20	50-80	20-35	1.25-1.45	4.00-14.00	0.17-0.21	0.0-2.9	0.3-1.0	.49	.49			
	25-31	2-25	50-75	20-35	1.55-1.75	0.42-1.40	0.02-0.08	0.0-2.9	0.1-0.5	.20	.55			
	31-78	2-30	15-50	35-70	1.45-1.65	1.40-4.00	0.02-0.08	3.0-5.9	0.1-0.3	.10	.20			
73159: Yelton-----	0-3	15-30	60-80	8-20	1.20-1.40	4.00-14.00	0.22-0.24	0.1-2.9	0.5-3.0	.43	.43	3	5	56
	3-8	15-30	45-65	7-20	1.20-1.40	4.00-14.00	0.20-0.22	0.1-2.9	0.5-2.0	.43	.43			
	8-19	15-30	40-65	20-35	1.30-1.50	1.40-4.00	0.15-0.17	3.0-5.9	0.2-1.0	.37	.37			
	19-38	35-60	30-50	10-27	1.65-1.90	0.42-1.40	0.03-0.05	0.1-2.9	0.1-0.5	.28	.32			
	38-65	30-60	20-45	20-35	1.20-1.40	1.40-4.00	0.14-0.16	3.0-5.9	0.1-0.5	.20	.24			
73197: Viburnum-----	0-6	13-30	50-70	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	1.0-3.0	.32	.37	4	6	48
	6-18	10-20	40-53	30-40	1.30-1.50	4.00-14.00	0.11-0.21	3.0-5.9	0.3-1.0	.24	.32			
	18-35	5-20	40-53	35-55	1.10-1.40	1.40-4.00	0.08-0.16	3.0-5.9	0.2-0.5	.15	.28			
	35-80	5-20	20-45	40-70	1.10-1.40	1.40-4.00	0.03-0.12	3.0-5.9	0.1-0.3	.05	.20			
73222: Splitlimb-----	0-10	11-19	65-77	9-18	1.30-1.50	4.00-14.00	0.23-0.24	0.0-2.9	1.0-4.0	.43	.43	5	5	56
	10-20	9-12	58-74	14-32	1.30-1.65	4.00-14.00	0.20-0.22	3.0-5.9	0.3-1.0	.49	.49			
	20-29	5-18	56-78	15-35	1.50-1.70	1.40-14.00	0.16-0.20	3.0-5.9	0.2-0.5	.49	.49			
	29-80	4-14	54-73	21-37	1.50-1.70	1.40-4.00	0.15-0.19	3.0-5.9	0.1-0.3	.43	.43			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
73223:														
Coulstone-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	5	56
	1-4	45-70	25-45	5-12	1.20-1.45	42.00-141.00	0.05-0.18	0.1-2.9	1.0-3.0	.05	.20			
	4-11	35-70	25-45	6-24	1.25-1.45	42.00-141.00	0.03-0.09	0.1-2.9	0.2-1.0	.10	.20			
	11-31	35-60	15-50	14-35	1.40-1.55	14.00-42.00	0.02-0.10	0.1-2.9	0.1-0.3	.10	.24			
	31-39	35-60	15-50	14-40	1.40-1.55	14.00-42.00	0.02-0.10	0.1-2.9	0.1-0.3	.05	.20			
	39-80	30-55	8-40	20-50	1.50-1.65	14.00-42.00	0.03-0.11	0.1-5.9	0.1-0.3	.05	.15			
Bender-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	---	---	---	2	8	0
	1-5	50-75	15-45	1-8	1.30-1.50	14.00-42.00	0.01-0.09	0.0-2.9	1.5-3.0	.05	.24			
	5-21	45-75	10-45	1-15	1.30-1.50	14.00-42.00	0.01-0.06	0.0-2.9	0.2-1.5	.10	.32			
	21-31	40-85	8-35	2-25	1.30-1.50	14.00-42.00	0.01-0.06	0.0-2.9	0.1-0.5	.05	.28			
	31-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73269:														
Brussels-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	5	8	0
	1-10	1-20	40-70	27-40	1.05-1.25	1.40-4.00	0.09-0.14	3.0-5.9	4.0-8.0	.15	.28			
	10-49	1-20	30-60	35-50	1.30-1.50	1.40-4.00	0.06-0.10	3.0-5.9	2.0-4.0	.10	.28			
	49-70	1-30	30-70	27-40	1.30-1.50	1.40-4.00	0.06-0.10	3.0-5.9	0.5-2.0	.20	.37			
Gasconade-----	0-9	10-25	15-40	40-70	1.05-1.35	1.40-4.00	0.08-0.10	3.0-5.9	6.0-10	.10	.15	1	8	0
	9-14	10-30	10-50	35-70	1.30-1.50	1.40-4.00	0.04-0.07	3.0-5.9	2.0-8.0	.10	.20			
	14-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Rock outcrop-----	0-80	---	---	---	---	0.00-0.42	---	---	---	---	---			
73290:														
Gatewood-----	0-3	5-15	60-80	10-25	1.10-1.40	4.00-14.00	0.22-0.24	0.1-2.9	2.0-5.0	.37	.37	2	5	56
	3-7	5-15	60-75	10-25	1.10-1.40	4.00-14.00	0.22-0.24	0.1-2.9	1.0-3.0	.37	.37			
	7-37	1-5	20-35	60-75	1.10-1.45	1.40-4.00	0.08-0.10	6.0-8.9	0.5-1.0	.28	.28			
	37-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Aaron-----	0-7	10-20	60-80	10-25	1.10-1.40	4.00-14.00	0.22-0.24	0.1-2.9	2.0-4.0	.37	.37	3	5	56
	7-12	5-15	60-80	10-25	1.10-1.40	4.00-14.00	0.22-0.24	0.1-2.9	0.4-0.8	.37	.37			
	12-25	5-15	50-70	20-35	1.10-1.40	1.40-4.00	0.18-0.22	3.0-5.9	0.2-0.5	.43	.43			
	25-46	5-15	30-55	45-65	1.10-1.45	1.40-4.00	0.08-0.12	6.0-8.9	0.1-0.2	.32	.32			
	46-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73291:														
Gatewood-----	0-1	5-15	60-80	10-25	1.10-1.40	4.00-14.00	0.22-0.24	0.1-2.9	0.5-2.0	.37	.37	2	5	56
	1-25	1-5	20-35	60-75	1.10-1.45	1.40-4.00	0.08-0.10	6.0-8.9	0.5-1.0	.28	.28			
	25-36	1-5	20-35	60-75	1.20-1.50	1.40-4.00	0.06-0.09	6.0-8.9	0.1-0.2	.20	.28			
	36-80	---	---	---	---	0.00-0.11	---	---	---	---	---			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
73291: Aaron-----	0-2	10-15	60-80	10-25	1.10-1.40	4.00-14.00	0.22-0.24	0.1-2.9	0.5-2.0	.37	.37	3	5	56
	2-10	5-15	50-70	30-40	1.10-1.40	1.40-4.00	0.18-0.20	3.0-5.9	0.2-0.5	.43	.43			
	10-52	5-15	30-55	45-65	1.10-1.45	1.40-4.00	0.08-0.12	6.0-8.9	0.1-0.2	.32	.32			
	52-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73295: Taterhill-----	0-9	15-30	50-75	10-18	1.35-1.45	14.00-42.00	0.18-0.24	0.0-2.9	1.0-4.0	.43	.43	5	5	56
	9-30	14-35	35-73	13-30	1.30-1.45	4.00-14.00	0.12-0.19	0.0-2.9	0.2-1.0	.37	.37			
	30-80	20-55	25-50	20-40	1.30-1.45	4.00-14.00	0.04-0.15	0.0-2.9	0.1-0.3	.10	.32			
73298: Tonti-----	0-8	8-20	60-82	10-20	1.30-1.50	4.00-14.00	0.15-0.20	0.1-2.9	1.0-3.0	.43	.55	4	5	56
	8-20	5-20	45-75	20-35	1.30-1.50	4.00-14.00	0.12-0.18	0.1-2.9	0.1-1.0	.28	.49			
	20-34	8-20	50-75	15-35	1.60-1.90	0.00-0.42	0.02-0.08	0.1-2.9	0.1-0.5	.20	.49			
	34-80	5-15	12-55	40-80	1.20-1.40	1.40-4.00	0.05-0.10	3.0-5.9	0.1-0.5	.05	.24			
Hogcreek-----	0-5	8-30	60-80	8-15	1.30-1.50	14.00-42.00	0.20-0.22	0.0-2.9	1.0-3.0	.43	.49	2	5	56
	5-16	5-25	45-80	12-30	1.30-1.50	14.00-42.00	0.14-0.20	0.0-2.9	0.5-1.0	.43	.55			
	16-22	5-35	40-70	17-38	1.20-1.40	4.00-14.00	0.09-0.17	0.0-2.9	0.2-0.7	.20	.49			
	22-28	10-45	35-75	12-32	1.60-1.90	0.01-0.42	0.02-0.06	0.1-2.9	0.1-0.3	.17	.49			
	28-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73310: Scholten-----	0-7	15-30	55-75	7-15	1.20-1.40	14.00-42.00	0.07-0.19	0.1-2.9	1.0-3.0	.20	.49	4	8	0
	7-21	10-25	47-75	12-30	1.30-1.50	4.00-14.00	0.02-0.11	0.1-2.9	0.2-1.0	.24	.64			
	21-34	10-25	40-75	18-40	1.60-1.90	0.01-0.42	0.01-0.05	0.1-2.9	0.1-0.3	.17	.49			
	34-80	5-20	10-40	40-75	1.30-1.60	4.00-14.00	0.01-0.03	3.0-5.9	0.1-0.3	.10	.24			
Bendavis-----	0-8	14-25	55-80	5-15	1.30-1.50	14.00-42.00	0.12-0.20	0.0-2.9	1.0-3.0	.28	.49	2	5	56
	8-10	14-25	55-80	5-15	1.30-1.50	14.00-42.00	0.06-0.20	0.0-2.9	0.5-2.0	.28	.49			
	10-31	12-30	40-80	10-30	1.30-1.50	4.00-14.00	0.03-0.14	0.0-2.9	0.2-0.8	.24	.55			
	31-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Poynor-----	0-4	10-30	55-82	5-15	1.20-1.45	14.00-42.00	0.07-0.19	0.1-2.9	1.0-3.0	.15	.43	3	8	0
	4-10	10-30	55-82	5-15	1.25-1.45	14.00-42.00	0.07-0.19	0.1-2.9	0.7-2.0	.15	.49			
	10-28	5-25	35-85	10-35	1.40-1.55	4.00-14.00	0.11-0.18	0.1-2.9	0.2-0.8	.15	.49			
	28-80	2-12	10-40	45-86	1.50-1.65	4.00-14.00	0.02-0.16	3.0-5.9	0.1-0.5	.10	.15			
73311: Scholten-----	0-7	15-30	55-75	5-15	1.20-1.40	14.00-42.00	0.07-0.19	0.1-2.9	1.0-3.0	.24	.49	4	8	0
	7-21	10-25	55-75	12-30	1.30-1.50	4.00-14.00	0.02-0.11	0.1-2.9	0.2-0.7	.24	.64			
	21-34	10-25	45-75	18-40	1.60-1.90	0.01-0.42	0.01-0.05	0.1-2.9	0.1-0.3	.15	.49			
	34-80	5-25	12-40	40-75	1.30-1.60	4.00-14.00	0.01-0.03	3.0-5.9	0.1-0.3	.10	.24			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
73311:														
Bendavis -----	0-5	10-30	60-80	7-15	1.20-1.40	14.00-42.00	0.09-0.13	0.1-2.9	1.0-3.0	.15	.49	2	5	56
	5-9	10-30	60-80	7-15	1.20-1.40	14.00-42.00	0.09-0.13	0.1-2.9	0.5-2.0	.15	.43			
	9-25	15-35	50-70	15-30	1.20-1.40	4.00-14.00	0.09-0.15	0.1-2.9	0.1-1.0	.15	.43			
	25-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Poynor -----	0-4	10-30	55-80	5-15	1.20-1.45	14.00-42.00	0.04-0.12	0.1-2.9	1.0-3.0	.20	.43	3	7	38
	4-10	10-25	55-80	8-27	1.25-1.45	14.00-42.00	0.02-0.09	0.1-2.9	0.2-1.0	.10	.37			
	10-28	5-20	45-70	8-35	1.40-1.55	4.00-14.00	0.02-0.09	0.1-2.9	0.1-0.8	.15	.43			
	28-80	2-15	12-40	45-85	1.50-1.65	4.00-14.00	0.08-0.12	3.0-5.9	0.1-0.5	.10	.15			
73333:														
Taterhill -----	0-11	5-30	55-80	10-20	1.35-1.45	4.00-14.00	0.20-0.22	0.0-2.9	1.0-2.0	.43	.43	5	5	56
	11-15	5-30	55-80	10-20	1.35-1.45	4.00-14.00	0.18-0.22	0.0-2.9	0.5-1.0	.55	.55			
	15-28	5-30	45-75	15-30	1.35-1.45	4.00-14.00	0.14-0.18	0.0-2.9	0.2-0.8	.43	.49			
	28-48	5-35	30-65	18-40	1.30-1.45	4.00-14.00	0.08-0.16	0.0-2.9	0.1-0.5	.28	.37			
	48-80	5-35	30-65	18-40	1.35-1.45	4.00-14.00	0.10-0.16	0.0-2.9	0.1-0.5	.28	.37			
73334:														
Horneybuck -----	0-6	5-30	55-80	10-20	1.25-1.45	4.00-14.00	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37	5	5	56
	6-26	5-30	50-75	18-30	1.30-1.50	4.00-14.00	0.11-0.22	0.0-2.9	0.1-1.0	.32	.43			
	26-37	5-25	45-70	20-35	1.40-1.60	1.40-4.20	0.10-0.21	0.0-2.9	0.1-0.5	.28	.37			
	37-60	5-25	40-60	27-50	1.35-1.55	1.40-4.20	0.02-0.18	3.0-5.9	0.1-0.5	.28	.28			
73335:														
Hobson -----	0-10	8-30	50-80	8-18	0.95-1.10	4.00-14.00	0.20-0.24	0.1-2.9	1.0-4.0	.43	.43	4	6	48
	10-16	8-30	50-80	8-18	0.95-1.10	4.00-14.00	0.20-0.24	0.1-2.9	0.5-2.0	.55	.55			
	16-32	8-35	30-70	18-30	1.25-1.45	1.40-14.00	0.16-0.20	0.1-2.9	0.1-0.5	.37	.43			
	32-42	15-40	30-70	15-35	1.65-1.90	0.42-1.40	0.03-0.07	0.1-2.9	0.1-0.5	.10	.43			
	42-80	10-35	5-35	45-85	1.35-1.55	1.40-4.00	0.03-0.07	6.0-8.9	0.1-0.5	.05	.17			
Rueter -----	0-4	10-30	55-80	5-15	1.05-1.25	4.00-14.00	0.09-0.15	0.0-2.9	2.0-10	.15	.37	3	8	0
	4-17	10-25	55-80	5-15	1.05-1.25	4.00-14.00	0.12-0.18	0.0-2.9	0.2-2.0	.32	.55			
	17-32	10-30	40-75	10-27	1.15-1.35	4.00-14.00	0.05-0.15	0.0-2.9	0.2-1.0	.10	.49			
	32-43	5-22	25-50	35-60	1.30-1.50	1.40-4.00	0.04-0.08	0.0-2.9	0.2-0.7	.10	.20			
	43-71	1-15	8-40	60-90	1.50-1.70	1.40-4.00	0.04-0.09	3.0-5.9	0.1-0.5	.05	.10			
73336:														
Rueter -----	0-5	10-25	55-80	8-15	1.05-1.25	4.00-14.00	0.09-0.18	0.0-2.9	2.0-10	.15	.37	3	8	0
	5-12	10-25	55-80	10-16	1.05-1.25	4.00-14.00	0.12-0.20	0.0-2.9	0.2-2.0	.20	.49			
	12-24	10-25	40-70	14-27	1.15-1.35	4.00-14.00	0.06-0.15	0.0-2.9	0.2-1.0	.15	.37			
	24-43	5-30	25-50	27-50	1.30-1.50	1.40-4.00	0.05-0.12	0.0-2.9	0.2-0.7	.10	.20			
	43-80	1-15	5-40	60-90	1.50-1.70	1.40-4.00	0.04-0.09	3.0-5.9	0.1-0.5	.05	.10			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
73336: Gepp-----	0-5	10-33	55-80	8-18	0.95-1.05	4.00-14.00	0.09-0.15	0.0-2.9	2.0-10	.10	.24	4	8	0
	5-10	10-33	50-75	5-20	0.95-1.05	4.00-14.00	0.09-0.17	0.0-2.9	0.3-1.0	.10	.24			
	10-16	5-25	30-55	27-65	1.25-1.40	4.00-14.00	0.09-0.16	3.0-5.9	0.3-0.7	.15	.28			
	16-76	1-15	5-30	60-92	1.20-1.40	4.00-14.00	0.07-0.10	3.0-5.9	0.1-0.5	.05	.10			
73337: Tonti-----	0-10	5-30	60-82	8-20	1.30-1.50	4.00-14.00	0.15-0.22	0.1-2.9	1.0-4.0	.37	.43	4	5	56
	10-25	5-20	45-75	20-35	1.30-1.50	4.00-14.00	0.12-0.20	0.1-2.9	0.2-1.0	.32	.37			
	25-36	10-30	45-75	15-35	1.65-1.90	0.01-0.42	0.02-0.08	0.1-2.9	0.1-0.5	.28	.37			
	36-80	5-15	10-55	40-80	1.20-1.40	0.42-1.40	0.05-0.10	3.0-5.9	0.1-0.5	.24	.32			
Portia-----	0-6	15-45	50-75	7-15	0.95-1.15	4.00-14.00	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	5	5	56
	6-16	15-45	30-70	14-27	1.25-1.45	4.00-14.00	0.22-0.24	0.0-2.9	0.3-1.0	.49	.49			
	16-21	20-55	10-40	20-35	1.25-1.45	4.00-14.00	0.14-0.22	0.0-2.9	0.1-0.5	.28	.37			
	21-31	20-55	5-30	35-55	1.40-1.60	4.00-14.00	0.08-0.17	3.0-5.9	0.1-0.5	.24	.28			
	31-80	1-30	5-30	60-92	1.40-1.60	4.00-14.00	0.06-0.10	3.0-5.9	0.1-0.5	.10	.15			
73338: Portia-----	0-6	15-40	50-75	7-15	0.95-1.15	4.00-14.00	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	5	5	56
	6-16	15-40	35-65	14-27	1.25-1.45	4.00-14.00	0.22-0.24	0.0-2.9	0.3-1.0	.49	.49			
	16-21	20-55	10-50	20-35	1.25-1.45	4.00-14.00	0.14-0.22	0.0-2.9	0.1-0.5	.28	.37			
	21-31	20-55	10-40	35-55	1.40-1.60	4.00-14.00	0.08-0.17	3.0-5.9	0.1-0.5	.24	.28			
	31-80	1-30	5-35	60-90	1.40-1.60	4.00-14.00	0.06-0.10	3.0-5.9	0.1-0.5	.10	.15			
Hobson-----	0-8	5-40	50-75	8-18	0.95-1.10	4.00-14.00	0.20-0.24	0.1-2.9	1.0-4.0	.37	.37	4	6	48
	8-13	5-40	50-75	8-18	0.95-1.10	4.00-14.00	0.20-0.24	0.1-2.9	0.2-1.0	.43	.43			
	13-27	5-40	30-70	18-30	1.25-1.45	1.40-14.00	0.16-0.20	0.1-2.9	0.1-0.5	.37	.37			
	27-36	10-45	20-60	15-35	1.65-1.90	0.42-1.40	0.03-0.07	0.1-2.9	0.1-0.5	.05	.20			
	36-70	2-25	5-35	45-85	1.35-1.55	1.40-4.00	0.03-0.07	6.0-8.9	0.1-0.5	.05	.10			
73339: Arkana-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	2	8	0
	1-7	10-35	50-75	10-27	0.95-1.05	4.00-14.00	0.10-0.16	0.0-2.9	4.0-8.0	.15	.32			
	7-12	5-25	30-60	33-65	1.25-1.40	4.00-14.00	0.07-0.16	3.0-5.9	0.5-4.0	.15	.24			
	12-30	1-15	5-30	60-90	1.20-1.40	4.00-14.00	0.07-0.10	6.0-8.9	0.5-2.0	.10	.15			
	---	---	---	---	---	0.00-0.11	---	---	---	---	---			
Gepp-----	0-10	10-30	50-75	8-18	0.95-1.05	4.00-14.00	0.09-0.15	0.0-2.9	2.0-10	.10	.24	4	8	0
	10-19	5-25	30-60	27-60	1.25-1.40	4.00-14.00	0.09-0.16	3.0-5.9	0.5-2.0	.15	.28			
	19-60	1-15	5-40	60-90	1.20-1.40	4.00-14.00	0.07-0.10	3.0-5.9	0.2-0.7	.05	.10			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
73340:														
Rueter -----	0-6	10-35	50-80	8-15	1.05-1.25	4.00-14.00	0.08-0.16	0.0-2.9	2.0-10	.15	.37	3	8	0
	6-10	10-35	50-80	8-15	1.05-1.25	4.00-14.00	0.08-0.20	0.0-2.9	0.2-2.0	.20	.49			
	10-28	10-35	40-70	12-27	1.15-1.35	4.00-14.00	0.06-0.18	0.0-2.9	0.2-1.0	.15	.37			
	28-42	5-30	25-50	35-55	1.30-1.50	1.40-4.00	0.05-0.08	0.0-2.9	0.1-0.7	.10	.20			
	42-80	1-20	5-40	60-95	1.50-1.70	1.40-4.00	0.04-0.09	3.0-5.9	0.1-0.5	.05	.10			
Gepp -----	0-4	15-35	50-80	8-18	0.95-1.05	4.00-14.00	0.09-0.17	0.0-2.9	2.0-10	.10	.24	4	8	0
	4-9	10-30	50-80	10-20	0.95-1.05	4.00-14.00	0.09-0.17	0.0-2.9	0.3-1.0	.10	.24			
	9-17	5-25	30-60	35-65	1.25-1.40	4.00-14.00	0.07-0.16	3.0-5.9	0.2-0.7	.15	.28			
	17-72	1-15	5-30	60-93	1.20-1.40	4.00-14.00	0.07-0.10	3.0-5.9	0.1-0.5	.05	.10			
73341:														
Gepp -----	0-4	15-40	50-80	8-18	0.95-1.05	4.00-14.00	0.07-0.15	0.0-2.9	2.0-10	.10	.24	4	8	0
	4-15	6-30	30-60	27-60	1.25-1.40	4.00-14.00	0.09-0.16	3.0-5.9	0.3-1.0	.15	.28			
	15-68	1-30	5-40	60-93	1.20-1.40	4.00-14.00	0.07-0.10	3.0-5.9	0.1-0.5	.05	.10			
Arkana -----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	2	8	0
	1-9	10-30	50-80	10-27	0.95-1.05	4.00-14.00	0.10-0.16	0.0-2.9	4.0-8.0	.15	.32			
	9-14	5-25	30-60	27-65	1.25-1.40	4.00-14.00	0.07-0.12	3.0-5.9	1.0-3.0	.15	.24			
	14-29	1-25	5-40	60-92	1.20-1.40	4.00-14.00	0.07-0.12	6.0-8.9	0.5-2.0	.10	.15			
	---	---	---	---	---	0.00-0.11	---	---	---	---	---			
73342:														
Alred -----	0-8	10-30	55-80	8-15	1.20-1.45	4.00-14.00	0.09-0.15	0.0-2.9	1.0-8.0	.15	.32	4	8	0
	8-11	10-30	50-80	8-15	1.25-1.45	4.00-14.00	0.12-0.17	0.0-2.9	0.5-1.0	.15	.37			
	11-24	10-30	40-70	10-27	1.40-1.55	4.00-14.00	0.06-0.15	0.0-2.9	0.2-0.7	.15	.37			
	24-67	1-25	5-35	45-92	1.50-1.65	1.40-4.00	0.07-0.09	3.0-5.9	0.1-0.5	.05	.10			
Arkana -----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	2	8	0
	1-5	10-30	50-80	10-27	0.95-1.05	4.00-14.00	0.10-0.16	0.0-2.9	4.0-8.0	.15	.32			
	5-17	5-25	30-60	30-65	1.25-1.40	4.00-14.00	0.07-0.12	3.0-5.9	0.5-3.0	.15	.20			
	17-25	1-20	5-35	60-93	1.20-1.40	4.00-14.00	0.07-0.12	6.0-8.9	0.5-2.0	.10	.15			
	25-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
74636:														
Lecoma -----	0-9	30-52	28-50	8-18	1.40-1.50	4.00-14.00	0.14-0.18	0.0-2.9	1.0-2.0	.32	.32	5	3	86
	9-31	25-50	15-45	15-30	1.50-1.60	4.00-14.00	0.17-0.21	3.0-5.9	0.1-0.5	.43	.43			
	31-80	25-60	14-45	18-35	1.50-1.60	4.00-14.00	0.16-0.20	3.0-5.9	0.1-0.5	.37	.37			
74637:														
Lecoma -----	0-7	25-52	28-50	8-18	1.40-1.50	4.00-14.00	0.14-0.18	0.0-2.9	1.0-2.0	.32	.32	5	5	56
	7-24	25-50	15-45	15-30	1.50-1.60	4.00-14.00	0.17-0.21	3.0-5.9	0.0-0.5	.43	.43			
	24-80	23-60	14-45	18-35	1.50-1.60	4.00-14.00	0.16-0.20	3.0-5.9	0.0-0.5	.37	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
74643: Lecoma-----	0-9	15-35	50-75	8-18	0.95-1.15	4.00-14.00	0.22-0.24	0.1-2.9	1.0-2.0	.37	.37	5	5	56
	9-24	15-40	40-65	18-30	1.25-1.45	4.00-14.00	0.18-0.22	0.1-2.9	0.2-0.5	.37	.37			
	24-80	15-40	30-60	20-40	1.25-1.45	4.00-14.00	0.14-0.20	3.0-5.9	0.1-0.5	.28	.28			
74644: Deible-----	0-7	5-30	50-80	10-27	1.30-1.45	4.00-14.00	0.22-0.24	0.0-2.9	1.0-4.0	.55	.55	3	5	56
	7-16	5-30	50-80	10-27	1.30-1.45	4.00-14.00	0.20-0.22	0.0-2.9	0.3-1.0	.49	.49			
	16-40	2-20	40-70	35-60	1.35-1.50	0.01-0.42	0.10-0.16	6.0-8.9	0.3-0.8	.32	.32			
	40-65	2-30	30-70	25-40	1.35-1.50	1.40-4.00	0.18-0.21	3.0-5.9	0.1-0.5	.37	.43			
74646: Cornwall-----	0-5	2-20	60-80	10-20	1.00-1.20	4.00-14.00	0.20-0.24	0.0-2.9	1.0-3.0	.49	.49	4	5	56
	5-17	2-20	60-80	20-35	1.25-1.45	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.43	.43			
	17-39	2-20	60-80	20-30	1.50-1.70	0.42-1.40	0.08-0.18	0.0-2.9	0.1-0.3	.55	.55			
	39-60	10-40	20-60	27-50	1.45-1.65	4.00-14.00	0.06-0.14	0.0-2.9	0.1-0.3	.32	.43			
74648: Aslinger-----	0-4	10-30	55-80	10-20	0.90-1.10	4.00-14.00	0.18-0.22	0.0-2.9	2.0-4.0	.43	.43	4	5	56
	4-8	10-30	55-80	10-20	0.90-1.10	4.00-14.00	0.18-0.22	0.0-2.9	0.5-2.0	.49	.49			
	8-21	5-20	45-70	20-35	1.25-1.45	4.00-14.00	0.08-0.16	0.0-2.9	0.2-1.0	.49	.49			
	21-29	10-35	45-70	12-27	1.40-1.70	1.40-4.00	0.01-0.05	0.0-2.9	0.2-0.3	.15	.55			
	29-55	20-40	25-50	18-35	1.30-1.60	1.40-4.00	0.05-0.13	0.0-2.9	0.2-0.3	.10	.37			
	55-70	10-45	15-45	35-55	1.30-1.60	1.40-4.00	0.02-0.13	3.0-5.9	0.1-0.3	.05	.17			
74649: Aslinger-----	0-3	10-35	50-80	10-20	0.90-1.10	4.00-14.00	0.18-0.22	0.0-2.9	2.0-4.0	.37	.43	4	5	56
	3-8	10-30	50-80	10-20	0.90-1.10	4.00-14.00	0.18-0.22	0.0-2.9	1.0-2.0	.49	.49			
	8-20	5-20	45-70	20-35	1.25-1.45	4.00-14.00	0.08-0.16	0.0-2.9	0.3-1.0	.37	.43			
	20-39	10-40	45-70	12-27	1.40-1.70	1.40-4.00	0.01-0.05	0.0-2.9	0.2-0.5	.32	.49			
	39-52	20-40	25-50	18-35	1.30-1.60	1.40-4.00	0.05-0.13	0.0-2.9	0.2-0.3	.24	.43			
	52-80	10-35	15-45	35-55	1.30-1.60	1.40-4.00	0.02-0.13	3.0-5.9	0.1-0.3	.05	.17			
Waben-----	0-6	5-30	50-80	10-15	1.20-1.50	14.00-42.00	0.09-0.13	0.0-2.9	1.0-3.0	.24	.43	4	8	0
	6-15	5-30	40-80	12-22	1.20-1.50	14.00-42.00	0.05-0.13	0.0-2.9	0.5-1.0	.15	.49			
	15-54	20-52	28-65	15-27	1.30-1.60	14.00-42.00	0.05-0.15	0.0-2.9	0.5-1.0	.10	.24			
	54-80	20-50	20-50	27-40	1.30-1.60	14.00-42.00	0.05-0.15	0.0-2.9	0.1-0.5	.05	.20			
74651: Waben-----	0-4	5-35	50-80	10-15	1.20-1.50	14.00-42.00	0.09-0.13	0.0-2.9	1.0-3.0	.20	.32	4	8	0
	4-22	5-35	40-80	12-22	1.20-1.50	14.00-42.00	0.05-0.13	0.0-2.9	0.5-1.0	.15	.49			
	22-47	15-52	28-65	15-27	1.30-1.60	14.00-42.00	0.05-0.15	0.0-2.9	0.1-0.8	.10	.32			
	47-80	20-50	20-45	27-40	1.30-1.60	14.00-42.00	0.05-0.15	0.0-2.9	0.1-0.5	.10	.24			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
74658:														
Zanoni-----	0-7	45-75	20-50	7-12	1.30-1.50	14.00-42.00	0.09-0.22	0.0-2.9	1.0-4.0	.17	.20	4	3	86
	7-36	35-80	15-40	6-19	1.30-1.50	14.00-42.00	0.08-0.18	0.0-2.9	0.3-1.0	.17	.20			
	36-50	35-85	10-40	6-22	1.20-1.50	14.00-42.00	0.07-0.17	0.0-2.9	0.1-0.5	.15	.20			
	50-80	40-88	5-45	6-20	1.20-1.50	14.00-141.00	0.03-0.17	0.0-2.9	0.1-0.3	.02	.20			
74679:														
Higdon-----	0-7	2-30	50-85	10-20	1.20-1.45	4.00-14.00	0.22-0.24	0.0-2.9	1.0-3.0	.55	.55	5	5	56
	7-13	2-30	50-80	10-20	1.40-1.50	4.00-14.00	0.18-0.20	0.0-2.9	0.5-2.0	.64	.64			
	13-43	2-30	45-75	20-35	1.40-1.50	1.40-4.00	0.15-0.19	3.0-5.9	0.3-0.7	.55	.55			
	43-80	2-30	30-75	15-35	1.35-1.50	1.40-4.00	0.15-0.20	3.0-5.9	0.1-0.3	.49	.49			
74680:														
Moniteau-----	0-6	1-15	70-85	5-20	1.20-1.40	4.00-14.00	0.17-0.22	0.0-2.9	1.0-2.0	.55	.55	5	6	48
	6-15	1-15	70-85	10-20	1.20-1.40	4.00-14.00	0.17-0.20	0.0-2.9	0.1-0.5	.64	.64			
	15-52	1-15	55-70	20-35	1.30-1.50	1.40-4.00	0.17-0.20	3.0-5.9	0.1-0.5	.49	.49			
	52-78	1-40	40-75	15-30	1.25-1.45	1.40-4.00	0.17-0.20	0.0-2.9	0.1-0.5	.55	.55			
75381:														
Bearthicket-----	0-6	10-35	50-80	10-20	1.20-1.40	4.00-14.00	0.22-0.24	0.0-2.9	1.0-4.0	.43	.43	5	5	56
	6-19	10-35	50-80	10-20	1.20-1.50	4.00-14.00	0.22-0.24	0.0-2.9	0.5-2.0	.43	.43			
	19-45	10-35	50-75	15-30	1.20-1.50	4.00-14.00	0.20-0.22	0.0-2.9	0.2-1.0	.43	.43			
	45-64	10-40	40-70	10-25	1.20-1.50	4.00-14.00	0.18-0.22	0.0-2.9	0.2-0.5	.43	.43			
	64-80	40-80	10-40	5-20	1.20-1.50	4.00-14.00	0.07-0.13	0.0-2.9	0.2-0.5	.15	.15			
75394:														
Relfe-----	0-6	53-80	17-40	4-15	1.10-1.50	14.00-42.00	0.05-0.09	0.0-2.9	1.0-4.0	.10	.17	5	8	0
	6-80	85-96	2-25	1-13	1.10-1.50	42.00-141.00	0.03-0.05	0.0-2.9	0.0-0.7	.02	.10			
75395:														
Jamesfin-----	0-6	5-35	50-80	10-20	1.20-1.40	4.00-14.00	0.22-0.24	0.1-2.9	2.0-4.0	.37	.37	5	5	56
	6-15	5-35	50-80	10-20	1.20-1.40	4.00-14.00	0.22-0.24	0.1-2.9	1.0-2.0	.49	.49			
	15-53	10-35	50-70	15-27	1.20-1.50	4.00-14.00	0.20-0.22	0.1-2.9	0.2-1.0	.49	.49			
	53-62	15-65	30-70	7-27	1.20-1.50	4.00-14.00	0.14-0.22	0.1-2.9	0.2-1.0	.37	.43			
75408:														
Secesh-----	0-4	10-35	50-75	10-20	1.00-1.10	4.00-14.00	0.21-0.23	0.0-2.9	2.0-4.0	.20	.32	5	5	56
	4-10	10-40	28-70	10-20	1.00-1.10	4.00-14.00	0.19-0.23	0.0-2.9	0.5-2.0	.32	.37			
	10-26	10-40	35-65	18-27	1.20-1.40	4.00-14.00	0.14-0.21	0.0-2.9	0.3-1.0	.28	.43			
	26-36	40-60	20-45	15-27	1.30-1.50	4.00-14.00	0.13-0.19	0.0-2.9	0.2-0.5	.15	.28			
	36-80	52-85	5-35	10-27	1.50-1.70	14.00-42.00	0.04-0.12	0.0-2.9	0.2-0.5	.05	.24			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
75409: Relfe-----	0-7 7-64	50-80 75-98	10-40 2-25	4-10 1-10	1.10-1.50 1.10-1.50	42.00-141.00 42.00-141.00	0.11-0.15 0.02-0.08	0.0-2.9 0.0-2.9	1.0-4.0 0.0-0.7	.02 .02	.05 .05	5	8	0
75411: Tilk-----	0-8 8-16 16-47 47-70	45-75 45-75 35-70 52-85	20-50 20-50 20-50 5-35	5-15 5-15 7-20 5-15	1.00-1.30 1.00-1.30 1.25-1.50 1.35-1.60	14.00-42.00 14.00-42.00 14.00-42.00 42.00-141.00	0.03-0.11 0.04-0.14 0.04-0.14 0.02-0.10	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	2.0-8.0 0.9-2.0 0.2-1.0 0.0-0.5	.05 .10 .10 .05	.20 .37 .28 .15	5	8	0
75416: Gladden-----	0-5 5-26 26-58 58-77	35-52 20-52 30-75 70-97	33-50 33-70 20-50 2-25	10-15 10-15 5-20 1-10	0.95-1.15 0.95-1.15 1.25-1.55 1.45-1.55	4.00-14.00 4.00-14.00 4.00-14.00 42.00-140.00	0.18-0.22 0.15-0.22 0.12-0.18 0.02-0.12	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	1.0-3.0 0.5-1.0 0.1-1.0 0.0-0.2	.32 .37 .37 .10	.32 .37 .37 .10	4	3	86
75417: Relfe-----	0-6 6-80	48-80 85-96	15-45 2-20	4-15 1-13	1.10-1.50 1.10-1.30	14.00-42.00 42.00-141.00	0.05-0.09 0.03-0.05	0.1-2.9 0.1-2.9	1.0-4.0 0.0-1.0	.05 .02	.17 .10	5	5	56
Sandbur-----	0-8 8-50 50-80	55-75 40-90 52-85	20-45 10-55 5-35	5-18 5-18 5-27	1.30-1.50 1.20-1.50 1.35-1.60	14.00-42.00 14.00-42.00 14.00-42.00	0.09-0.17 0.06-0.20 0.04-0.10	0.1-2.9 0.1-2.9 0.1-2.9	1.0-4.0 0.2-1.0 0.1-0.5	.24 .28 .05	.24 .28 .17	4	3	86
75426: Gabriel-----	0-14 14-46 46-81	2-10 2-30 2-35	60-80 45-75 45-75	12-27 25-35 25-35	1.25-1.30 1.25-1.40 1.35-1.45	4.00-14.00 1.40-4.00 1.40-4.00	0.22-0.24 0.18-0.20 0.18-0.20	0.1-2.9 3.0-5.9 3.0-5.9	2.0-4.0 1.0-2.0 0.1-1.0	.37 .43 .43	.37 .43 .43	5	6	48
75428: Tilk-----	0-4 4-10 10-35 35-65	40-52 45-80 35-75 52-85	20-50 20-45 20-45 5-35	5-15 5-15 10-20 5-15	1.00-1.30 1.00-1.30 1.25-1.50 1.35-1.60	14.00-42.00 14.00-42.00 14.00-42.00 14.00-42.00	0.08-0.14 0.08-0.11 0.05-0.08 0.02-0.10	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	2.0-8.0 0.9-2.0 0.2-1.0 0.0-0.5	.05 .05 .10 .05	.15 .15 .20 .10	5	8	0
Cornwall-----	0-8 8-35 35-62 62-80	5-20 2-20 2-20 10-40	60-80 55-80 55-80 15-60	10-20 20-35 20-30 27-50	1.00-1.20 1.25-1.45 1.50-1.70 1.45-1.65	4.00-14.00 4.00-14.00 0.42-1.40 4.00-14.00	0.20-0.24 0.16-0.20 0.08-0.18 0.06-0.14	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	1.0-6.0 0.1-1.0 0.1-0.3 0.1-0.3	.32 .43 .15 .32	.43 .43 .43 .43	4	5	56
Poynor-----	0-1 1-4 4-9 9-26 26-80	--- 10-40 10-40 10-40 1-40	--- 50-80 50-80 40-70 10-50	--- 5-15 5-15 15-30 45-85	--- 1.20-1.45 1.25-1.45 1.40-1.55 1.50-1.65	42.00-141.00 14.00-42.00 14.00-42.00 4.00-14.00 4.00-14.00	0.10-0.20 0.04-0.12 0.02-0.09 0.02-0.09 0.08-0.12	--- 0.0-2.9 0.0-2.9 0.0-2.9 3.0-5.9	35-90 2.0-8.0 0.2-2.0 0.1-0.5 0.1-0.5	--- .17 .17 .17 .10	--- .28 .37 .43 .15	3	8	0

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
75429:														
Tilk-----	0-8	30-50	30-50	5-20	1.00-1.30	14.00-42.00	0.06-0.18	0.0-2.9	2.0-8.0	.15	.24	5	5	56
	8-14	30-75	10-50	5-20	1.25-1.50	14.00-42.00	0.04-0.16	0.0-2.9	0.5-1.0	.10	.32			
	14-37	30-80	10-50	10-20	1.25-1.50	14.00-42.00	0.04-0.14	0.0-2.9	0.2-1.0	.05	.15			
	37-80	52-75	5-35	5-25	1.35-1.60	14.00-42.00	0.02-0.10	0.0-2.9	0.1-0.5	.05	.20			
Secesh-----	0-10	10-35	50-80	10-20	1.00-1.10	4.00-14.00	0.20-0.22	0.0-2.9	2.0-4.0	.20	.32	5	5	56
	10-16	10-35	50-70	18-27	1.00-1.40	4.00-14.00	0.18-0.20	0.0-2.9	0.5-1.0	.28	.43			
	16-36	25-50	30-50	18-27	1.20-1.40	4.00-14.00	0.12-0.19	0.0-2.9	0.3-0.8	.10	.28			
	36-80	40-80	10-50	15-27	1.30-1.50	14.00-42.00	0.06-0.12	0.0-2.9	0.2-0.5	.05	.24			
75430:														
Wideman-----	0-5	50-80	10-50	5-15	1.20-1.40	42.00-141.00	0.12-0.16	0.0-2.9	1.0-3.0	.17	.17	5	1	180
	5-13	50-80	10-50	5-15	1.20-1.40	42.00-141.00	0.12-0.16	0.0-2.9	1.0-2.0	.17	.17			
	13-21	30-80	10-50	5-20	1.30-1.50	14.00-42.00	0.12-0.18	0.0-2.9	0.2-2.0	.37	.37			
	21-49	70-98	1-30	1-10	1.40-1.60	42.00-141.00	0.06-0.10	0.0-2.9	0.2-1.0	.10	.10			
	49-71	50-94	5-40	1-15	1.30-1.60	14.00-42.00	0.04-0.12	0.0-2.9	0.3-1.0	.10	.17			
75432:														
Batcave-----	0-11	25-52	30-55	12-25	1.20-1.45	4.00-14.00	0.11-0.18	0.0-2.9	3.0-6.0	.10	.20	5	7	38
	11-36	20-50	35-65	12-35	1.30-1.50	4.00-14.00	0.10-0.15	0.0-2.9	2.0-6.0	.15	.32			
	36-60	10-52	30-65	18-27	1.40-1.55	4.00-14.00	0.04-0.12	0.0-2.9	0.5-3.0	.05	.20			
	60-80	10-55	15-55	27-45	1.40-1.55	4.00-14.00	0.04-0.12	0.0-2.9	0.5-3.0	.05	.24			
Farewell-----	0-8	10-35	50-70	12-27	1.20-1.40	4.00-14.00	0.20-0.24	0.0-2.9	3.0-6.0	.24	.24	5	6	48
	8-18	10-40	30-70	12-35	1.40-1.65	4.00-14.00	0.14-0.22	0.0-2.9	1.0-3.0	.28	.37			
	18-39	10-40	25-60	17-40	1.40-1.65	4.00-14.00	0.05-0.20	3.0-5.9	0.5-1.0	.28	.37			
	39-80	20-55	10-50	16-40	1.40-1.65	4.00-14.00	0.03-0.19	3.0-8.9	0.1-0.8	.10	.32			
75451:														
Gladden-----	0-5	10-45	50-80	10-20	1.25-1.45	4.00-14.00	0.20-0.24	0.0-2.9	2.0-5.0	.37	.37	4	5	56
	5-53	30-75	20-55	5-20	1.30-1.50	4.00-14.00	0.12-0.19	0.0-2.9	0.5-1.0	.24	.43			
	53-80	45-85	5-40	5-20	1.30-1.55	42.00-141.00	0.02-0.13	0.0-2.9	0.1-1.0	.05	.15			
75462:														
Huzzah-----	0-6	45-80	10-50	5-15	1.25-1.45	4.00-14.00	0.18-0.24	0.0-2.9	1.0-4.0	.20	.20	5	5	56
	6-23	40-80	10-50	5-15	1.25-1.45	4.00-14.00	0.18-0.24	0.0-2.9	0.5-3.0	.20	.20			
	23-47	30-80	10-60	5-15	1.25-1.45	4.00-14.00	0.16-0.20	0.0-2.9	0.5-2.0	.15	.20			
	47-60	52-96	2-40	2-12	1.35-1.55	42.00-141.00	0.02-0.08	0.0-2.9	0.1-0.5	.10	.10			
75463:														
Huzzah-----	0-10	45-80	10-50	5-15	1.25-1.45	4.00-14.00	0.18-0.24	0.0-2.9	1.0-4.0	.20	.20	5	6	48
	10-24	40-80	10-50	5-15	1.25-1.45	4.00-14.00	0.18-0.24	0.0-2.9	1.0-3.0	.20	.20			
	24-38	30-80	10-60	5-15	1.25-1.45	4.00-14.00	0.16-0.20	0.0-2.9	0.5-2.0	.20	.20			
	38-60	52-96	2-40	2-12	1.35-1.55	42.00-141.00	0.02-0.08	0.0-2.9	0.1-0.5	.10	.10			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
75464: Cedargap-----	0-6	30-52	28-50	10-27	1.20-1.40	14.00-42.00	0.08-0.21	0.0-2.9	3.0-6.0	.10	.15	5	8	0
	6-20	30-52	20-50	10-35	1.20-1.40	14.00-42.00	0.08-0.21	0.0-2.9	1.0-3.0	.17	.24			
	20-36	45-75	5-30	15-35	1.30-1.50	14.00-42.00	0.03-0.12	0.0-2.9	0.3-2.0	.05	.10			
	36-60	30-70	5-35	20-35	1.40-1.55	4.00-14.00	0.04-0.14	0.0-2.9	0.1-0.5	.02	.10			
75465: Raftville-----	0-9	45-75	10-50	5-15	1.05-1.35	14.00-42.00	0.13-0.15	0.0-2.9	1.0-2.0	.32	.32	4	---	---
	9-24	20-52	28-60	7-20	1.25-1.50	14.00-42.00	0.14-0.20	0.0-2.9	0.5-1.0	.37	.37			
	24-39	20-60	20-50	20-35	1.30-1.50	14.00-42.00	0.10-0.18	0.0-2.9	0.2-0.5	.28	.28			
	---	---	---	---	---	0.00-0.11	---	---	---	---	---			
Gabriel-----	0-9	25-45	30-50	10-25	1.20-1.40	14.00-42.00	0.20-0.22	0.0-2.9	2.0-6.0	.43	.43	5	6	48
	9-19	4-12	60-80	12-27	1.25-1.30	4.00-14.00	0.20-0.22	0.1-2.9	2.0-4.0	.32	.32			
	19-25	4-15	50-75	12-27	1.25-1.40	1.40-4.00	0.20-0.22	3.0-5.9	0.7-2.0	.49	.49			
	25-63	5-15	50-75	27-35	1.35-1.45	1.40-4.00	0.18-0.20	3.0-5.9	0.3-1.0	.43	.43			
75466: Midco-----	0-8	35-50	35-50	7-15	1.10-1.30	14.00-42.00	0.10-0.12	0.0-2.9	0.5-2.0	.24	.32	5	8	0
	8-26	45-70	15-45	5-15	1.20-1.40	14.00-42.00	0.05-0.11	0.0-2.9	0.2-1.0	.24	.32			
	26-60	50-80	5-45	3-15	1.20-1.40	14.00-42.00	0.02-0.06	0.0-2.9	0.1-1.0	.24	.28			
75470: Farewell-----	0-8	10-35	50-70	12-27	1.20-1.40	4.00-14.00	0.20-0.24	0.0-2.9	3.0-6.0	.43	.43	5	4	86
	8-18	10-45	35-70	12-27	1.40-1.65	4.00-14.00	0.14-0.22	0.0-2.9	2.0-3.0	.32	.43			
	18-39	10-50	20-60	18-40	1.40-1.65	4.00-14.00	0.05-0.20	3.0-5.9	0.5-1.0	.24	.37			
	39-80	20-70	15-60	16-40	1.40-1.65	4.00-14.00	0.03-0.19	3.0-8.9	0.1-0.5	.10	.32			
77000: Killarney-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	4	8	0
	1-5	10-40	50-75	5-15	0.95-1.10	4.00-14.00	0.09-0.15	0.0-2.9	3.0-6.0	.15	.37			
	5-16	10-40	50-75	5-15	0.95-1.10	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.20	.64			
	16-32	10-35	50-75	10-27	1.15-1.45	4.00-14.00	0.08-0.14	0.0-2.9	0.2-1.0	.17	.55			
	32-48	20-40	40-60	10-27	1.55-1.75	0.01-0.42	0.02-0.06	0.0-2.9	0.1-0.3	.15	.49			
	48-80	20-50	30-50	15-40	1.45-1.65	1.40-4.00	0.03-0.07	0.0-2.9	0.0-0.3	.15	.43			
Frenchmill-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	5	8	0
	1-6	10-44	50-80	5-15	1.10-1.40	4.00-14.00	0.09-0.15	0.0-2.9	1.0-8.0	.15	.37			
	6-19	10-45	45-75	5-15	1.20-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.20	.43			
	19-27	10-40	50-70	10-27	1.20-1.50	4.00-14.00	0.08-0.14	0.0-2.9	0.2-0.8	.17	.49			
	27-58	23-50	30-50	12-30	1.30-1.55	4.00-14.00	0.06-0.12	0.0-2.9	0.1-0.5	.17	.37			
	58-80	23-60	15-50	20-40	1.20-1.50	4.00-14.00	0.10-0.16	0.0-2.9	0.1-0.3	.20	.20			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
77003:														
Delassus-----	0-8	10-40	50-80	5-15	1.20-1.40	4.00-14.00	0.17-0.22	0.0-2.9	2.0-5.0	.24	.37	3	5	56
	8-13	10-40	50-80	10-20	1.20-1.40	4.00-14.00	0.17-0.23	0.0-2.9	0.5-2.0	.32	.49			
	13-20	10-40	40-70	18-35	1.30-1.50	4.00-14.00	0.14-0.20	0.0-2.9	0.3-0.8	.28	.49			
	20-59	20-60	20-70	7-27	1.60-1.90	0.01-0.42	0.03-0.07	0.0-2.9	0.1-0.3	.28	.43			
	59-78	10-40	35-70	15-35	1.30-1.50	4.00-14.00	0.04-0.10	0.0-2.9	0.1-0.2	.10	.32			
77004:														
Irondale-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	2	8	0
	1-4	8-35	50-80	5-15	1.00-1.20	4.00-14.00	0.15-0.21	0.0-2.9	4.0-10	.20	.37			
	4-9	5-35	50-80	5-15	1.10-1.40	4.00-14.00	0.12-0.20	0.0-2.9	1.0-3.0	.28	.43			
	9-15	5-35	50-80	10-27	1.10-1.50	4.00-14.00	0.08-0.14	0.0-2.9	0.7-1.0	.17	.43			
	15-22	10-35	35-60	18-35	1.20-1.50	4.00-14.00	0.06-0.12	0.0-2.9	0.2-1.0	.15	.32			
	22-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
77007:														
Taumsauk-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	1	8	0
	1-5	10-35	50-80	10-20	1.10-1.30	4.00-14.00	0.15-0.21	0.0-2.9	2.0-8.0	.24	.43			
	5-17	8-40	40-75	15-35	1.30-1.50	4.00-14.00	0.06-0.14	0.0-2.9	0.5-2.0	.10	.37			
	17-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Irondale-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	2	8	0
	1-5	5-30	50-80	5-15	1.00-1.20	4.00-14.00	0.09-0.15	0.0-2.9	4.0-10	.15	.43			
	5-10	5-30	50-80	5-15	1.10-1.40	4.00-14.00	0.12-0.20	0.0-2.9	1.0-3.0	.17	.49			
	10-17	2-25	50-80	10-27	1.10-1.50	4.00-14.00	0.08-0.14	0.0-2.9	0.5-2.0	.20	.49			
	17-35	10-40	35-60	18-35	1.20-1.50	1.40-4.00	0.06-0.12	0.0-2.9	0.2-1.0	.10	.37			
	35-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Rock outcrop-----	0-80	---	---	---	---	0.00-0.11	---	---	---	---	---	--	---	---
77009:														
Trackler-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	5	56
	1-2	5-25	60-85	10-20	1.00-1.20	4.00-14.00	0.21-0.24	0.0-2.9	3.0-10	.37	.37			
	2-8	5-25	60-85	10-20	1.10-1.50	4.00-14.00	0.21-0.24	0.0-2.9	1.0-2.0	.49	.49			
	8-14	5-25	50-75	15-35	1.30-1.50	1.40-4.00	0.15-0.21	0.0-2.9	0.3-1.0	.43	.43			
	14-23	10-25	30-60	25-45	1.40-1.60	1.40-4.00	0.04-0.10	0.0-2.9	0.2-0.9	.17	.37			
	23-45	23-80	10-50	5-27	1.40-1.60	1.40-4.00	0.04-0.10	0.0-2.9	0.2-0.7	.10	.37			
	---	---	---	---	---	0.00-0.11	---	---	---	---	---			
77011:														
Taumsauk-----	0-4	5-35	50-80	10-20	1.10-1.30	4.00-14.00	0.06-0.14	0.0-2.9	2.0-8.0	.20	.37	1	8	0
	4-15	2-30	40-75	18-35	1.30-1.50	4.00-14.00	0.04-0.10	0.0-2.9	0.5-2.0	.10	.32			
	---	---	---	---	---	0.00-0.11	---	---	---	---	---			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
77011:														
Irondale-----	0-3	5-30	50-80	5-15	1.00-1.20	4.00-14.00	0.15-0.21	0.0-2.9	4.0-10	.15	.37	2	8	0
	3-6	5-30	50-80	5-15	1.10-1.40	4.00-14.00	0.12-0.20	0.0-2.9	1.0-3.0	.28	.49			
	6-13	2-25	50-80	10-27	1.40-1.55	4.00-14.00	0.09-0.16	0.0-2.9	0.7-1.0	.20	.49			
	13-28	10-35	35-60	18-35	1.40-1.65	1.40-4.00	0.06-0.14	0.0-2.9	0.5-1.0	.17	.37			
	28-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Rock outcrop-----	0-80	---	---	---	---	0.00-0.11	---	---	---	---	---	--	---	---
77012:														
Mudlick-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	4	8	0
	1-4	15-30	55-80	8-20	1.00-1.20	4.00-14.00	0.15-0.20	0.0-2.9	3.0-8.0	.24	.37			
	4-15	15-30	55-80	8-20	1.10-1.30	4.00-14.00	0.16-0.22	0.0-2.9	1.0-2.0	.32	.49			
	15-36	15-30	50-75	15-27	1.20-1.40	4.00-14.00	0.15-0.22	0.0-2.9	0.3-1.0	.32	.49			
	36-46	20-40	20-50	25-40	1.40-1.60	1.40-4.00	0.08-0.15	3.0-5.9	0.2-0.5	.17	.28			
	46-80	25-40	20-50	25-50	1.40-1.60	1.40-4.00	0.08-0.15	3.0-5.9	0.1-0.5	.17	.28			
Irondale-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	2	8	0
	1-4	20-45	50-80	10-15	1.00-1.20	4.00-14.00	0.15-0.21	0.0-2.9	2.0-8.0	.15	.32			
	4-11	20-45	50-80	10-15	1.10-1.40	4.00-14.00	0.12-0.20	0.0-2.9	1.0-3.0	.28	.49			
	11-18	2-45	50-80	10-27	1.10-1.50	4.00-14.00	0.08-0.14	0.0-2.9	0.5-1.0	.20	.49			
	18-29	10-45	35-80	15-35	1.10-1.50	4.00-14.00	0.06-0.13	3.0-5.9	0.3-1.0	.20	.37			
	29-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Killarney-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	4	8	0
	1-8	10-35	50-80	5-20	0.95-1.10	4.00-14.00	0.10-0.15	0.0-2.9	3.0-6.0	.15	.37			
	8-12	10-30	50-80	5-20	0.95-1.10	4.00-14.00	0.12-0.20	0.0-2.9	0.3-2.0	.24	.55			
	12-26	15-30	50-75	10-27	1.15-1.45	1.40-4.00	0.08-0.15	0.0-2.9	0.2-0.7	.24	.43			
	26-65	25-45	30-50	10-27	1.55-1.75	0.01-0.42	0.02-0.06	0.0-2.9	0.1-0.5	.15	.43			
77013:														
Mudlick-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	4	8	0
	1-8	5-30	55-80	8-20	1.00-1.20	4.00-14.00	0.15-0.20	0.0-2.9	2.0-6.0	.20	.37			
	8-14	5-30	55-80	8-20	1.10-1.30	4.00-14.00	0.16-0.22	0.0-2.9	0.5-2.0	.43	.55			
	14-39	5-30	45-70	18-35	1.20-1.40	4.00-14.00	0.15-0.22	0.0-2.9	0.1-0.5	.28	.37			
	39-68	25-45	30-50	10-50	1.40-1.60	1.40-4.00	0.08-0.15	3.0-5.9	0.1-0.5	.15	.37			
99001. Water														
99006. Psamments														
99007. Dam														

Table 18.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind	Wind
										Kw	Kf	T	erodi- bility group	erodi- bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
99010. Pits and Dumps														
99013. Riverwash														

Table 19.--Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Cation-	Effective	Soil
		exchange capacity	cation- exchange capacity	reaction
	In	meq/100 g	meq/100 g	pH
73042:				
Niangua-----	0-3	6.0-16	3.0-13	4.5-7.3
	3-14	6.0-15	3.0-12	4.5-6.0
	14-52	30-55	23-45	5.1-7.3
	52-80	---	---	---
Bardley-----	0-4	20-30	15-25	4.5-7.3
	4-8	5.0-10	2.0-7.0	4.5-6.5
	8-27	30-50	21-40	4.5-7.3
	27-80	---	---	---
73055:				
Alred-----	0-1	10-40	5.0-30	3.5-6.5
	1-7	4.4-19	2.3-11	4.5-6.0
	7-11	3.7-7.6	1.6-3.9	4.5-6.0
	11-30	3.2-9.7	1.7-6.4	4.5-5.5
	30-80	9.8-46	6.7-53	5.1-6.5
Rueter-----	0-1	10-40	5.0-30	3.5-6.5
	1-4	6.8-23	2.8-10	4.5-6.0
	4-17	2.5-7.0	0.8-4.1	4.5-6.0
	17-32	2.9-11	1.7-7.2	4.5-5.5
	32-43	8.6-21	5.5-17	5.1-6.0
	43-71	12-42	9.3-36	5.1-6.5
73139:				
Poynor-----	0-1	10-40	5.0-30	3.5-6.5
	1-4	6.9-15	2.8-7.0	3.5-6.0
	4-13	3.2-7.3	1.2-3.2	3.5-6.0
	13-24	2.9-12	1.8-8.3	4.5-5.5
	24-80	8.5-22	6.1-19	4.5-5.5
Clarksville-----	0-1	10-40	5.0-30	3.5-6.5
	1-5	7.1-25	2.3-21	3.5-6.0
	5-8	3.7-8.1	1.7-5.2	3.5-6.0
	8-18	3.7-9.6	1.9-7.9	4.5-5.5
	18-42	5.1-13	3.7-9.1	4.5-5.5
	42-65	6.4-16	5.2-12	4.5-5.5
Scholten-----	0-1	10-40	5.0-30	3.5-6.5
	1-3	9.2-18	3.6-8.5	3.5-6.0
	3-8	5.6-8.6	2.3-4.3	3.5-6.0
	8-17	7.3-18	4.5-13	4.5-5.5
	17-41	5.7-14	4.6-11	4.5-5.5
	41-80	7.6-22	5.2-18	4.5-5.5
73140:				
Clarksville-----	0-1	10-40	5.0-30	3.5-6.5
	1-6	7.1-25	2.3-21	3.5-6.0
	6-13	3.7-8.1	1.7-5.2	3.5-6.0
	13-21	3.7-9.6	1.9-7.9	4.5-5.5
	21-43	5.1-13	3.7-9.1	4.5-5.5
	43-66	6.4-16	5.2-12	4.5-5.5

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil reaction
		exchange capacity	cation- exchange capacity	
	In	meq/100 g	meq/100 g	pH
73140:				
Scholten-----	0-1	10-40	5.0-30	3.5-6.5
	1-6	5.5-11	1.9-4.5	3.5-6.0
	6-13	3.9-6.4	1.7-3.9	3.5-6.0
	13-34	3.0-13	1.5-12	4.5-5.5
	34-58	3.4-11	2.1-8.3	4.5-5.5
	58-80	5.8-16	4.5-14	4.5-5.5
73143:				
Courtois-----	0-7	8.3-24	3.5-20	5.1-7.3
	7-15	9.6-19	7.6-16	5.1-6.0
	15-32	12-21	8.5-18	5.1-6.0
	32-80	24-42	17-37	5.1-7.3
73144:				
Courtois-----	0-7	8.3-24	3.5-20	5.1-7.3
	7-15	9.6-19	7.6-16	5.1-6.0
	15-32	12-21	8.5-18	5.1-6.0
	32-80	24-42	17-37	5.1-7.3
73147:				
Fourche-----	0-6	7.5-15	3.3-16	5.6-7.3
	6-30	9.3-18	6.3-16	4.5-6.0
	30-54	9.7-18	7.4-15	4.5-5.5
	54-66	15-36	11-30	5.1-7.3
73155:				
Gasconade-----	0-4	37-53	---	6.1-7.8
	4-13	27-46	---	6.1-7.8
	13-80	---	---	---
Rock outcrop.				
73156:				
Alred-----	0-1	10-40	5.0-30	3.5-6.5
	1-6	4.4-19	2.3-11	4.5-6.0
	6-11	3.7-7.6	1.6-3.9	4.5-6.0
	11-31	3.2-9.7	1.7-6.4	4.5-5.5
	31-79	9.8-46	6.7-53	5.1-6.5
Gepp-----	0-1	10-40	5.0-30	3.5-6.5
	1-6	8.2-22	3.6-15	4.5-6.0
	6-12	7.5-22	4.2-15	4.5-6.0
	12-67	10-37	6.5-33	5.1-6.0
73157:				
Captina-----	0-5	8.3-14	3.0-12	4.5-6.5
	5-25	8.3-20	5.4-17	4.5-5.5
	25-31	9.3-21	6.5-14	3.5-5.5
	31-78	5.7-26	4.4-22	3.5-5.5
73159:				
Yelton-----	0-3	3.0-12	2.0-9.0	3.5-6.5
	3-8	3.0-12	2.0-9.0	3.5-6.5
	8-19	8.0-20	5.0-16	3.5-5.5
	19-38	5.0-15	3.0-10	3.5-5.5
	38-65	8.0-20	5.0-18	3.5-5.5

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
73197:				
Viburnum-----	0-6	8.0-18	3.0-9.0	4.5-6.5
	6-18	4.0-10	3.0-10	4.5-5.5
	18-35	5.0-15	3.0-12	3.5-5.5
	35-80	15-25	10-20	3.5-5.5
73222:				
Splitlimb-----	0-10	8.0-12	4.0-12	4.5-6.5
	10-20	8.0-17	5.0-14	4.5-6.5
	20-29	7.0-17	4.0-13	4.5-5.5
	29-80	7.0-16	4.0-12	3.5-5.5
73223:				
Coulstone-----	0-1	10-40	5.0-30	3.5-6.5
	1-4	3.0-12	2.0-9.0	4.5-6.0
	4-11	2.0-10	1.0-5.0	4.5-6.0
	11-31	3.0-18	1.0-9.0	4.5-6.0
	31-39	3.0-18	1.0-9.0	4.5-6.0
	39-80	4.0-18	1.0-9.0	3.5-6.0
Bender-----	0-1	10-40	5.0-30	3.5-6.5
	1-5	4.0-18	2.0-8.0	4.5-6.0
	5-21	2.0-8.0	1.0-5.0	4.5-6.0
	21-31	2.0-15	1.0-10	3.5-6.0
	31-80	---	---	---
73269:				
Brussels-----	0-1	10-40	5.0-30	3.5-6.5
	1-10	20-30	20-30	6.1-7.8
	10-49	20-30	20-30	6.1-8.4
	49-70	20-30	20-30	6.1-8.4
Gasconade-----	0-9	30-60	30-60	6.1-7.8
	9-14	30-60	30-60	6.1-7.8
	14-80	---	---	---
Rock outcrop.				
73290:				
Gatewood-----	0-3	15-25	15-25	6.1-7.3
	3-7	10-20	10-20	6.1-7.3
	7-37	30-45	25-40	3.5-6.0
	37-80	---	---	---
Aaron-----	0-7	5.0-15	4.0-14	6.1-7.3
	7-12	5.0-15	3.0-14	6.1-7.3
	12-25	10-20	7.0-17	5.1-7.3
	25-46	15-25	10-20	4.5-6.0
	46-80	---	---	---
73291:				
Gatewood-----	0-1	15-25	15-25	6.1-7.3
	1-25	30-45	25-40	3.5-5.5
	25-36	30-45	25-40	3.5-5.5
	36-80	---	---	---
Aaron-----	0-2	5.0-15	4.0-14	6.1-7.3
	2-10	10-20	7.0-17	5.1-7.3
	10-52	15-25	10-20	4.5-6.0
	52-80	---	---	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
73295:				
Taterhill-----	0-9	5.0-16	2.0-16	4.5-7.3
	9-30	5.0-16	2.0-10	4.5-6.5
	30-80	5.0-16	2.0-12	4.5-5.5
73298:				
Tonti-----	0-8	5.0-15	4.0-10	4.5-6.5
	8-20	6.0-15	4.0-12	3.5-6.0
	20-34	5.0-14	5.0-15	3.5-5.5
	34-80	12-22	12-24	3.5-5.5
Hogcreek-----	0-5	8.0-18	3.0-13	4.5-6.5
	5-16	5.0-15	3.0-12	4.5-6.5
	16-22	5.0-20	3.0-18	4.5-5.5
	22-28	6.0-18	5.0-14	3.5-5.5
	28-80	---	---	---
73310:				
Scholten-----	0-7	4.3-8.8	2.0-4.0	4.5-6.5
	7-21	4.6-10	2.5-7.1	4.5-5.5
	21-34	6.1-11	3.9-7.5	4.5-5.5
	34-80	6.8-21	6.1-16	3.5-5.5
Bendavis-----	0-8	6.0-12	3.0-9.0	4.5-6.5
	8-10	3.0-8.0	3.0-6.0	4.5-6.0
	10-31	3.0-9.0	3.0-6.0	3.5-5.5
	31-80	---	---	---
Poynor-----	0-4	3.3-20	1.3-20	4.5-6.5
	4-10	3.3-18	1.3-15	3.5-6.0
	10-28	3.0-15	1.9-11	3.5-6.0
	28-80	7.4-28	5.0-23	3.5-5.5
73311:				
Scholten-----	0-7	4.3-8.8	2.0-4.0	4.5-6.5
	7-21	4.6-10	2.5-7.1	4.5-5.5
	21-34	6.1-11	3.9-7.5	4.5-5.5
	34-80	6.8-21	6.1-16	3.5-5.5
Bendavis-----	0-5	3.0-10	2.0-8.0	4.5-6.0
	5-9	3.0-10	2.0-8.0	4.5-6.0
	9-25	3.0-10	3.0-8.0	3.5-5.5
	25-80	---	---	---
Poynor-----	0-4	8.0-18	3.0-9.0	4.5-6.5
	4-10	4.0-10	3.0-10	4.5-6.5
	10-28	5.0-15	3.0-12	4.5-6.5
	28-80	15-25	10-20	3.5-5.5
73333:				
Taterhill-----	0-11	5.0-14	2.0-12	4.5-7.3
	11-15	5.0-14	2.0-12	4.5-7.3
	15-28	6.0-15	3.0-12	4.5-6.5
	28-48	6.0-15	3.0-12	4.5-5.5
	48-80	8.0-18	4.0-15	4.5-5.5
73334:				
Horneybuck-----	0-6	8.0-20	5.0-15	5.1-7.3
	6-26	8.0-20	5.0-15	4.5-7.3
	26-37	8.0-20	5.0-15	4.5-5.5
	37-60	8.0-20	5.0-15	4.5-5.5

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
73335:				
Hobson -----	0-10	5.0-15	2.0-12	4.5-6.0
	10-16	5.0-15	2.0-12	4.5-6.0
	16-32	8.0-18	5.0-16	4.5-6.0
	32-42	5.0-15	2.0-12	4.5-5.5
	42-80	20-35	15-30	4.5-6.0
Rueter -----	0-4	6.8-23	2.8-10	4.5-6.0
	4-17	2.5-7.0	0.8-4.1	4.5-6.0
	17-32	2.9-11	1.7-7.2	4.5-5.5
	32-43	8.6-21	5.5-17	5.1-6.0
	43-71	12-42	9.3-36	5.1-6.5
73336:				
Rueter -----	0-5	6.8-23	2.8-10	4.5-6.0
	5-12	2.5-7.0	0.8-4.1	4.5-6.0
	12-24	2.9-11	1.7-7.2	4.5-5.5
	24-43	8.6-21	5.5-17	5.1-6.0
	43-80	12-42	9.3-36	5.1-6.5
Gepp -----	0-5	8.2-22	3.6-15	4.5-6.0
	5-10	7.7-22	3.6-15	4.5-6.0
	10-16	7.5-22	4.2-15	4.5-6.0
	16-76	10-37	6.5-33	5.1-6.0
73337:				
Tonti -----	0-10	5.0-15	4.0-10	4.5-6.5
	10-25	12-22	8.0-25	3.5-6.0
	25-36	5.0-14	5.0-15	3.5-5.5
	36-80	12-22	12-24	3.5-5.5
Portia -----	0-6	7.3-18	2.6-11	5.1-6.5
	6-16	4.6-9.0	2.8-6.2	4.5-6.0
	16-21	7.7-13	5.3-9.7	4.5-6.0
	21-31	9.7-25	7.0-20	4.5-6.0
	31-80	15-31	10-27	4.5-6.0
73338:				
Portia -----	0-6	7.3-18	2.6-11	5.1-6.5
	6-16	4.6-9.0	2.8-6.2	4.5-6.0
	16-21	7.7-13	5.3-9.7	4.5-6.0
	21-31	9.7-25	7.0-20	4.5-6.0
	31-80	15-31	10-27	4.5-6.0
Hobson -----	0-8	5.0-15	2.0-12	4.5-6.0
	8-13	5.0-15	2.0-12	4.5-6.0
	13-27	8.0-18	5.0-16	4.5-6.0
	27-36	5.0-15	2.0-12	4.5-5.5
	36-70	20-35	15-30	4.5-6.0
73339:				
Arkana -----	0-1	10-40	5.0-30	3.5-6.5
	1-7	9.2-24	3.9-14	4.5-7.3
	7-12	9.0-28	6.0-22	4.5-7.3
	12-30	24-43	19-36	4.5-7.3
	---	---	---	---
Gepp -----	0-10	8.2-24	3.6-15	4.5-6.0
	10-19	7.5-22	4.2-15	4.5-6.0
	19-60	10-41	6.5-33	5.1-6.0

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
73340:				
Rueter -----	0-6	6.8-23	2.8-10	4.5-6.0
	6-10	2.5-7.0	0.8-4.1	4.5-6.0
	10-28	2.9-11	1.7-7.2	4.5-5.5
	28-42	8.6-21	5.5-17	5.1-6.0
	42-80	12-42	9.3-36	5.1-6.5
Gepp -----	0-4	8.2-22	3.6-15	4.5-6.0
	4-9	8.2-22	3.6-15	4.5-6.0
	9-17	7.5-22	4.2-15	4.5-6.0
	17-72	10-37	6.5-33	5.1-6.0
73341:				
Gepp -----	0-4	8.2-22	3.6-15	4.5-6.0
	4-15	7.5-22	4.2-15	4.5-6.0
	15-68	10-37	6.5-33	5.1-6.0
Arkana -----	0-1	10-40	5.0-30	3.5-6.5
	1-9	9.2-24	3.9-14	4.5-7.3
	9-14	9.0-28	6.0-22	4.5-7.3
	14-29	24-43	19-36	4.5-7.3
	---	---	---	---
73342:				
Alred -----	0-8	4.4-19	2.3-11	4.5-6.0
	8-11	3.7-7.6	1.6-3.9	4.5-6.0
	11-24	3.2-9.7	1.7-6.4	4.5-5.5
	24-67	9.8-46	6.7-53	5.1-6.5
Arkana -----	0-1	10-40	5.0-30	3.5-6.5
	1-5	9.2-24	3.9-14	4.5-7.3
	5-17	9.0-28	6.0-22	4.5-7.3
	17-25	24-43	19-36	4.5-7.3
	25-80	---	---	---
74636:				
Lecoma -----	0-9	5.0-15	2.0-12	5.6-7.3
	9-31	10-15	8.0-15	5.1-7.3
	31-80	10-15	8.0-15	4.5-6.0
74637:				
Lecoma -----	0-7	5.0-15	2.0-10	5.6-7.3
	7-24	10-15	8.0-15	5.1-7.3
	24-80	10-15	8.0-15	4.5-6.0
74643:				
Lecoma -----	0-9	5.0-10	4.0-10	5.1-7.3
	9-24	7.0-12	4.0-10	5.1-7.3
	24-80	8.0-15	5.0-10	4.5-6.0
74644:				
Deible -----	0-7	7.2-14	4.4-13	5.1-7.3
	7-16	8.8-12	4.0-9.5	4.5-7.3
	16-40	12-33	9.3-29	4.5-7.8
	40-65	13-23	11-26	5.1-8.4
74646:				
Cornwall -----	0-5	7.0-15	5.0-15	5.1-7.3
	5-17	7.0-19	7.1-19	4.5-5.5
	17-39	7.0-19	7.3-16	4.5-5.5
	39-60	7.0-20	7.6-18	4.5-5.5

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil reaction
		exchange capacity	cation- exchange capacity	
	In	meq/100 g	meq/100 g	pH
74648:				
Aslinger-----	0-4	8.3-15	3.3-8.8	4.5-6.5
	4-8	5.8-11	3.0-7.4	4.5-6.5
	8-21	10-17	6.8-14	4.5-6.0
	21-29	6.2-14	4.7-11	4.5-5.5
	29-55	5.2-12	4.0-9.3	4.5-5.5
	55-70	9.8-23	7.4-19	3.5-5.5
74649:				
Aslinger-----	0-3	8.3-15	3.3-8.8	4.5-6.5
	3-8	5.8-11	3.0-7.4	4.5-6.5
	8-20	10-17	6.8-14	4.5-6.0
	20-39	6.2-14	4.7-11	4.5-5.5
	39-52	5.2-12	4.0-9.3	4.5-5.5
	52-80	9.8-23	7.4-19	3.5-5.5
Waben-----	0-6	5.0-15	4.0-12	5.1-6.5
	6-15	5.0-15	4.0-12	4.5-6.0
	15-54	5.0-15	4.0-12	4.5-5.5
	54-80	5.0-15	4.0-12	4.5-5.5
74651:				
Waben-----	0-4	5.0-15	4.0-12	5.1-6.5
	4-22	5.0-15	4.0-12	4.5-6.0
	22-47	5.0-15	4.0-12	4.5-5.5
	47-80	5.0-15	4.0-12	4.5-5.5
74658:				
Zanoni-----	0-7	3.0-12	0.0-10	4.5-7.3
	7-36	2.0-10	0.0-8.0	5.1-7.3
	36-50	2.0-10	0.0-8.0	5.1-7.3
	50-80	2.0-12	0.0-8.0	5.1-7.3
74679:				
Higdon-----	0-7	9.7-12	6.3-8.8	5.1-7.3
	7-13	9.3-12	4.7-6.9	5.1-7.3
	13-43	8.3-19	5.8-14	5.1-7.3
	43-80	7.8-21	12-19	5.1-7.3
74680:				
Moniteau-----	0-6	7.0-16	4.3-10	5.1-7.3
	6-15	6.0-12	4.0-8.0	4.5-6.5
	15-52	15-25	14-24	4.5-7.3
	52-78	9.0-20	10-15	5.1-7.8
75381:				
Bearthicket-----	0-6	8.1-13	3.6-9.2	5.1-7.3
	6-19	7.9-12	4.0-8.0	5.1-7.3
	19-45	6.6-14	3.9-8.1	5.1-7.3
	45-64	5.9-12	5.4-10	5.1-7.3
	64-80	4.7-6.6	5.6-6.0	5.6-7.3
75394:				
Relfe-----	0-6	6.4-12	3.9-10	5.1-7.3
	6-80	1.5-6.3	0.5-4.3	5.1-7.3
75395:				
Jamesfin-----	0-6	6.0-20	4.0-18	5.6-7.8
	6-15	6.0-20	4.0-18	5.6-7.8
	15-53	6.0-20	5.0-19	5.6-7.8
	53-62	6.0-20	5.0-19	5.6-7.8

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil reaction
		exchange capacity	cation- exchange capacity	
	In	meq/100 g	meq/100 g	pH
75408:				
Secesh-----	0-4	9.3-11	4.4-7.1	5.1-6.0
	4-10	7.3-9.8	3.7-6.0	5.1-6.0
	10-26	6.9-14	3.5-11	4.5-6.0
	26-36	5.9-9.8	2.8-5.1	4.5-6.0
	36-80	5.1-8.6	3.0-4.8	4.5-6.0
75409:				
Relfe-----	0-7	5.4-12	5.4-10	5.6-7.3
	7-64	1.4-6.3	0.5-4.3	5.6-7.3
75411:				
Tilk-----	0-8	7.8-22	3.7-18	5.1-6.5
	8-16	4.7-7.1	1.8-3.8	4.5-6.0
	16-47	3.3-8.0	1.0-5.9	4.5-6.0
	47-70	2.4-8.6	0.5-6.2	5.1-6.0
75416:				
Gladden-----	0-5	7.5-11	0.0-9.8	5.6-7.3
	5-26	6.0-8.5	0.0-6.2	5.6-7.3
	26-58	2.9-12	0.0-12	5.6-7.3
	58-77	1.0-4.3	0.0-1.1	5.1-6.5
75417:				
Relfe-----	0-6	6.4-12	3.9-10	5.1-7.3
	6-80	1.5-6.3	0.5-4.3	5.1-7.3
Sandbur-----	0-8	4.0-10	2.0-10	5.6-7.3
	8-50	5.0-8.0	2.0-8.0	5.6-7.3
	50-80	2.0-10	0.5-5.0	5.1-6.5
75426:				
Gabriel-----	0-14	15-25	11-21	5.6-7.3
	14-46	15-25	10-20	5.1-7.3
	46-81	15-25	12-22	5.1-7.3
75428:				
Tilk-----	0-4	7.8-22	3.7-18	5.1-6.5
	4-10	4.7-8.0	1.8-3.8	4.5-6.0
	10-35	3.3-8.0	1.0-5.9	4.5-6.0
	35-65	2.4-8.6	0.5-6.2	5.1-6.0
Cornwall-----	0-8	7.0-15	3.0-15	5.1-7.3
	8-35	7.0-19	4.0-19	4.5-5.5
	35-62	7.0-19	6.0-16	4.5-5.5
	62-80	7.0-20	6.0-18	4.5-5.5
Poynor-----	0-1	10-40	5.0-30	3.5-6.5
	1-4	6.9-15	2.8-7.0	3.5-6.0
	4-9	3.2-7.3	1.2-3.2	3.5-6.0
	9-26	2.9-12	1.8-8.3	4.5-5.5
	26-80	8.5-22	6.1-19	4.5-5.5
75429:				
Tilk-----	0-8	5.0-12	2.0-10	5.1-6.5
	8-14	2.0-12	2.0-10	4.5-6.0
	14-37	2.0-12	2.0-10	4.5-6.0
	37-80	2.0-12	2.0-10	5.1-6.0

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil reaction
		exchange capacity	cation- exchange capacity	
	In	meq/100 g	meq/100 g	pH
75429:				
Secesh-----	0-10	9.3-10	4.4-7.1	5.1-6.5
	10-16	6.9-9.8	3.5-4.3	4.5-6.0
	16-36	6.9-14	3.5-11	4.5-6.0
	36-80	5.9-9.8	2.8-5.1	4.5-6.0
75430:				
Wideman-----	0-5	1.0-15	1.0-12	5.1-7.3
	5-13	1.0-15	1.0-12	5.1-7.3
	13-21	2.9-15	2.0-12	5.1-7.3
	21-49	1.0-10	1.0-10	5.1-7.3
	49-71	1.0-15	1.0-10	5.1-7.3
75432:				
Batcave-----	0-11	6.0-15	0.0-12	5.6-7.8
	11-36	6.0-15	0.0-12	5.6-7.8
	36-60	6.0-15	0.0-12	6.6-7.8
	60-80	6.0-15	0.0-12	6.6-7.8
Farewell-----	0-8	9.8-25	0.0-17	5.6-6.5
	8-18	8.2-18	0.0-20	6.1-7.3
	18-39	8.6-22	0.0-20	6.1-7.8
	39-80	7.2-23	0.0-19	6.6-7.8
75451:				
Gladden-----	0-5	10-20	5.0-10	5.6-7.3
	5-53	5.0-10	3.0-7.0	5.6-7.3
	53-80	5.0-10	3.0-7.0	5.1-6.5
75462:				
Huzzah-----	0-6	4.0-12	---	6.1-7.3
	6-23	4.0-12	---	6.1-7.3
	23-47	4.0-12	---	6.1-7.3
	47-60	1.0-10	---	6.1-7.3
75463:				
Huzzah-----	0-10	4.0-12	---	6.1-7.3
	10-24	4.0-12	---	6.1-7.3
	24-38	4.0-12	---	6.1-7.3
	38-60	1.0-10	---	6.1-7.3
75464:				
Cedargap-----	0-6	6.0-22	0.0-17	5.1-7.3
	6-20	6.0-22	0.0-17	5.1-7.3
	20-36	5.0-25	0.0-20	5.1-7.3
	36-60	4.0-23	0.0-19	6.6-7.8
75465:				
Raftville-----	0-9	5.5-12	2.9-5.4	4.5-6.0
	9-24	4.1-12	2.0-4.1	4.5-5.5
	24-39	6.5-17	4.5-13	5.0-7.3
	---	---	---	---
Gabriel-----	0-9	6.0-22	0.0-17	5.1-7.3
	9-19	15-25	10-21	5.1-7.3
	19-25	10-25	9.0-20	5.1-6.5
	25-63	15-25	11-22	5.1-6.5

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
75466:				
Midco-----	0-8	8.0-13	5.0-10	5.6-6.5
	8-26	3.0-15	2.0-10	5.1-7.3
	26-60	5.0-14	3.0-10	5.1-7.3
75470:				
Farewell-----	0-8	9.8-25	0.0-17	5.6-6.5
	8-18	8.2-18	0.0-20	6.1-7.3
	18-39	8.6-22	0.0-20	6.1-7.8
	39-80	7.2-23	0.0-19	6.6-7.8
77000:				
Killarney-----	0-1	10-40	5.0-30	3.5-6.5
	1-5	7.5-10	2.6-7.6	4.5-6.0
	5-16	3.5-5.9	1.6-3.0	4.5-6.0
	16-32	4.2-11	2.3-8.0	4.5-5.5
	32-48	4.9-10	4.0-7.6	3.5-5.0
	48-80	6.3-12	4.3-10	4.5-5.5
Frenchmill-----	0-1	10-40	5.0-30	3.5-6.5
	1-6	5.6-14	2.9-10	4.5-6.0
	6-19	3.7-8.1	2.1-3.9	4.5-5.5
	19-27	4.7-13	2.6-8.3	4.5-5.5
	27-58	6.2-25	4.2-23	4.5-5.5
	58-80	9.3-18	7.4-13	4.5-5.5
77003:				
Delassus-----	0-8	6.9-11	3.0-5.4	4.5-6.0
	8-13	6.0-15	3.0-5.0	4.5-6.0
	13-20	7.4-20	3.0-20	3.5-5.5
	20-59	6.0-13	3.0-13	3.5-5.5
	59-78	9.2-20	5.0-20	3.5-5.5
77004:				
Irondale-----	0-1	10-40	5.0-30	3.5-6.5
	1-4	7.3-38	3.0-9.3	4.5-6.0
	4-9	4.8-21	2.6-5.3	3.5-6.0
	9-15	5.6-19	2.3-12	4.5-5.5
	15-22	5.6-19	3.6-12	4.5-5.5
	22-80	---	---	---
77007:				
Taumsauk-----	0-1	10-40	5.0-30	3.5-6.5
	1-5	5.0-12	2.0-9.0	4.5-6.0
	5-17	7.0-18	4.0-15	3.5-5.5
	17-80	---	---	---
Irondale-----	0-1	10-40	5.0-30	3.5-6.5
	1-5	7.3-38	3.0-9.3	4.5-6.0
	5-10	4.8-21	2.6-7.0	3.5-6.0
	10-17	5.6-19	2.3-12	4.5-5.5
	17-35	5.6-19	3.6-12	4.5-5.5
	35-80	---	---	---
Rock outcrop.				

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil reaction
		exchange capacity	cation- exchange capacity	
	In	meq/100 g	meq/100 g	pH
77009:				
Trackler-----	0-1	10-40	5.0-30	3.5-6.5
	1-2	10-24	4.6-12	4.5-6.0
	2-8	6.4-9.8	2.9-6.8	4.5-6.0
	8-14	7.4-18	4.5-15	4.5-5.5
	14-23	12-22	8.3-18	4.5-5.5
	23-45	8.0-28	5.0-25	4.5-5.5
	---	---	---	---
77011:				
Taumsauk-----	0-4	5.0-12	2.0-9.0	3.5-6.0
	4-15	7.0-18	4.0-15	3.5-5.5
	---	---	---	---
Irondale-----	0-3	7.3-20	3.6-9.3	4.5-6.0
	3-6	5.6-8.8	3.0-5.3	3.5-6.0
	6-13	6.2-14	3.5-12	4.5-5.5
	13-28	5.0-20	2.0-15	4.5-5.5
	28-80	---	---	---
Rock outcrop.				
77012:				
Mudlick-----	0-1	10-40	5.0-30	3.5-6.5
	1-4	10-24	4.6-12	3.5-5.5
	4-15	6.4-9.8	2.9-6.8	3.5-5.5
	15-36	7.4-18	4.5-15	3.5-5.5
	36-46	12-22	8.3-18	3.5-5.5
	46-80	8.0-28	5.0-25	3.5-5.5
Irondale-----	0-1	10-40	5.0-30	3.5-6.5
	1-4	7.3-38	3.0-9.3	4.5-6.0
	4-11	4.8-21	2.6-5.3	3.5-6.0
	11-18	5.6-19	2.3-12	4.5-5.5
	18-29	5.6-19	2.3-12	4.5-5.5
	29-80	---	---	---
Killarney-----	0-1	10-40	5.0-30	3.5-6.5
	1-8	7.5-13	2.6-7.6	4.5-6.0
	8-12	3.5-6.3	1.6-3.0	4.5-6.0
	12-26	4.2-11	2.3-8.0	4.5-5.5
	26-65	4.9-11	4.0-8.8	3.5-5.0
77013:				
Mudlick-----	0-1	10-40	5.0-30	3.5-6.5
	1-8	10-24	4.6-12	3.5-5.5
	8-14	6.4-9.8	2.9-6.8	3.5-5.5
	14-39	7.4-18	4.5-15	3.5-5.5
	39-68	8.0-28	5.0-25	3.5-5.5
99001. Water				
99006. Psamments				
99007. Dam				

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
99010. Pits and Dumps				
99013. Riverwash				

Table 20.--Water Features

(See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73042: Niangua-----	C	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
Bardley-----	B	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73055: Alred-----	B	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
			Rueter-----	B	High	January	---	---	---	---
February	---	---				---	---	None	---	None
March	---	---				---	---	None	---	None
April	---	---				---	---	None	---	None
May	---	---				---	---	None	---	None
June	---	---				---	---	None	---	None
July	---	---				---	---	None	---	None
August	---	---				---	---	None	---	None
September	---	---				---	---	None	---	None
October	---	---				---	---	None	---	None
November	---	---				---	---	None	---	None
December	---	---				---	---	None	---	None
73139: Poynor-----	B	Medium				January	---	---	---	---
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73139: Clarksville-----	B	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
			Scholten-----	C	Medium	December	1.0-2.4	1.2-2.5	---	---
January	1.0-2.4	1.2-2.5				---	---	None	---	None
February	1.0-2.4	1.2-2.5				---	---	None	---	None
March	1.0-2.4	1.2-2.5				---	---	None	---	None
April	1.0-2.4	1.2-2.5				---	---	None	---	None
May	---	---				---	---	None	---	None
June	---	---				---	---	None	---	None
July	---	---				---	---	None	---	None
August	---	---				---	---	None	---	None
September	---	---				---	---	None	---	None
October	---	---				---	---	None	---	None
November	---	---				---	---	None	---	None
73140: Clarksville-----	B	High				January	---	---	---	---
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73140: Scholten-----	C	Very high	January	1.2-2.9	1.3-3.0	---	---	None	---	None
			February	1.2-2.9	1.3-3.0	---	---	None	---	None
			March	1.2-2.9	1.3-3.0	---	---	None	---	None
			April	1.2-2.9	1.3-3.0	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.2-2.9	1.3-3.0	---	---	None	---	None
			73143: Courtois-----	B	High	January	---	---	---	---
February	---	---				---	---	None	---	None
March	---	---				---	---	None	---	None
April	---	---				---	---	None	---	None
May	---	---				---	---	None	---	None
June	---	---				---	---	None	---	None
July	---	---				---	---	None	---	None
August	---	---				---	---	None	---	None
September	---	---				---	---	None	---	None
October	---	---				---	---	None	---	None
November	---	---				---	---	None	---	None
December	---	---				---	---	None	---	None
73144: Courtois-----	B	Very high				January	---	---	---	---
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73147: Fourche-----	B	Medium	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	2.0-3.0	>6.0	---	---	None	---	None
			January	2.0-3.0	>6.0	---	---	None	---	None
			February	2.0-3.0	>6.0	---	---	None	---	None
			March	2.0-3.0	>6.0	---	---	None	---	None
			April	2.0-3.0	>6.0	---	---	None	---	None
73155: Gasconade-----	D	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
Rock outcrop.										
73156: Alred-----	B	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73156: Gepp-----	B	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
73157: Captina-----	C	Medium	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.5-3.0	2.0-3.5	---	---	None	---	None
			January	1.5-3.0	2.0-3.5	---	---	None	---	None
			February	1.5-3.0	2.0-3.5	---	---	None	---	None
			March	1.5-3.0	2.0-3.5	---	---	None	---	None
			April	1.5-3.0	2.0-3.5	---	---	None	---	None
73159: Yelton-----	C	Medium	January	1.5-2.0	2.0-3.5	---	---	None	---	None
			February	1.5-2.0	2.0-3.5	---	---	None	---	None
			March	1.5-2.0	2.0-3.5	---	---	None	---	None
			April	1.5-2.0	2.0-3.5	---	---	None	---	None
			May	1.5-2.0	2.0-3.5	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	1.5-2.0	2.0-3.5	---	---	None	---	None
			December	1.5-2.0	2.0-3.5	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73197: Viburnum-----	C	Low	January	1.2-1.7	2.6-3.2	---	---	None	---	None
			February	1.2-1.7	2.6-3.2	---	---	None	---	None
			March	1.2-1.7	2.6-3.2	---	---	None	---	None
			April	1.2-1.7	2.6-3.2	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.2-1.7	2.6-3.2	---	---	None	---	None
73222: Splitlimb-----	C	Negligible	January	1.0-1.7	>6.0	0.0-0.5	Brief	Frequent	---	None
			February	1.0-1.7	>6.0	0.0-0.5	Brief	Frequent	---	None
			March	1.0-1.7	>6.0	0.0-0.5	Brief	Frequent	---	None
			April	1.0-1.7	>6.0	0.0-0.5	Brief	Frequent	---	None
			May	---	---	0.0-0.5	Brief	Frequent	---	None
			June	---	---	0.0-0.5	Very brief	Occasional	---	None
			July	---	---	0.0-0.5	Very brief	Rare	---	None
			August	---	---	0.0-0.5	Very brief	Rare	---	None
			September	---	---	0.0-0.5	Very brief	Rare	---	None
			October	---	---	0.0-0.5	Very brief	Occasional	---	None
			November	---	---	0.0-0.5	Brief	Frequent	---	None
			December	1.0-1.7	>6.0	0.0-0.5	Brief	Frequent	---	None
73223: Coulstone-----	B	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73223: Bender-----	B	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
73269: Brussels-----	C	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
Gasconade-----	D	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73269: Rock outcrop.										
73290: Gatewood-----	C	Very high	January	1.5-3.0	1.7-3.3	---	---	None	---	None
			February	1.5-3.0	1.7-3.3	---	---	None	---	None
			March	1.5-3.0	1.7-3.3	---	---	None	---	None
			April	1.5-3.0	1.7-3.3	---	---	None	---	None
			May	1.5-3.0	1.7-3.3	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	1.5-3.0	1.7-3.3	---	---	None	---	None
			December	1.5-3.0	1.7-3.3	---	---	None	---	None
Aaron-----	C	Very high	January	1.5-3.0	1.7-3.3	---	---	None	---	None
			February	1.5-3.0	1.7-3.3	---	---	None	---	None
			March	1.5-3.0	1.7-3.3	---	---	None	---	None
			April	1.5-3.0	1.7-3.3	---	---	None	---	None
			May	1.5-3.0	1.7-3.3	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	1.5-3.0	1.7-3.3	---	---	None	---	None
			December	1.5-3.0	1.7-3.3	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73291: Gatewood-----	C	Very high	January	1.5-3.0	1.7-3.3	---	---	None	---	None
			February	1.5-3.0	1.7-3.3	---	---	None	---	None
			March	1.5-3.0	1.7-3.3	---	---	None	---	None
			April	1.5-3.0	1.7-3.3	---	---	None	---	None
			May	1.5-3.0	1.7-3.3	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	1.5-3.0	1.7-3.3	---	---	None	---	None
			December	1.5-3.0	1.7-3.3	---	---	None	---	None
Aaron-----	C	Very high	January	1.5-3.0	1.7-3.3	---	---	None	---	None
			February	1.5-3.0	1.7-3.3	---	---	None	---	None
			March	1.5-3.0	1.7-3.3	---	---	None	---	None
			April	1.5-3.0	1.7-3.3	---	---	None	---	None
			May	1.5-3.0	1.7-3.3	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	1.5-3.0	1.7-3.3	---	---	None	---	None
			December	1.5-3.0	1.7-3.3	---	---	None	---	None
73295: Taterhill-----	B	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73298: Tonti-----	C	High	January	1.5-2.5	2.0-3.0	---	---	None	---	None
			February	1.5-2.5	2.0-3.0	---	---	None	---	None
			March	1.5-2.5	2.0-3.0	---	---	None	---	None
			April	1.5-2.5	2.0-3.0	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.5-2.5	2.0-3.0	---	---	None	---	None
Hogcreek-----	C	Medium	January	1.3-2.7	1.5-2.8	---	---	None	---	None
			February	1.3-2.7	1.5-2.8	---	---	None	---	None
			March	1.3-2.7	1.5-2.8	---	---	None	---	None
			April	1.3-2.7	1.5-2.8	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.3-2.7	1.5-2.8	---	---	None	---	None
73310: Scholten-----	C	Medium	January	1.3-2.2	1.5-2.3	---	---	None	---	None
			February	1.3-2.2	1.5-2.3	---	---	None	---	None
			March	1.3-2.2	1.5-2.3	---	---	None	---	None
			April	1.3-2.2	1.5-2.3	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.3-2.2	1.5-2.3	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73310: Bendavis-----	C	High	January	2.0-3.0	2.3-3.4	---	---	None	---	None
			February	2.0-3.0	2.3-3.4	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	2.0-3.0	2.3-3.4	---	---	None	---	None
Poynor-----	B	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
73311: Scholten-----	C	High	January	1.3-2.2	1.5-2.3	---	---	None	---	None
			February	1.3-2.2	1.5-2.3	---	---	None	---	None
			March	1.3-2.2	1.5-2.3	---	---	None	---	None
			April	1.3-2.2	1.5-2.3	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.3-2.2	1.5-2.3	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73311: Bendavis-----	C	Very high	January	2.0-3.0	2.3-3.4	---	---	None	---	None
			February	2.0-3.0	2.3-3.4	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	2.0-3.0	2.3-3.4	---	---	None	---	None
Poynor-----	B	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
73333: Taterhill-----	B	Low	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73334: Horneybuck-----	C	Medium	January	1.5-2.5	1.7-5.7	---	---	None	---	None
			February	1.5-2.5	1.7-5.7	---	---	None	---	None
			March	1.5-2.5	1.7-5.7	---	---	None	---	None
			April	1.5-2.5	1.7-5.7	---	---	None	---	None
			May	1.5-2.5	1.7-5.7	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	1.5-2.5	1.7-5.7	---	---	None	---	None
			December	1.5-2.5	1.7-5.7	---	---	None	---	None
73335: Hobson-----	C	Very high	December	1.5-2.5	2.0-3.0	---	---	None	---	None
			January	1.5-2.5	2.0-3.0	---	---	None	---	None
			February	1.5-2.5	2.0-3.0	---	---	None	---	None
			March	1.5-2.5	2.0-3.0	---	---	None	---	None
			April	1.5-2.5	2.0-3.0	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
Rueter-----	B	Low	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table		Surface water depth	Ponding		Flooding	
				Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73336: Rueter-----	B	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
Gepp-----	B	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
73337: Tonti-----	C	Very high	December	1.5-2.5	2.0-3.0	---	---	None	---	None
			January	1.5-2.5	2.0-3.0	---	---	None	---	None
			February	1.5-2.5	2.0-3.0	---	---	None	---	None
			March	1.5-2.5	2.0-3.0	---	---	None	---	None
			April	1.5-2.5	2.0-3.0	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73337: Portia-----	C	Medium	January	---	---	---	---	None	---	None
February			---	---	---	---	None	---	None	
March			---	---	---	---	None	---	None	
April			---	---	---	---	None	---	None	
May			---	---	---	---	None	---	None	
June			---	---	---	---	None	---	None	
July			---	---	---	---	None	---	None	
August			---	---	---	---	None	---	None	
September			---	---	---	---	None	---	None	
October			---	---	---	---	None	---	None	
November			---	---	---	---	None	---	None	
December			---	---	---	---	None	---	None	
73338: Portia-----			C	Medium	January	---	---	---	---	None
February	---	---			---	---	None	---	None	
March	---	---			---	---	None	---	None	
April	---	---			---	---	None	---	None	
May	---	---			---	---	None	---	None	
June	---	---			---	---	None	---	None	
July	---	---			---	---	None	---	None	
August	---	---			---	---	None	---	None	
September	---	---			---	---	None	---	None	
October	---	---			---	---	None	---	None	
November	---	---			---	---	None	---	None	
December	---	---			---	---	None	---	None	
Hobson-----	C	High			December	1.5-2.5	2.0-3.0	---	---	None
January			1.5-2.5	2.0-3.0	---	---	None	---	None	
February			1.5-2.5	2.0-3.0	---	---	None	---	None	
March			1.5-2.5	2.0-3.0	---	---	None	---	None	
April			1.5-2.5	2.0-3.0	---	---	None	---	None	
May			---	---	---	---	None	---	None	
June			---	---	---	---	None	---	None	
July			---	---	---	---	None	---	None	
August			---	---	---	---	None	---	None	
September			---	---	---	---	None	---	None	
October			---	---	---	---	None	---	None	
November			---	---	---	---	None	---	None	

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73339: Arkana-----	C	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
Gepp-----	B	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
73340: Rueter-----	B	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73340: Gepp-----	B	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
			73341: Gepp-----	B	Very high	January	---	---	---	---
February	---	---				---	---	None	---	None
March	---	---				---	---	None	---	None
April	---	---				---	---	None	---	None
May	---	---				---	---	None	---	None
June	---	---				---	---	None	---	None
July	---	---				---	---	None	---	None
August	---	---				---	---	None	---	None
September	---	---				---	---	None	---	None
October	---	---				---	---	None	---	None
November	---	---				---	---	None	---	None
December	---	---				---	---	None	---	None
Arkana-----	C	Very high				January	---	---	---	---
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
73342: Alred-----	B	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
			Arkana-----	C	Medium	January	---	---	---	---
February	---	---				---	---	None	---	None
March	---	---				---	---	None	---	None
April	---	---				---	---	None	---	None
May	---	---				---	---	None	---	None
June	---	---				---	---	None	---	None
July	---	---				---	---	None	---	None
August	---	---				---	---	None	---	None
September	---	---				---	---	None	---	None
October	---	---				---	---	None	---	None
November	---	---				---	---	None	---	None
December	---	---				---	---	None	---	None
74636: Lecoma-----	B	Medium				January	---	---	---	---
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
74637: Lecoma-----	B	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
74643: Lecoma-----	B	Low	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
74644: Deible-----	D	Low	December	0.0-1.0	1.5-3.0	---	---	None	---	---
			January	0.0-1.0	1.5-3.0	---	---	None	---	---
			February	0.0-1.0	1.5-3.0	---	---	None	---	---
			March	0.0-1.0	1.5-3.0	---	---	None	---	---
			April	0.0-1.0	1.5-3.0	---	---	None	---	---

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
74646: Cornwall-----	C	Medium	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.5-3.0	2.0-3.5	---	---	None	---	None
			January	1.5-3.0	2.0-3.5	---	---	None	---	None
			February	1.5-3.0	2.0-3.5	---	---	None	---	None
			March	1.5-3.0	2.0-3.5	---	---	None	---	None
			April	1.5-3.0	2.0-3.5	---	---	None	---	None
74648: Aslinger-----	C	Medium	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.5-2.5	2.5-3.0	---	---	None	---	None
			January	1.5-2.5	2.5-3.0	---	---	None	---	None
			February	1.5-2.5	2.5-3.0	---	---	None	---	None
			March	1.5-2.5	2.5-3.0	---	---	None	---	None
			April	1.5-2.5	2.5-3.0	---	---	None	---	None
74649: Aslinger-----	C	Medium	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.5-2.5	2.5-3.0	---	---	None	---	None
			January	1.5-2.5	2.5-3.0	---	---	None	---	None
			February	1.5-2.5	2.5-3.0	---	---	None	---	None
			March	1.5-2.5	2.5-3.0	---	---	None	---	None
			April	1.5-2.5	2.5-3.0	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
74649: Waben-----	B	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
74651: Waben-----	B	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
74658: Zanoni-----	B	Very low	January	---	---	---	---	None	Very brief	Rare
			February	---	---	---	---	None	Very brief	Rare
			March	---	---	---	---	None	Very brief	Rare
			April	---	---	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare
			November	---	---	---	---	None	Very brief	Rare
			December	---	---	---	---	None	Very brief	Rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
74679: Higdon-----	C	Medium	November	---	---	---	---	None	Very brief	Rare
			December	1.5-1.7	>6.0	---	---	None	Very brief	Rare
			January	1.5-1.7	>6.0	---	---	None	Very brief	Rare
			February	1.5-1.7	>6.0	---	---	None	Very brief	Rare
			March	1.5-1.7	>6.0	---	---	None	Very brief	Rare
			April	1.5-1.7	>6.0	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare
74680: Moniteau-----	C/D	Medium	November	---	---	---	---	None	Very brief	Rare
			December	0.0-1.0	>6.0	---	---	None	Very brief	Rare
			January	0.0-1.0	>6.0	---	---	None	Very brief	Rare
			February	0.0-1.0	>6.0	---	---	None	Very brief	Rare
			March	0.0-1.0	>6.0	---	---	None	Very brief	Rare
			April	0.0-1.0	>6.0	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare
75381: Bearthicket-----	B	Low	November	---	---	---	---	None	Very brief	Rare
			December	---	---	---	---	None	Very brief	Rare
			January	---	---	---	---	None	Very brief	Rare
			February	---	---	---	---	None	Very brief	Rare
			March	---	---	---	---	None	Very brief	Rare
			April	---	---	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
75394: Relfe-----	A	Negligible	January	---	---	---	---	None	Very brief	Rare
			February	---	---	---	---	None	Very brief	Rare
			March	---	---	---	---	None	Very brief	Rare
			April	---	---	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare
			November	---	---	---	---	None	Very brief	Rare
			December	---	---	---	---	None	Very brief	Rare
75395: Jamesfin-----	B	Low	November	---	---	---	---	None	Very brief	Occasional
			December	4.0-6.0	>6.0	---	---	None	Very brief	Occasional
			January	4.0-6.0	>6.0	---	---	None	Very brief	Occasional
			February	4.0-6.0	>6.0	---	---	None	Very brief	Occasional
			March	4.0-6.0	>6.0	---	---	None	Very brief	Occasional
			April	4.0-6.0	>6.0	---	---	None	Very brief	Occasional
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare
75408: Secesh-----	B	Low	November	---	---	---	---	None	Very brief	Rare
			December	---	---	---	---	None	Very brief	Rare
			January	---	---	---	---	None	Very brief	Rare
			February	---	---	---	---	None	Very brief	Rare
			March	---	---	---	---	None	Very brief	Rare
			April	---	---	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
75409: Relfe-----	A	Negligible	November	---	---	---	---	None	Very brief	Occasional
			December	---	---	---	---	None	Very brief	Occasional
			January	---	---	---	---	None	Very brief	Occasional
			February	---	---	---	---	None	Very brief	Occasional
			March	---	---	---	---	None	Very brief	Occasional
			April	---	---	---	---	None	Very brief	Occasional
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare
75411: Tilk-----	A	Low	November	---	---	---	---	None	Very brief	Rare
			December	---	---	---	---	None	Very brief	Rare
			January	---	---	---	---	None	Very brief	Rare
			February	---	---	---	---	None	Very brief	Rare
			March	---	---	---	---	None	Very brief	Rare
			April	---	---	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare
75416: Gladden-----	B	Very low	November	---	---	---	---	None	Very brief	Occasional
			December	---	---	---	---	None	Very brief	Occasional
			January	---	---	---	---	None	Very brief	Occasional
			February	---	---	---	---	None	Very brief	Occasional
			March	---	---	---	---	None	Very brief	Occasional
			April	---	---	---	---	None	Very brief	Occasional
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
75417: Relfe-----	A	Negligible	January	---	---	---	---	None	Very brief	Frequent
			February	---	---	---	---	None	Very brief	Frequent
			March	---	---	---	---	None	Very brief	Frequent
			April	---	---	---	---	None	Very brief	Frequent
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare
			November	---	---	---	---	None	Very brief	Occasional
			December	---	---	---	---	None	Very brief	Frequent
Sandbur-----	A	Very low	January	---	---	---	---	None	Very brief	Frequent
			February	---	---	---	---	None	Very brief	Frequent
			March	---	---	---	---	None	Very brief	Frequent
			April	---	---	---	---	None	Very brief	Frequent
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare
			November	---	---	---	---	None	Very brief	Occasional
			December	---	---	---	---	None	Very brief	Frequent
75426: Gabriel-----	B/D	Low	November	1.0-2.5	>6.0	---	---	None	Brief	Rare
			December	1.0-2.5	>6.0	---	---	None	Brief	Rare
			January	1.0-2.5	>6.0	---	---	None	Brief	Rare
			February	1.0-2.5	>6.0	---	---	None	Brief	Rare
			March	1.0-2.5	>6.0	---	---	None	Brief	Rare
			April	1.0-2.5	>6.0	---	---	None	Brief	Rare
			May	1.0-2.5	>6.0	---	---	None	Brief	Rare
			June	---	---	---	---	None	Brief	Very rare
			July	---	---	---	---	None	Brief	Very rare
			August	---	---	---	---	None	Brief	Very rare
			September	---	---	---	---	None	Brief	Very rare
			October	---	---	---	---	None	Brief	Very rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
75428: Tilk-----	A	Very low	November	---	---	---	---	None	Very brief	Occasional
			December	---	---	---	---	None	Very brief	Occasional
			January	---	---	---	---	None	Very brief	Occasional
			February	---	---	---	---	None	Very brief	Occasional
			March	---	---	---	---	None	Very brief	Occasional
			April	---	---	---	---	None	Very brief	Occasional
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare
Cornwall-----	C	High	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.4-2.7	2.0-3.5	---	---	None	---	None
			January	1.4-2.7	2.0-3.5	---	---	None	---	None
			February	1.4-2.7	2.0-3.5	---	---	None	---	None
			March	1.4-2.7	2.0-3.5	---	---	None	---	None
			April	1.4-2.7	2.0-3.5	---	---	None	---	None
Poynor-----	B	Medium	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
75429: Tilk-----	A	Very low	November	---	---	---	---	None	Very brief	Occasional
			December	---	---	---	---	None	Very brief	Occasional
			January	---	---	---	---	None	Very brief	Occasional
			February	---	---	---	---	None	Very brief	Occasional
			March	---	---	---	---	None	Very brief	Occasional
			April	---	---	---	---	None	Very brief	Occasional
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare
Secesh-----	B	Low	November	---	---	---	---	None	Very brief	Rare
			December	---	---	---	---	None	Very brief	Rare
			January	---	---	---	---	None	Very brief	Rare
			February	---	---	---	---	None	Very brief	Rare
			March	---	---	---	---	None	Very brief	Rare
			April	---	---	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare
75430: Wideman-----	A	Very low	November	---	---	---	---	None	Very brief	Occasional
			December	---	---	---	---	None	Very brief	Occasional
			January	---	---	---	---	None	Very brief	Occasional
			February	---	---	---	---	None	Very brief	Occasional
			March	---	---	---	---	None	Very brief	Occasional
			April	---	---	---	---	None	Very brief	Occasional
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table		Surface water depth	Ponding		Flooding	
				Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
75432: Batcave-----	B	High	January	0.0-0.5	>6.0	---	---	None	Very brief	Frequent
			February	0.0-0.5	>6.0	---	---	None	Very brief	Frequent
			March	0.0-0.5	>6.0	---	---	None	Very brief	Frequent
			April	0.0-0.5	>6.0	---	---	None	Very brief	Frequent
			May	0.0-0.5	>6.0	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare
			November	0.0-0.5	>6.0	---	---	None	Very brief	Occasional
			December	0.0-0.5	>6.0	---	---	None	Very brief	Frequent
			Farewell-----	D	High	January	0.0-0.5	>6.0	---	---
February	0.0-0.5	>6.0				---	---	None	Very brief	Frequent
March	0.0-0.5	>6.0				---	---	None	Very brief	Frequent
April	0.0-0.5	>6.0				---	---	None	Very brief	Frequent
May	0.0-0.5	>6.0				---	---	None	Very brief	Occasional
June	---	---				---	---	None	Very brief	Rare
July	---	---				---	---	None	Very brief	Rare
August	---	---				---	---	None	Very brief	Rare
September	---	---				---	---	None	Very brief	Rare
October	---	---				---	---	None	Very brief	Rare
November	0.0-0.5	>6.0				---	---	None	Very brief	Occasional
December	0.0-0.5	>6.0				---	---	None	Very brief	Frequent
75451: Gladden-----	B	Low				November	---	---	---	---
			December	---	---	---	---	None	Very brief	Occasional
			January	---	---	---	---	None	Very brief	Occasional
			February	---	---	---	---	None	Very brief	Occasional
			March	---	---	---	---	None	Very brief	Occasional
			April	---	---	---	---	None	Very brief	Occasional
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
October	---	---	---	---	None	Very brief	Rare			

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
75462: Huzzah-----	B	Low	November	---	---	---	---	None	Brief	Occasional
			December	---	---	---	---	None	Brief	Occasional
			January	---	---	---	---	None	Brief	Occasional
			February	---	---	---	---	None	Brief	Occasional
			March	---	---	---	---	None	Brief	Occasional
			April	---	---	---	---	None	Brief	Occasional
			May	---	---	---	---	None	Brief	Occasional
			June	---	---	---	---	None	Brief	Rare
			July	---	---	---	---	None	Brief	Rare
			August	---	---	---	---	None	Brief	Rare
			September	---	---	---	---	None	Brief	Rare
			October	---	---	---	---	None	Brief	Rare
75463: Huzzah-----	B	Negligible	November	---	---	---	---	None	Very brief	Rare
			December	---	---	---	---	None	Very brief	Rare
			January	---	---	---	---	None	Very brief	Rare
			February	---	---	---	---	None	Very brief	Rare
			March	---	---	---	---	None	Very brief	Rare
			April	---	---	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare
75464: Cedargap-----	B	Very low	November	---	---	---	---	None	Very brief	Rare
			December	---	---	---	---	None	Very brief	Rare
			January	---	---	---	---	None	Very brief	Rare
			February	---	---	---	---	None	Very brief	Rare
			March	---	---	---	---	None	Very brief	Rare
			April	---	---	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
75465: Raftville-----	B	Medium	November	---	---	---	---	None	Very brief	Rare
			December	---	---	---	---	None	Very brief	Rare
			January	---	---	---	---	None	Very brief	Rare
			February	---	---	---	---	None	Very brief	Rare
			March	---	---	---	---	None	Very brief	Rare
			April	---	---	---	---	None	Very brief	Rare
			May	---	---	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare
			Gabriel-----	B/D	Low	November	1.0-2.5	>6.0	---	---
December	1.0-2.5	>6.0				---	---	None	Brief	Rare
January	1.0-2.5	>6.0				---	---	None	Brief	Rare
February	1.0-2.5	>6.0				---	---	None	Brief	Rare
March	1.0-2.5	>6.0				---	---	None	Brief	Rare
April	1.0-2.5	>6.0				---	---	None	Brief	Rare
May	1.0-2.5	>6.0				---	---	None	Brief	Rare
June	---	---				---	---	None	Brief	Very rare
July	---	---				---	---	None	Brief	Very rare
August	---	---				---	---	None	Brief	Very rare
September	---	---				---	---	None	Brief	Very rare
October	---	---				---	---	None	Brief	Very rare
75466: Midco-----	A	Very low				November	---	---	---	---
			December	---	---	---	---	None	Very brief	Occasional
			January	---	---	---	---	None	Very brief	Occasional
			February	---	---	---	---	None	Very brief	Occasional
			March	---	---	---	---	None	Very brief	Occasional
			April	---	---	---	---	None	Very brief	Occasional
			May	---	---	---	---	None	Very brief	Occasional
			June	---	---	---	---	None	Very brief	Rare
			July	---	---	---	---	None	Very brief	Rare
			August	---	---	---	---	None	Very brief	Rare
			September	---	---	---	---	None	Very brief	Rare
			October	---	---	---	---	None	Very brief	Rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
75470: Farewell-----	D	Very low	November	0.0-0.5	>6.0	---	---	None	Very brief	Rare
			December	0.0-0.5	>6.0	---	---	None	Very brief	Rare
			January	0.0-0.5	>6.0	---	---	None	Very brief	Rare
			February	0.0-0.5	>6.0	---	---	None	Very brief	Rare
			March	0.0-0.5	>6.0	---	---	None	Very brief	Rare
			April	0.0-0.5	>6.0	---	---	None	Very brief	Rare
			May	0.0-0.5	>6.0	---	---	None	Very brief	Rare
			June	---	---	---	---	None	Very brief	Very rare
			July	---	---	---	---	None	Very brief	Very rare
			August	---	---	---	---	None	Very brief	Very rare
			September	---	---	---	---	None	Very brief	Very rare
			October	---	---	---	---	None	Very brief	Very rare
77000: Killarney-----	C	High	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	2.0-3.0	2.5-3.5	---	---	None	---	None
			January	2.0-3.0	2.5-3.5	---	---	None	---	None
			February	2.0-3.0	2.5-3.5	---	---	None	---	None
			March	2.0-3.0	2.5-3.5	---	---	None	---	None
			April	2.0-3.0	2.5-3.5	---	---	None	---	None
Frenchmill-----	B	High	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table		Surface water depth	Ponding		Flooding	
				Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
77003: Delassus-----	C	High	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.8-2.5	2.0-3.0	---	---	None	---	None
			January	1.8-2.5	2.0-3.0	---	---	None	---	None
			February	1.8-2.5	2.0-3.0	---	---	None	---	None
			March	1.8-2.5	2.0-3.0	---	---	None	---	None
			April	1.8-2.5	2.0-3.0	---	---	None	---	None
77004: Irondale-----	C	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
77007: Taumsauk-----	D	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
77007: Irondale-----	C	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
Rock outcrop.										
77009: Trackler-----	C	Medium	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	1.8-2.5	3.0-4.0	---	---	None	---	None
			January	1.8-2.5	3.0-4.0	---	---	None	---	None
			February	1.8-2.5	3.0-4.0	---	---	None	---	None
			March	1.8-2.5	3.0-4.0	---	---	None	---	None
			April	1.8-2.5	3.0-4.0	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
77011: Taumsauk-----	D	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
Irondale-----	C	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
Rock outcrop.										
77012: Mudlick-----	C	Very high	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
			January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table			Ponding		Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
77012: Irontdale-----	C	Very high	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
Killarney-----	C	Very high	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	2.0-2.6	2.2-2.8	---	---	None	---	None
			January	2.0-2.6	2.2-2.8	---	---	None	---	None
			February	2.0-2.6	2.2-2.8	---	---	None	---	None
			March	2.0-2.6	2.2-2.8	---	---	None	---	None
			April	2.0-2.6	2.2-2.8	---	---	None	---	None
77013: Mudlick-----	C	High	May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
			January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Months	Water table		Surface water depth	Ponding		Flooding	
				Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
99001. Water										
99006: Psamments-----	A	Very low	January	---	---	---	---	None	---	None
			February	---	---	---	---	None	---	None
			March	---	---	---	---	None	---	None
			April	---	---	---	---	None	---	None
			May	---	---	---	---	None	---	None
			June	---	---	---	---	None	---	None
			July	---	---	---	---	None	---	None
			August	---	---	---	---	None	---	None
			September	---	---	---	---	None	---	None
			October	---	---	---	---	None	---	None
			November	---	---	---	---	None	---	None
			December	---	---	---	---	None	---	None
99007. Dam										
99010. Pits and Dumps										
99013: Riverwash-----	---	---	January	0.0-2.0	>6.0	---	---	None	Very long	Frequent
			February	0.0-2.0	>6.0	---	---	None	Very long	Frequent
			March	0.0-2.0	>6.0	---	---	None	Very long	Frequent
			April	0.0-2.0	>6.0	---	---	None	Very long	Frequent
			May	0.0-2.0	>6.0	---	---	None	Very long	Frequent
			June	0.0-2.0	>6.0	---	---	None	Very long	Frequent
			July	0.0-2.0	>6.0	---	---	None	Very long	Frequent
			August	0.0-2.0	>6.0	---	---	None	Long	Frequent
			September	0.0-2.0	>6.0	---	---	None	Long	Frequent
			October	0.0-2.0	>6.0	---	---	None	Very long	Frequent
			November	0.0-2.0	>6.0	---	---	None	Very long	Frequent
			December	0.0-2.0	>6.0	---	---	None	Very long	Frequent

Table 21.--Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
73042: Niangua-----	Bedrock (lithic)	40-60	---	Indurated	Moderate	Moderate	High
Bardley-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	Moderate
73055: Alred-----	Strongly contrasting textural stratification	14-40	---	Noncemented	Moderate	Moderate	High
Rueter-----	---	---	---	---	Moderate	Moderate	Moderate
73139: Poynor-----	Strongly contrasting textural stratification	14-40	---	Noncemented	Moderate	High	High
Clarksville-----	---	---	---	---	Moderate	Moderate	High
Scholten-----	Fragipan	14-30	6-35	Noncemented	Moderate	High	High
73140: Clarksville-----	---	---	---	---	Moderate	Moderate	High
Scholten-----	Fragipan	16-36	6-35	Noncemented	Moderate	High	High
73143: Courtois-----	---	---	---	---	Moderate	High	Moderate
73144: Courtois-----	---	---	---	---	Moderate	High	Moderate
73147: Fourche-----	---	---	---	---	High	Moderate	High
73155: Gasconade-----	Bedrock (lithic)	4-20	---	Indurated	Moderate	High	Low
Rock outcrop.							
73156: Alred-----	Strongly contrasting textural stratification	14-40	---	Noncemented	Moderate	High	Moderate
Gepp-----	---	---	---	---	Moderate	High	Moderate
73157: Captina-----	Fragipan	20-36	6-32	Noncemented	High	High	High
73159: Yelton-----	Fragipan	18-27	16-40	Noncemented	Moderate	High	High
73197: Viburnum-----	---	---	---	---	Moderate	High	Moderate

Table 21.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
73222: Splitlimb-----	---	---	---	---	High	High	Moderate
73223: Coulstone-----	---	---	---	---	Moderate	Low	High
Bender-----	Bedrock (lithic)	20-39	41-61	Indurated	Moderate	Low	High
73269: Brussels-----	---	---	---	---	Moderate	Moderate	Low
Gasconade-----	Bedrock (lithic)	4-20	---	Indurated	Moderate	Moderate	Low
Rock outcrop.							
73290: Gatewood-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	Moderate
Aaron-----	Bedrock (lithic)	40-60	---	Indurated	Moderate	High	Moderate
73291: Gatewood-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	Moderate
Aaron-----	Bedrock (lithic)	40-60	---	Indurated	Moderate	High	Moderate
73295: Taterhill-----	---	---	---	---	Low	Moderate	Moderate
73298: Tonti-----	Fragipan	16-28	10-25	Noncemented	Moderate	High	High
Hogcreek-----	Fragipan	18-32	7-14	Noncemented	---	High	High
	Bedrock (lithic)	28-40	40-52	Indurated			
73310: Scholten-----	Fragipan	14-31	6-29	Noncemented	None	Moderate	High
Bendavis-----	Bedrock (lithic)	20-39	41-60	Indurated	Moderate	Moderate	High
Poynor-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	None	Moderate	High
73311: Scholten-----	Fragipan	14-31	6-29	Noncemented	None	Moderate	High
Bendavis-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	High
Poynor-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	High
73333: Taterhill-----	---	---	---	---	None	Moderate	Moderate
73334: Horneybuck-----	---	---	---	---	Moderate	High	High

Table 21.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Potential for frost action	Risk of corrosion		
	Kind	Depth to top	Thickness		Hardness	Uncoated steel	Concrete
		In	In				
73335: Hobson-----	Fragipan	20-40	6-36	Noncemented	Moderate	Moderate	High
Rueter-----	---	---	---	---	Moderate	Low	High
73336: Rueter-----	---	---	---	---	Moderate	Moderate	High
Gepp-----	---	---	---	---	Moderate	High	High
73337: Tonti-----	Fragipan	16-28	10-25	Noncemented	Moderate	High	High
Portia-----	---	---	---	---	None	High	High
73338: Portia-----	---	---	---	---	None	High	High
Hobson-----	Fragipan	18-27	6-24	Noncemented	Moderate	Moderate	High
73339: Arkana-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	Moderate
Gepp-----	---	---	---	---	Moderate	High	High
73340: Rueter-----	---	---	---	---	Moderate	Moderate	High
Gepp-----	---	---	---	---	Moderate	High	High
73341: Gepp-----	---	---	---	---	Moderate	High	High
Arkana-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	Moderate
73342: Alred-----	Strongly contrasting textural stratification	16-42	---	Noncemented	Moderate	Moderate	High
Arkana-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	Moderate
74636: Lecoma-----	---	---	---	---	Moderate	Moderate	High
74637: Lecoma-----	---	---	---	---	Moderate	Moderate	High
74643: Lecoma-----	---	---	---	---	Moderate	Moderate	High
74644: Deible-----	Abrupt textural change	8-22	---	Noncemented	High	High	Moderate
74646: Cornwall-----	---	---	---	---	High	High	Moderate
74648: Aslinger-----	---	---	---	---	High	High	High

Table 21.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
74649: Aslinger-----	---	---	---	---	High	High	High
Waben-----	---	---	---	---	Moderate	Low	Moderate
74651: Waben-----	---	---	---	---	Moderate	Low	Moderate
74658: Zanoni-----	---	---	---	---	Moderate	Low	Low
74679: Higdon-----	---	---	---	---	High	Low	Moderate
74680: Moniteau-----	---	---	---	---	High	High	High
75381: Bearthicket-----	---	---	---	---	High	Low	Low
75394: Relfe-----	---	---	---	---	Low	Low	Moderate
75395: Jamesfin-----	---	---	---	---	High	Low	Moderate
75408: Secesh-----	---	---	---	---	Moderate	Moderate	Moderate
75409: Relfe-----	---	---	---	---	Low	Low	Moderate
75411: Tilk-----	---	---	---	---	Moderate	Moderate	High
75416: Gladden-----	---	---	---	---	Moderate	Low	Moderate
75417: Relfe-----	---	---	---	---	Low	Low	Moderate
Sandbur-----	---	---	---	---	Moderate	Low	Low
75426: Gabriel-----	---	---	---	---	High	High	Moderate
75428: Tilk-----	---	---	---	---	Moderate	Moderate	High
Cornwall-----	---	---	---	---	High	High	Moderate
Poynor-----	Strongly contrasting textural stratification	15-40	---	Noncemented	Moderate	High	High
75429: Tilk-----	---	---	---	---	Low	Low	High
Secesh-----	---	---	---	---	Moderate	Moderate	High

Table 21.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
75430: Wideman-----	---	---	---	---	Low	Low	Low
75432: Batcave-----	---	---	---	---	Moderate	Low	Low
Farewell-----	---	---	---	---	None	High	Moderate
75451: Gladden-----	---	---	---	---	Moderate	High	High
75462: Huzzah-----	---	---	---	---	Moderate	Low	Moderate
75463: Huzzah-----	---	---	---	---	Moderate	Moderate	Low
75464: Cedargap-----	---	---	---	---	Moderate	Low	Low
75465: Raftville-----	Bedrock (lithic)	20-40	40-60	Indurated	Moderate	Low	Moderate
Gabriel-----	---	---	---	---	High	High	Moderate
75466: Midco-----	---	---	---	---	Moderate	Low	Moderate
75470: Farewell-----	---	---	---	---	None	High	Moderate
77000: Killarney-----	Fragipan	26-34	12-48	Noncemented	Moderate	Moderate	High
Frenchmill-----	---	---	---	---	Moderate	Moderate	High
77003: Delassus-----	Fragipan	20-36	20-48	Noncemented	Moderate	High	High
	Bedrock (lithic)	60-80	---	Indurated			
77004: Irondale-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	High
77007: Taumsauk-----	Bedrock (lithic)	4-20	---	Indurated	Moderate	High	High
Irondale-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	High
Rock outcrop.							
77009: Trackler-----	Bedrock (lithic)	40-60	---	Indurated	High	Moderate	High
77011: Taumsauk-----	Bedrock (lithic)	4-26	---	Indurated	Moderate	High	High
Irondale-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	High
Rock outcrop.							

Table 21.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
77012: Mudlick-----	---	---	---	---	Moderate	Moderate	High
Irondale-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	High
Killarney-----	Fragipan	26-34	12-48	Noncemented	Moderate	Moderate	High
77013: Mudlick-----	---	---	---	---	Moderate	Moderate	High
99001. Water							
99006. Psamments							
99007. Dam							
99010. Pits and Dumps							
99013. Riverwash							

Table 22.--Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series)

Soil name	Family or higher taxonomic class
Aaron-----	Fine, mixed, active, mesic Oxyaquic Hapludalfs
Alred-----	Loamy-skeletal over clayey, siliceous, semiactive, mesic Typic Paleudalfs
Arkana-----	Very fine, mixed, active, mesic Mollic Hapludalfs
Aslinger-----	Fine-loamy, mixed, active, mesic Fragiaquic Paleudults
Bardley-----	Very fine, mixed, active, mesic Typic Hapludalfs
Batcave-----	Loamy-skeletal, siliceous, active, mesic Typic Argiaquolls
Bearthicket-----	Fine-silty, mixed, active, mesic Ultic Hapludalfs
Bendavis-----	Loamy-skeletal, siliceous, active, mesic Typic Hapludults
Bender-----	Loamy-skeletal, siliceous, active, mesic Typic Hapludults
*Brussels-----	Clayey-skeletal, mixed, superactive, mesic Pachic Argiudolls
Captina-----	Fine-silty, siliceous, active, mesic Typic Fragiudults
Cedargap-----	Loamy-skeletal, mixed, superactive, mesic Cumulic Hapludolls
Clarksville-----	Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults
Cornwall-----	Fine-silty, mixed, active, mesic Fragiaquic Paleudults
Coulstone-----	Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults
Courtois-----	Fine, mixed, active, mesic Typic Paleudalfs
Deible-----	Fine, mixed, active, mesic Typic Albaqualfs
Delassus-----	Fine-loamy, mixed, active, mesic Typic Fragiudults
Farewell-----	Fine-loamy, siliceous, active, mesic Typic Argiaquolls
Fourche-----	Fine-silty, mixed, active, mesic Glossaquic Paleudalfs
Frenchmill-----	Loamy-skeletal, mixed, active, mesic Typic Paleudults
Gabriel-----	Fine-silty, mixed, superactive, mesic Typic Argiaquolls
Gasconade-----	Clayey-skeletal, mixed, superactive, mesic Lithic Hapludolls
Gateway-----	Very fine, mixed, active, mesic Oxyaquic Hapludalfs
Gepp-----	Very fine, mixed, semiactive, mesic Typic Paleudalfs
Gladen-----	Coarse-loamy, siliceous, superactive, mesic Dystric Fluventic Eutrudepts
Higdon-----	Fine-silty, mixed, active, mesic Aquic Hapludalfs
Hobson-----	Fine-loamy, siliceous, active, mesic Oxyaquic Fragiudalfs
Hogcreek-----	Fine-loamy, siliceous, active, mesic Typic Fragiudults
Horneybuck-----	Fine-loamy, mixed, active, mesic Aquic Paleudults
Huzzah-----	Coarse-loamy, siliceous, superactive, mesic Cumulic Hapludolls
Irondale-----	Loamy-skeletal, mixed, active, mesic Typic Hapludults
Jamesfin-----	Fine-silty, mixed, superactive, mesic Dystric Fluventic Eutrudepts
Killarney-----	Loamy-skeletal, mixed, active, mesic Typic Fragiudults
Lecoma-----	Fine-loamy, siliceous, active, mesic Typic Paleudalfs
Midco-----	Loamy-skeletal, siliceous, superactive, nonacid, mesic Typic Udifluvents
*Moniteau-----	Fine-silty, mixed, active, mesic Typic Endoaqualfs
Mudlick-----	Fine-loamy, mixed, active, mesic Typic Paleudults
Niangua-----	Very fine, mixed, active, mesic Typic Hapludalfs
Portia-----	Fine-loamy, siliceous, semiactive, mesic Typic Paleudalfs
Poynor-----	Loamy-skeletal over clayey, siliceous, semiactive, mesic Typic Paleudults
*Raftville-----	Fine-loamy, siliceous, semiactive, mesic Typic Hapludalfs
Relfe-----	Sandy-skeletal, siliceous, mesic Mollic Udifluvents
Rueter-----	Loamy-skeletal, siliceous, active, mesic Typic Paleudalfs
Sandbur-----	Coarse-loamy, siliceous, superactive, nonacid, mesic Mollic Udifluvents
Scholten-----	Loamy-skeletal, siliceous, active, mesic Typic Fragiudults
Secesh-----	Fine-loamy, siliceous, active, mesic Ultic Hapludalfs
Splitlimb-----	Fine-silty, mixed, active, mesic Aquic Paleudults
Taterhill-----	Fine-loamy, siliceous, semiactive, mesic Typic Paleudults
Taumsauk-----	Loamy-skeletal, mixed, active, mesic Lithic Hapludults
Tilk-----	Loamy-skeletal, siliceous, active, mesic Ultic Hapludalfs
Tonti-----	Fine-loamy, mixed, active, mesic Typic Fragiudults
Trackler-----	Fine-loamy, mixed, active, mesic Aquic Hapludults
Viburnum-----	Fine, mixed, active, mesic Aquic Paleudults
*Waben-----	Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults
Wideman-----	Sandy, siliceous, mesic Typic Udifluvents
Yelton-----	Fine-loamy, siliceous, active, mesic Typic Fragiudults
Zanoni-----	Coarse-loamy, siliceous, active, mesic Ultic Hapludalfs

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