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In cooperation with  
Missouri Department of  
Natural Resources;  
Missouri Agricultural  
Experiment Station;  
United States Department of  
Agriculture, Forest Service;  
Missouri Department of  
Conservation; Howell County  
Soil and Water Conservation  
District; and Howell County  
Commission

# Soil Survey of Howell 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.

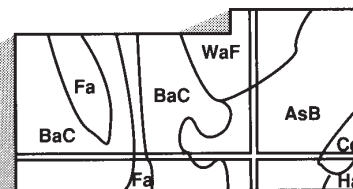
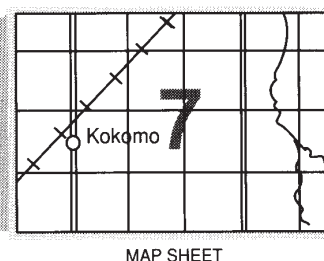
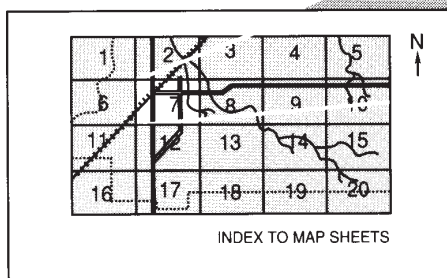
## Detailed Soil Maps

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.

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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 2000. 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 and the Missouri Department of Natural Resources; Missouri Agricultural Experiment Station; United States Department of Agriculture, Forest Service; Missouri Department of Conservation; Howell County Soil and Water Conservation District; and Howell County Commission. The survey is part of the technical assistance furnished to the Howell County Soil and Water Conservation District.

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: Large recreational lake constructed in an area of Tick extremely gravelly silt loam, 15 to 50 percent slopes, very stony.**

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

# Contents

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<b>How To Use This Soil Survey</b> .....	3
<b>Contents</b> .....	5
<b>Foreword</b> .....	9
General Nature of the County .....	12
How This Survey Was Made .....	13
<b>General Soil Map Units</b> .....	15
1. Secesh-Taterhill-Tilk association .....	15
2. Coulstone-Bendavis-Scholten association .....	16
3. Poynor-Scholten association .....	16
4. Fanchon-Tonti association .....	17
5. Alred-Macedonia association .....	17
6. Mano-Ocie association .....	18
7. Tick-Egyptgrove-Kenaga association .....	18
8. Alred-Bendavis association .....	18
<b>Detailed Soil Map Units</b> .....	19
70022—Tonti silt loam, 3 to 8 percent slopes .....	20
70025—Branson-Splitlimb complex, 1 to 3 percent slopes .....	20
70026—Tonti silt loam, 1 to 3 percent slopes .....	21
71250—Britwater silt loam, 1 to 3 percent slopes, rarely flooded .....	21
73000—Pomme silt loam, 3 to 8 percent slopes .....	22
73013—Lowassie silt loam, 0 to 3 percent slopes, frequently ponded .....	22
73017—Bendavis-Poynor complex, 15 to 50 percent slopes, rocky, very stony .....	23
73023—Mano-Ocie complex, 1 to 8 percent slopes .....	23
73024—Mano-Ocie complex, 8 to 15 percent slopes, stony .....	24
73051—Winnipeg silt loam, 2 to 5 percent slopes .....	25
73054—Viburnum silt loam, 1 to 3 percent slopes .....	25
73063—Bendavis-Poynor complex, 1 to 8 percent slopes .....	26
73068—Tick very gravelly silt loam, 3 to 15 percent slopes, stony .....	27
73069—Tick extremely gravelly silt loam, 15 to 50 percent slopes, very stony .....	27
73073—Scholten-Poynor complex, 8 to 15 percent slopes .....	28
73076—Mano-Ocie complex, 15 to 35 percent slopes, stony .....	29
73077—Eudy silt loam, 1 to 8 percent slopes ....	29
73080—Alred-Bardley-Rock outcrop complex, 15 to 60 percent slopes, very stony .....	30
73176—Bendavis-Poynor complex, 8 to 15 percent slopes, stony .....	31
73197—Viburnum silt loam, 3 to 8 percent slopes .....	31
73198—Gressy-Viraton complex, 3 to 8 percent slopes .....	32
73199—Moko-Rock outcrop complex, 3 to 15 percent slopes, very flaggy .....	33
73221—Poynor very gravelly silt loam, karst, 3 to 35 percent slopes, stony .....	33
73222—Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded .....	34
73223—Coulstone-Bender complex, 15 to 50 percent slopes, very stony .....	35
73226—Ocie-Gatewood complex, 3 to 15 percent slopes, stony .....	36
73227—Ocie-Gatewood complex, 15 to 35 percent slopes, very stony .....	36
73230—Coulstone-Bender-Gatewood complex, 15 to 60 percent slopes, rocky, very stony .....	37
73231—Wasola silt loam, 1 to 8 percent slopes .....	38
73235—Alred very gravelly silt loam, karst, 3 to 60 percent slopes, stony .....	39
73236—Scholten-Poynor complex, 3 to 8 percent slopes .....	39
73240—Jerktail silt loam, 3 to 8 percent slopes .....	40
73242—Fanchon-Tonti complex, 3 to 8 percent slopes .....	41
73243—Topazmill loam, 3 to 8 percent slopes .....	41
73245—Alred very gravelly silt loam, 1 to 8 percent slopes .....	42
73246—Alred very gravelly silt loam, 8 to 15 percent slopes .....	43
73247—Alred extremely gravelly silt loam, 15 to 35 percent slopes .....	43

73248—Alred-Bendavis complex, 8 to 15 percent slopes .....	44	73315—Deible silt loam, basins, 0 to 3 percent slopes .....	60
73249—Alred-Ocie-Bendavis complex, 15 to 35 percent slopes, stony .....	44	73316—Clarksville-Tick-Mano complex, rocky, 15 to 50 percent slopes .....	61
73295—Taterhill silt loam, 3 to 8 percent slopes .....	45	74626—Tanglenook silt loam, 0 to 3 percent slopes, rarely flooded .....	62
73296—Yelton-Topazmill-Lily complex, 8 to 15 percent slopes .....	46	74627—Hartville silt loam, 1 to 3 percent slopes, rarely flooded .....	63
73297—Poynor-Scholten complex, 15 to 35 percent slopes .....	47	74648—Aslinger silt loam, 3 to 8 percent slopes .....	63
73298—Tonti-Hogcreek complex, 3 to 8 percent slopes .....	48	74658—Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded .....	64
73299—Plato-Jerktail complex, 1 to 3 percent slopes .....	48	74677—Deible silt loam, 0 to 3 percent slopes, rarely flooded .....	64
73300—Macedonia gravelly silt loam, 3 to 8 percent slopes .....	49	74679—Higdon silt loam, 0 to 3 percent slopes, rarely flooded .....	65
73301—Tick very gravelly silt loam, 3 to 8 percent slopes .....	49	74681—Lostpond silt loam, 1 to 3 percent slopes, rarely flooded .....	65
73302—Kenaga silt loam, 1 to 3 percent slopes .....	50	74690—Moniteau silt loam, 0 to 3 percent slopes, rarely flooded .....	66
73303—Kenaga-Egyptgrove complex, 3 to 8 percent slopes .....	50	75381—Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded .....	66
73304—Kenaga-Egyptgrove-Tonti complex, karst, 3 to 15 percent slopes .....	51	75390—Razort silt loam, 0 to 3 percent slopes, rarely flooded .....	67
73305—Egyptgrove gravelly silt loam, 3 to 8 percent slopes .....	52	75408—Secesh silt loam, 0 to 3 percent slopes, rarely flooded .....	67
73306—Gressy-Gatewood complex, rocky, 3 to 8 percent slopes .....	53	75417—Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded .....	68
73307—Gressy-Viraton complex, 1 to 3 percent slopes .....	53	75418—Tilk very gravelly loam, 0 to 3 percent slopes, rarely flooded .....	69
73308—Grandgulf silt loam, 1 to 3 percent slopes, rarely ponded .....	54	75420—Secesh-Tilk complex, 0 to 3 percent slopes, occasionally flooded .....	69
73309—Clarksville-Bendavis complex, 15 to 35 percent slopes, stony .....	55	75423—Cedargap very gravelly silt loam, 0 to 3 percent slopes, occasionally flooded .....	70
73310—Scholten-Bendavis-Poynor complex, 1 to 8 percent slopes .....	55	75432—Batcave-Farewell complex, 0 to 3 percent slopes, frequently flooded .....	70
73311—Scholten-Bendavis-Poynor complex, 8 to 15 percent slopes .....	56	75433—Racket loam, 0 to 3 percent slopes, occasionally flooded .....	71
73312—Alred-Bendavis complex, 1 to 8 percent slopes .....	57	99001—Water .....	71
73313—Fanchon-Tonti complex, 1 to 3 percent slopes .....	58	99002—Borrow areas .....	71
73314—Tanglenook silt loam, basins, 0 to 3 percent slopes .....	60	<b>Prime Farmland</b> .....	73
		<b>Use and Management of the Soils</b> .....	75
		Interpretive Ratings .....	75
		Rating Class Terms .....	75

Numerical Ratings .....	75	Gressy Series .....	117
Crops and Pasture .....	76	Hartville Series .....	118
Yields per Acre .....	77	Higdon Series .....	119
Land Capability Classification .....	77	Hogcreek Series .....	120
Pasture and Hayland Suitability Groups .....	78	Jerktail Series .....	121
Forestland Productivity and Management .....	79	Kenaga Series .....	122
Forestland Productivity .....	80	Lily Series .....	123
Forestland Management .....	80	Lostpond Series .....	123
Windbreaks and Environmental Plantings .....	81	Lowassie Series .....	124
Recreation .....	81	Macedonia Series .....	125
Wildlife Habitat .....	83	Mano Series .....	126
Engineering .....	85	Moko Series .....	127
Building Site Development .....	86	Moniteau Series .....	127
Sanitary Facilities .....	87	Ocie Series .....	128
Construction Materials and Excavating .....	89	Plato Series .....	129
Water Management .....	90	Pomme Series .....	130
Waste Management .....	91	Poynor Series .....	131
<b>Soil Properties</b> .....	95	Racket Series .....	132
Engineering Index Properties .....	95	Razort Series .....	133
Physical Properties .....	96	Relfe Series .....	133
Chemical Properties .....	98	Sandbur Series .....	134
Water Features .....	98	Scholten Series .....	135
Soil Features .....	99	Secesh Series .....	136
<b>Classification of the Soils</b> .....	101	Splitlimb Series .....	136
Soil Series and Their Morphology .....	101	Tanglenook Series .....	137
Alred Series .....	101	Taterhill Series .....	138
Aslinger Series .....	102	Tick Series .....	139
Bardley Series .....	103	Tilk Series .....	139
Batcave Series .....	104	Tonti Series .....	140
Bearthicket Series .....	105	Topazmill Series .....	141
Bendavis Series .....	105	Viburnum Series .....	142
Bender Series .....	106	Viraton Series .....	143
Branson Series .....	106	Wasola Series .....	144
Britwater Series .....	107	Winnipeg Series .....	144
Cedargap Series .....	108	Yelton Series .....	145
Clarksville Series .....	109	Zanoni Series .....	146
Coulstone Series .....	109	<b>Formation of the Soils</b> .....	149
Deible Series .....	110	Factors of Soil Formation .....	149
Egyptgrove Series .....	111	Parent Material .....	149
Eudy Series .....	112	Living Organisms .....	149
Fanchon Series .....	113	Climate .....	150
Farewell Series .....	114	Topography .....	150
Gatewood Series .....	115	Time .....	150
Grandgulf Series .....	116	Physiography and Geology .....	150

---

<b>References</b> .....	153	Table 10.—Recreation Site Development .....	246
<b>Glossary</b> .....	155	Table 11a.—Wildlife Habitat .....	262
<b>Tables</b> .....	169	Table 11b.—Wildlife Habitat .....	286
Table 1.—Temperature and Precipitation .....	170	Table 12.—Building Site Development .....	307
Table 2.—Freeze Dates in Spring and Fall .....	171	Table 13.—Sanitary Facilities .....	330
Table 3.—Growing Season .....	171	Table 14.—Construction Materials and	
Table 4.—Acreage and Proportionate Extent		Excavating .....	355
of the Soils .....	172	Table 15.—Water Management .....	380
Table 5.—Land Capability and Yields per		Table 16.—Waste Management .....	402
Acre of Crops and Pasture .....	174	Table 17.—Engineering Index Properties .....	426
Table 6.—Pasture and Hayland Suitability		Table 18.—Physical Properties of the Soils .....	444
Groups .....	180	Table 19.—Chemical Properties of the Soils ....	460
Table 7.—Forestland Productivity .....	183	Table 20.—Water Features .....	472
Table 8a.—Forestland Management .....	194	Table 21.—Soil Features .....	488
Table 8b.—Forestland Management .....	214	Table 22.—Classification of the Soils .....	495
Table 9.—Windbreaks and Environmental			
Plantings .....	233		

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# Foreword

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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, ranchers, 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. Information on specific uses is given for each soil. 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.

Roger A. Hansen  
State Conservationist  
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# Soil Survey of Howell County, Missouri

By Sidney A. Vander Veen and John D. Preston

Fieldwork by Sidney A. Vander Veen, Natural Resources Conservation Service, and Michael J. Moore, Scott F. Paine, and Robert D. Rouse, Missouri Department of Natural Resources

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with the Missouri Department of Natural Resources; Missouri Agricultural Experiment Station; United States Department of Agriculture, Forest Service; Missouri Department of Conservation; Howell County Soil and Water Conservation District; and Howell County Commission

HOWELL COUNTY is in the south-central part of Missouri (fig. 1). It has a total area of 593,754 acres, or about 928 square miles. It is bordered on the north by Texas County, Missouri; on the west by Douglas and Ozark Counties, Missouri; on the east by Shannon and Oregon Counties, Missouri; and on the south by Fulton County, Arkansas. West Plains, the county seat, is in the central part of the county. According to the 2000 census, the population of Howell County was 37,238 and the population of West Plains was 10,866 (Johnson, 1989). Other communities include Brandsville, Caulfield, Mountain View, Pomona, and Willow Springs.

A majority of the county supports timber, both mature and regenerating stands. The remaining areas, including some gently sloping and moderately sloping areas of uplands and a major part of the bottomlands, are used for pasture and hay. Beef and dairy cattle are the dominant livestock species in the county. Cool-season grasses and shallow-rooted and deep-rooted legumes, including fescue, red clover, and alfalfa, are the main forage species grown for pasture and hay.

The county is dominantly rural. The local economy is based on retail business, livestock farming, service facilities, and tourism. Several small towns have business districts that are supported by the surrounding rural areas.

A total of 49,043 acres of the county is public land.



Figure 1.—Location of Howell County in Missouri.

This acreage is used extensively for hunting, camping, and hiking.

This soil survey updates the survey of Howell County, Missouri, published in 1902 (USDA, 1902). It provides additional information and has larger maps, which show the soils in greater detail.

## General Nature of the County

This section gives general information about the county. It describes climate, history and development, and relief and drainage.

### Climate

By the Natural Resources Conservation Service, National Water and Climate Center, Portland, Oregon.

The climate tables were created from data recorded at West Plains, Missouri. Thunderstorm days, relative humidity, percent sunshine, and wind information were estimated from data recorded at the First Order station at Springfield, Missouri.

Table 1 gives data on temperature and precipitation for the survey area as recorded at West Plains 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 the length of the growing season.

In winter, the average temperature is 38.2 degrees F and the average daily minimum temperature is 23.3 degrees. The lowest temperature on record, which occurred at West Plains on February 2, 1951, was -21 degrees. In summer, the average temperature is 75.4 degrees and the average daily maximum temperature is 87.5 degrees. The highest temperature, which occurred at West Plains on July 12, 1980, was 107 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 average annual total precipitation is about 45.05 inches. Of this, about 27.0 inches, or 60 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 5.35 inches at West Plains on April 3, 1957. Thunderstorms occur on about 52 days each year, and most occur in May through August.

The average seasonal snowfall is 13 inches. The greatest snow depth at any one time during the period of record was 16 inches recorded on February 8, 1980. On an average, 13 days per year have at least 1 inch of snow on the ground. The heaviest 1-day snowfall on record was 15 inches recorded on March 9, 1984.

The average relative humidity in midafternoon is about 60 percent. Humidity is higher at night, and the average at dawn is about 83 percent. The sun shines 66 percent of the time possible in summer and 50 percent in winter. The prevailing wind is from the south for most of the year, but it is from the northwest in February and March. Average windspeed is highest, 11 to 12 miles per hour, in November through April.

### History and Development

Prepared by Robert D. Rouse, soil scientist, Missouri Department of Natural Resources.

Howell County was part of Ripley County when the earliest settlers began to move into the area. In the summer of 1829, a hunter became the first settler in Howell County. He settled by a spring that is now within the city limits of West Plains. Later he sold his property to a member of the Howell family who moved into the area from Smith County, Tennessee, in the fall of 1839. The county bears the name of these permanent settlers.

In 1848 the government sent surveyors into the area to lay section lines. After reading the reports from the surveyors, many people began to move into the area. Most of the early settlers had strong religious beliefs, and they built buildings that could be used as churches, schools, and government offices and for community get-togethers.

In December 1848, Josephus Howell was appointed postmaster of the first post office established in the area, which by then was known as Howell County. The area supported very little timber. It was mostly covered with bluestem prairie grass, so Circuit Judge John Woodside named the post office "West Plains" in honor of the plains west of Thomasville (Schroeder, 1982).

The population of the area continued to increase, so Howell County was organized on March 2, 1857. The first Circuit Court was held the next month at one of the local schools. By 1860 the county had 3,169 residents, 150 of which lived in the town of West Plains.

The Civil War of 1861 had a devastating effect on the population of Howell County. Once Governor Jackson issued a proclamation calling Missouri to arms, State Representative John Woodside began recruiting men for the Confederacy. The county organized three companies of Confederate soldiers. By 1863 all but 200 residents had left the county. In 1864 West Plains was burned to the ground by renegades. Rebuilding did not begin until 1866.

The census of 1870 showed 4,218 residents in Howell County. That same year B.F. Olden and Sam

Risley started "The South Missouri Journal," which was the first permanent newspaper in the county. Later the name was changed to "The West Plains Journal." The railroad came to the county in 1883, with a depot in West Plains. The availability of goods brought by rail was partially responsible for the growth of the county. By 1890 the county had a population of 18,618. The railroad was used to transport products from the county to other parts of the country. Many sawmills were constructed in the northwest part of the county to produce lumber, and many boxcar loads of fruit were shipped.

Today timber still remains a major industry in Howell County. The hopes of the county becoming a major fruit-producing region, however, have long since faded as have the plans to mine zinc, lead, silver, and iron ore. Beef cattle production and related enterprises are the dominant agricultural enterprises in the county.

## Relief and Drainage

Howell County has a wide variety of landscapes. The county is on the Salem Plateau, which is part of the Springfield-Salem Plateaus section of the Ozark Plateaus province. Elevation ranges from 1,560 feet about 4 miles north of Willow Springs, in the northwestern part of the county, to 600 feet where Myatt Creek flows into Fulton County, Arkansas, in the southeast corner of the county.

A major divide, which is north of State Highway 60, extends across the northern portion of the county. This divide branches to the southeast through Burnham and Pomona and west of West Plains. It has many broad lateral ridges that extend from the main divide and run east, west, and south across the county. The highest portion of this divide consists of narrow undulating ridges with many high convex hills. These areas are underlain by Pennsylvanian residual clay. King Mountain, east of Willow Springs, is an example. As the lateral ridges extend farther from the main divide, they are lower in elevation and become broader and flatter. These broad gently sloping and sloping ridges are underlain by Jefferson City residual clay.

Howell County has been deeply dissected by several major rivers and their tributaries. The northern edge of the county drains into tributaries of the Jacks Fork River. The tributaries are flanked by very steep hillsides with narrow gravelly flood plains. The western part of the county drains into tributaries of the White River. These tributaries are flanked by sloping hillsides in the upper part of the watershed to very steep hillsides farther downstream. The eastern part of the county drains into the Eleven Point River and its tributaries. Sloping hillsides, gently sloping basins, and

broad stream terraces flank the upper part of the watershed. The lower part of the watershed is flanked by very steep hillsides. The Spring River and its tributaries drain the southern part of the county. Sloping hillsides, gently sloping basins, and broad stream terraces flank the upper part of the watershed. Many of these basins and stream terraces are poorly drained. The lower part of the watershed is flanked by very steep hillsides. All of the watersheds in the county eventually flow south into the White, Eleven Point, and Current Rivers in Arkansas.

## 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.

The descriptions, names, and delineations of the soils in this survey area do not fully agree with those of the soils in adjacent survey areas. Differences are the result of a better knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey area.

# General Soil Map Units

The general soil map in this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit 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 map unit 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 map unit differ from place to place in slope, depth, drainage, and other characteristics that affect management.

## 1. Secesh-Taterhill-Tilk association

*Extent of survey area:* 15 percent

*Composition (fig. 2):*

Secesh and similar soils—35 percent

Taterhill and similar soils—25 percent

Tilk and similar soils—20 percent

Minor components—20 percent

*Minor components:* Batcave, Deible, Farewell,

Lostpond, Pomme, Racket, Razort, Relfe,

Sandbur, Tanglenook, Winnipeg, and Zaroni soils

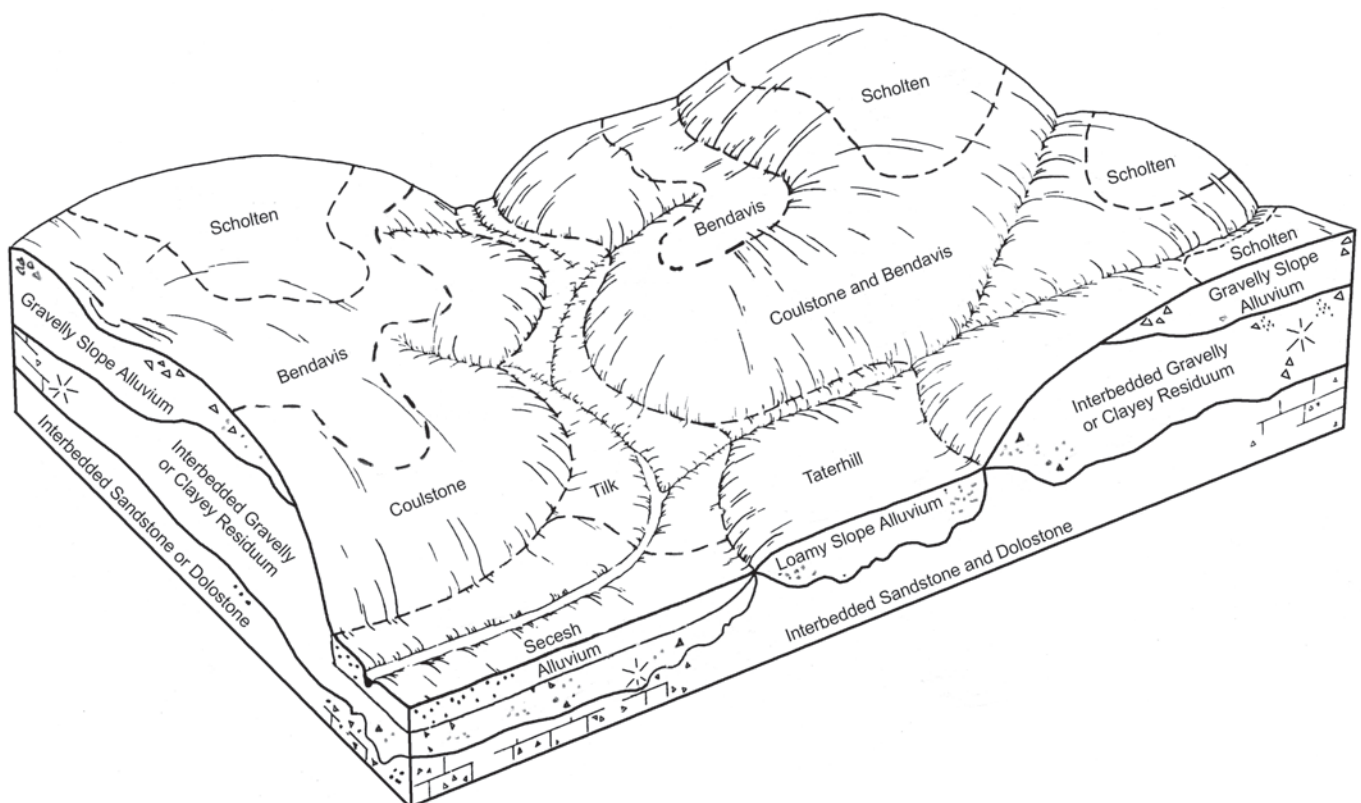


Figure 2.—Typical pattern of soils and parent material in the Secesh-Taterhill-Tilk and Coulstone-Bendavis-Scholten associations.

*Landscape position:*

Secesh—flood plains  
 Taterhill—footslopes  
 Tilk—flood plains

*Parent material:*

Secesh—loamy stream alluvium  
 Taterhill—loamy slope alluvium  
 Tilk—gravelly alluvium

*Slope gradient:*

Secesh—0 to 3 percent  
 Taterhill—3 to 8 percent  
 Tilk—0 to 3 percent

## 2. Coulstone-Bendavis-Scholten association

*Extent of survey area:* 9 percent

*Composition (fig. 2):*

Coulstone and similar soils—35 percent  
 Bendavis and similar soils—28 percent  
 Scholten and similar soils—15 percent  
 Minor components—22 percent

*Minor components:* Alred, Bender, Clarksville, Gatewood, Hogcreek, Poynor, and Tonti soils

*Landscape position:* Shoulder slopes and backslopes*Parent material:*

Coulstone—gravelly slope alluvium over residuum derived from sandstone  
 Bendavis—gravelly slope alluvium  
 Scholten—gravelly slope alluvium over gravelly or clayey residuum derived from dolostone

*Slope gradient:* 8 to 60 percent

## 3. Poynor-Scholten association

*Extent of survey area:* 28 percent

*Composition (fig. 3):*

Poynor and similar soils—45 percent  
 Scholten and similar soils—33 percent  
 Minor components—22 percent

*Minor components:* Alred, Bendavis, Fanchon, Macedonia, Taterhill, and Tonti soils

*Landscape position:* Ridgetops, shoulder slopes, backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope gradient:* 1 to 35 percent

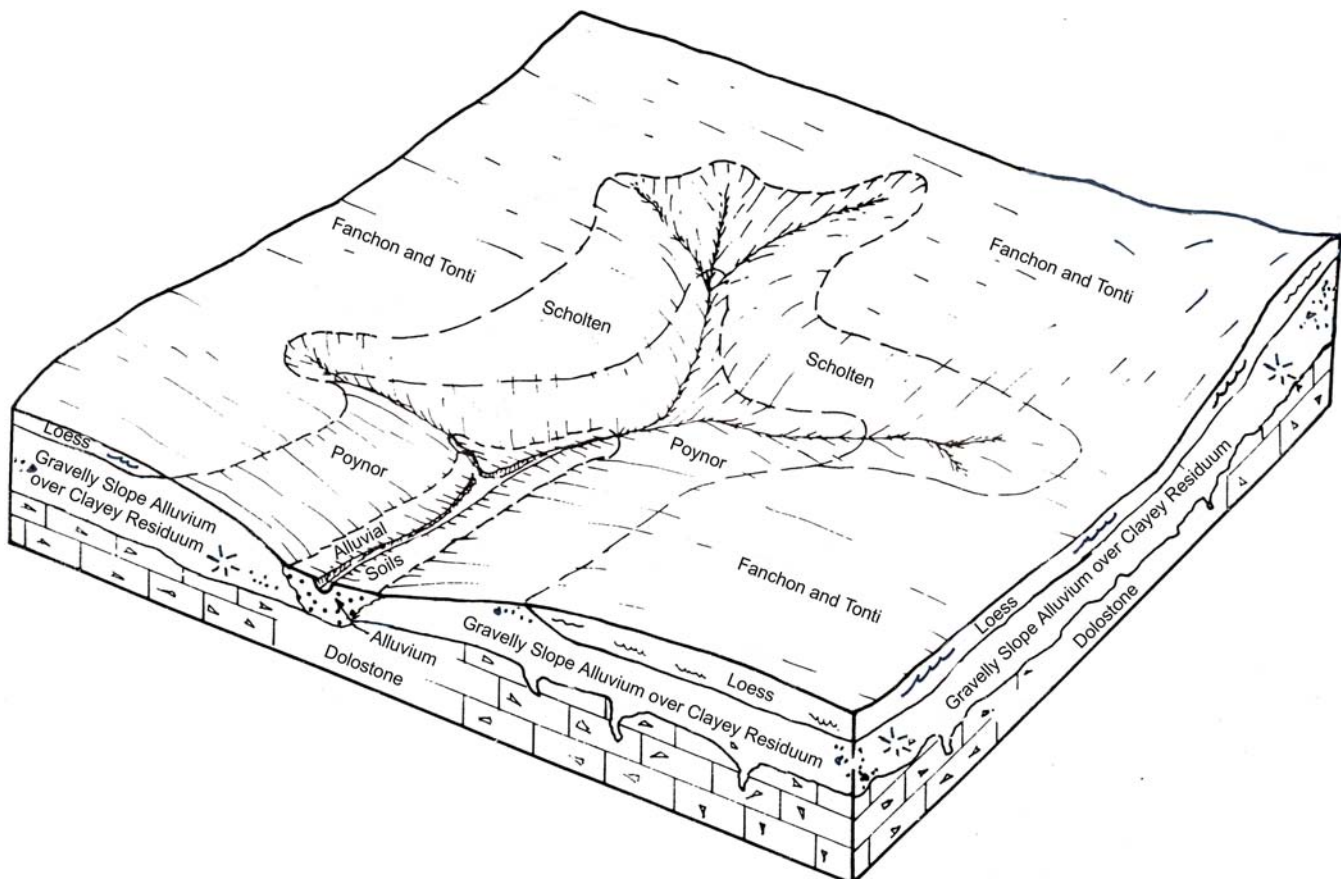


Figure 3.—Typical pattern of soils and parent material in the Poynor-Scholten and Fanchon-Tonti associations.



**4. Fanchon-Tonti association**

*Extent of survey area:* 15 percent

*Composition (fig. 3):*

- Fanchon and similar soils—60 percent
- Tonti and similar soils—23 percent
- Minor components—17 percent

*Minor components:* Branson, Gressy, Poynor, Scholten, Splitlimb, Taterhill, and Viraton soils

*Landscape position:* Ridgetops and shoulder slopes

*Parent material:* Loess over gravelly slope alluvium over clayey residuum derived from dolostone

*Slope gradient:* 1 to 8 percent

*Composition (fig. 4):*

- Alred and similar soils—60 percent
- Macedonia and similar soils—15 percent
- Minor components—25 percent

*Minor components:* Cedargap, Fanchon, Gressy, Mano, Ocie, Poynor, Tonti, and Viraton soils

*Landscape position:* Ridgetops, shoulder slopes, and backslopes

*Parent material:*

Alred—gravelly slope alluvium over clayey residuum derived from dolostone

Macedonia—loess over clayey residuum derived from dolostone

*Slope gradient:*

- Alred—1 to 35 percent
- Macedonia—3 to 8 percent

**5. Alred-Macedonia association**

*Extent of survey area:* 10 percent

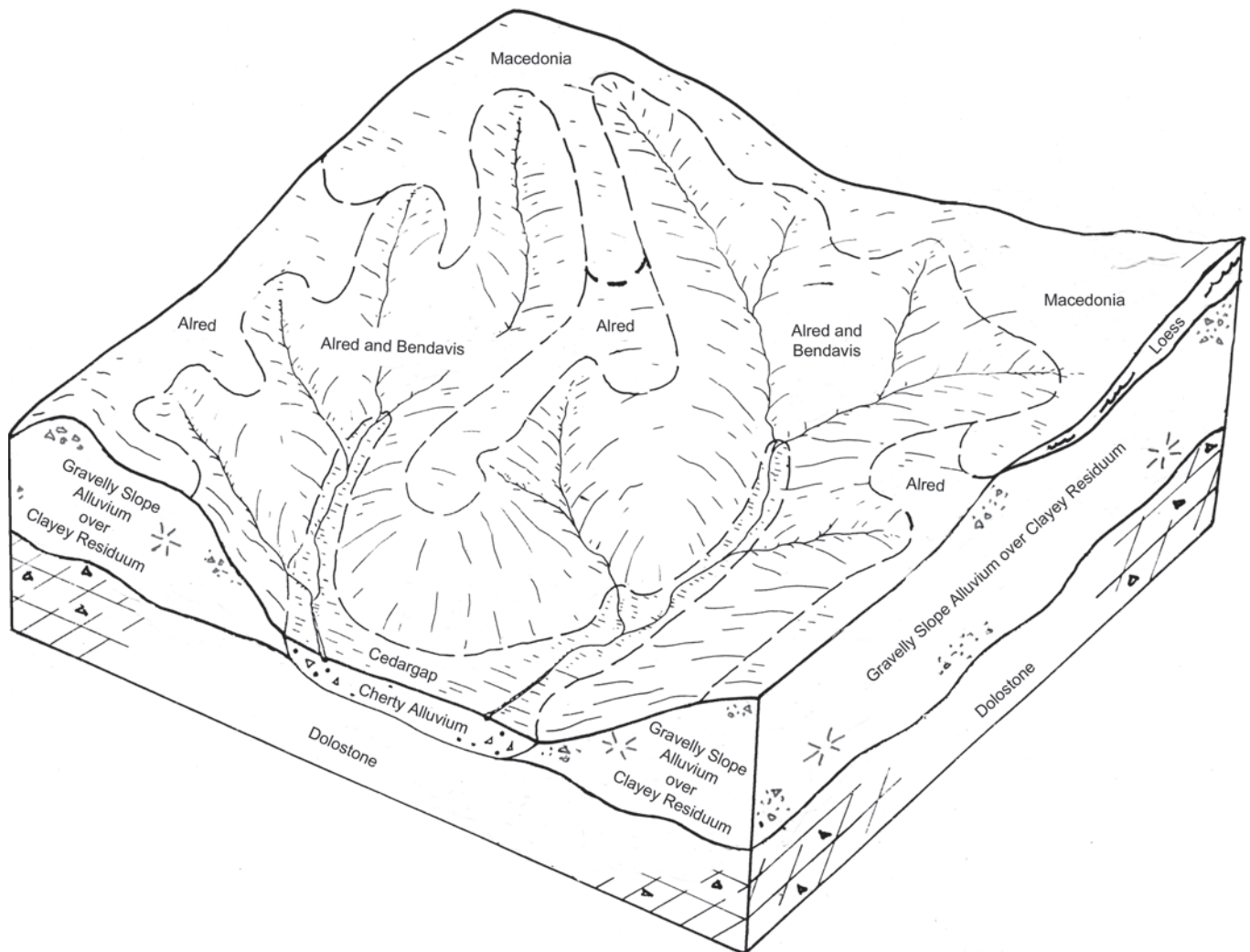


Figure 4.—Typical pattern of soils and parent material in the Alred-Macedonia and Alred-Bendavis associations.

## 6. Mano-Ocie association

*Extent of survey area:* 1 percent

*Composition (fig. 5):*

Mano and similar soils—40 percent

Ocie and similar soils—30 percent

Minor components—30 percent

*Minor components:* Alred, Gatewood, Gressy, Mano, Moko, Poynor, Scholten, and Viraton soils

*Landscape position:* Ridgetops, shoulder slopes, and backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope gradient:* 1 to 35 percent

## 7. Tick-Egyptgrove-Kenaga association

*Extent of survey area:* 6 percent

*Composition (fig. 5):*

Tick and similar soils—45 percent

Egyptgrove and similar soils—20 percent

Kenaga and similar soils—15 percent

Minor components—20 percent

*Minor components:* Alred, Clarksville, Mano, Ocie, Poynor, and Scholten soils

*Landscape position:*

Tick—narrow ridgetops, shoulder slopes, and backslopes

Egyptgrove and Kenaga—narrow ridgetops and shoulder slopes

*Parent material:*

Tick—residuum derived from dense, clayey lacustrine sediment

Egyptgrove and Kenaga—silty slope alluvium and residuum derived from mudstone

*Slope gradient:*

Tick—3 to 50 percent

Egyptgrove and Kenaga—1 to 15 percent

## 8. Alred-Bendavis association

*Extent of survey area:* 16 percent

*Composition (fig. 4):*

Alred and similar soils—50 percent

Bendavis and similar soils—22 percent

Minor components—28 percent

*Minor components:* Bender, Coulstone, Gatewood, Ocie, and Scholten soils

*Landscape position:* Shoulder slopes and backslopes

*Parent material:* Gravelly slope alluvium and clayey residuum derived from dolostone

*Slope gradient:* 8 to 35 percent

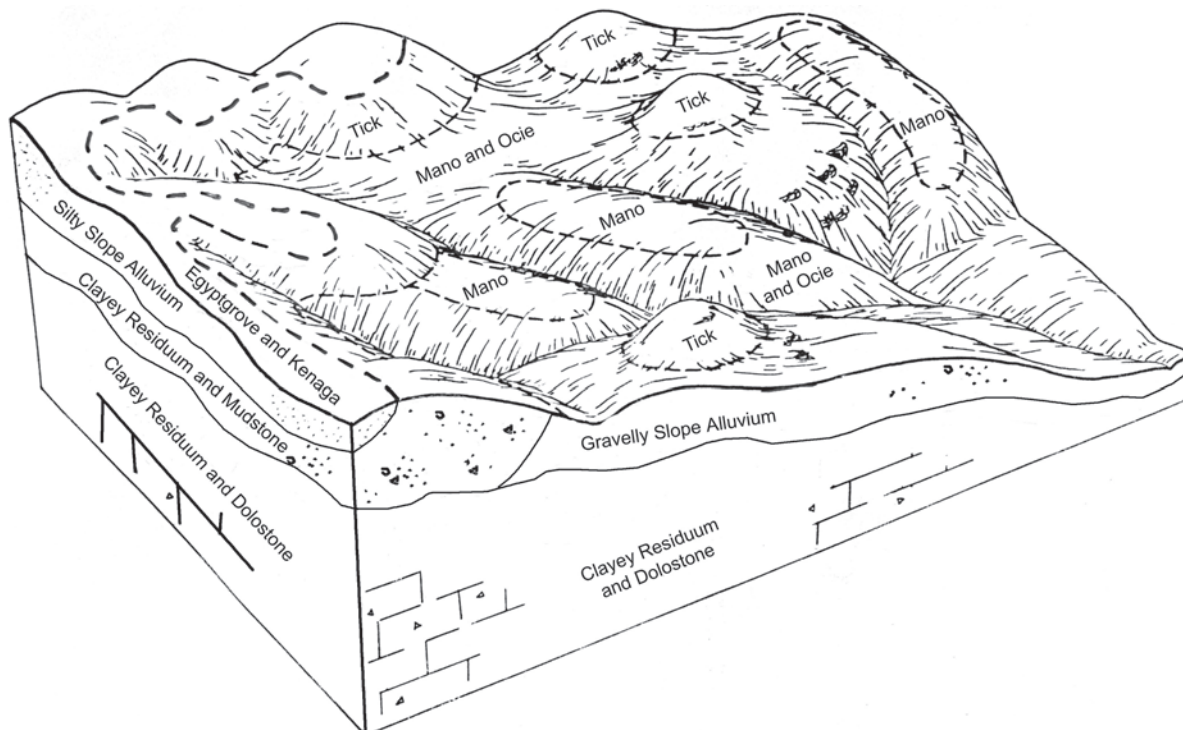


Figure 5.—Typical pattern of soils and parent material in the Mano-Ocie and Tick-Egyptgrove-Kenaga associations.

## Detailed Soil Map Units

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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, Tonti silt loam, 3 to 8 percent slopes, is a phase of the Tonti series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are 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. Branson-Splitlimb complex, 1 to 3 percent slopes, is an example.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Table 4 gives the acreage and proportionate extent

of each map unit. 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 or miscellaneous areas.

### 70022—Tonti silt loam, 3 to 8 percent slopes

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Tonti

*Percentage of map unit:* 85 percent

*Position on landform:* Summits

*Parent material:* Loess over gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* High

*Restrictive feature:* Fragipan at a depth of 16 to 28 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 14 to 26 inches

*Drainage class:* Moderately well drained

#### Typical Profile

Ap—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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Taterhill and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Aslinger and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 70025—Branson-Splitlimb complex, 1 to 3 percent slopes

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Branson

*Percentage of map unit:* 50 percent

*Position on landform:* Basins

*Parent material:* Loess over silty slope alluvium

*Slope shape:* Concave

#### Properties and Qualities

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

*Runoff:* Low

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 8 inches; silt loam

Bt1—8 to 26 inches; silt loam

2Bt2—26 to 40 inches; silty clay loam

2Bt3—40 to 80 inches; silty clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

##### Splitlimb

*Percentage of map unit:* 35 percent

*Position on landform:* Basins

*Parent material:* Loess over silty slope alluvium

*Slope shape:* Concave

#### Properties and Qualities

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

*Runoff:* Low

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 12 to 30 inches

*Drainage class:* Somewhat poorly drained

#### 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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Fanchon and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Tonti and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Viburnum and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Grandgulf and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Soils that have a very gravelly subsoil

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 70026—Tonti silt loam, 1 to 3 percent slopes

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Tonti

*Percentage of map unit:* 85 percent

*Position on landform:* Summits

*Parent material:* Loess over gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Medium

*Restrictive feature:* Fragipan at a depth of 15 to 25 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 14 to 23 inches

*Drainage class:* Moderately well drained

#### Typical Profile

Ap—0 to 8 inches; silt loam

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Scholten and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Fanchon and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Viburnum and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 71250—Britwater silt loam, 1 to 3 percent slopes, rarely flooded

#### Map Unit Setting

*Landform:* Stream terraces

#### Component Description

##### Britwater

*Percentage of map unit:* 85 percent

*Parent material:* Loamy alluvium

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Low

#### Hydrologic Properties

*Flooding:* Rare

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 6 inches; silt loam

Bt1—6 to 22 inches; silty clay loam

2Bt2—22 to 80 inches; very gravelly clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Secesh and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Lostpond and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Bearthicket and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Soils that have a substratum that is 5 to 45 percent cobbles

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

#### 73000—Pomme silt loam, 3 to 8 percent slopes

##### Map Unit Setting

*Landform:* Hills

##### Component Description

#### Pomme

*Percentage of map unit:* 85 percent

*Position on landform:* Footslopes

*Parent material:* Loess over loamy slope alluvium

*Slope shape:* Convex

##### Properties and Qualities

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

*Runoff:* Low

##### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

##### Typical Profile

Ap—0 to 7 inches; silt loam

Bt1—7 to 19 inches; silty clay loam

2Bt2—19 to 57 inches; very gravelly silty clay loam

3Bt3—57 to 80 inches; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

### Minor Components

#### Alred and similar soils

*Percentage of map unit:* 0 to 5 percent

### Winnipeg and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Viraton and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Eroded areas

*Percentage of map unit:* 0 to 5 percent

#### Wasola and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

#### 73013—Lowassie silt loam, 0 to 3 percent slopes, frequently ponded

##### Map Unit Setting

*Landform:* Hills

##### Component Description

#### Lowassie

*Percentage of map unit:* 90 percent

*Position on landform:* Sinkholes

*Parent material:* Loess and silty and clayey slope alluvium

*Slope shape:* Concave

##### Properties and Qualities

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

*Runoff:* Negligible

##### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* Ponded

*Drainage class:* Poorly drained

##### Typical Profile

Ap—0 to 10 inches; silt loam

BE—10 to 18 inches; silt loam

Btg1—18 to 36 inches; silty clay

2Btg2—36 to 80 inches; silt loam

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

### Minor Components

#### Splitlimb and similar soils

*Percentage of map unit:* 0 to 10 percent

**Plato and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73017—Bendavis-Poynor complex, 15 to 50 percent slopes, rocky, very stony****Map Unit Setting**

*Landform:* Hills

**Component Description****Bendavis**

*Percentage of map unit:* 70 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0.1 to 3.0 percent (subangular stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 18 to 36 inches

*Drainage class:* Moderately well drained

**Typical Profile**

A—0 to 3 inches; very gravelly silt loam

E—3 to 14 inches; very gravelly silt loam

Bt—14 to 34 inches; very gravelly silt loam

2R—34 to 80 inches; bedrock

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Poynor**

*Percentage of map unit:* 20 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* High

*Percent of surface covered by rock fragments:* 0 to 3 percent (subangular stones)

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

A—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; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Rock outcrop**

*Percentage of map unit:* 0 to 10 percent

**Clarksville and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Scholten and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Areas covered with stones and boulders**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73023—Mano-Ocie complex, 1 to 8 percent slopes****Map Unit Setting**

*Landform:* Hills

**Component Description****Mano**

*Percentage of map unit:* 65 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* High

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

#### Typical Profile

A—0 to 3 inches; gravelly silt loam

E—3 to 13 inches; very gravelly silt loam

Bt—13 to 33 inches; very gravelly silt loam

2Bt—33 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Ocie

*Percentage of map unit:* 25 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

*Depth to bedrock:* Deep (40 to 60 inches)

*Runoff:* High

*Restrictive features:* Strongly contrasting textural stratification at a depth of 15 to 39 inches; bedrock (lithic) at a depth of 40 to 60 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

#### Typical Profile

A—0 to 5 inches; very gravelly silt loam

E—5 to 11 inches; very gravelly silt loam

Bt—11 to 24 inches; very gravelly silty clay loam

2Bt—24 to 56 inches; clay

3R—56 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Gatewood and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Bendavis and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Gressy and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Jerktail and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Alred and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 73024—Mano-Ocie complex, 8 to 15 percent slopes, stony

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Mano

*Percentage of map unit:* 55 percent

*Position on landform:* Shoulders

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* High

*Percent of surface covered by rock fragments:* 0 to 3 percent (subangular stones)

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

#### Typical Profile

A—0 to 3 inches; very gravelly silt loam

E—3 to 13 inches; very gravelly silt loam

Bt1—13 to 33 inches; very gravelly silt loam

2Bt2—33 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Ocie

*Percentage of map unit:* 35 percent

*Position on landform:* Shoulders

*Parent material:* Gravelly slope alluvium over



clayey residuum derived from dolostone  
*Slope shape:* Convex

#### Properties and Qualities

*Depth to bedrock:* Deep (40 to 60 inches)  
*Runoff:* High  
*Percent of surface covered by rock fragments:* 0 to 3 percent (subangular stones)  
*Restrictive features:* Strongly contrasting textural stratification at a depth of 15 to 39 inches; bedrock (lithic) at a depth of 40 to 60 inches

#### Hydrologic Properties

*Flooding:* None  
*Current depth to water table:* 24 to 36 inches  
*Drainage class:* Moderately well drained

#### Typical Profile

A—0 to 5 inches; very gravelly silt loam  
 E—5 to 11 inches; very gravelly silt loam  
 Bt1—11 to 24 inches; very gravelly silt loam  
 2Bt2—24 to 56 inches; gravelly clay  
 3R—56 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

**Very deep soils that have less gravel in the upper part**

*Percentage of map unit:* 0 to 5 percent

**Bendavis and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Gatewood and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Gressy and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Alred and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73051—Winnipeg silt loam, 2 to 5 percent slopes**

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Winnipeg

*Percentage of map unit:* 85 percent  
*Position on landform:* Footslopes  
*Parent material:* Loess over silty slope alluvium  
*Slope shape:* Convex

#### Properties and Qualities

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

#### Hydrologic Properties

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 6 inches; silt loam  
 Bt1—6 to 16 inches; silt loam  
 2Bt2—16 to 44 inches; silty clay loam  
 3Bt3—44 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

**Pomme and similar soils**

*Percentage of map unit:* 0 to 15 percent

**Splitlimb and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Poynor and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Viraton and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73054—Viburnum silt loam, 1 to 3 percent slopes**

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Viburnum

*Percentage of map unit:* 90 percent  
*Position on landform:* Summits

*Parent material:* Silty slope alluvium over clayey residuum

*Slope shape:* Linear

### Properties and Qualities

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

*Runoff:* Very high

### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 18 to 22 inches

*Drainage class:* Moderately well drained

### Typical Profile

Ap—0 to 7 inches; silt loam

Bt1—7 to 20 inches; silty clay loam

2Bt2—20 to 38 inches; silty clay

3Bt3—38 to 80 inches; gravelly clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Lowassie and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Tonti and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Fanchon and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

## 73063—Bendavis-Poynor complex, 1 to 8 percent slopes

### Map Unit Setting

*Landform:* Hills

### Component Description

#### Bendavis

*Percentage of map unit:* 60 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 0.1 percent (subangular stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 39 inches

### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

### Typical Profile

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 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Poynor

*Percentage of map unit:* 30 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* Medium

*Percent of surface covered by rock fragments:* 0 to 0.1 percent (subangular stones)

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

### Typical Profile

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; gravelly clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Hogcreek and similar soils

*Percentage of map unit:* 0 to 10 percent

**Scholten and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Fanchon and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73068—Tick very gravelly silt loam, 3 to 15 percent slopes, stony****Map Unit Setting**

*Landform:* Hills

**Component Description****Tick**

*Percentage of map unit:* 80 percent

*Position on landform:* Summits and backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from mudstone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* High

*Percent of surface covered by rock fragments:* 0 to 10 percent (stones)

*Restrictive feature:* Dense material at a depth of 40 to 60 inches

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

Oe—0 to 1 inch; moderately decomposed plant material

A—1 to 5 inches; very gravelly silt loam

E—5 to 10 inches; very gravelly silt loam

Bt1—10 to 18 inches; silty clay loam

Bt2—18 to 42 inches; clay

2Cd—42 to 80 inches; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Egyptgrove and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Poynor and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Kenaga and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Scholten and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Mano and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73069—Tick extremely gravelly silt loam, 15 to 50 percent slopes, very stony****Map Unit Setting**

*Landform:* Hills

**Component Description****Tick**

*Percentage of map unit:* 80 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from mudstone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 3 percent (stones)

*Restrictive feature:* Dense material at a depth of 40 to 60 inches

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

Oe—0 to 1 inch; moderately decomposed plant material

A—1 to 6 inches; extremely gravelly silt loam

E—6 to 11 inches; very gravelly silt loam

Bt1—11 to 19 inches; silty clay loam

Bt2—19 to 43 inches; clay

2Cd—43 to 80 inches; clay

Component horizon data are available in the

“Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Poynor and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Egyptgrove and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Kenaga and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Ocie and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Tilk and similar soils

*Percentage of map unit:* 0 to 2 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

## 73073—Scholten-Poynor complex, 8 to 15 percent slopes

### Map Unit Setting

*Landform:* Hills

### Component Description

#### Scholten

*Percentage of map unit:* 50 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Linear

### Properties and Qualities

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 0.6 percent (subangular cobbles)

*Restrictive feature:* Fragipan at a depth of 14 to 31 inches

### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 12 to 29 inches

*Drainage class:* Moderately well drained

### Typical Profile

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Poynor

*Percentage of map unit:* 35 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* Medium

*Percent of surface covered by rock fragments:* 0 to 0.6 percent (subangular cobbles)

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

### Typical Profile

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Tonti and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Clarksville and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Macedonia and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Fanchon and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Bendavis and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

### **73076—Mano-Ocie complex, 15 to 35 percent slopes, stony**

#### **Map Unit Setting**

*Landform:* Hills

#### **Component Description**

##### **Mano**

*Percentage of map unit:* 55 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### **Properties and Qualities**

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 1 percent (stones)

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### **Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

#### **Typical Profile**

A—0 to 3 inches; very gravelly silt loam

E—3 to 13 inches; very gravelly silt loam

Bt1—13 to 33 inches; very gravelly silt loam

2Bt2—33 to 80 inches; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

##### **Ocie**

*Percentage of map unit:* 35 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### **Properties and Qualities**

*Depth to bedrock:* Deep (40 to 60 inches)

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 1 percent (stones)

*Restrictive features:* Strongly contrasting textural stratification at a depth of 15 to 39 inches; bedrock (lithic) at a depth of 40 to 60 inches

#### **Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

#### **Typical Profile**

A—0 to 5 inches; very gravelly silt loam

E—5 to 11 inches; very gravelly silt loam

Bt1—11 to 24 inches; very gravelly silt loam

2Bt2—24 to 56 inches; gravelly clay

3R—56 to 80 inches; bedrock

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

#### **Minor Components**

##### **Gatewood and similar soils**

*Percentage of map unit:* 0 to 10 percent

##### **Bendavis and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Gressy and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Areas that have a bouldery surface layer**

*Percentage of map unit:* 0 to 5 percent

##### **Alred and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

### **73077—Eudy silt loam, 1 to 8 percent slopes**

#### **Map Unit Setting**

*Landform:* Hills

#### **Component Description**

##### **Eudy**

*Percentage of map unit:* 85 percent

*Position on landform:* Summits

*Parent material:* Silty slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

*Depth to bedrock:* Moderately deep (20 to 40 inches)  
*Runoff:* Very high  
*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

**Hydrologic Properties**

*Flooding:* None  
*Current depth to water table:* 11 to 20 inches  
*Drainage class:* Somewhat poorly drained

**Typical Profile**

Ap—0 to 6 inches; silt loam  
 Bt1—6 to 14 inches; silt loam  
 2Bt2—14 to 36 inches; clay  
 3R—36 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Gatewood and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Viraton and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Gressy and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Wasola and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Jerktail and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73080—Alred-Bardley-Rock outcrop complex, 15 to 60 percent slopes, very stony**

**Map Unit Setting**

*Landform:* Hills

**Component Description****Alred**

*Percentage of map unit:* 35 percent  
*Position on landform:* Backslopes  
*Parent material:* Gravelly slope alluvium over

clayey residuum derived from dolostone  
*Slope shape:* Convex

**Properties and Qualities**

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* Very high  
*Percent of surface covered by rock fragments:* 0.1 to 3.0 percent (subangular stones)  
*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

**Hydrologic Properties**

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

**Typical Profile**

A—0 to 4 inches; extremely cobbly loam  
 E—4 to 17 inches; extremely gravelly silt loam  
 Bt1—17 to 27 inches; extremely cobbly silty clay loam  
 2Bt2—27 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Bardley**

*Percentage of map unit:* 35 percent  
*Position on landform:* Backslopes  
*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone  
*Slope shape:* Convex

**Properties and Qualities**

*Depth to bedrock:* Moderately deep (20 to 40 inches)  
*Runoff:* Very high  
*Percent of surface covered by rock fragments:* 0.1 to 3.0 percent (subangular stones)  
*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

**Hydrologic Properties**

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

**Typical Profile**

A—0 to 4 inches; extremely cobbly loam  
 E—4 to 8 inches; extremely gravelly silt loam  
 2Bt—8 to 27 inches; clay  
 3R—27 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Rock outcrop***Percentage of map unit:* 15 percent*Position on landform:* Backslopes**Minor Components****Ocie and similar soils***Percentage of map unit:* 0 to 15 percent**Moko and similar soils***Percentage of map unit:* 0 to 10 percent**Clarksville and similar soils***Percentage of map unit:* 0 to 20 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73176—Bendavis-Poynor complex, 8 to 15 percent slopes, stony****Map Unit Setting***Landform:* Hills**Component Description****Bendavis***Percentage of map unit:* 50 percent*Position on landform:* Backslopes*Parent material:* Gravelly slope alluvium*Slope shape:* Convex**Properties and Qualities***Depth to bedrock:* Moderately deep (20 to 40 inches)*Runoff:* Very high*Percent of surface covered by rock fragments:* 0.01 to 0.10 percent (subrounded stones)*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches**Hydrologic Properties***Flooding:* None*Current depth to water table:* 18 to 36 inches*Drainage class:* Moderately well drained**Typical Profile**

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 to 80 inches; bedrock

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Poynor***Percentage of map unit:* 35 percent*Position on landform:* Backslopes*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone*Slope shape:* Convex**Properties and Qualities***Depth to bedrock:* Very deep (more than 60 inches)*Runoff:* Medium*Percent of surface covered by rock fragments:* 0.01 to 0.10 percent (subrounded stones)*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches**Hydrologic Properties***Flooding:* None*Water table:* None*Drainage class:* Well drained**Typical Profile**

A—0 to 5 inches; very gravelly silt loam

E—5 to 11 inches; very gravelly silt loam

Bt1—11 to 17 inches; very gravelly silt loam

2Bt2—17 to 80 inches; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Scholten and similar soils***Percentage of map unit:* 0 to 10 percent**Hogcreek and similar soils***Percentage of map unit:* 0 to 5 percent**Tonti and similar soils***Percentage of map unit:* 0 to 10 percent**Fanchon and similar soils***Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73197—Viburnum silt loam, 3 to 8 percent slopes****Map Unit Setting***Landform:* Hills

### Component Description

#### Viburnum

*Percentage of map unit:* 85 percent

*Position on landform:* Summits

*Parent material:* Loess and slope alluvium over clayey residuum

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Very high

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 15 to 20 inches

*Drainage class:* Moderately well drained

#### 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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Tonti and similar soils

*Percentage of map unit:* 0 to 15 percent

##### Fanchon and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Splitlimb and similar soils

*Percentage of map unit:* 0 to 2 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 73198—Gressy-Viraton complex, 3 to 8 percent slopes

#### Map Unit Setting

*Landform:* Hills

### Component Description

#### Gressy

*Percentage of map unit:* 50 percent

*Position on landform:* Summits

*Parent material:* Silty and gravelly slope alluvium

over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Low

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 7 inches; silt loam

Bt1—7 to 31 inches; silt loam

2Bt2—31 to 49 inches; gravelly clay loam

3Bt3—49 to 80 inches; gravelly clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Viraton

*Percentage of map unit:* 40 percent

*Position on landform:* Summits

*Parent material:* Silty and gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* High

*Restrictive feature:* Fragipan at a depth of 16 to 41 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 14 to 39 inches

*Drainage class:* Moderately well drained

#### Typical Profile

Ap—0 to 3 inches; silt loam

E—3 to 7 inches; silt loam

Bt—7 to 23 inches; gravelly silty clay loam

2Btx—23 to 48 inches; extremely gravelly silt loam

3Bt—48 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Hogcreek and similar soils

*Percentage of map unit:* 0 to 5 percent



**Wasola and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Splitlimb and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Macedonia and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73199—Moko-Rock outcrop complex, 3 to 15 percent slopes, very flaggy****Map Unit Setting**

*Landform:* Hills

**Component Description****Moko**

*Percentage of map unit:* 70 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

*Depth to bedrock:* Very shallow and shallow (4 to 20 inches)

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 3 percent (subangular stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 4 to 20 inches

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Somewhat excessively drained

**Typical Profile**

A1—0 to 7 inches; very flaggy loam

A2—7 to 12 inches; extremely flaggy silt loam

2R—12 to 80 inches; bedrock

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Rock outcrop**

*Percentage of map unit:* 20 percent

*Position on landform:* Backslopes

**Minor Components****Gatewood and similar soils**

*Percentage of map unit:* 0 to 25 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73221—Poynor very gravelly silt loam, karst, 3 to 35 percent slopes, stony****Map Unit Setting**

*Landform:* Sinkholes (fig. 6)

**Component Description****Poynor**

*Percentage of map unit:* 85 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Medium

*Percent of surface covered by rock fragments:* 0 to 3 percent (subangular stones)

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

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; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Bendavis and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Clarksville and similar soils**

*Percentage of map unit:* 0 to 5 percent



Figure 6.—Sinkholes are common in Howell County. This sinkhole in an area of Poynor very gravelly silt loam, karst, 3 to 35 percent slopes, stony, is used as a trap at a golf course in West Plains.

#### Lowassie and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Grandgulf and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Splitlimb and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Scholten and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

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

##### Map Unit Setting

*Landform:* Sinkholes

#### Component Description

##### Splitlimb

*Percentage of map unit:* 85 percent

*Position on landform:* Summits

*Parent material:* Silty loess over silty slope alluvium

*Slope shape:* Concave

##### Properties and Qualities

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

*Runoff:* Negligible

##### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* At surface to a depth of 21 inches

*Drainage class:* Somewhat poorly drained

##### 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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Lowassie and similar soils

*Percentage of map unit:* 0 to 20 percent

#### Grandgulf and similar soils

*Percentage of map unit:* 0 to 40 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

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

### Map Unit Setting

*Landform:* Hills

### Component Description

#### Coulstone

*Percentage of map unit:* 55 percent  
*Position on landform:* Backslopes  
*Parent material:* Gravelly slope alluvium over gravelly or clayey residuum derived from sandstone  
*Slope shape:* Convex

### Properties and Qualities

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* Medium  
*Percent of surface covered by rock fragments:* 0 to 3 percent (subrounded stones)

### Hydrologic Properties

*Flooding:* None  
*Water table:* None  
*Drainage class:* Somewhat excessively drained

### Typical Profile

Oe—0 to 1 inch; moderately decomposed plant material  
A—1 to 4 inches; very gravelly fine sandy loam  
AE—4 to 11 inches; gravelly sandy loam  
Bt1—11 to 31 inches; very gravelly loam  
2Bt2—31 to 80 inches; very gravelly clay loam

Component horizon data are available in the

“Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Bender

*Percentage of map unit:* 35 percent  
*Position on landform:* Backslopes  
*Parent material:* Gravelly residuum derived from sandstone  
*Slope shape:* Convex

### Properties and Qualities

*Depth to bedrock:* Moderately deep (20 to 40 inches)  
*Runoff:* Very high  
*Percent of surface covered by rock fragments:* 0 to 3 percent (subangular stones)  
*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

### Hydrologic Properties

*Flooding:* None  
*Water table:* None  
*Drainage class:* Somewhat excessively drained

### Typical Profile

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 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Macedonia and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Bendavis and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Clarksville and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Rock outcrop

*Percentage of map unit:* 0 to 5 percent

#### Vertical bluffs

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73226—Ocie-Gatewood complex,  
3 to 15 percent slopes, stony**

**Map Unit Setting**

*Landform:* Hills

**Component Description**

**Ocie**

*Percentage of map unit:* 50 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

*Depth to bedrock:* Deep (40 to 60 inches)

*Runoff:* High

*Percent of surface covered by rock fragments:* 0 to 1 percent (stones)

*Restrictive features:* Strongly contrasting textural stratification at a depth of 15 to 39 inches; bedrock (lithic) at a depth of 40 to 60 inches

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

**Typical Profile**

A—0 to 5 inches; very gravelly silt loam

E—5 to 11 inches; very gravelly silt loam

Bt1—11 to 24 inches; very gravelly silt loam

2Bt2—24 to 56 inches; gravelly clay

3R—56 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Gatewood**

*Percentage of map unit:* 40 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 1 percent (stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 18 to 36 inches

*Drainage class:* Moderately well drained

**Typical Profile**

A—0 to 2 inches; very gravelly silt loam

E—2 to 5 inches; very gravelly silt loam

2Bt—5 to 36 inches; clay

3R—36 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components**

**Moko and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Mano and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Rock outcrop**

*Percentage of map unit:* 0 to 2 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73227—Ocie-Gatewood complex,  
15 to 35 percent slopes, very  
stony**

**Map Unit Setting**

*Landform:* Hills

**Component Description**

**Ocie**

*Percentage of map unit:* 50 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

*Depth to bedrock:* Deep (40 to 60 inches)

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 3 percent (stones)

*Restrictive features:* Strongly contrasting textural stratification at a depth of 15 to 39 inches; bedrock (lithic) at a depth of 40 to 60 inches

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

**Typical Profile**

A—0 to 5 inches; very gravelly silt loam

E—5 to 11 inches; very gravelly silt loam

Bt1—11 to 24 inches; very gravelly silt loam

2Bt2—24 to 56 inches; gravelly clay

3R—56 to 80 inches; unweathered bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Gatewood**

*Percentage of map unit:* 35 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 3 percent (stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 18 to 36 inches

*Drainage class:* Moderately well drained

**Typical Profile**

A—0 to 2 inches; very gravelly silt loam

E—2 to 5 inches; very gravelly silt loam

2Bt—5 to 36 inches; clay

3R—36 to 80 inches; unweathered bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Steeper areas and bluffs**

*Percentage of map unit:* 0 to 10 percent

**Mano and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Moko and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Rock outcrop**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73230—Coulstone-Bender-Gatewood complex, 15 to 60 percent slopes, rocky, very stony****Map Unit Setting**

*Landform:* Hills

**Component Description****Coulstone**

*Percentage of map unit:* 35 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over gravelly residuum derived from sandstone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Medium

*Percent of surface covered by rock fragments:* 0 to 10 percent (subrounded stones)

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Somewhat excessively drained

**Typical Profile**

Oe—0 to 1 inch; moderately decomposed plant material

A—1 to 6 inches; extremely cobbly sandy loam

Bt1—6 to 29 inches; extremely cobbly sandy loam

2Bt2—29 to 42 inches; extremely stony sandy loam

3Bt3—42 to 80 inches; extremely stony clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Bender**

*Percentage of map unit:* 25 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly residuum derived from sandstone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 10 percent (subangular stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Somewhat excessively drained

#### Typical Profile

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 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Gatewood

*Percentage of map unit:* 20 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0 to 10 percent (subangular stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 18 to 36 inches

*Drainage class:* Moderately well drained

#### Typical Profile

A—0 to 2 inches; extremely gravelly silt loam

E—2 to 5 inches; very gravelly silt loam

2Bt—5 to 36 inches; clay

3R—36 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Alred and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Rock outcrop

*Percentage of map unit:* 0 to 5 percent

##### Bendavis and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Moko and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Poynor and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Clarksville and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Vertical bluffs

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

#### 73231—Wasola silt loam, 1 to 8 percent slopes

##### Map Unit Setting

*Landform:* Hills

##### Component Description

##### Wasola

*Percentage of map unit:* 85 percent

*Position on landform:* Footslopes

*Parent material:* Loamy and gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Concave

##### Properties and Qualities

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

*Runoff:* Very high

##### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 18 to 30 inches

*Drainage class:* Somewhat poorly drained

#### Typical Profile

Ap—0 to 7 inches; silt loam  
 Bt—7 to 22 inches; silty clay loam  
 2Btx—22 to 30 inches; very gravelly silty clay loam  
 3Bt—30 to 80 inches; very gravelly silty clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Britwater and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Clarksville and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Poynor and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Aslinger and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Winnipeg and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Pomme and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Jerktail and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

#### **73235—Alred very gravelly silt loam, karst, 3 to 60 percent slopes, stony**

##### Map Unit Setting

*Landform:* Sinkholes

##### Component Description

###### Alred

*Percentage of map unit:* 85 percent  
*Position on landform:* Backslopes  
*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone  
*Slope shape:* Convex

#### Properties and Qualities

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* Very high  
*Percent of surface covered by rock fragments:* 0 to 1 percent (stones)  
*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### Hydrologic Properties

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

#### Typical Profile

A—0 to 4 inches; extremely cobbly loam  
 E—4 to 17 inches; extremely gravelly silt loam  
 Bt1—17 to 27 inches; extremely cobbly silty clay loam  
 2Bt2—27 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Bendavis and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Ocie and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Rock outcrop

*Percentage of map unit:* 0 to 3 percent

##### Splitlimb and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Macedonia and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

#### **73236—Scholten-Poynor complex, 3 to 8 percent slopes**

##### Map Unit Setting

*Landform:* Hills

##### Component Description

###### Scholten

*Percentage of map unit:* 50 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Linear

#### **Properties and Qualities**

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

*Runoff:* High

*Percent of surface covered by rock fragments:* 0 to 0.6 percent (subangular cobbles)

*Restrictive feature:* Fragipan at a depth of 16 to 31 inches

#### **Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 14 to 29 inches

*Drainage class:* Moderately well drained

#### **Typical Profile**

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### **Poynor**

*Percentage of map unit:* 35 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### **Properties and Qualities**

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

*Runoff:* Medium

*Percent of surface covered by rock fragments:* 0 to 1 percent (subangular cobbles)

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### **Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### **Typical Profile**

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### **Minor Components**

##### **Bendavis and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Tonti and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Macedonia and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Clarksville and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

#### **73240—Jerktail silt loam, 3 to 8 percent slopes**

##### **Map Unit Setting**

*Landform:* Hills

##### **Component Description**

##### **Jerktail**

*Percentage of map unit:* 85 percent

*Position on landform:* Summits

*Parent material:* Silty slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Concave

##### **Properties and Qualities**

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

*Runoff:* Very high

*Restrictive feature:* Bedrock (lithic) at a depth of 60 to 80 inches

##### **Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 18 to 30 inches

*Drainage class:* Somewhat poorly drained

##### **Typical Profile**

Ap—0 to 6 inches; silt loam

Bt1—6 to 14 inches; silt loam

2Bt2—14 to 21 inches; gravelly silty clay loam

3Bt3—21 to 63 inches; gravelly clay

4R—63 to 80 inches; bedrock



Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Gressy and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Mano and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Viraton and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Eudy and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

## 73242—Fanchon-Tonti complex, 3 to 8 percent slopes

### Map Unit Setting

*Landform:* Hills

### Component Description

#### Fanchon

*Percentage of map unit:* 45 percent

*Position on landform:* Summits

*Parent material:* Loess over gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* Medium

### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

### Typical Profile

Ap—0 to 5 inches; silt loam

AB—5 to 10 inches; silt loam

Bt1—10 to 28 inches; silt loam

2Bt2—28 to 47 inches; gravelly clay loam

3Bt3—47 to 80 inches; clay

Component horizon data are available in the

“Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Tonti

*Percentage of map unit:* 40 percent

*Position on landform:* Summits

*Parent material:* Loess over gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* High

*Restrictive feature:* Fragipan at a depth of 16 to 28 inches

### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 14 to 26 inches

*Drainage class:* Moderately well drained

### Typical Profile

Ap—0 to 6 inches; silt loam

Bt—6 to 22 inches; silty clay loam

2Btx—22 to 35 inches; very gravelly silt loam

3Bt—35 to 80 inches; cobbly clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Macedonia and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Aslinger and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Scholten and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Poynor and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

## 73243—Topazmill loam, 3 to 8 percent slopes

### Map Unit Setting

*Landform:* Hills

### Component Description

#### Topazmill

*Percentage of map unit:* 85 percent

*Position on landform:* Footslopes

*Parent material:* Loamy slope alluvium derived from sandstone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Medium

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 9 inches; loam

Bt1—9 to 31 inches; loam

2Bt2—31 to 80 inches; clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Yelton and similar soils

*Percentage of map unit:* 0 to 15 percent

##### Taterhill and similar soils

*Percentage of map unit:* 1 to 15 percent

##### Aslinger and similar soils

*Percentage of map unit:* 1 to 10 percent

##### Eroded areas

*Percentage of map unit:* 0 to 25 percent

##### Poynor and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 73245—Alred very gravelly silt loam, 1 to 8 percent slopes

#### Map Unit Setting

*Landform:* Hills

### Component Description

#### Alred

*Percentage of map unit:* 80 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Medium

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

A—0 to 3 inches; very gravelly silt loam

E—3 to 13 inches; gravelly silt loam

Bt—13 to 33 inches; very gravelly silt loam

2Bt—33 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Macedonia and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Poynor and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Ocie and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Pomme and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Rock outcrop

*Percentage of map unit:* 0 to 5 percent

##### Areas that have a bouldery surface layer

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73246—Alred very gravelly silt loam, 8 to 15 percent slopes****Map Unit Setting***Landform:* Hills**Component Description****Alred***Percentage of map unit:* 85 percent*Position on landform:* Backslopes*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone*Slope shape:* Convex**Properties and Qualities***Depth to bedrock:* Very deep (more than 60 inches)*Runoff:* High*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches**Hydrologic Properties***Flooding:* None*Water table:* None*Drainage class:* Well drained**Typical Profile**

A—0 to 3 inches; very gravelly silt loam

E—3 to 13 inches; very gravelly silt loam

Bt—13 to 33 inches; very gravelly silt loam

2Bt—33 to 80 inches; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Ocie and similar soils***Percentage of map unit:* 0 to 5 percent**Macedonia and similar soils***Percentage of map unit:* 0 to 5 percent**Pomme and similar soils***Percentage of map unit:* 0 to 5 percent**Poynor and similar soils***Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73247—Alred extremely gravelly silt loam, 15 to 35 percent slopes****Map Unit Setting***Landform:* Hills**Component Description****Alred***Percentage of map unit:* 85 percent*Position on landform:* Backslopes*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone*Slope shape:* Convex**Properties and Qualities***Depth to bedrock:* Very deep (more than 60 inches)*Runoff:* Very high*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches**Hydrologic Properties***Flooding:* None*Water table:* None*Drainage class:* Well drained**Typical Profile**

A—0 to 4 inches; extremely gravelly silt loam

E—4 to 17 inches; extremely gravelly silt loam

Bt1—17 to 27 inches; extremely cobbly silty clay loam

2Bt2—27 to 80 inches; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Clarksville and similar soils***Percentage of map unit:* 0 to 10 percent**Ocie and similar soils***Percentage of map unit:* 0 to 5 percent**Scholten and similar soils***Percentage of map unit:* 0 to 5 percent**Macedonia and similar soils***Percentage of map unit:* 0 to 5 percent**Areas that have a stony surface layer***Percentage of map unit:* 0 to 3 percent

A typical soil description with range in

characteristics is available under the heading "Classification of the Soils."

### **73248—Alred-Bendavis complex, 8 to 15 percent slopes**

#### **Map Unit Setting**

*Landform:* Hills

#### **Component Description**

##### **Alred**

*Percentage of map unit:* 65 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### **Properties and Qualities**

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

*Runoff:* High

*Percent of surface covered by rock fragments:* 0.01 to 0.10 percent (subrounded stones)

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### **Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### **Typical Profile**

A—0 to 4 inches; extremely cobbly loam

E—4 to 17 inches; extremely gravelly silt loam

Bt1—17 to 27 inches; extremely cobbly silty clay loam

2Bt2—27 to 80 inches; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

##### **Bendavis**

*Percentage of map unit:* 20 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium

*Slope shape:* Convex

#### **Properties and Qualities**

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0.01 to 0.10 percent (subrounded stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

#### **Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 18 to 38 inches

*Drainage class:* Moderately well drained

#### **Typical Profile**

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 to 80 inches; bedrock

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

#### **Minor Components**

##### **Macedonia and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Ocie and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Bender and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Clarksville and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Poynor and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

### **73249—Alred-Ocie-Bendavis complex, 15 to 35 percent slopes, stony**

#### **Map Unit Setting**

*Landform:* Hills

#### **Component Description**

##### **Alred**

*Percentage of map unit:* 35 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### **Properties and Qualities**

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0.01 to 3.00 percent (subrounded stones)

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

A—0 to 4 inches; extremely cobbly loam

E—4 to 17 inches; extremely gravelly silt loam

Bt1—17 to 27 inches; extremely cobbly silty clay loam

2Bt2—27 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Ocie

*Percentage of map unit:* 30 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

*Depth to bedrock:* Deep (40 to 60 inches)

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0.10 to 3.00 percent (subangular stones)

*Restrictive features:* Strongly contrasting textural stratification at a depth of 15 to 39 inches; bedrock (lithic) at a depth of 40 to 60 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

#### Typical Profile

A—0 to 5 inches; very gravelly silt loam

E—5 to 11 inches; very gravelly silt loam

Bt1—11 to 24 inches; very gravelly silt loam

2Bt2—24 to 56 inches; gravelly clay

3R—56 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Bendavis

*Percentage of map unit:* 20 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0.10 to 3.00 percent (subangular stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

#### Typical Profile

A—0 to 3 inches; very gravelly silt loam

E—3 to 14 inches; very gravelly silt loam

Bt—14 to 34 inches; very gravelly silt loam

2R—34 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Poynor and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Macedonia and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Rock outcrop

*Percentage of map unit:* 0 to 5 percent

##### Areas that have a bouldery surface layer

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

#### 73295—Taterhill silt loam, 3 to 8 percent slopes

##### Map Unit Setting

*Landform:* Hills

##### Component Description

##### Taterhill

*Percentage of map unit:* 85 percent

*Position on landform:* Footslopes

*Parent material:* Loamy slope alluvium

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* Low

### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

### Typical Profile

Ap—0 to 9 inches; silt loam

Bt1—9 to 30 inches; silt loam

2Bt2—30 to 80 inches; gravelly clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Poynor and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Winnipeg and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Aslinger and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Tonti and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

## 73296—Yelton-Topazmill-Lily complex, 8 to 15 percent slopes

### Map Unit Setting

*Landform:* Hills

### Component Description

#### Yelton

*Percentage of map unit:* 35 percent

*Position on landform:* Summits

*Parent material:* Loamy slope alluvium derived from sandstone

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* Very high

*Restrictive feature:* Fragipan at a depth of 18 to 27 inches

### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 16 to 25 inches

*Drainage class:* Moderately well drained

### 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; loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Topazmill

*Percentage of map unit:* 25 percent

*Position on landform:* Summits

*Parent material:* Loamy slope alluvium derived from sandstone

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* Medium

### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

### Typical Profile

Ap—0 to 9 inches; loam

Bt1—9 to 31 inches; loam

2Bt2—31 to 80 inches; clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Lily

*Percentage of map unit:* 20 percent

*Position on landform:* Summits

*Parent material:* Loamy residuum derived from sandstone

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* High

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 3 inches; loam

Bt1—3 to 15 inches; loam

Bt2—15 to 21 inches; gravelly loam

2R—21 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Fanchon and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Scholten and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Poynor and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Coulstone and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 73297—Poynor-Scholten complex, 15 to 35 percent slopes

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Poynor

*Percentage of map unit:* 50 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* High

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

A—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; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Scholten

*Percentage of map unit:* 35 percent

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Linear

#### Properties and Qualities

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

*Runoff:* Very high

*Restrictive feature:* Fragipan at a depth of 14 to 31 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 12 to 29 inches

*Drainage class:* Moderately well drained

#### Typical Profile

A—0 to 9 inches; extremely gravelly silt loam

Bt—9 to 24 inches; very gravelly silty clay loam

2Btx—24 to 33 inches; extremely gravelly silt loam

3Bt—33 to 80 inches; gravelly clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Clarksville and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Macedonia and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Tonti and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Bendavis and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

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

#### **Map Unit Setting**

*Landform:* Hills

#### **Component Description**

##### **Tonti**

*Percentage of map unit:* 60 percent

*Position on landform:* Summits

*Parent material:* Loamy and gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### **Properties and Qualities**

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

*Runoff:* High

*Restrictive feature:* Fragipan at a depth of 16 to 28 inches

#### **Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 14 to 26 inches

*Drainage class:* Moderately well drained

#### **Typical Profile**

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

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

##### **Hogcreek**

*Percentage of map unit:* 30 percent

*Position on landform:* Summits

*Parent material:* Loess over gravelly slope alluvium

*Slope shape:* Convex

#### **Properties and Qualities**

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

*Runoff:* High

*Restrictive features:* Fragipan at a depth of 18 to 32 inches; bedrock (lithic) at a depth of 20 to 40 inches

#### **Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 16 to 32 inches

*Drainage class:* Moderately well drained

#### **Typical Profile**

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 to 80 inches; bedrock

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

#### **Minor Components**

##### **Scholten and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Fanchon and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Bendavis and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

### **73299—Plato-Jerktail complex, 1 to 3 percent slopes**

#### **Map Unit Setting**

*Landform:* Hills

#### **Component Description**

##### **Plato**

*Percentage of map unit:* 50 percent

*Position on landform:* Basins

*Parent material:* Loess over gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Concave

#### **Properties and Qualities**

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

*Runoff:* High

*Restrictive feature:* Fragipan at a depth of 24 to 36 inches

#### **Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 12 to 24 inches

*Drainage class:* Somewhat poorly drained



**Typical Profile**

Ap—0 to 6 inches; silt loam  
 Bt—6 to 29 inches; silty clay loam  
 2Btx1—29 to 37 inches; extremely gravelly silt loam  
 2Btx2—37 to 46 inches; silt loam  
 2Bt—46 to 80 inches; very gravelly clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Jerktail**

*Percentage of map unit:* 35 percent  
*Position on landform:* Basins  
*Parent material:* Silty slope alluvium over clayey residuum derived from dolostone  
*Slope shape:* Concave

**Properties and Qualities**

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* High  
*Restrictive feature:* Bedrock (lithic) at a depth of 60 to 80 inches

**Hydrologic Properties**

*Flooding:* None  
*Current depth to water table:* 18 to 30 inches  
*Drainage class:* Somewhat poorly drained

**Typical Profile**

Ap—0 to 6 inches; silt loam  
 Bt1—6 to 14 inches; silt loam  
 2Bt2—14 to 21 inches; gravelly silty clay loam  
 3Bt3—21 to 63 inches; gravelly clay  
 4R—63 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Wasola and similar soils**

*Percentage of map unit:* 0 to 15 percent

**Deible and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Eudy and similar soils**

*Percentage of map unit:* 0 to 15 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73300—Macedonia gravelly silt loam, 3 to 8 percent slopes****Map Unit Setting**

*Landform:* Hills

**Component Description****Macedonia**

*Percentage of map unit:* 85 percent  
*Position on landform:* Summits  
*Parent material:* Loess over clayey residuum derived from dolostone  
*Slope shape:* Convex

**Properties and Qualities**

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

**Hydrologic Properties**

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

**Typical Profile**

Ap—0 to 4 inches; gravelly silt loam  
 Bt1—4 to 9 inches; silt loam  
 2Bt2—9 to 18 inches; clay  
 2Bt3—18 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Poynor and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Fanchon and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Scholten and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73301—Tick very gravelly silt loam, 3 to 8 percent slopes****Map Unit Setting**

*Landform:* Hills

### Component Description

#### Tick

*Percentage of map unit:* 85 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over residuum derived from dense, clayey mudstone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Medium

*Restrictive feature:* Dense material at a depth of 22 to 66 inches

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

A—0 to 5 inches; very gravelly silt loam

E—5 to 10 inches; very gravelly silt loam

Bt1—10 to 18 inches; silty clay loam

Bt2—18 to 42 inches; clay

2Cd—42 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Egyptgrove and similar soils

*Percentage of map unit:* 0 to 15 percent

##### Kenaga and similar soils

*Percentage of map unit:* 0 to 15 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 73302—Kenaga silt loam, 1 to 3 percent slopes

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Kenaga

*Percentage of map unit:* 90 percent

*Position on landform:* Summits

*Parent material:* Silty slope alluvium over clayey residuum derived from mudstone

*Slope shape:* Linear

#### Properties and Qualities

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

*Runoff:* High

*Restrictive feature:* Dense material at a depth of 15 to 44 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 18 to 30 inches

*Drainage class:* Moderately well drained

#### Typical Profile

Ap—0 to 6 inches; silt loam

Bt1—6 to 16 inches; silty clay loam

Bt2—16 to 34 inches; silty clay loam

2Btd—34 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Splitlimb and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Tonti and similar soils

*Percentage of map unit:* 0 to 15 percent

##### Egyptgrove and similar soils

*Percentage of map unit:* 0 to 15 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 73303—Kenaga-Egyptgrove complex, 3 to 8 percent slopes

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Kenaga

*Percentage of map unit:* 50 percent

*Position on landform:* Summits

*Parent material:* Silty slope alluvium over clayey residuum derived from mudstone

*Slope shape:* Linear

**Properties and Qualities**

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* High  
*Restrictive feature:* Dense material at a depth of 15 to 44 inches

**Hydrologic Properties**

*Flooding:* None  
*Current depth to water table:* 18 to 30 inches  
*Drainage class:* Moderately well drained

**Typical Profile**

Ap—0 to 6 inches; silt loam  
 Bt1—6 to 16 inches; silty clay loam  
 Bt2—16 to 34 inches; silty clay loam  
 2Btd—34 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Egyptgrove**

*Percentage of map unit:* 35 percent  
*Position on landform:* Summits  
*Parent material:* Silty slope alluvium over clayey residuum derived from mudstone  
*Slope shape:* Convex

**Properties and Qualities**

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* Medium  
*Restrictive feature:* Dense material at a depth of 15 to 39 inches

**Hydrologic Properties**

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

**Typical Profile**

Ap—0 to 7 inches; silt loam  
 Bt1—7 to 16 inches; silty clay loam  
 Bt2—16 to 27 inches; gravelly silty clay loam  
 2Btd—27 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Viburnum and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Tick and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Tonti and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73304—Kenaga-Egyptgrove-Tonti complex, karst, 3 to 15 percent slopes****Map Unit Setting**

*Landform:* Hills

**Component Description****Kenaga**

*Percentage of map unit:* 35 percent  
*Position on landform:* Backslopes  
*Parent material:* Silty slope alluvium over clayey residuum derived from mudstone  
*Slope shape:* Convex

**Properties and Qualities**

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* Very high  
*Restrictive feature:* Dense material at a depth of 15 to 44 inches

**Hydrologic Properties**

*Flooding:* None  
*Current depth to water table:* 18 to 30 inches  
*Drainage class:* Moderately well drained

**Typical Profile**

Ap—0 to 6 inches; silt loam  
 Bt1—6 to 16 inches; silty clay loam  
 Bt2—16 to 34 inches; silty clay loam  
 2Btd—34 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Egyptgrove**

*Percentage of map unit:* 30 percent  
*Position on landform:* Backslopes  
*Parent material:* Silty slope alluvium over clayey residuum derived from mudstone  
*Slope shape:* Convex

### Properties and Qualities

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* High  
*Restrictive feature:* Dense material at a depth of 15 to 39 inches

### Hydrologic Properties

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

### Typical Profile

Ap—0 to 7 inches; silt loam  
 Bt1—7 to 16 inches; silty clay loam  
 Bt2—16 to 27 inches; gravelly silty clay loam  
 2Btd—27 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Tonti

*Percentage of map unit:* 25 percent  
*Position on landform:* Backslopes  
*Parent material:* Loamy and gravelly slope alluvium over clayey residuum derived from dolostone  
*Slope shape:* Linear

### Properties and Qualities

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* Very high  
*Restrictive feature:* Fragipan at a depth of 16 to 28 inches

### Hydrologic Properties

*Flooding:* None  
*Current depth to water table:* 14 to 26 inches  
*Drainage class:* Moderately well drained

### Typical Profile

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Tick and similar soils

*Percentage of map unit:* 0 to 10 percent

### Poynor and similar soils

*Percentage of map unit:* 0 to 10 percent

### Scholten and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

## 73305—Egyptgrove gravelly silt loam, 3 to 8 percent slopes

### Map Unit Setting

*Landform:* Hills

### Component Description

#### Egyptgrove

*Percentage of map unit:* 85 percent  
*Position on landform:* Summits  
*Parent material:* Silty slope alluvium over clayey residuum derived from mudstone  
*Slope shape:* Convex

### Properties and Qualities

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* Medium  
*Restrictive feature:* Dense material at a depth of 15 to 39 inches

### Hydrologic Properties

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

### Typical Profile

Ap—0 to 7 inches; silt loam  
 Bt1—7 to 16 inches; silty clay loam  
 Bt2—16 to 27 inches; gravelly silty clay loam  
 2Btd—27 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Macedonia and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Kenaga and similar soils

*Percentage of map unit:* 0 to 10 percent

**Tick and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73306—Gressy-Gatewood complex, rocky, 3 to 8 percent slopes****Map Unit Setting**

*Landform:* Hills

**Component Description****Gressy**

*Percentage of map unit:* 50 percent

*Position on landform:* Summits

*Parent material:* Silty and gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Medium

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 31 inches; silt loam

2Bt2—31 to 49 inches; gravelly clay loam

3Bt3—49 to 80 inches; gravelly clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Gatewood**

*Percentage of map unit:* 40 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Very high

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 18 to 36 inches

*Drainage class:* Moderately well drained

**Typical Profile**

A—0 to 2 inches; very gravelly silt loam

E—2 to 5 inches; very gravelly silt loam

2Bt—5 to 36 inches; clay

3R—36 to 80 inches; bedrock

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Ocie and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Macedonia and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Alred and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**73307—Gressy-Viraton complex, 1 to 3 percent slopes****Map Unit Setting**

*Landform:* Hills

**Component Description****Gressy**

*Percentage of map unit:* 50 percent

*Position on landform:* Summits

*Parent material:* Silty and gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* Low

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

### Typical Profile

Ap—0 to 7 inches; silt loam  
 Bt—7 to 31 inches; silt loam  
 2Bt—31 to 49 inches; very gravelly clay loam  
 3Bt—49 to 80 inches; gravelly clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Viraton

*Percentage of map unit:* 40 percent  
*Position on landform:* Summits  
*Parent material:* Silty and gravelly slope alluvium over clayey residuum derived from dolostone  
*Slope shape:* Convex

### Properties and Qualities

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* High  
*Restrictive feature:* Fragipan at a depth of 16 to 41 inches

### Hydrologic Properties

*Flooding:* None  
*Current depth to water table:* 14 to 29 inches  
*Drainage class:* Moderately well drained

### Typical Profile

Ap—0 to 3 inches; silt loam  
 E—3 to 7 inches; silt loam  
 Bt—7 to 23 inches; gravelly silty clay loam  
 2Btx—23 to 48 inches; extremely gravelly silt loam  
 3Bt—48 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Macedonia and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Ocie and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Mano and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Jerktail and similar soils

*Percentage of map unit:* 0 to 5 percent

### Eudy and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 73308—Grandgulf silt loam, 1 to 3 percent slopes, rarely ponded

#### Map Unit Setting

*Landform:* Sinkholes

#### Component Description

#### Grandgulf

*Percentage of map unit:* 90 percent  
*Position on landform:* Basins  
*Parent material:* Fine-silty alluvium  
*Slope shape:* Concave

#### Properties and Qualities

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

#### Hydrologic Properties

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 10 inches; silt loam  
 Bt1—10 to 48 inches; silt loam  
 Bt2—48 to 80 inches; silt loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Splitlimb and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Taterhill and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Areas that have gravel in the profile

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 73309—Clarksville-Bendavis complex, 15 to 35 percent slopes, stony

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Clarksville

*Percentage of map unit:* 50 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* High

*Percent of surface covered by rock fragments:* 0 to 3 percent (stones)

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Somewhat excessively drained

#### Typical Profile

Oi—0 to 1 inch; moderately decomposed plant material

A—1 to 5 inches; extremely gravelly silt loam

BE—5 to 11 inches; very gravelly silt loam

Bt1—11 to 42 inches; extremely gravelly silt loam

2Bt2—42 to 80 inches; very gravelly clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

##### Bendavis

*Percentage of map unit:* 35 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Very high

*Percent of surface covered by rock fragments:* 0.10 to 3.00 percent (subangular stones)

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 18 to 36 inches

*Drainage class:* Moderately well drained

#### Typical Profile

A—0 to 3 inches; very gravelly silt loam

E—3 to 14 inches; very gravelly silt loam

Bt—14 to 34 inches; very gravelly silt loam

2R—34 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Poynor and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Rock outcrop

*Percentage of map unit:* 0 to 10 percent

##### Scholten and similar soils

*Percentage of map unit:* 0 to 30 percent

##### Tonti and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Fanchon and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Areas that have stones and boulders on the surface

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

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

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Scholten

*Percentage of map unit:* 35 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey

residuum derived from dolostone  
*Slope shape:* Convex

### Properties and Qualities

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* High  
*Restrictive feature:* Fragipan at a depth of 14 to 31 inches

### Hydrologic Properties

*Flooding:* None  
*Current depth to water table:* 12 to 29 inches  
*Drainage class:* Moderately well drained

### Typical Profile

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Bendavis

*Percentage of map unit:* 30 percent  
*Position on landform:* Summits  
*Parent material:* Gravelly slope alluvium  
*Slope shape:* Convex

### Properties and Qualities

*Depth to bedrock:* Moderately deep (20 to 40 inches)  
*Runoff:* High  
*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

### Hydrologic Properties

*Flooding:* None  
*Current depth to water table:* 18 to 38 inches  
*Drainage class:* Moderately well drained

### Typical Profile

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 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Poynor

*Percentage of map unit:* 25 percent  
*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone  
*Slope shape:* Convex

### Properties and Qualities

*Depth to bedrock:* Very deep (more than 60 inches)  
*Runoff:* Medium  
*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

### Hydrologic Properties

*Flooding:* None  
*Water table:* None  
*Drainage class:* Well drained

### Typical Profile

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Yelton and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Bender and similar soils

*Percentage of map unit:* 0 to 15 percent

#### Hogcreek and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

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

#### Map Unit Setting

*Landform:* Hills

#### Component Description

##### Scholten

*Percentage of map unit:* 35 percent  
*Position on landform:* Backslopes  
*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone  
*Slope shape:* Linear



**Properties and Qualities**

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

*Runoff:* Very high

*Restrictive feature:* Fragipan at a depth of 14 to 31 inches

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 12 to 29 inches

*Drainage class:* Moderately well drained

**Typical Profile**

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Bendavis**

*Percentage of map unit:* 30 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Very high

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 18 to 38 inches

*Drainage class:* Moderately well drained

**Typical Profile**

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 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Poynor**

*Percentage of map unit:* 25 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Medium

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Tonti and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Hogcreek and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Clarksville and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73312—Alred-Bendavis complex, 1 to 8 percent slopes****Map Unit Setting**

*Landform:* Hills

**Component Description****Alred**

*Percentage of map unit:* 60 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Medium

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

A—0 to 4 inches; very gravelly silt loam

E—4 to 9 inches; very gravelly silt loam

Bt1—9 to 26 inches; very gravelly silty clay loam

2Bt2—26 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Bendavis

*Percentage of map unit:* 25 percent

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* High

*Restrictive feature:* Bedrock (lithic) at a depth of 20 to 40 inches

#### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 18 to 38 inches

*Drainage class:* Moderately well drained

#### Typical Profile

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 to 80 inches; bedrock

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Minor Components

##### Clarksville and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Bender and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Moko and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Ocie and similar soils

*Percentage of map unit:* 0 to 5 percent

##### Poynor and similar soils

*Percentage of map unit:* 0 to 10 percent

##### Gressy and similar soils

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 73313—Fanchon-Tonti complex, 1 to 3 percent slopes

#### Map Unit Setting

*Landform:* Hills (fig. 7)

#### Component Description

##### Fanchon

*Percentage of map unit:* 65 percent

*Position on landform:* Summits

*Parent material:* Loess over gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

#### Properties and Qualities

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

*Runoff:* Low

#### Hydrologic Properties

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 5 inches; silt loam

AB—5 to 10 inches; silt loam

Bt1—10 to 28 inches; silt loam

2Bt2—28 to 47 inches; gravelly clay loam

3Bt3—47 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

##### Tonti

*Percentage of map unit:* 20 percent



Figure 7.—Tall fescue grown for hay in an area of Fanchon-Tonti complex, 1 to 3 percent slopes.

*Position on landform:* Summits

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Concave

#### **Properties and Qualities**

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

*Runoff:* High

*Restrictive feature:* Fragipan at a depth of 15 to 25 inches

#### **Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 14 to 23 inches

*Drainage class:* Moderately well drained

#### **Typical Profile**

Ap—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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### **Minor Components**

##### **Branson and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Splitlimb and similar soils**

*Percentage of map unit:* 0 to 5 percent

##### **Wasola and similar soils**

*Percentage of map unit:* 0 to 10 percent

##### **Macedonia and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73314—Tanglenook silt loam, basins, 0 to 3 percent slopes****Map Unit Setting**

*Landform:* Basin floors

**Component Description****Tanglenook**

*Percentage of map unit:* 90 percent

*Position on landform:* Toeslopes

*Parent material:* Silty and clayey alluvium

*Slope shape:* Concave

**Properties and Qualities**

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

*Runoff:* Negligible

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* At surface to a depth of 12 inches

*Drainage class:* Poorly drained

**Typical Profile**

Ap—0 to 6 inches; silt loam

A—6 to 17 inches; silty clay loam

Btg1—17 to 30 inches; silty clay

Btg2—30 to 56 inches; silty clay

Cg—56 to 80 inches; silty clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Farewell and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Batcave and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Deible and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Wasola and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**73315—Deible silt loam, basins, 0 to 3 percent slopes****Map Unit Setting**

*Landform:* Basin floors (fig. 8)

**Component Description****Deible**

*Percentage of map unit:* 90 percent

*Position on landform:* Toeslopes

*Parent material:* Silty alluvium over clayey alluvium

*Slope shape:* Concave

**Properties and Qualities**

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

*Runoff:* Negligible

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 0 to 12 inches

*Drainage class:* Poorly drained

**Typical Profile**

Ap—0 to 10 inches; silt loam

BE—10 to 15 inches; silty clay loam

Btg1—15 to 37 inches; silty clay

2Btg2—37 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Splitlimb and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Moniteau and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Wasola and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Tanglenook and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”



Figure 8.—Deible silt loam, basins, 0 to 3 percent slopes, is well suited to construction of lakes and ponds.

**73316—Clarksville-Tick-Mano complex,  
rocky, 15 to 50 percent slopes**

**Map Unit Setting**

*Landform:* Hills

**Component Description**

**Clarksville**

*Percentage of map unit:* 40 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* High

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

Oi—0 to 1 inch; moderately decomposed plant material

A—1 to 5 inches; extremely gravelly silt loam  
BE—5 to 11 inches; very gravelly silt loam  
Bt1—11 to 42 inches; extremely gravelly silt loam  
2Bt2—42 to 80 inches; very gravelly clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Tick**

*Percentage of map unit:* 30 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from mudstone

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Very high

*Restrictive feature:* Dense material at a depth of 22 to 66 inches

**Hydrologic Properties**

*Flooding:* None

*Water table:* None

*Drainage class:* Well drained

### Typical Profile

Oe—1 inch to 0; moderately decomposed plant material

A—0 to 5 inches; extremely gravelly silt loam

E—5 to 10 inches; very gravelly silt loam

Bt1—10 to 18 inches; silty clay loam

Bt2—18 to 42 inches; clay

2Cd—42 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Mano

*Percentage of map unit:* 20 percent

*Position on landform:* Backslopes

*Parent material:* Gravelly slope alluvium over clayey residuum derived from dolostone

*Slope shape:* Convex

### Properties and Qualities

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

*Runoff:* Very high

*Restrictive feature:* Strongly contrasting textural stratification at a depth of 15 to 39 inches

### Hydrologic Properties

*Flooding:* None

*Current depth to water table:* 24 to 36 inches

*Drainage class:* Moderately well drained

### Typical Profile

A—0 to 3 inches; very gravelly silt loam

E—3 to 13 inches; very gravelly silt loam

Bt1—13 to 33 inches; very gravelly silt loam

2Bt2—33 to 80 inches; clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Scholten and similar soils

*Percentage of map unit:* 0 to 15 percent

#### Moko and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Ocie and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Poynor and similar soils

*Percentage of map unit:* 0 to 5 percent

### Soils that have a stony surface layer

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 74626—Tanglenook silt loam, 0 to 3 percent slopes, rarely flooded

#### Map Unit Setting

*Landform:* Stream terraces

#### Component Description

#### Tanglenook

*Percentage of map unit:* 85 percent

*Parent material:* Silty and clayey alluvium

*Slope shape:* Concave

### Properties and Qualities

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

*Runoff:* Negligible

### Hydrologic Properties

*Flooding:* Rare

*Current depth to water table:* At surface to a depth of 18 inches

*Drainage class:* Poorly drained

### Typical Profile

Ap—0 to 6 inches; silt loam

A—6 to 17 inches; silty clay loam

Btg1—17 to 30 inches; silty clay

Btg2—30 to 56 inches; silty clay

Cg—56 to 80 inches; silty clay

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Soils that have a very gravelly to extremely cobbly substratum

*Percentage of map unit:* 0 to 10 percent

#### Deible and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Soils that have a gravelly surface layer

*Percentage of map unit:* 0 to 5 percent

#### Farewell and similar soils

*Percentage of map unit:* 0 to 5 percent

**Hartville and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Higdon and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**74627—Hartville silt loam, 1 to 3 percent slopes, rarely flooded****Map Unit Setting**

*Landform:* Stream terraces

**Component Description****Hartville**

*Percentage of map unit:* 90 percent

*Parent material:* Silty and clayey alluvium

*Slope shape:* Concave

**Properties and Qualities**

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

*Runoff:* High

**Hydrologic Properties**

*Flooding:* Rare

*Current depth to water table:* 12 to 30 inches

*Drainage class:* Somewhat poorly drained

**Typical Profile**

Ap—0 to 7 inches; silt loam

E—7 to 11 inches; silt loam

Bt1—11 to 40 inches; silty clay

2Bt2—40 to 80 inches; silty clay loam

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Bearthicket and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Britwater and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Pomme and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Tanglenook and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Deible and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Lostpond and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**74648—Aslinger silt loam, 3 to 8 percent slopes****Map Unit Setting**

*Landform:* Hills

**Component Description****Aslinger**

*Percentage of map unit:* 85 percent

*Position on landform:* Footslopes

*Parent material:* Loamy slope alluvium

*Slope shape:* Concave

**Properties and Qualities**

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

*Runoff:* Very high

**Hydrologic Properties**

*Flooding:* None

*Current depth to water table:* 18 to 30 inches

*Drainage class:* Somewhat poorly drained

**Typical Profile**

Ap—0 to 6 inches; silt loam

Bt—6 to 22 inches; silty clay loam

2Btx—22 to 46 inches; gravelly clay loam

3Bt—46 to 80 inches; gravelly clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Splitlimb and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Taterhill and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Poynor and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Tonti and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Winnipeg and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**74658—Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded****Map Unit Setting**

*Landform:* Stream terraces

**Component Description****Zanoni**

*Percentage of map unit:* 85 percent

*Parent material:* Loamy alluvium

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* Very low

**Hydrologic Properties**

*Flooding:* Rare

*Water table:* None

*Drainage class:* Well drained

**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

Bt3—50 to 80 inches; stratified extremely gravelly loamy sand and gravelly loam

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Topazmill and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Razort and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Tilk and similar soils**

*Percentage of map unit:* 0 to 20 percent

**Sandbur and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Relfe and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Soils that have a loamy sand surface layer**

*Percentage of map unit:* 0 to 2 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**74677—Deible silt loam, 0 to 3 percent slopes, rarely flooded****Map Unit Setting**

*Landform:* Stream terraces

**Component Description****Deible**

*Percentage of map unit:* 90 percent

*Parent material:* Silty and clayey alluvium

*Slope shape:* Concave

**Properties and Qualities**

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

*Runoff:* Negligible

**Hydrologic Properties**

*Flooding:* Rare

*Current depth to water table:* At surface to a depth of 12 inches

*Drainage class:* Poorly drained

**Typical Profile**

Ap—0 to 10 inches; silt loam

E—10 to 15 inches; silty clay loam

Btg1—15 to 37 inches; silty clay

2Btg2—37 to 80 inches; clay

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Tanglenook and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Lostpond and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Higdon and similar soils**

*Percentage of map unit:* 0 to 5 percent



**Moniteau and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**74679—Higdon silt loam, 0 to 3 percent slopes, rarely flooded****Map Unit Setting**

*Landform:* Stream terraces

**Component Description****Higdon**

*Percentage of map unit:* 85 percent

*Parent material:* Silty alluvium

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* Very high

**Hydrologic Properties**

*Flooding:* Rare

*Current depth to water table:* 12 to 24 inches

*Drainage class:* Somewhat poorly drained

**Typical Profile**

Ap—0 to 8 inches; silt loam

Bt—8 to 22 inches; silt loam

2Btg1—22 to 44 inches; silt loam

2Btg2—44 to 80 inches; silt loam

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Deible and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Hartville and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Lostpond and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Bearthicket and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in

characteristics is available under the heading "Classification of the Soils."

**74681—Lostpond silt loam, 1 to 3 percent slopes, rarely flooded****Map Unit Setting**

*Landform:* Stream terraces

**Component Description****Lostpond**

*Percentage of map unit:* 85 percent

*Parent material:* Loamy alluvium

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* High

**Hydrologic Properties**

*Flooding:* Rare

*Current depth to water table:* 7 to 29 inches

*Drainage class:* Somewhat poorly drained

**Typical Profile**

Ap—0 to 8 inches; silt loam

Bt1—8 to 20 inches; silt loam

2Bt2—20 to 80 inches; gravelly loam

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Britwater and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Moniteau and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Higdon and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Soils that have a gravelly surface layer**

*Percentage of map unit:* 0 to 10 percent

**Hartville and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**74690—Moniteau silt loam, 0 to 3 percent slopes, rarely flooded**

**Map Unit Setting**

*Landform:* Stream terraces

**Component Description**

**Moniteau**

*Percentage of map unit:* 85 percent

*Parent material:* Silty alluvium

*Slope shape:* Concave

**Properties and Qualities**

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

*Runoff:* Negligible

**Hydrologic Properties**

*Flooding:* Rare

*Current depth to water table:* At surface to a depth of 12 inches

*Drainage class:* Poorly drained

**Typical Profile**

Ap—0 to 7 inches; silt loam

E—7 to 14 inches; silt loam

Btg—14 to 80 inches; silty clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components**

**Lostpond and similar soils**

*Percentage of map unit:* 0 to 15 percent

**Batcave and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Higdon and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

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

**Map Unit Setting**

*Landform:* Stream terraces (fig. 9)



Figure 9.—Corn in an area of Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded. Few field crops currently are grown in Howell County.

**Component Description****Bearthicket**

*Percentage of map unit:* 90 percent

*Parent material:* Silty alluvium

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* Low

**Hydrologic Properties**

*Flooding:* Rare

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

Ap—0 to 10 inches; silt loam

Bt1—10 to 48 inches; silt loam

Bt2—48 to 80 inches; silt loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Secesh and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Cedargap and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Britwater and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Higdon and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Zanoni and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**75390—Razort silt loam, 0 to 3 percent slopes, rarely flooded****Map Unit Setting**

*Landform:* Stream terraces

**Component Description****Razort**

*Percentage of map unit:* 85 percent

*Parent material:* Loamy alluvium

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* Low

**Hydrologic Properties**

*Flooding:* Rare

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

Ap—0 to 7 inches; silt loam

Bt—7 to 34 inches; silt loam

2Bt—34 to 80 inches; gravelly loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Secesh and similar soils**

*Percentage of map unit:* 0 to 15 percent

**Zanoni and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Racket and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Bearthicket and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

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

*Landform:* Stream terraces

**Component Description****Secesh**

*Percentage of map unit:* 85 percent

*Parent material:* Loamy alluvium

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* Low

### Hydrologic Properties

*Flooding:* Rare  
*Water table:* None  
*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 8 inches; silt loam  
 BE—8 to 11 inches; silt loam  
 Bt—11 to 27 inches; loam  
 2Bt—27 to 80 inches; gravelly clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Cedargap and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Higdon and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Tilk and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Lostpond and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Bearthicket and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

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

#### Map Unit Setting

*Landform:* Flood plains

#### Component Description

##### Relfe

*Percentage of map unit:* 50 percent  
*Parent material:* Sandy and gravelly alluvium  
*Slope shape:* Linear

#### Properties and Qualities

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

### Hydrologic Properties

*Flooding:* Frequent  
*Water table:* None  
*Drainage class:* Excessively drained

#### Typical Profile

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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

#### Sandbur

*Percentage of map unit:* 35 percent  
*Parent material:* Loamy alluvium  
*Slope shape:* Linear

#### Properties and Qualities

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

### Hydrologic Properties

*Flooding:* Frequent  
*Water table:* None  
*Drainage class:* Somewhat excessively drained

#### Typical Profile

Ap—0 to 8 inches; fine sandy loam  
 C—8 to 80 inches; fine sandy loam and loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Farewell and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Razort and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Cedargap and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Racket and similar soils

*Percentage of map unit:* 0 to 5 percent

#### Sand and gravel bars

*Percentage of map unit:* 0 to 5 percent

**Tilk and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**75418—Tilk very gravelly loam, 0 to 3 percent slopes, rarely flooded****Map Unit Setting**

*Landform:* Alluvial fans

**Component Description****Tilk**

*Percentage of map unit:* 85 percent

*Parent material:* Gravelly alluvium

*Slope shape:* Convex

**Properties and Qualities**

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

*Runoff:* Very low

**Hydrologic Properties**

*Flooding:* Rare

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

Ap—0 to 8 inches; very gravelly loam

Bt—8 to 47 inches; very gravelly sandy loam

2C—47 to 80 inches; stratified extremely cobbly loamy coarse sand and very gravelly sandy clay loam

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Minor Components****Secesh and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Scholten and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Soils that have an extremely gravelly surface layer**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading "Classification of the Soils."

**75420—Secesh-Tilk complex, 0 to 3 percent slopes, occasionally flooded****Map Unit Setting**

*Landform:* Flood plains

**Component Description****Secesh**

*Percentage of map unit:* 50 percent

*Parent material:* Loamy alluvium

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* Low

**Hydrologic Properties**

*Flooding:* Occasional

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

Ap—0 to 8 inches; silt loam

BE—8 to 11 inches; silt loam

Bt—11 to 27 inches; loam

2Bt—27 to 80 inches; gravelly clay loam

Component horizon data are available in the "Chemical Properties of the Soils" and "Physical Properties of the Soils" tables.

**Tilk**

*Percentage of map unit:* 35 percent

*Parent material:* Gravelly alluvium

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* Very low

**Hydrologic Properties**

*Flooding:* Occasional

*Water table:* None

*Drainage class:* Well drained

**Typical Profile**

Ap—0 to 8 inches; very gravelly loam

Bt—8 to 47 inches; very gravelly sandy loam

2C—47 to 80 inches; stratified extremely cobbly loamy coarse sand and very gravelly sandy clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Bearthicket and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Relfe and similar soils

*Percentage of map unit:* 0 to 10 percent

#### Tonti and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

### 75423—Cedargap very gravelly silt loam, 0 to 3 percent slopes, occasionally flooded

#### Map Unit Setting

*Landform:* Flood plains

#### Component Description

##### Cedargap

*Percentage of map unit:* 85 percent

*Parent material:* Gravelly alluvium

*Slope shape:* Linear

#### Properties and Qualities

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

*Runoff:* Low

#### Hydrologic Properties

*Flooding:* Occasional

*Water table:* None

*Drainage class:* Well drained

#### Typical Profile

Ap—0 to 14 inches; gravelly loam

A1—14 to 24 inches; extremely gravelly sandy loam

A2—24 to 49 inches; extremely gravelly sandy loam

C—49 to 80 inches; extremely gravelly sandy clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

### Minor Components

#### Relfe and similar soils

*Percentage of map unit:* 0 to 5 percent

### Secesh and similar soils

*Percentage of map unit:* 0 to 5 percent

### Tilk and similar soils

*Percentage of map unit:* 0 to 5 percent

### Farewell and similar soils

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

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

#### Map Unit Setting

*Landform:* Flood plains

#### Component Description

##### Batcave

*Percentage of map unit:* 45 percent

*Parent material:* Gravelly alluvium

*Slope shape:* Linear

#### Properties and Qualities

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

*Runoff:* High

#### Hydrologic Properties

*Flooding:* Frequent

*Current depth to water table:* At surface to a depth of 6 inches

*Drainage class:* Somewhat poorly drained

#### Typical Profile

Ap—0 to 11 inches; gravelly loam

A—11 to 36 inches; gravelly loam

Bt1—36 to 60 inches; very gravelly loam

Bt2—60 to 80 inches; very gravelly clay loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

##### Farewell

*Percentage of map unit:* 40 percent

*Parent material:* Loamy alluvium

*Slope shape:* Linear

#### Properties and Qualities

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

*Runoff:* High

**Hydrologic Properties**

*Flooding:* Frequent

*Current depth to water table:* At surface to a depth of 6 inches

*Drainage class:* Somewhat poorly drained

**Typical Profile**

Ap—0 to 8 inches; 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

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Tanglenook and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Racket and similar soils**

*Percentage of map unit:* 0 to 10 percent

**Cedargap and similar soils**

*Percentage of map unit:* 0 to 10 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**75433—Racket loam, 0 to 3 percent slopes, occasionally flooded****Map Unit Setting**

*Landform:* Flood plains

**Component Description*****Racket***

*Percentage of map unit:* 85 percent

*Parent material:* Loamy alluvium

*Slope shape:* Linear

**Properties and Qualities**

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

*Runoff:* Low

**Hydrologic Properties**

*Flooding:* Occasional

*Current depth to water table:* 42 to 72 inches

*Drainage class:* Well drained

**Typical Profile**

Ap—0 to 7 inches; loam

A—7 to 42 inches; loam

C—42 to 80 inches; stratified extremely gravelly sand and gravelly sandy loam

Component horizon data are available in the “Chemical Properties of the Soils” and “Physical Properties of the Soils” tables.

**Minor Components****Cedargap and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Relfe and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Tilk and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Sandbur and similar soils**

*Percentage of map unit:* 0 to 5 percent

**Farewell and similar soils**

*Percentage of map unit:* 0 to 5 percent

A typical soil description with range in characteristics is available under the heading “Classification of the Soils.”

**99001—Water****Composition**

*Water:* 100 percent

**99002—Borrow areas****Composition**

*Borrow areas:* 85 percent

*Urban land:* 0 to 25 percent

*Water:* 0 to 10 percent





# Prime Farmland

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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. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some parts of the survey area has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

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

or wetness, 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. The soil qualities that affect use and management are described under the heading "Detailed Soil Map Units."

The soils identified as prime farmland in Howell County are:

- 70025—Branson-Splitlimb complex, 1 to 3 percent slopes
- 70026—Tonti silt loam, 1 to 3 percent slopes
- 71250—Britwater silt loam, 1 to 3 percent slopes, rarely flooded
- 73051—Winnipeg silt loam, 2 to 5 percent slopes
- 73054—Viburnum silt loam, 1 to 3 percent slopes
- 73197—Viburnum silt loam, 3 to 8 percent slopes
- 73198—Gressy-Viraton complex, 3 to 8 percent slopes
- 73222—Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded
- 73231—Wasola silt loam, 1 to 8 percent slopes
- 73242—Fanchon-Tonti complex, 3 to 8 percent slopes
- 73243—Topazmill loam, 3 to 8 percent slopes
- 73299—Plato-Jerktail complex, 1 to 3 percent slopes
- 73300—Macedonia gravelly silt loam, 3 to 8 percent slopes
- 73302—Kenaga silt loam, 1 to 3 percent slopes
- 73303—Kenaga-Egyptgrove complex, 3 to 8 percent slopes
- 73305—Egyptgrove gravelly silt loam, 3 to 8 percent slopes
- 73308—Grandgulf silt loam, 1 to 3 percent slopes, rarely ponded
- 73313—Fanchon-Tonti complex, 1 to 3 percent slopes
- 73314—Tanglenook silt loam, basins, 0 to 3 percent slopes (where drained)
- 73315—Deible silt loam, basins, 0 to 3 percent slopes
- 74626—Tanglenook silt loam, 0 to 3 percent slopes, rarely flooded (where drained)
- 74627—Hartville silt loam, 1 to 3 percent slopes, rarely flooded
- 74658—Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded

74677—Deible silt loam, 0 to 3 percent slopes, rarely flooded (where drained)

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

74681—Lostpond silt loam, 1 to 3 percent slopes, rarely flooded

74690—Moniteau silt loam, 0 to 3 percent slopes, rarely flooded (where drained)

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

75390—Razort silt loam, 0 to 3 percent slopes, rarely flooded

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

75433—Racket loam, 0 to 3 percent slopes, occasionally flooded

# Use and Management of the Soils

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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 forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; for waste management; 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

Robert D. Rouse, soil scientist, Missouri Department of Natural Resources, helped prepare this section.

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

Most of the soils in Howell County are used as pastureland, hayland, and woodland. The county generally ranks in the top ten in Missouri in numbers of cattle, including beef cows and milk cows. Tall fescue, orchardgrass, alfalfa, lespedeza, red clover, Caucasian bluestem, big bluestem, and indiangrass are the major forage-producing plants. Annually, there are about 45,000 acres of hayland harvested with an average yield of 2 tons per acre. Row crops and small grain generally are limited to small acreages in the larger areas of bottomland that are not subject to frequent flooding.

The major limitations for use and management of the soils for grain and pasture crops are erodibility, wetness, and droughtiness. Management on all soils should include practices to help conserve water and maintain or increase the organic matter content and fertility level of the soils.

A high fertility level increases the yields of forage and grain. The kinds and amount of soil amendments needed to maintain or increase fertility levels can be determined by soil tests. Maintaining a complete record of the kinds and amount of fertilizer applied, the time amendments were applied, and the results obtained from the applications is desirable to properly evaluate effectiveness.

The main goal of pasture management is to meet the nutritional needs of the grazing animal while optimizing the yields, quality, utilization, and persistence of the pasture.

Many productive stands of grass-legume pasture have been established in Howell County. The advantages of grass-legume pasture include improved palatability, higher yields, reduced risk of bloat, reduced field-drying time for hay, and decreased damage in winter as a result of frost heaving. Pasture renovation and improved management practices are needed to control erosion and to increase forage

production. A good pasture generally can be established if lime and fertilizer are applied according to current soil test results. The recommended amount of pure, live seed should be planted in a firm seedbed, and the seeds should be covered with 0.25 to 0.50 inch of soil. Legume seeds should be inoculated with the proper bacteria. Weeds need to be controlled until seedlings are well established, and areas should not be grazed until the root systems are well established. Only adapted species of grasses and legumes should be planted. Desirable seeding dates vary according to the different species. Overseeding with a no-till drill on sloping pastures improves stands and minimizes erosion and the dislodgement of rock fragments.

Proper pasture management results in maximum production of forage, good seasonal distribution of plant growth, and stands that are productive for long periods. Management practices include rotational grazing, intensive grazing, restricted grazing during wet periods, measures that prevent overgrazing, selection of suitable forage species, weed and brush control, and application of lime and fertilizer. Rotational or intensive grazing requires cross fencing and an adequate water supply to each field or paddock.

Total pasture management generally includes a mixture of cool-season grasses and legumes that are grazed during spring and fall and warm-season grasses that provide good-quality forage in summer when the cool-season plants are dormant. Fields of warm-season grasses should be separated from fields of cool-season grasses. Prescribed burning helps to control undesirable vegetation and improves the quality and quantity of warm-season grasses. Burning every 3 to 5 years generally is adequate.

Excess pasture plants, either cool-season grass/legume mixtures or warm-season grasses, can be harvested for hay. For best nutritional value, the field should be cut when the grass is in the early boot stage. Harvesting after the grass has gone to seed may result in a larger quantity of hay, but the value of the feed is greatly reduced. If fescue is harvested for seed, the regrowth may successfully be stockpiled for use in winter. When using stockpiled fescue, a temporary fence should be used to allow the cows access for only 2 or 3 days to maximize use of the grass and minimize waste. Because of the extremely low nutritional content of fescue, it should not be baled for hay after the seed is harvested.

Managing plant residue so that it is left on or near the surface can minimize runoff and help to control erosion. The effectiveness in controlling erosion depends on the amount of residue and the length of time it is left on the surface. Spring tillage allows the residue to remain on the surface in winter and thus is

more effective than fall tillage. Use of tillage implements that leave residue on the surface during the growing season is desirable.

A system of conservation tillage that leaves a protective cover of crop residue on the surface throughout the year helps to maintain good tilth, increases the rate of water infiltration, and reduces the risk of erosion. No-till planting also helps to meet these goals.

Technical assistance in the planning and application of practices for a particular field or farm can be obtained from the Natural Resources Conservation Service through the Howell County Soil and Water Conservation District.

### 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. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of the soils in the survey area also is shown in the table.

The yields 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 table 5 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 of 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 to pasture, forestland, wildlife habitat, or recreation.

The capability classification of the soils in this survey area is given in table 5.

## Pasture and Hayland Suitability Groups

The soils in Howell 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 affecting 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 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.

## Forestland Productivity and Management

Approximately 46.8 percent, or 277,800 acres of Howell County, is forested. The primary forest types in the county are post oak–blackjack oak, 111,300 acres; black oak–scarlet oak, 108,600 acres; white oak, 27,800 acres; shortleaf pine, 16,300 acres; shortleaf pine–oak, 11,400 acres; and nonstocked (recent clearcut with no regrowth), 2,400 acres. Other common species are black walnut, northern red oak, southern red oak, sycamore, elm, ash, and eastern redcedar (Miles, 1990).

Soil provides all the essential elements required for tree growth except carbon dioxide and oxygen. Soil also stores water and provides the medium in which trees are anchored. Many soil properties affect tree growth and the productivity of tree species. Some of these properties are soil structure, texture, available water capacity, permeability, natural fertility, drainage,

and depth to a root-limiting layer, such as bedrock or a fragipan. For example, white oak develops better in a deep, fertile soil with a high available water capacity while post oak and blackjack oak are more prevalent in shallow soils in droughty areas.

Micro-organisms are an important part of forest ecosystems. These organisms break down leaf litter and dead woody material to provide nutrients to trees. Fire and grazing by livestock destroy micro-organisms and reduce leaf litter. This loss of nutrients for tree growth results in lower productivity.

Aspect also influences tree growth. Soils on north- and east-facing slopes typically are deeper and have more available water. These areas produce better quality trees. The dominant species are red oak, black oak, white oak, and black walnut.

Soils on south- and west-facing slopes typically are droughty and shallower. These areas produce slow-growing, low-quality trees. The dominant species are post oak, hickory, and blackjack oak. Management should include the encouragement of species that grow best on these sites, such as shortleaf pine.

The bottomland soils along the streams and tributaries support white oak, Shumard oak, sycamore, black walnut, ash, and elm. The quality and growth of trees in these areas can be excellent.

Caution should be taken when applying management practices in bottomland areas. Riparian corridors of trees along stream channels should be protected. These corridors slow the flow of floodwater, and the roots of the trees help to prevent streambank erosion by holding the soils in place. Serious gully erosion will occur on flood plains during flooding if skid trails are parallel to stream channels.

Many forest sites in Howell County have the potential to produce high-quality timber. Because of past forest fires, grazing, and high grading (removal of only the best trees) during timber harvesting; however, the condition of the timber stands are lower than their potential. Many stands still harbor fire scars from past forest fires. These scars allow insects and disease to enter the trees, resulting in lower quality timber. Grazing in forested areas results in soil compaction and erosion and causes damage to roots. It also affects the regeneration of forests and depletes the understory. High grading leaves unhealthy trees and undesirable species, which makes it impossible for forests to regenerate and reach their highest profit potential.

Woodland management should include fire prevention, protection from grazing, and consultation of a professional forester for assistance with improving stands, harvesting, and marketing.

The tables described in this section can help forest

owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood crops and rate the soils according to the limitations that affect various aspects of forest management.

## Forestland 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 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 Website.

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.

## Forestland Management

In tables 8a and 8b, interpretive ratings are given for various aspects of forestland 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 forestland 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 forestland 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 Website.

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 erodibility 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 erodibility 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, yards, fruit trees, gardens, and cropland from wind and snow; help to keep snow on fields; and provide food and cover 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.

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 table 9 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 of the Cooperative Extension Service or from a commercial nursery.

## Recreation

Howell County provides many recreational opportunities. The 49,043 acres of public land provide opportunities for hunting, hiking, trail riding, primitive camping, and fishing.

The Forest Service manages approximately 42,000 acres of land on the west side of the county. This area is open to hunting and has several hiking and horse

riding trails. The Noblett Lake area provides picnic grounds and opportunities for fishing.

The Missouri Department of Conservation owns approximately 7,300 acres in the county. The White Ranch Conservation Area in the southern part is the largest area, with about 6,000 acres that are open to hunters and hikers. The area also has an excellent shooting range for handgun and rifle enthusiasts. Simms Valley Lake in the northern part provides opportunities for fishing and canoeing.

Privately owned ponds and lakes are common across Howell County, and they provide excellent opportunities for fishing.

The communities of Mountain View, West Plains, and Willow Springs provide parks that are used for a wide variety of organized sports and golf courses.

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.

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 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

Prepared by Scott F. Paine, soil scientist, Missouri Department of Natural Resources.

Howell County is in south-central Missouri, on the Arkansas State line. It is one of the largest counties in the state, with a total area of 593,754 acres. A total of 49,043 acres of the county is public land. Most of this land is administered by the Forest Service, but approximately 7,300 acres is owned by the Missouri Department of Conservation. Approximately 46.8 percent of the county is forested. The remainder of the county is pastureland used for beef and dairy cattle

with small woodlots between the fields. The dominant forest type in the county is oak-hickory with scattered shortleaf pine. The understory trees include dogwood, redbud, serviceberry, and wild plum, which provide beautiful color in spring. In fall a variety of oaks, black gum, and sassafras and a few maples paint the Ozark hills with a rainbow of colors.

The logging industry has kept large areas of mature forest to a minimum. Where logging has been completed, natural regrowth has created excellent habitat for deer, wild turkey, bobcat, raccoon, opossum, rabbits, fox, and coyote. The small woodlots also provide habitat for wildlife, especially squirrel, deer, and turkey. The brushy fencerows and nonforested land provide good habitat for quail and rabbits, but the populations fluctuate from year to year due to weather conditions, food supply, and predation. Dove migrate through the county from midsummer through fall. The streams, ponds, and small lakes support small populations of mallards and wood ducks and a few migrating geese.

Birds in the county range from hummingbirds to a vast variety of songbirds to one of the largest flying predators, the golden eagle. Bald eagles winter along the streams and rivers in the county. Other raptors in the county include hawks, falcons, and turkey vultures. Roadrunners inhabit the glades and rocky areas in the southern part of the county, feeding primarily on lizards, small snakes, and insects.

Many reptiles inhabit the county, including three poisonous snake species and many other small snakes and lizards. The poisonous snakes are the copperhead, which generally lives in the bluff and rocky areas; the cottonmouth, which lives in the streams, ponds, and swampy areas; and the much rarer timber rattlesnake, which is mainly in the large forested areas. Two varieties of terrapin, the three-toed box and ornate, inhabit the county. Many species of aquatic turtles, ranging from common snapper turtles to soft-shelled turtles, are in the waterways in the county.

The headwaters to one of the largest springfed streams in the state, the Eleven Point River, is in Howell County. Many other small rivers and creeks are in the southern half of the county. These streams provide habitat for smallmouth bass; rock, or goggle-eye, bass; largemouth bass; bluegill; and sunfish. They also support an abundance of minnows, crayfish, freshwater mussels, and frogs. These streams also provide habitat for furbearers, including beaver, mink, muskrat, and otter, which have been reestablished in certain streams in southern Missouri by the Missouri Department of Conservation (Missouri Department of Conservation, 1990a and 1990b). Many

small lakes and farm ponds dot the landscape, providing habitat for fish such as channel catfish and largemouth bass.

Feral pigs were accidentally introduced into the county. They live in the larger forested areas in the southern part of the county. Armadillo have migrated into Howell County from Texas, Oklahoma, and Arkansas.

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, water management, and waste 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; evaluate sites for agricultural waste management; 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 erodibility 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 erodibility 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 erodibility 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.

Soil properties are ascertained 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 particle-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. 10). "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is as much as

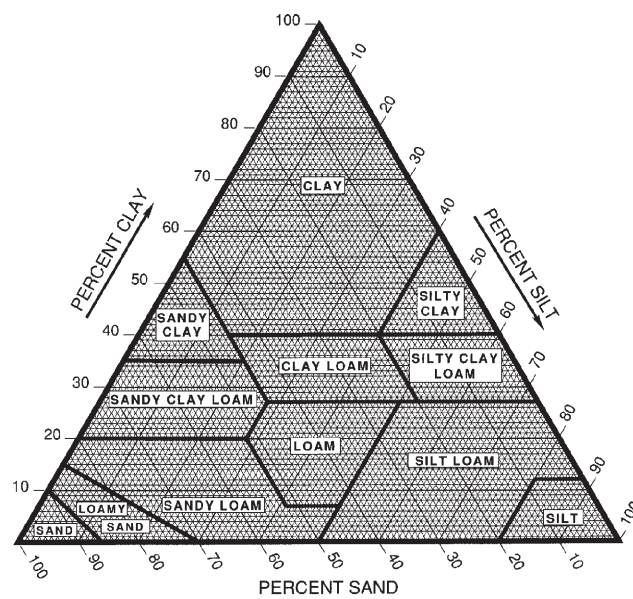


Figure 10.—Percentages of clay, silt, and sand in the basic USDA soil textural classes.

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, 2001) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000).

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 ( $K_{sat}$ ). 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 ( $K_w$  and  $K_f$ ) 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  $K_w$*  indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

*Erosion factor  $K_f$*  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 as follows:

1. Coarse sands, sands, fine sands, and very fine sands.
2. Loamy coarse sands, loamy sands, loamy fine sands, loamy very fine sands, ash material, and sapric soil material.
3. Coarse sandy loams, sandy loams, fine sandy loams, and very fine sandy loams.
- 4L. Calcareous loams, silt loams, clay loams, and silty clay loams.
4. Clays, silty clays, noncalcareous clay loams, and silty clay loams that are more than 35 percent clay.
5. Noncalcareous loams and silt loams that are less than 20 percent clay and sandy clay loams, sandy clays, and hemic soil material.
6. Noncalcareous loams and silt loams that are more than 20 percent clay and noncalcareous clay loams that are less than 35 percent clay.
7. Silts, noncalcareous silty clay loams that are less than 35 percent clay, and fibric soil material.
8. Soils that are not subject to wind erosion because of coarse fragments on the surface or because of surface wetness.

*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.

*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).

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

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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 Alfisol.

**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 Udalf (*Ud*, meaning humid, plus *alf*, from Alfisol).

**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 Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalf*, the suborder of the Alfisols 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. An example is Aquic Hapludalfs.

**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 fine, mixed, active, mesic Aquic Hapludalfs.

**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.

### *Alred Series*

The Alred series consists of very deep, well drained soils that formed in gravelly slope alluvium and the underlying clayey residuum. These soils are on moderately sloping to very steep uplands. Permeability is moderate in the upper part of the subsoil and slow in the lower part. Slopes range from 1 to 60 percent.

*Taxonomic classification:* Loamy-skeletal over clayey, siliceous, semiactive, mesic Typic Paleudalfs

### Typical Pedon

Alred extremely gravelly silt loam, 15 to 35 percent slopes; 500 feet south and 50 feet west of the northwest corner of sec. 27, T. 22 N., R. 8 W.; USGS Lanton topographic quadrangle; UTM coordinates Zone 15, 604,560 meters Easting and 4,044,970 meters Northing.

A—0 to 4 inches; dark grayish brown (10YR 4/2) extremely gravelly silt loam, grayish brown (10YR 5/2) dry; moderate very fine granular structure; very friable; many fine and medium roots; many very fine irregular pores; 50 percent chert gravel and 20 percent chert cobbles; very strongly acid (pH 4.7); abrupt smooth boundary.

BE—4 to 12 inches; brown (10YR 5/3) very gravelly silt loam; weak fine subangular blocky structure; friable; many fine and medium roots; many very fine irregular and tubular pores; 40 percent chert gravel; very strongly acid (pH 4.6); clear smooth boundary.

Bt1—12 to 26 inches; 50 percent light yellowish brown (10YR 6/4) and 50 percent strong brown (7.5YR 5/6) extremely gravelly loam; moderate fine and medium subangular blocky structure; friable; common fine and medium roots; many fine tubular pores; common prominent yellowish red (5YR 5/6) clay films on faces of peds; 50 percent chert gravel and 10 percent chert cobbles; very strongly acid (pH 4.8); abrupt wavy boundary.

2Bt2—26 to 44 inches; 80 percent yellowish red (5YR 4/6) and 20 percent yellowish brown (10YR 5/6) cobbly clay; strong fine and medium subangular blocky structure; firm; few fine roots; many very fine tubular pores; many prominent red (2.5YR 4/6) clay films on faces of peds; 10 percent chert gravel and 10 percent chert cobbles; very strongly acid (pH 4.8); gradual smooth boundary.

2Bt3—44 to 60 inches; 80 percent red (2.5YR 4/8) and 20 percent brownish yellow (10YR 6/6) clay; moderate coarse subangular blocky structure parting to moderate medium subangular blocky; very firm; common very fine tubular pores; many prominent yellowish red (5YR 5/6) clay films on faces of peds; 5 percent chert gravel; very strongly acid (pH 4.6); gradual smooth boundary.

2Bt4—60 to 80 inches; 80 percent yellowish red (5YR 4/6) and 20 percent yellowish brown (10YR 5/8) clay; moderate coarse subangular blocky structure parting to moderate medium subangular blocky; very firm; common very fine tubular pores; many prominent dark yellowish brown (10YR 4/4) clay films on faces of peds; 5 percent chert gravel; neutral (pH 6.8).

### Range in Characteristics

*Depth to the 2Bt horizon:* 20 to 40 inches

*A horizon:*

Content of rock fragments—35 to 80 percent gravel and cobbles

*BE horizon:*

Content of rock fragments—15 to 60 percent gravel and cobbles

Texture—silt loam or loam

*Bt horizon:*

Content of rock fragments—35 to 70 percent gravel and cobbles

Texture—silt loam, silty clay loam, or loam

*2Bt horizon:*

Content of rock fragments—0 to 35 percent gravel

Texture—silty clay or clay

### Aslinger Series

The Aslinger series consist of very deep, moderately well drained soils on valley footslopes. These soils formed in slope alluvium. Permeability is moderately slow. Slopes range from 3 to 8 percent.

*Taxonomic classification:* Fine-loamy, mixed, active, mesic Fraguaquic Paleudults

### Typical Pedon

Aslinger silt loam, 3 to 8 percent slopes; 1,400 feet south and 850 feet west of the northwest corner of sec. 28, T. 24 N., R. 5 W.; USGS Rover topographic quadrangle; UTM coordinates Zone 15, 632,980 meters Easting and 4,069,970 meters Northing; in Oregon County, Missouri.

Ap—0 to 5 inches; brown (10YR 4/3) silt loam, light yellowish brown (10YR 6/4) dry; weak medium subangular blocky structure parting to moderate medium granular; friable; many fine roots; many very fine and fine irregular pores; very strongly acid (pH 4.8); abrupt smooth boundary.

Bt1—5 to 10 inches; 50 percent dark yellowish brown (10YR 4/4) and 50 percent yellowish brown (10YR 5/4) silt loam; weak medium subangular blocky structure; friable; common fine roots; common fine tubular pores; common faint yellowish brown (10YR 5/4) clay films on faces of peds; very strongly acid (pH 4.9); clear smooth boundary.

Bt2—10 to 19 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate fine subangular blocky structure; friable; common fine roots; common fine tubular pores; common faint brown (10YR 4/3) clay

films on faces of peds; 5 percent chert gravel; very strongly acid (pH 4.9); clear smooth boundary.

**Bt3**—19 to 31 inches; yellowish brown (10YR 5/4) silty clay loam; moderate fine subangular blocky structure; firm; few fine roots; many fine tubular pores; common distinct (10YR 4/3) clay films on faces of peds; common prominent grayish brown (10YR 5/2) iron depletions on faces of peds; 10 percent chert gravel; very strongly acid (pH 4.9); clear wavy boundary.

**2Btx**—31 to 50 inches; strong brown (7.5YR 5/8) gravelly clay loam; weak very coarse prismatic structure parting to moderate fine subangular blocky; few very fine roots; common prominent grayish brown (2.5Y 5/2) clay films on faces of peds; common prominent light brownish gray (10YR 6/2) iron depletions on faces of peds; 20 percent chert gravel; 50 percent brittleness; very strongly acid (pH 5.0); gradual wavy boundary.

**3Bt**—50 to 80 inches; 40 percent strong brown (7.5YR 5/8) and 60 percent red (2.5YR 4/8) gravelly clay; moderate fine angular blocky structure; firm; many prominent grayish brown (10YR 5/2) clay films on faces of peds; common prominent light brownish gray (10YR 6/2) iron depletions on faces of peds; 25 percent chert gravel and 2 percent chert cobbles; very strongly acid (pH 5.0).

#### Range in Characteristics

*Depth to the 2Btx horizon:* 20 to 40 inches

*Ap horizon:*

Content of rock fragments—0 to 10 percent gravel

*Bt horizon:*

Content of rock fragments—0 to 15 percent gravel  
Texture—silt loam, silty clay loam, or loam

*2Btx horizon:*

Content of rock fragments—0 to 50 percent gravel or cobbles  
Texture—silty clay loam, clay loam, or silt loam

*3Bt horizon:*

Content of rock fragments—0 to 50 percent gravel or cobbles  
Texture—silty clay, clay, or clay loam

### **Bardley Series**

The Bardley series consists of moderately deep, well drained soils on upland side slopes. These soils formed in hillslope sediment and the underlying clayey

sediment and residuum. Permeability is moderate. Slopes range from 15 to 60 percent.

*Taxonomic classification:* Very-fine, mixed, active, mesic Typic Hapludalfs

#### Typical Pedon

Bardley extremely cobbly silt loam in an area of Alred-Bardley-Rock outcrop complex, 15 to 60 percent slopes, very stony; 50 feet south and 2,400 feet east of the northwest corner of sec. 3, T. 31 N., R. 7 W.; USGS Montauk topographic quadrangle; UTM coordinates Zone 15, 615,046 meters Easting and 4,142,354 meters Northing; in Texas County, Missouri.

**Oe**—1 inch to 0; partially decomposed oak leaf litter.

**A**—0 to 3 inches; very dark grayish brown (10YR 3/2) extremely cobbly silt loam, light brownish gray (10YR 6/2) dry; moderate fine granular structure; very friable; common fine and very fine roots; many very fine irregular pores; 40 percent chert gravel and 30 percent chert cobbles; neutral (pH 7.2); abrupt wavy boundary.

**BE**—3 to 6 inches; brown (10YR 5/3) extremely cobbly silt loam; weak fine subangular blocky structure; very friable; common very fine and few fine roots; common very fine irregular and tubular pores; 40 percent chert gravel and 30 percent chert cobbles; neutral (pH 6.6); abrupt wavy boundary.

**2Bt1**—6 to 11 inches; yellowish red (5YR 4/6) and brown (7.5YR 5/3) clay; moderate medium subangular blocky structure parting to strong very fine angular blocky; firm; few fine and medium roots; common very fine tubular pores; many prominent clay films on faces of peds; 10 percent chert gravel; strongly acid (pH 5.4); clear wavy boundary.

**2Bt2**—11 to 22 inches; reddish brown (5YR 4/4) clay; weak medium subangular blocky structure parting to weak very fine angular blocky; firm; few fine and medium roots; common very fine tubular pores; many prominent clay films on faces of peds; 5 percent chert gravel; neutral (pH 7.2); abrupt smooth boundary.

**3R**—22 inches; dolostone.

#### Range in Characteristics

*Depth to bedrock:* 20 to 40 inches

*A horizon:*

Content of rock fragments—35 to 80 percent gravel and 0 to 30 percent cobbles

**BE horizon:**

Content of rock fragments—35 to 80 percent gravel and 0 to 30 percent cobbles

**2Bt horizon:**

Content of rock fragments—5 to 25 percent gravel or cobbles

**Batcave Series**

The Batcave series consists of very deep, somewhat poorly drained soils on flood plains. These soils formed in alluvium. Permeability is moderate. Slopes range from 0 to 3 percent.

*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; 1,700 feet north and 200 feet west of the southeast corner of sec. 17, T. 27 N., R. 10 W.; USGS Cabool Southeast topographic quadrangle; UTM coordinates Zone 15, 584,130 meters Easting and 4,096,930 meters Northing.

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 and few medium roots throughout; many very fine and fine irregular pores; 15 percent subrounded chert gravel; slightly acid (pH 6.1); 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 (pH 6.2); 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 (pH 6.0); 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 (pH 6.0); 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 (pH 6.8); 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 (pH 6.9); 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 (pH 7.1).

#### Range in Characteristics

*Ap horizon and A horizon (where present):*

Rock fragments—0 to 40 percent gravel  
Texture—silt loam or loam

*Upper part of Bt horizon and Btg horizon (where present):*

Content of rock fragments—30 to 70 percent gravel and 0 to 15 percent cobbles  
Texture—silt loam, loam, silty clay loam, clay loam, or sandy clay loam

*2Bt horizon (where present):*

Content of rock fragments—0 to 70 percent gravel  
Texture—silt loam, loam, clay loam, sandy clay loam, or clay

### **Bearthicket Series**

The Bearthicket series consists of very deep, well drained soils that formed in silty alluvium. These soils are on flood plains and low stream terraces. Permeability is moderate. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Fine-silty, mixed, active, mesic Ultic Hapludalfs

#### Typical Pedon

Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded; 600 feet south and 2,100 feet west of the northeast corner of sec. 35, T. 26 N., R. 9 W.; Willow Springs South topographic quadrangle; UTM coordinates Zone 15, 597,900 meters Easting and 4,083,060 meters Northing.

Ap—0 to 6 inches; dark yellowish brown (10YR 3/4) silt loam, yellowish brown 10YR 5/4 dry; strong medium granular structure; friable; many very fine roots; many fine irregular and tubular pores; very strongly acid (pH 5.0); clear smooth boundary.

Bt1—6 to 11 inches; dark yellowish brown (10YR 3/6) silt loam; moderate fine and medium granular structure; friable; common very fine and fine roots; many very fine tubular and irregular pores; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; strongly acid (pH 5.3); clear smooth boundary.

Bt2—11 to 20 inches; brown (7.5YR 4/4) silt loam; strong fine subangular blocky structure; friable; many very fine roots; common very fine and fine tubular and vesicular pores; common distinct dark brown (7.5YR 3/3) clay films on faces of peds;

1 percent chert gravel; moderately acid (pH 5.7); clear smooth boundary.

Bt3—20 to 31 inches; strong brown (7.5YR 4/6) silt loam; moderate fine subangular blocky structure; friable; few very fine roots; many very fine tubular pores; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; strongly acid (pH 5.4); clear smooth boundary.

Bt4—31 to 38 inches; dark yellowish brown (10YR 4/4) silt loam; moderate fine subangular blocky structure; friable; common very fine tubular pores; common faint dark yellowish brown (10YR 4/6) clay films on faces of peds; strongly acid (pH 5.3); clear smooth boundary.

Bt5—38 to 80 inches; dark yellowish brown (10YR 4/4) silt loam; moderate fine subangular blocky structure; friable; common very fine tubular pores; many distinct dark yellowish brown (10YR 3/6) clay films on faces of peds; common distinct pale brown (10YR 6/3) coatings of silt on faces of peds; very strongly acid (pH 5.1).

#### Range in Characteristics

*Ap or A horizon:*

Content of rock fragments—0 to 5 percent gravel

*Upper part of Bt horizon:*

Content of rock fragments—0 to 5 percent gravel  
Texture—silt loam or silty clay loam

*Lower part of Bt horizon:*

Content of rock fragments—0 to 30 percent gravel  
Texture—silt loam, loam, clay loam, or loam

### **Bendavis Series**

The Bendavis series consists of moderately deep, moderately well drained soils on uplands. These soils formed in gravelly slope alluvium. Permeability is moderate. Slopes range from 1 to 50 percent.

*Taxonomic classification:* Loamy-skeletal, siliceous, active, mesic Typic Hapludults

#### Typical Pedon

Bendavis extremely gravelly silt loam in an area of Bendavis-Poynor complex, 1 to 8 percent slopes; 2,000 feet north and 1,600 feet east of the southwest corner of sec. 2, T. 24 N., R. 10 W.; Siloam Springs topographic quadrangle; UTM coordinates Zone 15, 586,440 meters Easting and 4,070,660 meters Northing.

Oe—0 to 1 inch; partially decomposed oak leaf litter.

A—1 to 4 inches; brown (10YR 4/3) extremely gravelly silt loam, pale brown (10YR 6/3) dry; moderate fine

granular structure; friable; many very fine and fine roots; many fine tubular and irregular pores; 60 percent chert gravel and 10 percent chert cobbles; very strongly acid (pH 4.6); clear smooth boundary.

Bt1—4 to 17 inches; yellowish brown (10YR 5/4) very gravelly silt loam; weak fine subangular blocky structure; friable; many fine roots; common fine tubular and irregular pores; many faint dark yellowish brown (10YR 4/4) clay films on faces of peds; 40 percent chert gravel, 10 percent chert cobbles, and 5 percent chert stones; very strongly acid (pH 4.9); clear wavy boundary.

Bt2—17 to 34 inches; 60 percent yellowish brown (10YR 5/4) and 40 percent strong brown (7.5YR 5/6) extremely gravelly silt loam; weak fine subangular blocky structure; friable; common fine roots; common fine tubular and irregular pores; common distinct yellowish red (5YR 5/6) clay films on faces of peds; 60 percent chert gravel, 10 percent chert cobbles, and 5 percent chert stones; very strongly acid (pH 4.8); abrupt wavy boundary.

2R—34 inches; chert.

#### Range in Characteristics

*Depth to bedrock:* 20 to 40 inches

*Ap or A horizon:*

Content of rock fragments—35 to 75 percent gravel, cobbles, or stones

*Bt horizon:*

Content of rock fragments—35 to 75 percent gravel, cobbles, or stones

Texture—silt loam, loam, silty clay loam, clay loam, or loam

#### **Bender Series**

The Bender series consists of moderately deep, somewhat excessively drained soils on uplands. These soils formed in residuum derived from sandstone. Permeability is rapid. Slopes range from 15 to 60 percent.

*Taxonomic classification:* Loamy-skeletal, siliceous, active, mesic Typic Hapludults

#### Typical Pedon

Bender very cobbly fine sandy loam, 3 to 15 percent slopes; 50 feet north and 1,200 feet west of the southeast corner of sec. 23, T. 31 N., R. 10 W.; USGS Prescott topographic quadrangle, UTM coordinates Zone 15, 597,652 meters Easting and 4,149,060 meters Northing; in Texas County, Missouri.

Oi—1 inch to 0; slightly decomposed oak leaf litter.

A—0 to 4 inches; brown (10YR 4/3) very cobbly fine sandy loam, yellowish brown (10YR 5/4) dry; weak fine granular structure; very friable; many fine and few medium roots; many very fine irregular pores; 20 percent cobbles and 20 percent gravel; moderately acid (pH 6.0); abrupt smooth boundary.

Bt1—4 to 12 inches; brown (10YR 5/3) very cobbly fine sandy loam, weak medium subangular blocky structure; friable; common fine and few medium roots; common fine tubular pores; few distinct clay films on faces of peds; 20 percent cobbles and 30 percent gravel; strongly acid (pH 5.4); clear smooth boundary.

Bt2—12 to 15 inches; mixed yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/4) extremely cobbly loam; moderate medium subangular blocky structure; friable; common fine and few medium roots; common fine tubular pores; few prominent clay films on faces of peds; 40 percent cobbles and 20 percent gravel; very strongly acid (pH 4.8); clear smooth boundary.

Bt3—15 to 23 inches; mixed brown (7.5YR 4/4) and yellowish red (5YR 4/6) extremely gravelly sandy loam; weak fine subangular blocky structure; firm; few fine and medium roots; common fine tubular pores; common prominent clay films on faces of peds and in pores; 70 percent gravel; very strongly acid (pH 4.8); abrupt wavy boundary.

2R—23 inches; sandstone from the Roubidoux Formation.

#### Range in Characteristics

*Depth to bedrock:* 20 to 40 inches

*A horizon:*

Content of rock fragments—20 to 60 percent gravel and 0 to 35 percent cobbles

*BA horizon (where present):*

Content of rock fragments—20 to 60 percent gravel and 0 to 35 percent cobbles

Texture—sandy loam, fine sandy loam, or loam

*Bt horizon:*

Content of rock fragments—35 to 80 percent gravel and 0 to 50 percent cobbles

Texture—sandy loam, loam, sandy clay loam, or clay loam

#### **Branson Series**

The Branson series consists of very deep, well drained soils on upland ridges. These soils formed in loess and the underlying slope alluvium. Permeability is moderate. Slopes range from 1 to 3 percent.

*Taxonomic classification:* Fine-silty, mixed, active, mesic Typic Paleudults

### Typical Pedon

Branson silt loam in an area of Branson-Splitlimb complex, 1 to 3 percent slopes; 1,250 feet north and 1,750 feet west of the southeast corner of sec. 28, T. 26 N., R. 8 W.; USGS Trask topographic quadrangle; UTM coordinates Zone 15, 604,310 meters Easting and 4,083,440 meters Northing.

- Ap—0 to 7 inches; brown (10YR 4/3) silt loam, yellowish brown (10YR 5/4) dry; moderate fine subangular blocky structure parting to moderate fine granular; friable; many fine and medium roots; many very fine tubular and irregular pores; 5 percent chert gravel; moderately acid (pH 6.0); clear smooth boundary.
- Bt1—7 to 13 inches; mixed dark yellowish brown (10YR 4/6) silt loam; moderate medium subangular blocky structure; friable; many very fine roots; common very fine tubular pores; many distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; moderately acid (pH 6.0); clear smooth boundary.
- Bt2—13 to 20 inches; dark yellowish brown (10YR 4/6) silt loam; moderate medium subangular blocky structure; friable; common very fine roots; many very fine tubular pores; many distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; few fine black stains of iron and manganese oxides on faces of peds; strongly acid (pH 5.4); clear smooth boundary.
- Bt3—20 to 38 inches; strong brown (7.5YR 4/6) silt loam; moderate medium subangular blocky structure; friable; common very fine roots; many very fine tubular pores; many distinct strong brown (7.5YR 4/4) clay films on faces of peds; few fine black stains of iron and manganese oxides on faces of peds; few fine black concretions of iron and manganese oxides; 5 percent chert gravel; very strongly acid (pH 5.0); clear smooth boundary.
- 2Bt4—38 to 45 inches; strong brown (7.5YR 5/6) silty clay loam; moderate medium subangular blocky structure; firm; few very fine roots; few very fine tubular pores; many distinct strong brown (7.5YR 4/6) clay films on faces of peds; few fine black stains of iron and manganese oxides on faces of peds; very strongly acid (pH 4.9); clear smooth boundary.
- 2Bt5—45 to 56 inches; 60 percent red (2.5YR 4/6) and 40 percent yellowish red (5YR 4/6) silty clay loam; moderate medium subangular blocky structure; friable; few very fine roots; few very fine tubular pores; many prominent reddish brown (2.5YR 4/4)

clay films on faces of peds; 5 percent chert gravel; very strongly acid (pH 4.9); clear smooth boundary.

2Bt6—56 to 80 inches; red (2.5YR 4/6) silty clay loam; moderate medium subangular blocky structure; friable; few very fine tubular pores; many prominent reddish brown (2.5YR 4/4) clay films on faces of peds; 10 percent chert gravel; very strongly acid (pH 4.8); clear smooth boundary.

### Range in Characteristics

*Ap or A horizon:*

Content of rock fragments—0 to 5 percent gravel

*Bt horizon:*

Content of rock fragments—0 to 5 percent gravel

Texture—silt loam or silty clay loam

*2Bt horizon:*

Content of rock fragments—0 to 15 percent gravel

Texture—silty clay loam or silty clay

### Britwater Series

The Britwater series consists of very deep, well drained soils on stream terraces. These soils formed in loamy alluvium. Permeability is moderate. Slopes range from 1 to 3 percent.

*Taxonomic classification:* Fine-loamy, mixed, active, mesic Typic Paleudalfs

### Typical Pedon

Britwater silt loam, 1 to 3 percent slopes, rarely flooded; 1,300 feet north and 2,850 feet west of the southeast corner of sec. 8, T. 24 N., R. 8 W.; USGS White Church topographic quadrangle; lat. 37 degrees 30 minutes 43 seconds N.; UTM coordinates Zone 15, 600,920 meters Easting and 4,069,340 meters Northing.

Ap—0 to 7 inches; brown (10YR 4/3) silt loam, yellowish brown (10YR 5/4) dry; moderate medium subangular blocky structure parting to weak medium granular; friable; many fine and medium roots; many fine irregular pores; 5 percent chert gravel; moderately acid (pH 5.9); clear smooth boundary.

Bt1—7 to 13 inches; brown (7.5YR 4/4) silt loam; moderate fine and medium subangular blocky structure; friable; common fine and medium roots; common fine and medium tubular pores; many distinct strong brown (7.5YR 4/6) clay films on faces of peds; 5 percent chert gravel; slightly acid (pH 6.2); clear smooth boundary.

Bt2—13 to 18 inches; brown (7.5YR 4/4) silty clay loam; moderate medium subangular blocky

structure; firm; common fine roots; common fine tubular pores; many distinct strong brown (7.5YR 4/6) clay films on faces of peds; 10 percent chert gravel; moderately acid (pH 5.7); clear wavy boundary.

- Bt3—18 to 24 inches; 60 percent yellowish red (5YR 4/6) and 40 percent brown (7.5YR 4/4) gravelly clay loam; moderate fine and medium subangular blocky structure; firm; few fine roots; few fine tubular and irregular pores; many prominent dark red (2.5YR 3/6) clay films on faces of peds; few fine black stains of iron and manganese oxides on faces of peds; 30 percent chert gravel; strongly acid (pH 5.3); clear smooth boundary.
- 2Bt4—24 to 32 inches; dark red (2.5YR 3/6) gravelly clay loam; moderate fine and medium subangular blocky structure; firm; few fine roots; few fine tubular and irregular pores; many distinct dark red (2.5YR 3/6) clay films on faces of peds; common fine black stains of iron and manganese oxides on faces of peds; 15 percent chert gravel; strongly acid (pH 5.3.9); clear smooth boundary.
- 2Bt5—32 to 48 inches; dark red (2.5YR 3/6) extremely gravelly clay loam; weak fine subangular blocky structure; firm; few fine roots; few fine tubular and irregular pores; many distinct dark red (2.5YR 3/6) clay films on faces of peds; few fine black stains of iron and manganese oxides on faces of peds; 65 percent chert gravel; strongly acid (pH 5.3); clear smooth boundary.
- 2Bt6—48 to 80 inches; red (2.5YR 4/6) very gravelly sandy clay loam; moderate fine and medium subangular blocky structure; firm; many fine tubular and irregular pores; many prominent reddish brown (2.5YR 4/4) clay films on faces of peds; 40 percent chert gravel; moderately acid (pH 5.6).

#### Range in Characteristics

##### *Ap or A horizon:*

Content of rock fragments—0 to 10 percent gravel

##### *Bt horizon:*

Content of rock fragments—5 to 30 percent gravel  
Texture—silt loam or silty clay loam

##### *2Bt horizon:*

Content of rock fragments—15 to 70 percent gravel  
Texture—silty clay loam, clay loam, or sandy clay loam

### **Cedargap Series**

The Cedargap series consists of very deep, well drained soils on flood plains. These soils formed in

stream alluvium. Permeability is moderate. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Loamy-skeletal, mixed, superactive, mesic Cumulic Hapludolls

#### Typical Pedon

Cedargap gravelly loam, 0 to 3 percent slopes, frequently flooded; 210 feet north and 2,050 feet east of the southwest corner of sec. 21, T. 29 N., R. 10 W.; USGS Cabool NE topographic quadrangle; UTM coordinates Zone 15, 584,728 meters Easting and 4,114,251 meters Northing; in Texas County, Missouri.

- A1—0 to 10 inches; very dark grayish brown (10YR 3/2) gravelly loam, grayish brown (10YR 5/2) dry; moderate medium subangular blocky structure; friable; many fine roots; many fine tubular pores; 15 percent gravel; neutral (pH 6.8); abrupt wavy boundary.
- A2—10 to 15 inches; very dark gray (10YR 3/1) gravelly silt loam, dark grayish brown (10YR 4/2) dry; moderate medium subangular blocky structure; friable; many fine roots; many fine tubular pores; 15 percent gravel; moderately acid (pH 6.0); abrupt wavy boundary.
- A3—15 to 22 inches; black (10YR 2/1) gravelly silt loam, very dark gray (10YR 3/1) dry; moderate medium subangular blocky structure; very friable; many fine roots; many fine tubular pores; 15 percent gravel; slightly acid (pH 6.2); abrupt wavy boundary.
- C1—22 to 30 inches; very dark brown (10YR 2/2) extremely gravelly loam, very dark grayish brown (10YR 3/2) dry; massive; very friable; many fine roots; many fine irregular pores; 60 percent gravel; slightly acid (pH 6.4); abrupt wavy boundary.
- C2—30 to 39 inches; very dark grayish brown (10YR 3/2) extremely gravelly loam, dark brown (10YR 4/3) dry; massive; very friable; many fine roots; many fine and medium irregular pores; 70 percent gravel; neutral (pH 6.8); abrupt wavy boundary.
- C3—39 to 80 inches; dark brown (10YR 3/3) and very dark grayish brown (10YR 3/2) extremely gravelly clay loam; massive; firm; few fine roots; many fine irregular pores; many fine black concretions of iron and manganese oxides; 70 percent gravel; neutral (pH 7.0).

#### Range in Characteristics

*Depth to bedrock:* More than 80 inches

##### *Ap or A1 horizon:*

Content of rock fragments—10 to 35 percent gravel

*A2 and A3 horizons:*

Content of rock fragments—15 to 70 percent gravel or cobbles

Texture—silt loam, loam, or silty clay loam

*C horizon:*

Content of rock fragments—45 to 80 percent gravel or cobbles (may be fewer below a depth of 40 inches)

Texture—loam or clay loam

**Clarksville Series**

The Clarksville series consists of very deep, somewhat excessively drained soils on uplands. These soils formed in gravelly slope alluvium and residuum. Permeability is moderate. Slopes range from 15 to 50 percent.

*Taxonomic classification:* Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults

**Typical Pedon**

Clarksville extremely gravelly silt loam in an area of Clarksville-Bendavis complex, 15 to 35 percent slopes, stony; 200 feet south and 1,900 feet west of the northeast corner of sec. 24, T. 25 N., R. 6 W.; USGS Thomasville topographic quadrangle; UTM coordinates Zone 15, 628,660 meters Easting and 4,076,720 meters Northing; in Oregon County, Missouri.

Oe—0 to 2 inches; partially decomposed organic matter.

A—2 to 8 inches; brown (10YR 5/3) extremely gravelly silt loam, light yellowish brown (10YR 6/4) dry; weak fine granular structure; friable; many fine to coarse roots; many very fine irregular pores; 75 percent chert gravel and 2 percent chert cobbles; extremely acid (pH 4.4); clear smooth boundary.

BE—8 to 14 inches; 60 percent reddish yellow (7.5YR 6/6) and 40 percent yellowish brown (10YR 5/4) very gravelly silt loam; weak fine subangular blocky structure; friable; common fine to coarse roots; many fine irregular and tubular pores; 50 percent chert gravel and 5 percent chert cobbles; very strongly acid (pH 4.9); clear wavy boundary.

Bt1—14 to 20 inches; yellowish red (5YR 5/6) very gravelly silt loam; weak fine subangular blocky structure; firm; common fine to coarse roots; many fine tubular pores; many prominent red (2.5YR 4/6) clay films on faces of peds; 35 percent chert gravel and 2 percent chert cobbles; very strongly acid (pH 4.7); clear wavy boundary.

2Bt2—20 to 28 inches; 60 percent red (2.5YR 4/6) and

40 percent strong brown (7.5YR 5/6) very gravelly silty clay loam; moderate fine subangular blocky structure; very firm; common fine and medium roots; many fine tubular pores; many distinct dark red (2.5YR 3/6) clay films on faces of peds; 40 percent chert gravel and 5 percent chert cobbles; very strongly acid (pH 4.7); clear wavy boundary.

2Bt3—28 to 44 inches; red (2.5YR 4/6) very gravelly clay; moderate fine angular blocky structure; very firm; few fine and very fine roots; many very fine and fine tubular pores; many prominent dark red (2.5YR 3/6) clay films on faces of peds; 50 percent chert gravel; very strongly acid (pH 4.6); clear wavy boundary.

2Bt4—44 to 56 inches; dark red (2.5YR 3/6) gravelly clay; moderate medium angular blocky structure parting to strong fine angular blocky; very firm; few very fine roots; few very fine tubular pores; many distinct red (2.5YR 4/6) clay films on faces of peds; 10 percent chert gravel and 5 percent chert cobbles; very strongly acid (pH 4.5); clear wavy boundary.

3Bt5—56 to 80 inches; dark red (2.5YR 3/6) gravelly clay; moderate medium angular blocky structure parting to strong fine angular blocky; very firm; few very fine roots; few very fine tubular pores; many distinct dark reddish brown (2.5YR 3/3) clay films on faces of peds; 30 percent chert gravel and 2 percent chert cobbles; very strongly acid (pH 4.6).

**Range in Characteristics***A horizon:*

Content of rock fragments—35 to 80 percent gravel and cobbles

*BE horizon:*

Content of rock fragments—25 to 65 percent gravel and cobbles

Texture—silt loam or loam

*Bt horizon:*

Content of rock fragments—25 to 75 percent gravel and cobbles

Texture—silt loam, silty clay loam, clay loam, or loam

*2Bt horizon:*

Content of rock fragments—15 to 50 percent gravel and cobbles

Texture—clay, clay loam, or silty clay loam

**Coulstone Series**

The Coulstone series consists of very deep, somewhat excessively drained soils on uplands. These

soils formed in gravelly slope alluvium and residuum derived from acid sandstone. Permeability is moderately rapid. Slopes range from 15 to 60 percent.

*Taxonomic classification:* Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults

### Typical Pedon

Coulstone very gravelly fine sandy loam in an area of Coulstone-Bender complex, 15 to 50 percent slopes, very stony; 1,300 feet south and 2,500 feet east of the northwest corner of sec. 17, T. 25 N., R. 10 W.; USGS Siloam Springs topographic quadrangle; UTM coordinates Zone 15, 583,290 meters Easting and 4,078,280 meters Northing.

Oe—0 to 1 inch; partially decomposed organic matter.  
A—1 to 4 inches; dark grayish brown (10YR 4/2) very gravelly fine sandy loam; weak very fine granular structure; very friable; many very fine and fine roots; many very fine irregular pores; 40 percent chert gravel; strongly acid (pH 5.3); clear wavy boundary.

AE—4 to 11 inches; brown (10YR 4/3) gravelly sandy loam; weak fine subangular blocky structure; friable; many fine to coarse roots; many fine irregular and tubular pores; 30 percent chert gravel; strongly acid (pH 5.4); gradual wavy boundary.

Bt1—11 to 20 inches; yellowish brown (10YR 5/4) very gravelly sandy loam; weak fine subangular blocky structure; friable; common fine and few medium roots; many fine irregular and tubular pores; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; 35 percent chert gravel; moderately acid (pH 5.7); clear wavy boundary.

Bt2—20 to 31 inches; yellowish brown (10YR 5/4) very gravelly sandy loam; weak fine subangular blocky structure; friable; common fine to coarse roots; many fine irregular and tubular pores; common distinct strong brown (7.5YR 5/6) clay films on rock fragments; 45 percent chert gravel; strongly acid (pH 5.5); clear wavy boundary.

2Bt3—31 to 39 inches; yellowish red (5YR 4/6) extremely gravelly loam; moderate fine subangular blocky structure; friable; common fine roots; many fine irregular and tubular pores; many distinct reddish brown (5YR 4/4) clay films throughout; 65 percent chert gravel; strongly acid (pH 5.4); gradual smooth boundary.

2Bt4—39 to 53 inches; red (2.5YR 4/6) very cobbly loam; moderate fine and medium subangular blocky structure; firm; common very fine and fine roots; many fine irregular and tubular pores; many distinct yellowish red (5YR 4/6) clay films

throughout; 30 percent chert gravel and 20 percent chert cobbles; moderately acid (pH 5.6); abrupt wavy boundary.

2Bt5—53 to 80 inches; red (2.5YR 4/8) cobbly sandy clay loam; moderate fine and medium subangular blocky structure; firm; few fine to coarse roots; many fine irregular and tubular pores; many prominent red (2.5YR 4/6) clay films throughout; 10 percent chert gravel and 20 percent sandstone cobbles; strongly acid (pH 5.4).

### Range in Characteristics

#### A horizon:

Content of rock fragments—35 to 60 percent gravel or cobbles

#### AE horizon:

Content of rock fragments—25 to 65 percent gravel  
Texture—loam or sandy loam

#### Bt and 2Bt horizons:

Content of rock fragments—25 to 75 percent gravel or cobbles  
Texture—clay loam, loam, sandy loam, or sandy clay loam

### Deible Series

The Deible series consists of very deep, poorly drained soils on stream terraces and in basins. These soils formed in alluvium. Permeability is very slow. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Fine, mixed, active, mesic Typic Albaqualfs

### Typical Pedon

Deible silt loam, 0 to 3 percent slopes, rarely flooded; 1,500 feet north and 1,600 feet west of the southeast corner of sec. 34, T. 24 N., R. 9 W.; USGS South Fork topographic quadrangle; UTM coordinates Zone 15, 594,810 meters Easting and 4,062,450 meters Northing.

Ap—0 to 9 inches; dark grayish brown (10YR 4/2) silt loam; moderate medium subangular blocky structure parting to moderate fine subangular blocky; friable; many fine roots; many fine irregular and tubular pores; few fine black concretions of iron and manganese oxides; slightly acid (pH 6.4); abrupt smooth boundary.

A—9 to 15 inches; dark grayish brown (10YR 4/2) silt loam; moderate medium subangular blocky structure; friable; common fine roots; common fine irregular and tubular pores; few prominent

brown (7.5YR 4/4) clay films throughout; common grayish brown (10YR 5/2) iron depletions; common fine black concretions of iron and manganese oxides; neutral (pH 6.8); clear smooth boundary.

Btg1—15 to 22 inches; dark gray (2.5Y 4/1) silty clay loam; moderate fine angular blocky structure; firm; few fine roots; few fine irregular and tubular pores; many distinct black (2.5Y 2/1) clay films throughout; few fine irregular soft dark reddish brown (5YR 3/3) masses of iron and manganese oxides; neutral (pH 7.0); clear smooth boundary.

Btg2—22 to 29 inches; dark gray (2.5Y 4/1) silty clay; moderate medium angular blocky structure; firm; few fine roots; few fine irregular and tubular pores; many prominent black (2.5Y 2/1) clay films throughout; common fine irregular soft strong brown (7.5YR 5/6) masses of iron and manganese oxides throughout; common fine black concretions of iron and manganese oxides; 5 percent chert gravel; neutral (pH 7.1); gradual wavy boundary.

Btg3—29 to 40 inches; dark gray (2.5Y 4/1) silty clay; strong medium angular blocky structure; firm; few very fine roots; few very fine tubular pores; many distinct continuous dark gray (2.5Y 4/1) pressure faces on peds; common prominent discontinuous brown (7.5YR 4/4) iron stains throughout; 1 percent chert gravel; slightly alkaline (pH 7.5); clear wavy boundary.

2Btg4—40 to 46 inches; gray (5Y 5/1) clay; strong coarse angular blocky structure; very firm; few very fine roots; few very fine tubular pores; many distinct continuous gray (5Y 5/1) pressure faces on faces of peds; 1 percent chert gravel; slightly alkaline (pH 7.8); gradual wavy boundary.

2Btg5—46 to 60 inches; gray (5Y 5/1) clay; strong medium angular blocky structure; very firm; few very fine roots; few very fine tubular pores; few prominent discontinuous light olive brown (2.5Y 5/4) iron stains throughout; many distinct continuous gray (5Y 5/1) pressure faces on peds; many prominent continuous black (2.5Y 2/1) clay films on faces of peds; few prominent discontinuous white (2.5Y 8/1) coatings of silt on faces of peds; 2 percent chert gravel; moderately alkaline (pH 7.9).

### Range in Characteristics

#### *Ap and A horizons:*

Content of rock fragments—0 to 15 percent gravel

#### *Btg horizon:*

Content of rock fragments—0 to 15 percent gravel or cobbles

Texture—silty clay loam, clay, or silty clay

#### *2Btg horizon:*

Content of rock fragments—0 to 15 percent gravel  
Texture—silt loam, silty clay loam, clay loam, clay, or silty clay

### **Egyptgrove Series**

The Egyptgrove series consists of very deep, well drained soils on uplands. These soils formed in slope alluvium and the underlying clayey residuum derived from decomposing post-Ordovician mudstone. Permeability is slow. Slopes range from 3 to 15 percent.

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, mesic Typic Paleudults

#### **Typical Pedon**

Egyptgrove gravelly silt loam in an area of Kenaga-Egyptgrove complex, 3 to 8 percent slopes; 1,600 feet north and 800 feet west of the southeast corner of sec. 27, T. 26 N., R. 9 W.; USGS Willow Springs South topographic quadrangle; UTM coordinates Zone 15, 596,700 meters Easting and 4,083,780 meters Northing.

Oi—0 to 3 inches; slightly decomposed leaf litter.

A—3 to 8 inches; yellowish brown (10YR 5/4) gravelly silt loam, light yellowish brown (10YR 6/4) dry; weak fine granular structure; friable; common fine and medium roots and few coarse roots; many very fine, fine, and medium irregular pores; 15 percent chert gravel and 10 percent sandstone gravel; extremely acid (pH 4.4); clear smooth boundary.

Bt1—8 to 12 inches; 70 percent strong brown (7.5YR 5/6) and 30 percent yellowish brown (10YR 5/8) silt loam; weak fine subangular blocky structure; friable; common medium and few fine and coarse roots; common very fine, fine, and medium irregular and tubular pores; common faint strong brown (7.5YR 5/6) clay films on faces of peds; few discontinuous distinct brown (10YR 4/3) organic coatings throughout; 10 percent chert gravel; very strongly acid (pH 4.7); clear smooth boundary.

Bt2—12 to 19 inches; strong brown (7.5YR 5/8) gravelly clay loam; weak medium subangular blocky structure; firm; common medium, few fine, and very few coarse roots; many very fine, fine, and medium irregular and tubular pores; common discontinuous faint yellowish red (5YR 5/8) clay films on faces of peds; 15 percent chert gravel; very strongly acid (pH 4.7); clear smooth boundary.

2Btd1—19 to 27 inches; 90 percent strong brown

(7.5YR 5/8) and 10 percent brownish yellow (10YR 6/8) clay; weak medium subangular blocky structure; firm; very few very fine, fine, and medium roots; many fine and medium tubular pores; common faint yellowish red (5YR 4/6) clay films on faces of peds; 5 percent chert gravel; extremely acid (pH 4.4); gradual wavy boundary.

2Btd2—27 to 35 inches; 60 percent strong brown (7.5YR 5/8) and 40 percent brownish yellow (10YR 6/8) clay; moderate medium subangular blocky structure; firm; very few very fine, fine, and medium roots throughout; common fine and medium tubular pores; common distinct red (2.5YR 5/8) clay films on faces of peds; 2 percent chert gravel; very strongly acid (pH 4.7); clear wavy boundary.

2Btd3—35 to 48 inches; brownish yellow (10YR 6/8) clay; moderate fine angular blocky structure; very firm; very few fine, medium, and coarse roots; many fine tubular pores; common distinct yellowish red (5YR 5/8) and common prominent light gray (10YR 7/1) clay films on faces of peds; very strongly acid (pH 4.8); clear wavy boundary.

3Btd4—48 to 58 inches; brownish yellow (10YR 6/8) clay; weak very coarse prismatic structure parting to moderate fine angular blocky; very firm; very few very fine roots; few fine tubular and medium vesicular pores; common prominent red (2.5YR 4/8) and few prominent light gray (10YR 7/1) clay films on faces of peds; 10 percent chert gravel; very strongly acid (pH 4.6); clear irregular boundary.

3Btd5—58 to 80 inches; 60 percent yellowish red (5YR 5/8) and 40 percent yellow (10YR 7/8) gravelly clay; weak very coarse prismatic structure parting to moderate fine angular blocky; very firm; few very fine roots; few fine tubular pores; common prominent red (2.5YR 4/8) and common prominent light gray (10YR 7/1) clay films on faces of peds; few prominent black (N 2/0) coatings of iron and manganese oxides on faces of peds; 20 percent chert gravel; very strongly acid (pH 4.7).

### Range in Characteristics

#### *A or Ap horizon:*

Content of rock fragments—0 to 50 percent gravel and 0 to 10 percent cobbles

#### *Bt horizon:*

Content of rock fragments—0 to 30 percent gravel and 0 to 10 percent cobbles

Texture—silt loam, silty clay loam, loam, or clay loam

#### *2Btd horizon:*

Content of rock fragments—0 to 30 percent gravel and 0 to 10 percent cobbles or flagstones

Texture—silty clay or clay

## **Eudy Series**

The Eudy series consists of moderately deep, somewhat poorly drained soils that formed in silty slope alluvium and the underlying clayey residuum derived from cherty dolostone. These soils are on gently sloping ridgetops. Permeability is moderately slow. Slopes range from 1 to 8 percent.

*Taxonomic classification:* Fine, mixed, active, mesic Aquic Hapludalfs

### Typical Pedon

Eudy silt loam, 1 to 8 percent slopes; 650 feet north and 2,300 feet west of the southeast corner of sec. 26, T. 30 N., R. 9 W.; USGS Houston topographic quadrangle; UTM coordinates Zone 15, 598,830 meters Easting and 4,125,062 meters Northing; in Texas County, Missouri.

Ap—0 to 7 inches; mixed very dark grayish brown (10YR 3/2) and dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; strong fine and very fine granular structure; very friable; common fine roots; many very fine irregular pores; 10 percent chert gravel; neutral (pH 7.1); abrupt smooth boundary.

Bt1—7 to 10 inches; mixed dark brown (10YR 3/3) and yellowish brown (10YR 5/4) silt loam; weak fine and medium subangular blocky structure; friable; common fine roots; common very fine tubular pores; few distinct clay films on faces of peds; 10 percent chert gravel; neutral (pH 7.3); clear smooth boundary.

2Bt2—10 to 14 inches; mixed dark brown (10YR 3/3) and yellowish brown (10YR 5/6) gravelly silty clay loam; strong fine angular blocky structure; very firm; common fine roots; many very fine tubular pores; few fine faint dark grayish brown (10YR 4/2) iron depletions; few fine black (N 2/0) iron and manganese oxide concretions; few prominent black (N 2/0) masses of iron and manganese oxide accumulation; common distinct clay films on faces of peds; 15 percent chert gravel; neutral (pH 7.3); clear wavy boundary.

2Bt3—14 to 21 inches; brown (10YR 4/3) gravelly silty clay; weak coarse prismatic structure parting to



weak coarse and fine angular blocky; very firm; common fine roots; many very fine tubular pores; common distinct clay films on faces of peds and in pores; few fine faint dark grayish brown (10YR 4/2) iron depletions; few fine prominent red (2.5YR 4/6) masses of iron accumulation; common fine black (N 2/0) iron and manganese oxide concretions; 25 percent chert gravel; slightly alkaline (pH 7.6); abrupt wavy boundary.

2Bt4—21 to 25 inches; mixed yellowish brown (10YR 5/6) and olive brown (2.5Y 4/4) gravelly clay; moderate coarse subangular blocky structure parting to weak fine angular blocky; very firm; common fine roots; many fine roots; common prominent clay films on faces of peds and in pores; common fine prominent gray (10YR 5/1) iron depletions; common fine prominent black (N 2/0) iron and manganese oxide concretions; 20 percent chert gravel; slightly alkaline (pH 7.7); abrupt wavy boundary.

3R—25 inches; dolostone

#### Range in Characteristics

*Depth to bedrock:* 20 to 40 inches

*Ap or A horizon:*

Content of rock fragments—0 to 10 percent gravel

*Bt horizon:*

Content of rock fragments—0 to 10 percent gravel  
Texture—silt loam or silty clay loam

*2Bt horizon:*

Content of rock fragments—0 to 30 percent gravel  
Texture—silty clay or clay

### Fanchon Series

The Fanchon series consists of very deep, well drained soils on nearly level to moderately sloping ridgetops and shoulder slopes. These soils formed in loess and the underlying slope alluvium and residuum. Permeability is moderate. Slopes range from 1 to 8 percent.

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, mesic Typic Paleudults

#### Typical Pedon

Fanchon silt loam in an area of Fanchon-Tonti complex, 3 to 8 percent slopes; 1,200 feet south and 1,200 feet west of the northeast corner of sec. 8, T. 22 N., R. 9 W.; USGS Moody topographic quadrangle; UTM coordinates Zone 15, 593,360 meters Easting and 4,049,850 meters Northing.

Oi—0 to 1 inch; partially decomposed organic matter.

A—1 to 5 inches; brown (10YR 4/3) silt loam; moderate medium granular structure; very friable; many very fine and fine and few medium and coarse roots throughout; many fine irregular and tubular pores; 2 percent subangular mixed gravel; strongly acid (pH 5.1); abrupt smooth boundary.

AB—5 to 10 inches; 60 percent dark yellowish brown (10YR 4/4) and 40 percent yellowish brown (10YR 5/4) silt loam; weak fine subangular blocky structure; friable; common fine and few medium and coarse roots throughout; common fine tubular pores; few distinct brown (10YR 4/3) organic coatings on faces of peds; 2 percent subangular mixed gravel; strongly acid (pH 5.1); clear smooth boundary.

Bt1—10 to 16 inches; yellowish brown (10YR 5/4) silt loam; weak medium subangular blocky structure parting to moderate fine subangular blocky; firm; common fine and few medium and coarse roots throughout; common fine tubular pores; few distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; few distinct brown (10YR 4/3) organic coatings in root channels and pores; 5 percent subangular mixed gravel; strongly acid (pH 5.1); clear smooth boundary.

Bt2—16 to 21 inches; brown (7.5YR 5/4) silt loam; moderate medium angular blocky structure parting to moderate fine angular blocky; firm; few medium roots throughout; few fine and medium tubular pores; few distinct yellowish red (5YR 4/6) clay films on faces of peds and few distinct brown (7.5YR 5/4) clay films throughout; 5 percent subangular mixed gravel and 2 percent subangular sandstone stones; very strongly acid (pH 5.0); clear smooth boundary.

2Bt3—21 to 28 inches; strong brown (7.5YR 5/6) very gravelly loam; moderate fine angular blocky structure; firm; few fine roots throughout; common very fine and fine tubular pores; few distinct strong brown (7.5YR 5/6) clay films on faces of peds; few distinct brown (10YR 5/3) coatings of silt between sand grains; 40 percent subangular mixed gravel and 5 percent angular sandstone flagstones; strongly acid (pH 5.1); clear wavy boundary.

2Bt4—28 to 39 inches; 60 percent red (2.5YR 4/8) and 40 percent brown (7.5YR 5/4) gravelly clay loam; moderate fine subangular blocky structure; firm; common very fine and fine irregular and tubular pores; few distinct red (2.5YR 4/6) and common distinct brown (7.5YR 4/4) clay films on faces of peds; common distinct pale brown (10YR 6/3)

coatings of silt between sand grains; 25 percent subangular chert gravel; strongly acid (pH 5.2); clear wavy boundary.

2Bt5—39 to 47 inches; red (10R 4/8) very gravelly clay loam; weak fine subangular blocky structure; firm; many very fine and fine irregular and tubular pores; common distinct brown (7.5YR 5/2) clay films on faces of peds; common prominent brown (10YR 5/4) coatings of silt between sand grains; 50 percent subangular chert gravel; pockets of decomposing tripoli; strongly acid (pH 5.1); clear wavy boundary.

3Bt6—47 to 80 inches; 80 percent red (10R 4/8) and 20 percent yellowish red (5YR 5/6) clay; moderate very fine angular and subangular blocky structure; very firm; few fine irregular and tubular pores; common prominent reddish brown (2.5YR 4/4) clay films on faces of peds and few prominent brown (7.5YR 4/3) clay films in root channels and pores; few distinct yellowish brown (10YR 5/4) coatings of silt in root channels and pores; 5 percent subangular mixed gravel; very strongly acid (pH 5.0).

#### Range in Characteristics

##### *A or Ap horizon:*

Content of rock fragments—0 to 25 percent gravel

##### *AB horizon:*

Content of rock fragments—0 to 20 percent gravel  
Texture—silt loam or loam

##### *Bt horizon:*

Content of rock fragments—0 to 35 percent gravel and 0 to 5 percent stones or cobbles  
Texture—silt loam, loam, silty clay loam, or clay loam

##### *2Bt horizon:*

Content of rock fragments—0 to 50 percent gravel and 0 to 20 percent stones, flagstones, or cobbles  
Texture—silt loam, loam, silty clay loam, or clay loam

##### *3Bt horizon:*

Content of rock fragments—0 to 60 percent gravel and 0 to 20 percent stones, flagstones, or cobbles  
Texture—clay or silty clay

#### **Farewell Series**

The Farewell series consists of very deep, somewhat poorly drained soils on flood plains and low stream terraces. These soils formed in loamy alluvium.

Permeability is moderate. Slopes range from 0 to 3 percent.

*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; 2,400 feet south and 1,700 feet east of the northwest corner of sec. 5, T. 22 N., R. 10 W.; USGS Caulfield topographic quadrangle; UTM coordinates Zone 15, 583,240 meters Easting and 4,051,560 meters Northing.

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 peds; few brown (7.5YR 4/4) iron stains in root channels and pores; 5 percent subangular chert gravel; moderately acid (pH 5.6); clear smooth boundary.

A1—8 to 13 inches; very dark gray (N 3/0) 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 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 peds; few fine prominent strong brown (7.5YR 4/6) iron stains on faces of peds; common fine rounded strong brown (7.5YR 4/6) slightly hard iron-manganese concretions throughout; 30 percent chert gravel; neutral (pH 6.9); 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 (pH 7.1); 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 peds; 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 peds; few medium prominent irregular black (N 2/0) iron-manganese stains on faces of peds; common fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; 10 percent chert gravel; neutral (pH 7.1) 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 peds; 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 peds; few medium prominent irregular black (N 2/0) iron-manganese stains on faces of peds; common fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; 5 percent chert gravel; neutral (pH 7.2); 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 peds; 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 (pH 7.3); 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 peds; common fine distinct rounded light brownish gray (10YR 6/2) iron depletions between peds; few medium prominent irregular black (N 2/0) iron-manganese stains on faces of peds; few fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; 5 percent chert gravel and 2 percent chert cobbles; neutral (pH 7.3).

### Range in Characteristics

#### *Ap and A horizons:*

Content of rock fragments—0 to 35 percent gravel  
Texture—silt loam or loam

#### *Upper part of Btg or Bt horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—silt loam, loam, silty clay loam, or clay loam

#### *Lower part of Btg or Bt horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—clay loam, silt loam, loam, sandy clay loam, clay, sandy loam, or loamy sand

### Gatewood Series

The Gatewood series consists of moderately deep, moderately well drained soils on uplands. These soils formed in gravelly slope alluvium and the underlying residuum derived from cherty dolostone. Permeability is slow. Slopes range from 3 to 60 percent.

*Taxonomic classification:* Very-fine, mixed, active, mesic Oxyaquic Hapludalfs

### Typical Pedon

Gatewood very gravelly silt loam in an area of Ocie-Gatewood complex, 3 to 15 percent slopes, stony; 1,000 feet south and 300 feet east of the northwest corner of sec. 14, T. 27 N., R. 10 W.; USGS Cabool SE topographic quadrangle; UTM coordinates Zone 15, 587,465 meters Easting and 4,097,720 meters Northing.

Oi—0 to 1 inch; partially decomposed organic matter.

A—1 to 7 inches; grayish brown (10YR 5/2) very gravelly silt loam; weak fine granular structure; friable; common fine and medium roots; many fine and medium irregular pores; 50 percent subangular chert gravel; slightly acid (pH 6.5); clear smooth boundary.

Bt1—7 to 13 inches; strong brown (7.5YR 5/6) clay; moderate fine angular blocky structure; very firm;

few fine to coarse roots; few fine and medium tubular pores; 15 percent distinct discontinuous brown (10YR 5/3) clay films on faces of peds, 15 percent distinct discontinuous dark grayish brown (10 YR 4/2) skeletons on faces of peds, and 75 percent faint discontinuous strong brown (7.5YR 4/6) clay films throughout; 5 percent black (N 2/0) soft masses of iron-manganese; 2 percent chert gravel; strongly acid (pH 5.3); gradual wavy boundary.

Bt2—13 to 21 inches; light olive brown (2.5Y 5/4) clay; moderate fine and medium angular blocky structure; very firm; few fine and medium roots; common very fine and fine tubular pores; 75 percent faint continuous light olive brown (2.5Y 5/4) clay films on faces of peds; yellowish brown (10YR 5/6) soft masses of iron-manganese and black (N 2/0) iron-manganese concretions; 2 percent chert gravel; slightly acid (pH 6.3); clear irregular boundary.

Bt3—21 to 38 inches; yellowish brown (10YR 5/6) flaggy clay; moderate very fine subangular blocky structure; very firm; few fine roots; few very fine and fine tubular pores; 75 percent prominent continuous grayish brown (10YR 5/2) clay films on faces of peds and roots and 15 percent prominent discontinuous black (N 2/0) iron stains throughout; 35 percent irregular strong brown (7.5YR 5/6) soft masses of iron-manganese throughout; 10 percent dolostone cobbles and 5 percent dolostone flagstones; slightly alkaline (pH 7.6); abrupt wavy boundary.

R—38 inches; unweathered dolostone.

#### Range in Characteristics

*Depth to bedrock:* 20 to 40 inches

#### *A horizon:*

Content of rock fragments—35 to 70 percent gravel and 0 to 20 percent cobbles

#### *BA horizon (where present):*

Content of rock fragments—35 to 70 percent gravel and 0 to 20 percent cobbles

Texture—silt loam or loam

#### *2Bt horizon:*

Content of rock fragments—5 to 25 percent gravel, cobbles, stones, and flagstones

Texture—clay or silty clay

### **Grandgulf Series**

The Grandgulf series consists of very deep, well drained soils that formed in fine-silty alluvium. These

soils are in nearly level to gently sloping sinkholes. Permeability is moderate. Slopes range from 1 to 3 percent.

*Taxonomic classification:* Fine-silty, mixed, active, mesic Typic Paleudults

#### Typical Pedon

Grandgulf silt loam, 1 to 3 percent slopes, rarely ponded; 2,200 feet north and 1,260 feet west of the southeast corner of sec. 8, T. 22 N., R. 9 W.; USGS Moody topographic quadrangle; UTM coordinates Zone 15, 593,380 meters Easting and 4,049,180 meters Northing.

Ap—0 to 8 inches; dark brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; weak medium subangular blocky structure parting to moderate fine granular; very friable; many fine roots; many very fine irregular pores; few fine rounded black (N 2/0) hard iron-manganese concretions throughout; extremely acid (pH 4.4); clear smooth boundary.

A—8 to 13 inches; dark brown (10YR 3/3) silt loam; weak fine subangular blocky structure; friable; common very fine roots; many very fine tubular pores; common fine faint discontinuous grayish brown (10YR 5/3) iron depletions on faces of peds; few fine rounded black (N 2/0) hard iron-manganese concretions throughout; strongly acid (pH 5.1); clear wavy boundary.

Bt1—13 to 22 inches; dark brown (10YR 3/4) silt loam; moderate fine subangular blocky structure; friable; few very fine roots; common very fine tubular pores; common fine distinct discontinuous reddish brown (5YR 4/4) clay films throughout; few fine rounded black (N 2/0) hard iron-manganese concretions throughout; slightly acid (pH 6.4); clear wavy boundary.

Bt2—22 to 33 inches; dark brown (7.5YR 4/4) silt loam; weak medium subangular blocky structure; friable; very few fine roots; common very fine tubular pores; many medium distinct continuous reddish brown (5YR 4/4) clay films on faces of peds; common fine distinct discontinuous brown (10YR 5/3) iron depletions throughout; common fine distinct dark brown (10YR 3/3) masses of iron and manganese accumulation throughout; common fine rounded black (N 2/0) hard iron-manganese concretions throughout; moderately acid (pH 5.9); gradual wavy boundary.

Bt3—33 to 42 inches; dark brown (7.5YR 4/3) silty clay loam; weak medium subangular blocky structure parting to moderate fine subangular blocky; friable;

few very fine tubular pores; many medium distinct discontinuous reddish brown (5YR 4/4) clay films on faces of peds; common fine distinct discontinuous brown (10YR 5/3) iron depletions throughout; common fine distinct black (N 2/0) masses of iron and manganese accumulation throughout; common fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; strongly acid (pH 5.4); clear wavy boundary.

2Bt4—42 to 52 inches; reddish brown (5YR 4/4) silty clay loam; moderate medium subangular blocky structure; firm; few fine tubular pores; many medium prominent discontinuous dark red (2.5YR 3/6) clay films on faces of peds; common fine distinct discontinuous pale brown (10YR 6/3) iron depletions throughout; common fine distinct black (N 2/0) masses of iron and manganese accumulation throughout; few fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; strongly acid (pH 5.1); clear wavy boundary.

2Bt5—52 to 80 inches; red (2.5YR 4/6) silt loam; moderate medium subangular blocky structure; firm; few very fine tubular pores; many medium faint discontinuous red (2.5YR 4/6) clay films on faces of peds; common fine rounded black (N 2/0) slightly hard iron-manganese concretions throughout; strongly acid (pH 5.2).

#### Range in Characteristics

*Depth to the 2Bt horizon*—30 to 50 inches

*Ap and A horizons:*

Content of rock fragments—0 to 5 percent gravel

*Bt horizon:*

Content of rock fragments—0 to 5 percent gravel

Texture—silt loam or silty clay loam

*2Bt horizon:*

Content of rock fragments—0 to 35 percent gravel

Texture—silt loam or silty clay loam

### Gressy Series

The Gressy series consists of very deep, well drained soils on gently sloping to moderately sloping ridgetops. These soils formed in silty and gravelly slope alluvium and the underlying clayey residuum derived from dolostone. Permeability is moderate. Slopes range from 1 to 8 percent.

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, mesic Typic Paleudalfs

### Typical Pedon

Gressy silt loam in an area of Gressy-Viraton complex, 3 to 8 percent slopes; 2,100 feet north and 1,200 feet east of the southwest corner of sec. 23, T. 26 N., R. 9 W.; USGS Caulfield topographic quadrangle; UTM coordinates Zone 15, 586,160 meters Easting and 4,041,380 meters Northing.

Ap—0 to 7 inches; brown (10YR 4/3) silt loam; moderate medium granular structure; friable; many very fine and fine and few medium and coarse roots; many fine to coarse irregular pores; 1 percent mixed gravel; neutral (pH 6.7); clear smooth boundary.

Bt1—7 to 13 inches; brown (7.5YR 4/4) silt loam; moderate medium subangular blocky structure parting to weak fine subangular blocky; friable; common very fine roots; common fine and medium tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds; neutral (pH 6.9); clear smooth boundary.

Bt2—13 to 20 inches; strong brown (7.5YR 4/6) silt loam; weak fine subangular blocky structure; friable; common very fine roots; common fine and medium tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds; few fine rounded black (N 2/0) soft iron-manganese concretions; 1 percent mixed gravel; neutral (pH 6.9); clear smooth boundary.

Bt3—20 to 31 inches; strong brown (7.5YR 4/6) silt loam; moderate fine subangular blocky structure; firm; few very fine and fine roots; common very fine and fine tubular pores; common prominent reddish brown (5YR 4/4) clay films on faces of peds; few distinct light yellowish brown (10YR 6/4) coatings of silt on faces of peds; few fine rounded black (N 2/0) soft iron-manganese concretions; 10 percent mixed gravel; neutral (pH 6.8); clear wavy boundary.

2Bt4—31 to 49 inches; yellowish red (2.5YR 4/8) very gravelly clay loam; weak very coarse prismatic structure; firm; few very fine roots; few prominent reddish brown (5YR 4/4) clay films on faces of peds; few prominent red (2.5YR 4/6) iron stains on faces of peds; 45 percent mixed gravel; moderately acid (pH 5.9); gradual irregular boundary.

3Bt5—49 to 80 inches; red (2.5YR 4/8) gravelly clay; weak medium angular blocky structure parting to moderate fine angular blocky; firm; few very fine vesicular pores; common distinct red (2.5YR 4/6) and few brown (7.5YR 4/4) clay films on faces of peds; 25 percent mixed gravel; strongly acid (pH 5.4).

### Range in Characteristics

#### *A or Ap horizon:*

Content of rock fragments—0 to 35 percent gravel

#### *E horizon (where present):*

Content of rock fragments—0 to 35 percent gravel  
Texture—silt loam or loam

#### *Bt horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—silt loam, loam, or silty clay loam

#### *2Bt horizon:*

Content of rock fragments—0 to 50 percent gravel  
and 0 to 25 percent cobbles  
Texture—loam, silty clay loam, or clay loam

#### *3Bt horizon:*

Content of rock fragments—0 to 35 percent gravel  
and 0 to 20 percent cobbles  
Texture—silty clay or clay

### Hartville Series

The Hartville series consists of very deep, somewhat poorly drained soils on stream terraces. These soils formed in alluvium. Permeability is slow. Slopes range from 1 to 3 percent.

*Taxonomic classification:* Fine, mixed, active, mesic  
Aquic Hapludalfs

#### Typical Pedon

Hartville silt loam, 1 to 3 percent slopes, rarely flooded; 400 feet south and 900 feet east of the northwest corner of sec. 36, T. 23 N., R. 9 W.; USGS South Fork topographic quadrangle; UTM coordinates Zone 15, 597,080 meters Easting and 4,053,705 meters Northing.

Ap—0 to 4 inches; brown (10YR 4/3) silt loam; moderate fine granular structure; friable; common fine roots; many fine irregular pores; 2 percent fine spherical hard black (N 2/0) iron-manganese concretions throughout; 2 percent chert gravel; slightly acid (pH 6.4); abrupt smooth boundary.

AE—4 to 8 inches; brown (10YR 5/3) silt loam; moderate fine granular structure; friable; common fine roots; many fine irregular pores; many faint discontinuous light brownish gray (2.5Y 6/2) skeletons throughout; 3 percent fine spherical hard black (N 2/0) iron-manganese concretions; moderately acid (pH 5.9); gradual wavy boundary.

E—8 to 13 inches; light yellowish brown (2.5Y 6/3) silt loam; weak fine subangular blocky structure;

friable; common very fine roots; common very fine tubular pores; common fine distinct light gray (2.5Y 7/2) redoximorphic depletions; common prominent distinct brown (7.5YR 4/4) iron stains throughout; few fine spherical hard black (N 2/0) iron-manganese concretions; 2 percent chert gravel; moderately acid (pH 5.7); abrupt wavy boundary.

2Btg1—13 to 18 inches; light olive brown (2.5Y 5/4) silty clay; strong medium angular blocky structure; very firm; few fine roots; common very fine tubular pores; common faint continuous dark grayish brown (2.5Y 4/2) clay films on faces of peds; common fine distinct dark gray (2.5Y 4/1) redoximorphic depletions; common distinct discontinuous yellowish brown (10YR 5/6) iron stains; 2 percent chert gravel; slightly acid (pH 6.1); clear smooth boundary.

2Btg2—18 to 28 inches; olive brown (2.5Y 4/4) silty clay; moderate medium angular blocky structure; very firm; few fine roots; common very fine tubular pores; common faint continuous olive brown (2.5Y 4/3) clay films on faces of peds; common fine distinct dark gray (5Y 4/1) redoximorphic depletions; common faint discontinuous olive brown (2.5Y 4/4) pressures faces on faces of peds; 5 percent chert gravel; neutral (pH 7.1); clear smooth boundary.

2Btg3—28 to 40 inches; light olive brown (2.5Y 5/3) silty clay; moderate fine subangular blocky structure; very firm; few very fine roots; common very fine tubular pores; many distinct continuous dark grayish brown (2.5Y 4/2) clay films on faces of peds; common fine distinct olive gray (5Y 5/2) redoximorphic depletions; common distinct discontinuous dark yellowish brown (10YR 4/6) iron stains; 5 percent chert gravel; slightly alkaline (pH 7.6); clear smooth boundary.

2Btg4—40 to 47 inches; light brownish gray (2.5Y 6/2) silty clay; moderate fine subangular blocky structure; firm; few very fine roots; common very fine tubular pores; many distinct discontinuous dark gray (2.5Y 4/1) clay films on faces of peds; common distinct olive gray (5Y 5/2) redoximorphic depletions; many prominent discontinuous strong brown (7.5YR 4/6) iron stains throughout; 10 percent chert gravel; moderately alkaline (pH 8.0); clear smooth boundary.

3Btg5—47 to 80 inches; light gray (5Y 6/1) gravelly silty clay; weak fine subangular blocky structure; firm; few very fine roots; common very fine tubular pores; many distinct discontinuous gray (5Y 5/1) clay films on faces of peds; many prominent

discontinuous dark yellowish brown (10YR 4/6) and yellowish brown (10YR 5/8) iron stains throughout; 30 percent mixed gravel; moderately alkaline (pH 8.1).

### Range in Characteristics

#### *Ap horizon:*

Content of rock fragments—0 to 10 percent gravel

#### *AE and E horizons:*

Content of rock fragments—0 to 10 percent gravel

#### *Upper part of Btg horizon:*

Content of rock fragments—0 to 10 percent gravel

Texture—silt loam, silty clay loam, or silty clay

#### *Lower part of Btg horizon:*

Content of rock fragments—0 to 10 percent gravel

Texture—silty clay loam, silty clay, or clay

## Higdon Series

The Higdon series consists of very deep, somewhat poorly drained soils on stream terraces. These soils formed in silty alluvium. Permeability is moderately slow. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Fine-silty, mixed, active, mesic Aquic Hapludalfs

### Typical Pedon

Higdon silt loam, 0 to 3 percent slopes, rarely flooded; 3,900 feet south and 2,700 feet east of the northwest corner of sec. 36, T. 31 N., R. 7 E.; USGS Allbright topographic quadrangle; UTM coordinates Zone 15, 745,703 meters Easting and 4,133,677 meters Northing; in Madison County, Missouri.

*Ap*—0 to 5 inches; dark grayish brown (10YR 4/2) silt loam, pale brown (10YR 6/3) dry; moderate very fine granular structure; friable; many very fine roots; common fine black (10YR 2/1) masses of manganese throughout; 2 percent gravel; neutral (pH 7.1); abrupt wavy boundary.

*A*—5 to 9 inches; very dark gray brown (10YR 3/2) silt loam, pale brown (10YR 6/3) dry; moderate very fine subangular blocky structure parting to weak fine granular; friable; common very fine roots; common fine black (10YR 2/1) masses of manganese accumulation and common fine black (10YR 2/1) manganese nodules; neutral (pH 7.1); clear wavy boundary.

*E*—9 to 16 inches; brown (10YR 5/3) silt loam; moderate very fine subangular blocky structure; friable; common very fine roots; common faint

discontinuous dark grayish brown (10YR 4/2) coatings of silt on faces of peds; common fine strong brown (7.5YR 5/8) iron nodules throughout; common fine black (10YR 2/1) masses of manganese accumulation and common fine black (10YR 2/1) manganese nodules; neutral (pH 7.0); clear wavy boundary.

*Bt1*—16 to 23 inches; yellowish brown (10YR 5/4) silt loam; moderate very fine subangular blocky structure; friable; few very fine roots; few faint discontinuous clay films on faces of peds; many faint brown (10YR 5/3) redoximorphic depletions; common fine strong brown (7.5YR 5/8) iron nodules throughout; common fine black (10YR 2/1) masses of manganese accumulation and common fine black (10YR 2/1) manganese nodules throughout; 3 percent gravel; neutral (pH 7.1); clear wavy boundary.

*Bt2*—23 to 33 inches; brown (10YR 5/3) silt loam; moderate very fine and fine subangular blocky structure; friable; few very fine roots; common distinct discontinuous clay films on faces of peds; common fine strong brown (7.5YR 5/8) iron nodules; common fine black (10YR 2/1) masses of manganese accumulation and common fine black (10YR 2/1) manganese nodules; common fine and medium grayish brown (10YR 5/2) iron depletions; neutral (pH 7.1); clear wavy boundary.

*2Bt3*—33 to 40 inches; 60 percent yellowish brown (10YR 5/4) and 40 percent grayish brown (10YR 5/2) silt loam; moderate very fine and fine subangular blocky structure; friable; few very fine roots; many distinct discontinuous clay films on faces of peds; common medium dark yellowish brown (10YR 4/6) masses of iron-manganese accumulation and few fine strong brown (7.5YR 5/8) iron concretions; few fine black (10YR 2/1) manganese nodules; neutral (pH 7.2); clear wavy boundary.

*2Bt4*—40 to 51 inches; 55 percent grayish brown (10YR 5/2) and 45 percent yellowish brown (10YR 5/4) silt loam; weak medium prismatic structure parting to moderate fine subangular blocky; friable; few very fine roots; many distinct continuous clay films on faces of peds; few medium strong brown (7.5YR 5/8) iron nodules; common medium black (10YR 2/1) manganese nodules; neutral (pH 7.2); clear wavy boundary.

*2Bt5*—51 to 65 inches; 55 percent grayish brown (10YR 5/2) and 45 percent yellowish brown (10YR 5/4) silt loam; weak medium prismatic structure parting to moderate fine subangular blocky; firm; few very fine roots; few prominent and many

distinct discontinuous dark gray (10YR 4/1) clay films on faces of peds; common fine dark yellowish brown (10YR 4/6) masses of iron accumulation; few medium strong brown (7.5YR 5/8) iron concretions and common medium black (10YR 2/1) manganese nodules; neutral (pH 7.2); clear wavy boundary.

2Bt6—65 to 80 inches; 60 percent yellowish brown (10YR 5/4) and 40 percent grayish brown (10YR 5/2) silt loam; moderate medium prismatic structure parting to weak fine subangular blocky; firm; few very fine roots; few prominent discontinuous dark gray (10YR 4/1) clay films on vertical faces of peds and few distinct discontinuous dark gray (10YR 4/1) clay films on faces of peds; common fine dark yellowish brown (10YR 4/6) masses of iron accumulation; common medium black (10YR 2/1) masses of iron-manganese and few fine black (10YR 2/1) iron-manganese concretions; neutral (pH 7.1); gradual wavy boundary.

2Bt7—80 to 91 inches; 50 percent yellowish brown (10YR 5/6), 30 percent yellowish brown (10YR 5/4), and 20 percent grayish brown (10YR 5/2) silt loam; weak medium prismatic structure; firm; few very fine roots; few prominent discontinuous gray (10YR 5/1) clay films on vertical faces of peds; few fine dark yellowish brown (10YR 4/6) iron-manganese concretions and few fine black (10YR 2/1) iron-manganese concretions; neutral (pH 7.1).

#### Range in Characteristics

##### *Ap and A horizons:*

Content of rock fragments—0 to 5 percent gravel

##### *E horizon:*

Content of rock fragments—0 to 5 percent gravel

##### *Bt horizon:*

Content of rock fragments—0 to 15 percent gravel  
Texture—silt loam or silty clay loam

##### *2Bt horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—silt loam or silty clay loam

### **Hogcreek Series**

The Hogcreek series consists of moderately deep, moderately well drained soils that formed in loess and the underlying gravelly slope alluvium. These soils are on gently sloping to moderately sloping ridgetops. Permeability is moderate above the fragipan and very slow through the fragipan. Slopes range from 3 to 8 percent.

*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; 1,250 feet north and 950 feet west of the southeast corner of sec. 18, T. 25 N., R. 10 W.; USGS Siloam Springs topographic quadrangle; UTM coordinates Zone 15, 582,100 meters Easting and 4,077,380 meters Northing.

Oi—0 to 1 inch; partially decomposed organic matter.

A—1 to 7 inches; dark grayish brown (10YR 4/2) silt loam; weak medium subangular blocky structure parting to weak fine granular; friable; common fine to coarse roots; many fine to coarse irregular pores; 5 percent chert gravel; very strongly acid (pH 5.0); clear wavy boundary.

Bt1—7 to 13 inches; dark yellowish brown (10YR 4/4) silt loam; weak fine subangular blocky structure; friable; common fine to medium roots; common very fine and fine tubular pores; many faint discontinuous dark yellowish brown (10YR 4/4) clay films on faces of peds; many prominent discontinuous dark grayish brown (10YR 4/2) organic coatings on faces of peds; 5 percent chert gravel; very strongly acid (pH 4.9); gradual wavy boundary.

Bt2—13 to 26 inches; strong brown (7.5YR 5/6) silt loam; moderate medium subangular blocky structure; firm; few fine and medium roots; common very fine to medium tubular pores; many faint continuous strong brown (7.5YR 4/6) clay films on faces of peds; 5 percent chert gravel; very strongly acid (pH 4.9); gradual smooth boundary.

2Btx—26 to 36 inches; yellowish brown (10YR 5/6) gravelly silt loam; weak very coarse prismatic structure parting to moderate medium platy; 60 percent brittle; common very fine and fine tubular pores; common prominent discontinuous dark gray (10YR 4/1) clay films on faces of peds and many distinct continuous strong brown (7.5YR 4/6) clay films on rock fragments; many prominent continuous grayish brown (10YR 5/2) coatings of silt on rock fragments; 15 percent chert gravel and 3 percent chert cobbles; very strongly acid (pH 4.8); abrupt wavy boundary.

R—36 inches; sandstone.

#### Range in Characteristics

*Depth to bedrock:* 20 to 40 inches

*Depth to fragipan:* 14 to 32 inches



**A horizon:**

Content of rock fragments—0 to 35 percent gravel

**Bt horizon:**

Content of rock fragments—5 to 35 percent gravel

Texture—silt loam or silty clay loam

**2Btx horizon:**

Content of rock fragments—10 to 80 percent gravel

Texture—silt loam, loam, or silty clay loam

**Jerktail Series**

The Jerktail series consists of very deep, somewhat poorly drained soils that formed in silty slope alluvium and the underlying residuum derived from dolostone. These soils are on nearly level and very gently sloping uplands. Permeability is slow. Slopes range from 1 to 8 percent.

*Taxonomic classification:* Fine, mixed, active, mesic Aquic Hapludalfs

**Typical Pedon**

Jerktail silt loam in an area of Plato-Jerktail complex, 1 to 3 percent slopes; 700 feet north and 1,100 feet west of the southeast corner of sec. 34, T. 25 N., R. 10 W.; USGS Siloam Springs topographic quadrangle; UTM coordinates Zone 15, 581,610 meters Easting and 4,068,100 meters Northing.

Oi—0 to 1 inch; partially decomposed organic matter.

A—1 to 6 inches; brown (10YR 4/3) silt loam; moderate fine subangular blocky structure; friable; common fine and medium roots; many very fine irregular pores; common fine round black (N 2/0) soft masses of iron and manganese throughout; 10 percent chert gravel; very strongly acid (pH 4.8); clear smooth boundary.

BE—6 to 11 inches; yellowish brown (10YR 5/4) silt loam; weak fine subangular blocky structure; friable; few fine to coarse roots; common fine and medium tubular pores; few fine distinct light brownish gray (10YR 6/2) redoximorphic depletions; common fine round black (N 2/0) soft masses of iron-manganese; common prominent discontinuous black (N 2/0) and brown (10YR 4/3) iron stains; 5 percent chert gravel; strongly acid (pH 5.1); clear smooth boundary.

Bt—11 to 19 inches; yellowish brown (10YR 5/4) silty clay loam; weak fine subangular blocky structure; firm; few fine to coarse roots; common fine and medium tubular pores; many faint discontinuous brown (10YR 5/3) clay films on faces of peds; common distinct light brownish gray (10YR 6/2)

redoximorphic depletions; common fine round black (N 2/0) soft masses of iron-manganese; common fine irregular red (2.5YR 4/8) iron and manganese concretions; 5 percent chert gravel; strongly acid (pH 5.1); clear wavy boundary.

2Btg—19 to 30 inches; gray (10YR 5/1) gravelly clay; moderate medium angular blocky structure; very firm; few fine and medium roots; common very fine and fine tubular pores; many faint continuous dark gray (10YR 4/1) clay films on faces of peds; common round yellowish brown (10YR 5/8) and fine irregular red (2.5YR 4/8) soft masses of iron-manganese; 25 percent chert gravel; very strongly acid (pH 5.0); gradual wavy boundary.

3Bt1—30 to 40 inches; 50 percent red (2.5YR 4/8) and 50 percent light gray (2.5Y 6/1) gravelly clay; moderate fine angular blocky structure; very firm; few fine and medium roots; common fine tubular pores; many distinct discontinuous gray (10YR 5/1) clay films on sand and gravel; common prominent gray (10YR 5/1) redoximorphic depletions and common prominent strong brown (7.5YR 5/8) redoximorphic concentrations; 25 percent chert gravel; very strongly acid (pH 5.0); abrupt wavy boundary.

3Bt2—40 to 56 inches; 50 percent yellowish brown (10YR 5/6), 25 percent yellowish brown (10YR 5/8), and 25 percent yellowish red (5YR 5/8) gravelly clay; moderate fine angular blocky structure; very firm; few very fine roots; common very fine tubular pores; many prominent distinct light gray (10YR 7/1) clay films on sand and gravel; common prominent light yellowish brown (2.5Y 6/3) redoximorphic depletions; common prominent discontinuous black (N 2/0) iron stains on sand and gravel; 15 percent chert gravel; neutral (pH 6.6); clear wavy boundary.

3Bt3—56 to 70 inches; yellowish brown (10YR 5/8) clay; moderate coarse angular blocky structure parting to moderate fine angular blocky; very firm; very few very fine roots; few very fine tubular pores; many faint continuous yellowish brown (10YR 5/8) clay films on faces of peds; few prominent light gray (2.5Y 7/2) redoximorphic depletions; many distinct continuous yellowish brown (10YR 5/8) pressure faces on faces of peds; common prominent discontinuous black (N 2/0) iron stains on faces of peds; 5 percent chert gravel; neutral (pH 7.1); clear smooth boundary.

4R—70 inches; dolostone.

**Range in Characteristics**

*Depth to bedrock:* 60 to 80 inches

*A or Ap horizon:*

Content of rock fragments—0 to 15 percent gravel

*BE horizon:*

Content of rock fragments—0 to 15 percent gravel

*Bt horizon:*

Content of rock fragments—0 to 25 percent gravel

Texture—silt loam or silty clay loam

*2Bt horizon:*

Content of rock fragments—0 to 25 percent gravel

Texture—silty clay loam, silty clay, or clay

*3Bt horizon:*

Content of rock fragments—0 to 25 percent gravel

Texture—silty clay or clay

**Kenaga Series**

The Kenaga series consists of very deep, moderately well drained soils on very gently sloping to strongly sloping uplands. These soils formed in silty slope alluvium and the underlying residuum derived from mudstone. Permeability is slow. Slopes range from 1 to 15 percent.

*Taxonomic classification:* Fine-loamy, siliceous, active, mesic Aquic Paleudults

**Typical Pedon**

Kenaga gravelly silt loam in an area of Kenaga-Egyptgrove complex, 3 to 8 percent slopes; 1,400 feet north and 1,050 feet west of the southeast corner of sec. 27, T. 26 N., R. 9 W.; USGS Willow Springs South topographic quadrangle; UTM coordinates Zone 15, 596,640 meters Easting and 4,083,700 meters Northing.

Oi—0 to 2 inches; slightly decomposed leaf litter.

A—2 to 8 inches; 80 percent yellowish brown (10YR 5/4) and 20 percent brown (10YR 4/3) gravelly silt loam, pale brown (10YR 6/3) dry; weak fine subangular blocky structure parting to moderate fine granular; friable; common fine, medium, and coarse roots; many fine irregular and tubular pores; 15 percent chert gravel; very strongly acid (pH 4.5); clear smooth boundary.

Bt1—8 to 16 inches; yellowish brown (10YR 5/6) gravelly silt loam; moderate fine and medium subangular blocky structure; friable; common fine and medium roots; many fine tubular pores; common continuous faint strong brown (7.5YR 5/6) clay films on faces of peds; few distinct discontinuous brown (7.5YR 5/3) organic coatings on faces of peds; 15 percent chert

gravel; very strongly acid (pH 4.6); clear wavy boundary.

Bt2—16 to 24 inches; yellowish brown (10YR 5/6) gravelly silty clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; many fine tubular pores; common discontinuous faint strong brown (7.5YR 5/6) clay films on faces of peds; few discontinuous distinct yellowish red (5YR 5/6) iron masses; 2 percent chert gravel; extremely acid (pH 4.4); clear wavy boundary.

2Btd1—24 to 36 inches; 80 percent brownish yellow (10YR 6/8) and 20 percent red (2.5YR 4/8) gravelly silty clay loam; weak coarse prismatic structure parting to moderate thin platy parting to strong fine angular blocky; very firm; few fine and medium roots; few fine tubular and irregular pores; many continuous distinct strong brown (7.5YR 4/6) clay films on faces of peds and few continuous prominent brown (10YR 4/3) clay films between prisms; common fine distinct light gray (10YR 7/2) irregular iron depletions throughout; 20 percent chert gravel; very strongly acid (pH 4.6); gradual smooth boundary.

2Btd2—36 to 52 inches; 70 percent yellowish brown (10YR 5/8) and 30 percent dark red (2.5YR 3/6) gravelly clay; weak coarse prismatic structure parting to moderate thin platy parting to strong fine angular blocky; very firm; very few fine roots; few fine tubular pores; many continuous distinct strong brown (7.5YR 5/6) clay films on faces of peds; 20 percent chert gravel; very strongly acid (pH 4.8); gradual smooth boundary.

2Btd3—52 to 80 inches; 60 percent yellowish brown (10YR 5/8) and 40 percent red (2.5YR 4/8) clay; weak fine prismatic structure parting to moderate fine subangular blocky and strong fine angular blocky; very firm; very few fine roots; few fine tubular pores; common discontinuous distinct strong brown (7.5YR 5/6) and few continuous prominent dark grayish brown (10YR 4/2) clay films on faces of peds; few fine prominent light gray (10YR 7/1) iron depletions on faces of peds; 5 percent sandstone gravel; very strongly acid (pH 4.6).

**Range in Characteristics***A or Ap horizon:*

Content of rock fragments—0 to 35 percent gravel

*Bt horizon:*

Content of rock fragments—0 to 35 percent gravel or cobbles

Texture—silt loam, silty clay loam, or silty clay

*2Btd horizon:*

Content of rock fragments—0 to 50 percent gravel or cobbles

Texture—clay, silty clay, or silty clay loam

**Lily Series**

The Lily series consists of moderately deep, well drained soils on uplands. These soils formed in residuum derived from sandstone. Permeability is moderately rapid. Slopes range from 8 to 15 percent.

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, mesic Typic Hapludults

**Typical Pedon**

Lily loam, 3 to 8 percent slopes; 2,200 feet south and 700 feet west of the northeast corner of sec. 5, T. 33 N., R. 8 W.; USGS Maples topographic quadrangle; UTM coordinates Zone 15, 603,301 meters Easting and 4,161,048 meters Northing; in Texas County, Missouri.

Ap—0 to 10 inches; brown (10YR 5/3) loam, very pale brown (10YR 7/3) dry; weak very fine granular structure; very friable; common very fine roots; many very fine irregular pores; 5 percent sandstone gravel; neutral (pH 6.6); clear smooth boundary.

Bt1—10 to 16 inches; yellowish brown (10YR 5/6) loam; weak very fine subangular blocky structure; friable; common very fine roots; many fine tubular pores; few faint clay films on faces of peds; 5 percent sandstone gravel; slightly acid (pH 6.4); clear smooth boundary.

Bt2—16 to 20 inches; strong brown (7.5YR 5/6) loam; moderate fine subangular blocky structure; friable; common very fine roots; common fine tubular pores; few faint clay films on faces of peds; 5 percent sandstone gravel; moderately acid (pH 6.0); clear smooth boundary.

Bt3—20 to 27 inches; strong brown (7.5YR 4/6) loam; moderate fine subangular blocky structure; firm; common very fine roots; common very fine tubular pores; common faint clay films on faces of peds; 5 percent sandstone gravel; strongly acid (pH 5.4); clear smooth boundary.

Bt4—27 to 38 inches; strong brown (7.5YR 4/6) gravelly sandy loam; weak medium angular blocky structure; firm; few very fine roots; common very fine irregular pores; few faint clay films on faces of peds; many medium prominent brown (10YR 5/3) coatings of silt on faces of peds; 30 percent

sandstone gravel; very strongly acid (pH 4.8); abrupt wavy boundary.

2R—38 inches; sandstone.

**Range in Characteristics**

*Depth to bedrock:* 20 to 40 inches

*Ap horizon:*

Content of rock fragments—0 to 15 percent gravel

*Upper part of Bt horizon:*

Content of rock fragments—0 to 30 percent gravel

Texture—loam, clay loam, or fine sandy loam

*Lower part of Bt horizon:*

Content of rock fragments—0 to 35 percent gravel

Texture—loam, sandy clay loam, or sandy loam

**Lostpond Series**

The Lostpond series consists of very deep, somewhat poorly drained soils on stream terraces. These soils formed in loamy alluvium. Permeability is moderate. Slopes range from 1 to 3 percent.

*Taxonomic classification:* Fine-loamy, siliceous, active, mesic Aquic Hapludalfs

**Typical Pedon**

Lostpond silt loam, 1 to 3 percent slopes, rarely flooded; 225 feet north and 1,600 feet west of the southeast corner of sec. 34, T. 24 N., R. 9 W.; USGS Southfork topographic quadrangle; UTM coordinates Zone 15, 594,760 meters Easting and 4,062,580 meters Northing.

Ap—0 to 8 inches; brown (10YR 4/3) silt loam; weak fine subangular blocky structure parting to weak fine granular; friable; many fine roots; many very fine and fine irregular pores; 2 percent chert gravel; neutral (pH 6.6); clear smooth boundary.

Bt1—8 to 15 inches; 80 percent brown (7.5YR 4/4) and 20 percent dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; friable; common fine roots; common fine tubular pores; many distinct strong brown (7.5YR 4/6) clay films on faces of peds; 5 percent chert gravel; neutral (pH 7.0); clear wavy boundary.

Bt2—15 to 20 inches; brown (7.5YR 5/4) silt loam; moderate medium subangular blocky structure; firm; common fine roots; common fine irregular and tubular pores; many distinct reddish brown (5YR 4/4) clay films on faces of peds; common fine distinct light brownish gray (10YR 6/2) iron depletions; 10 percent chert gravel; neutral (pH 6.9); clear wavy boundary.

2Bt3—20 to 29 inches; yellowish brown (10YR 5/4) gravelly clay loam; moderate medium subangular blocky structure; firm; few fine roots; common fine irregular and tubular pores; many distinct brown (7.5YR 4/4) clay films on faces of peds; common fine distinct light brownish gray (10YR 6/2) iron depletions; common distinct pale brown (10YR 6/3) coatings of silt; many dark red (2.5YR 4/6) iron accumulations; many fine and medium prominent black (10YR 2/1) hard concretions of iron-manganese; 15 percent chert gravel; slightly acid (pH 6.4); clear smooth boundary.

2Bt4—29 to 35 inches; brown (7.5YR 4/4) gravelly loam; moderate medium subangular blocky structure; firm; few very fine roots; common fine irregular and tubular pores; many distinct strong brown (7.5YR 4/6) clay films on faces of peds; many dark red (2.5YR 4/6) iron accumulations and common fine and medium prominent light brownish gray (10YR 6/2) iron depletions; many fine and medium prominent black (10YR 2/1) hard concretions of iron-manganese; 15 percent chert gravel; slightly acid (pH 6.5); clear smooth boundary.

2Bt5—35 to 39 inches; 60 percent brown (10YR 5/3), 20 percent dark yellowish brown (10YR 4/4), and 20 percent yellowish brown (10YR 5/6) gravelly loam; moderate medium subangular blocky structure; firm; few very fine roots; common fine irregular and tubular pores; many distinct reddish brown (5YR 4/4) clay films on faces of peds; many black (10YR 2/1) iron accumulations and common fine and medium faint grayish brown (10YR 5/2) iron depletions; many fine and medium prominent black (10YR 2/1) hard concretions of iron-manganese; 25 percent chert gravel; neutral (pH 6.7); clear smooth boundary.

2Bt6—39 to 80 inches; 60 percent strong brown (7.5YR 4/6) and 40 percent brown (7.5YR 4/4) gravelly loam; moderate fine and medium subangular blocky structure; firm; few very fine roots; few fine irregular and tubular pores; common faint brown (7.5YR 4/4) and distinct reddish brown (5YR 4/4) clay films on faces of peds; many black (10YR 2/1) iron accumulations and common fine distinct grayish brown (10YR 5/2) iron depletions; common fine and medium prominent black (10YR 2/1) hard concretions of iron-manganese; 30 percent chert gravel; neutral (pH 6.9).

#### Range in Characteristics

*A or Ap horizon:*

Content of rock fragments—0 to 30 percent gravel

*Bt horizon:*

Content of rock fragments—0 to 30 percent gravel or cobbles

Texture—silt loam, silty clay loam, loam, or clay loam

*2Bt horizon:*

Content of rock fragments—0 to 40 percent gravel or cobbles

Texture—silt loam, silty clay loam, loam, clay loam, or clay

### Lowassie Series

The Lowassie series consists of very deep, poorly drained soils on concave uplands and in sinkholes. These soils formed in loess and the underlying slope alluvium. Permeability is slow. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Fine, smectitic, mesic Vertic Epiaquults

#### Typical Pedon

Lowassie silt loam, 0 to 3 percent slopes, frequently ponded; 300 feet west and 900 feet south of the northeast corner of sec. 5, T. 30 N., R. 8 W.; USGS Raymondville topographic quadrangle; UTM coordinates Zone 15, 604,134 meters Easting and 4,132,539 meters Northing; in Texas County, Missouri.

Ap—0 to 10 inches; brown (10YR 4/3) silt loam, light gray (10YR 7/2) dry; weak fine granular structure; very friable; many fine roots; many fine tubular pores; many fine iron-manganese concretions; slightly acid (pH 6.5); abrupt smooth boundary.

BE—10 to 18 inches; grayish brown (2.5Y 5/2) silty clay loam; weak very fine subangular blocky structure; very friable; common very fine roots; many very fine tubular pores; common fine distinct light gray (2.5Y 7/2) coatings of silt; few very fine iron-manganese concretions; moderately acid (pH 5.9); abrupt smooth boundary.

Btg1—18 to 21 inches; grayish brown (2.5Y 5/2) silty clay; moderate fine subangular blocky structure; firm; few very fine roots; common very fine tubular pores; common prominent clay films on faces of peds; common fine prominent light olive brown (2.5Y 5/6) masses of iron accumulation; few very fine iron-manganese concretions; very strongly acid (pH 4.7); abrupt smooth boundary.

Btg2—21 to 36 inches; dark grayish brown (2.5Y 4/2) and olive brown (2.5Y 4/4) clay; moderate medium subangular blocky structure parting to strong very

fine angular blocky; very firm; common very fine tubular pores and few medium vesicular pores; common prominent clay films on faces of peds; common prominent light gray (2.5Y 7/2) redoximorphic concentrations and common fine prominent yellowish brown (10YR 5/6) masses of redoximorphic concentrations; common medium iron-manganese concretions; very strongly acid (pH 4.5); clear smooth boundary.

2Btg3—36 to 41 inches; light brownish gray (2.5Y 6/2), light yellowish brown (2.5Y 6/4), and light olive brown (2.5Y 5/6) silt loam; moderate fine subangular blocky structure; friable; common very fine tubular pores and few medium vesicular pores; few distinct clay films on faces of peds; common very fine iron-manganese concretions; very strongly acid (pH 4.9); clear wavy boundary.

2Btg4—41 to 80 inches; light yellowish brown (2.5Y 6/4), light brownish gray (2.5Y 6/2), and light olive brown (2.5Y 5/6) silt loam; weak very fine subangular blocky structure; friable; common very fine tubular pores and few medium vesicular pores; few faint clay films on faces of peds; 1 percent chert gravel; common very fine iron-manganese concretions; very strongly acid (pH 4.9).

#### Range in Characteristics

##### *Ap horizon:*

Content of rock fragments—0 to 5 percent gravel

##### *BE horizon:*

Content of rock fragments—0 to 5 percent gravel  
Texture—silty clay loam or silt loam

##### *Upper part of Btg horizon:*

Content of rock fragments—0 to 5 percent gravel  
Texture—silty clay or clay

##### *Lower part of Btg horizon:*

Content of rock fragments—0 to 15 percent gravel  
Texture—silty clay loam, silt loam, silty clay, or clay

### ***Macedonia Series***

The Macedonia series consists of very deep, well drained soils on ridgetops. These soils formed in a thin layer of loess and the underlying residuum derived from cherty dolostone. Permeability is moderate. Slopes range from 3 to 8 percent.

*Taxonomic classification:* Fine, mixed, semiactive, mesic Typic Paleudults

### **Typical Pedon**

Macedonia gravelly silt loam, 3 to 8 percent slopes; 2,400 feet north and 2,500 feet west of the southeast corner of sec. 28, T. 22 N., R. 8 W.; USGS Lanton topographic quadrangle; UTM coordinates Zone 15, 603,900 meters Easting and 4,044,200 meters Northing.

A—0 to 5 inches; brown (10YR 5/3) gravelly silt loam; moderate medium granular structure; very friable; common very fine to medium and few coarse roots; many very fine to medium irregular pores; 30 percent mixed gravel; very strongly acid (pH 4.9); abrupt smooth boundary.

AB—5 to 9 inches; 60 percent brown (10YR 5/3) and 40 percent brown (7.5YR 4/4) silt loam; weak medium subangular blocky structure; friable; common very fine to coarse roots; common very fine to coarse tubular pores; 10 percent mixed gravel; very strongly acid (pH 4.8); clear smooth boundary.

Bt1—9 to 13 inches; strong brown (7.5YR 4/6) silt loam; weak fine subangular blocky structure; friable; few fine to coarse roots; few very fine tubular pores; many distinct continuous yellowish red (5YR 4/6) clay films on faces of peds; common distinct continuous pale brown (10YR 6/3) coatings of silt; 5 percent mixed gravel; very strongly acid (pH 4.9); clear wavy boundary.

Bt2—13 to 18 inches; yellowish red (5YR 4/6) silty clay loam; moderate fine subangular blocky structure; firm; few fine and medium roots; few very fine and fine tubular pores; many distinct continuous reddish brown (5YR 4/4) clay films on faces of peds; 5 percent mixed gravel; very strongly acid (pH 4.9); clear wavy boundary.

Bt3—18 to 28 inches; yellowish red (5YR 4/6) silty clay; moderate fine angular blocky structure; firm; few very fine roots; common very fine tubular pores; many distinct continuous yellowish brown (10YR 5/4) and dark reddish brown (2.5YR 3/4) clay films on faces of peds; 5 percent mixed gravel; very strongly acid (pH 4.7); clear wavy boundary.

Bt4—28 to 37 inches; strong brown (7.5YR 5/6) gravelly clay; moderate fine angular blocky structure; firm; few very fine roots; few very fine tubular pores; many prominent continuous dark reddish brown (2.5YR 3/4) and distinct continuous strong brown (7.5YR 5/8) clay films on faces of peds; 20 percent chert gravel; very strongly acid (pH 4.9); clear wavy boundary.

Bt5—37 to 50 inches; red (2.5YR 4/6) clay; strong fine

angular blocky structure; very firm; few very fine roots; few fine tubular pores; many prominent continuous dark yellowish brown (10YR 3/6), common distinct continuous dark reddish brown (2.5YR 3/4), and common distinct continuous light yellowish brown (10YR 6/4) clay films on faces of peds; 10 percent mixed gravel; very strongly acid (pH 4.8); gradual wavy boundary.

Bt6—50 to 80 inches; 50 percent strong brown (7.5YR 5/6) and 50 percent red (2.5YR 4/6) gravelly clay; weak thick platy structure parting to strong fine angular blocky; very firm; few very fine roots; few very fine tubular pores; many red (2.5YR 4/6), white (2.5Y 8/1), and brown (7.5YR 4/4) clay films on faces of peds; 30 percent mixed gravel; very strongly acid (pH 4.9).

### Range in Characteristics

#### *A or Ap horizon:*

Content of rock fragments—15 to 35 percent gravel

#### *AB horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—silt loam or silty clay loam

#### *Bt horizon:*

Content of rock fragments—0 to 25 percent gravel or cobbles  
Texture—clay, silty clay, silt loam, or silty clay loam

### ***Mano Series***

The Mano series consists of very deep, moderately well drained soils on uplands. These soils formed in gravelly slope alluvium and residuum derived from cherty dolostone. Permeability is slow. Slopes range from 1 to 50 percent.

*Taxonomic classification:* Loamy-skeletal over clayey, mixed, semiactive, mesic Oxyaquic Hapludalfs

### Typical Pedon

Mano extremely cobbly silt loam in an area of Clarksville-Tick-Mano complex, rocky, 15 to 50 percent slopes; 1,600 feet south and 2,400 feet east of the northwest corner of sec. 10, T. 27 N., R. 10 W.; USGS Cabool Southeast topographic quadrangle; UTM coordinates Zone 15, 586,400 meters Easting and 4,099,240 meters Northing.

Oi—0 to 2 inches; partly decomposed organic matter.  
A—2 to 6 inches; pale brown (10YR 6/3) extremely cobbly silt loam; weak very fine granular structure;

very friable; many fine to coarse roots; many very fine irregular pores; 40 percent chert gravel and 40 percent chert cobbles; strongly acid (pH 5.4); clear wavy boundary.

AE—6 to 13 inches; 60 percent brown (10YR 4/3) and 40 percent pale brown (10YR 6/3) extremely gravelly silt loam; weak fine subangular blocky structure; very friable; common fine roots; many very fine irregular and tubular pores; 50 percent chert gravel and 10 percent chert cobbles; moderately acid (pH 5.6); clear smooth boundary.

Bt1—13 to 20 inches; yellowish brown (10YR 5/4) extremely cobbly silt loam; moderate fine subangular blocky structure; very friable; few fine to coarse roots; many very fine tubular pores; common distinct discontinuous brown (7.5YR 5/4) clay films on faces of peds; common faint discontinuous very pale brown (10YR 7/3) coatings of silt on sand and gravel; 30 percent chert gravel and 40 percent sandstone cobbles; very strongly acid (pH 4.9); clear wavy boundary.

Bt2—20 to 36 inches; yellowish brown (10YR 5/4) extremely cobbly silt loam; moderate fine subangular blocky structure; friable; few fine roots; common very fine tubular pores; common distinct discontinuous brown (7.5YR 5/4) clay films on faces of peds and common faint discontinuous very pale brown (10YR 7/3) coatings of silt on faces of peds; 40 percent chert gravel and 30 percent chert cobbles; very strongly acid (pH 4.8); abrupt wavy boundary.

2Bt3—36 to 50 inches; 70 percent yellowish brown (10YR 5/8) and 30 percent strong brown (7.5YR 5/8) gravelly clay; strong coarse subangular blocky structure parting to moderate fine subangular blocky; very firm; common very fine tubular pores; many prominent discontinuous red (2.5YR 4/8) clay films on faces of peds; common distinct discontinuous very pale brown (10YR 7/3) coatings of silt on faces of peds; 20 percent chert gravel; strongly acid (pH 5.3); clear wavy boundary.

2Bt4—50 to 80 inches; 60 percent strong brown (7.5YR 4/6) and 40 percent yellowish brown (10YR 5/8) clay; strong coarse subangular blocky structure parting to moderate fine subangular blocky; very firm; common very fine tubular pores; many distinct continuous red (2.5YR 4/8) clay films on faces of peds; many prominent discontinuous black (N 2/0) manganese or iron-manganese stains; few fine round black (N 2/0) iron-manganese concretions throughout; 5 percent chert gravel; slightly acid (pH 6.3).

### Range in Characteristics

#### *A or Ap horizon:*

Content of rock fragments—15 to 75 percent gravel, cobbles, or stones

#### *AE horizon:*

Content of rock fragments—15 to 75 percent gravel, cobbles, or stones  
Texture—silt loam or loam

#### *Bt horizon:*

Content of rock fragments—35 to 75 percent gravel, cobbles, or stones  
Texture—silt loam, silty clay loam, loam, or clay loam

#### *2Bt horizon:*

Content of rock fragments—0 to 35 percent gravel or cobbles  
Texture—clay or silty clay

### **Moko Series**

The Moko series consists of shallow and very shallow, somewhat excessively drained soils on uplands. These soils formed in gravelly residuum. Permeability is moderate. Slopes range from 3 to 15 percent.

*Taxonomic classification:* Loamy-skeletal, mixed, superactive, mesic Lithic Hapludolls

### Typical Pedon

Moko extremely flaggy loam in an area of Moko-Rock outcrop complex, 3 to 15 percent slopes, very flaggy; 450 feet north and 1,650 feet east of the southwest corner of sec. 19, T. 28 N., R. 11 W.; USGS Cabool SW topographic quadrangle; UTM coordinates Zone 15, 571,988 meters Easting and 4,104,782 meters Northing.

A—0 to 5 inches; black (10YR 2/1) extremely flaggy loam, very dark brown (10YR 2/2) dry; weak fine granular structure; very friable; many fine roots; many very fine irregular pores; 40 percent dolostone flagstones, 20 percent chert gravel, and 10 percent chert cobbles; moderately alkaline (pH 8.2); clear wavy boundary.

Bw—5 to 12 inches; very dark grayish brown (10YR 3/2) extremely flaggy loam, dark grayish brown (10YR 4/2) dry; weak fine subangular blocky structure; friable; many fine roots; many fine tubular pores; 40 percent dolostone flagstones, 15 percent chert gravel, and 5 percent chert

cobbles; slightly alkaline (pH 7.8); abrupt smooth boundary.

2R—12 inches; dolostone.

### Range in Characteristics

*Depth to bedrock:* 6 to 20 inches

#### *A horizon:*

Content of rock fragments—40 to 80 percent gravel, cobbles, and flagstones

#### *Bw horizon:*

Content of rock fragments—40 to 80 percent gravel, cobbles, and flagstones  
Texture—silt loam, loam, silty clay loam, or clay loam

### **Moniteau Series**

The Moniteau series consists of very deep, poorly drained soils on stream terraces. These soils formed in silty alluvium. Permeability is moderately slow. Slopes range from 0 to 3 percent. The Moniteau soils in this county have lower base saturation than is definitive for the series. This difference, however, does not significantly affect the use and management of the soils.

*Taxonomic classification:* Fine-silty, mixed, active, mesic Typic Paleaquults

### Typical Pedon

Moniteau silt loam, 0 to 3 percent slopes, rarely flooded; 600 feet east and 2,600 feet north of the southwest corner of sec. 30, T. 23 N., R. 9 W.; USGS Pottersville topographic quadrangle; UTM coordinates Zone 15, 588,900 meters Easting and 4,054,840 meters Northing.

Ap—0 to 6 inches; dark gray (2.5Y 4/1) silt loam, light brownish gray (2.5Y 6/2) dry; weak fine granular structure; friable; many fine roots; many fine tubular and irregular pores; few fine prominent dark yellowish brown (10YR 4/4) redoximorphic concentrations; common fine iron-manganese concretions; moderately acid (pH 5.9); clear smooth boundary.

E1—6 to 12 inches; grayish brown (2.5Y 5/2) silt loam; weak fine subangular blocky structure; friable; few fine roots; many fine tubular and irregular pores; common fine prominent dark yellowish brown (10YR 4/4) redoximorphic concentrations; common fine iron-manganese concretions; strongly acid (pH 5.1); gradual smooth boundary.

E2—12 to 20 inches; light gray (2.5Y 7/1) silt loam;

weak fine subangular blocky structure; friable; few very fine roots; many fine tubular and irregular pores; common fine prominent olive gray (2.5Y 6/8) redoximorphic concentrations; common fine iron-manganese concretions; very strongly acid (pH 4.9); gradual wavy boundary.

Btg1—20 to 28 inches; light olive brown (2.5Y 5/3) silt loam; weak fine subangular blocky structure; friable; common fine tubular and irregular pores; common distinct grayish brown (2.5Y 5/2) clay films on faces of pedis; common prominent light gray (2.5Y 7/1) redoximorphic depletions; common fine prominent olive yellow (2.5Y 6/8) redoximorphic concentrations; few fine iron-manganese concretions; very strongly acid (pH 4.8); clear wavy boundary.

Btg2—28 to 41 inches; gray (2.5Y 5/1) silty clay loam; weak fine subangular blocky structure; firm; common fine tubular and irregular pores; common distinct dark gray (2.5Y 4/1) and light gray (2.5Y 7/1) clay films on faces of pedis; few prominent yellowish red (5YR 5/6) redoximorphic concentrations; very strongly acid (pH 4.7); gradual wavy boundary.

Btg3—41 to 80 inches; gray (2.5Y 5/1) silty clay loam; weak medium subangular blocky structure parting to weak fine subangular blocky; firm; common very fine tubular and vesicular pores; many distinct gray (2.5Y 4/1) and common distinct light gray (2.5Y 7/1) clay films on faces of pedis; 2 percent chert gravel; very strongly acid (pH 4.7).

#### Range in Characteristics

##### *Ap horizon:*

Content of rock fragments—0 to 5 percent gravel

##### *E horizon:*

Content of rock fragments—0 to 5 percent gravel  
Texture—silty clay loam or silt loam

##### *Btg horizon:*

Content of rock fragments—0 to 5 percent gravel  
Texture—silty clay loam or silt loam

### **Ocie Series**

The Ocie series consists of deep, moderately well drained soils on uplands. These soils formed in gravelly slope alluvium and the underlying residuum derived from cherty dolostone. Permeability is slow. Slopes range from 1 to 35 percent.

*Taxonomic classification:* Loamy-skeletal over clayey, mixed, semiactive, mesic Oxyaquic Hapludalfs

### Typical Pedon

Ocie extremely gravelly silt loam in an area of Ocie-Gatewood complex, 3 to 15 percent slopes, stony; 1,600 feet north and 1,600 feet west of the southeast corner of sec. 9, T. 27 N., R. 10 W.; USGS Cabool Southeast topographic quadrangle; UTM coordinates Zone 15, 585,240 meters Easting and 4,098,530 meters Northing.

Oi—0 to 1 inch; partially decomposed organic matter.

A—1 to 6 inches; 60 percent dark grayish brown (10YR 4/2) and 40 percent grayish brown (10YR 5/2) extremely gravelly silt loam; weak fine granular structure; friable; common fine and medium roots; many very fine irregular pores; 60 percent chert gravel and 2 percent chert cobbles; strongly acid (pH 5.1); clear smooth boundary.

E—6 to 12 inches; 60 percent grayish brown (10YR 5/2) and 40 percent brown (10YR 5/3) extremely gravelly silt loam; weak fine subangular blocky structure; friable; common fine and medium roots; many very fine and fine irregular and tubular pores; 60 percent chert gravel; very strongly acid (pH 4.9); clear wavy boundary.

Bt1—12 to 19 inches; strong brown (7.5YR 4/6) extremely gravelly silt loam; weak fine subangular blocky structure; friable; few fine roots; many fine and very fine irregular and tubular pores; many distinct discontinuous yellowish red (5YR 4/6) clay films on faces of pedis; many distinct continuous brown (10YR 5/3) coatings of silt throughout; 70 percent chert gravel; strongly acid (pH 5.2); clear wavy boundary.

2Bt2—19 to 25 inches; 70 percent yellowish brown (10YR 5/6) and 30 percent strong brown (7.5YR 4/6) gravelly silty clay; moderate fine subangular blocky structure; firm; few fine roots; few fine tubular pores; many distinct discontinuous yellowish brown (10YR 5/4) clay films on faces of pedis; 25 percent chert gravel; strongly acid (pH 5.1); gradual wavy boundary.

2Bt3—25 to 32 inches; yellowish brown (10YR 5/8) gravelly clay; moderate fine subangular blocky structure; very firm; few very fine and fine roots; few fine tubular pores; many prominent continuous grayish brown (10YR 5/2) clay films on faces of pedis; common fine prominent light gray (10YR 6/1) iron depletions; 25 percent chert gravel; neutral (pH 6.9); gradual wavy boundary.

2Bt4—32 to 43 inches; 60 percent brownish yellow (10YR 6/8) and 40 percent yellowish brown (10YR 5/8) gravelly clay; moderate very fine subangular blocky structure; very firm; few very fine roots; few



fine tubular pores; many prominent continuous grayish brown (10YR 5/2) and common prominent discontinuous brown (10YR 4/3) clay films on faces of peds; few fine prominent light gray (2.5Y 7/1) redoximorphic depletions; few fine prominent strong brown (7.5YR 4/6) redoximorphic concentrations; 30 percent chert gravel; slightly alkaline (pH 7.7); abrupt wavy boundary.

R—43 inches; dolostone.

### Range in Characteristics

*Depth to bedrock:* 40 to 60 inches

*A or Ap horizon:*

Content of rock fragments—15 to 75 percent gravel, cobbles, or stones

*E horizon:*

Content of rock fragments—15 to 75 percent gravel, cobbles, or stones

Texture—silt loam or loam

*Bt horizon:*

Content of rock fragments—35 to 75 percent gravel, cobbles, or stones

Texture—silt loam, silty clay loam, loam, or clay loam

*2Bt horizon:*

Content of rock fragments—0 to 35 percent gravel or cobbles

Texture—clay or silty clay

### Plato Series

The Plato series consists of very deep, somewhat poorly drained soils on uplands. These soils formed in loess and gravelly slope alluvium and the underlying cherty residuum. Permeability is moderately slow above the fragipan, very slow through it, and moderate below it. Slopes range from 1 to 3 percent.

*Taxonomic classification:* Fine, mixed, active, mesic Aquic Fragiudalfs

### Typical Pedon

Plato silt loam in an area of Plato-Jerktail complex, 1 to 3 percent slopes; 2,300 feet north and 1,600 feet west of the southeast corner of sec. 19, T. 22 N., R. 9 W.; USGS Moody topographic quadrangle; UTM coordinates Zone 15, 591,610 meters Easting and 4,046,010 meters Northing.

Ap—0 to 10 inches; dark grayish brown (10YR 4/2) silt loam; moderate medium subangular blocky structure parting to moderate fine granular; friable;

common fine roots; common fine irregular and tubular pores; common black (N 2/0) iron-manganese concretions; 2 percent mixed gravel; moderately acid (pH 5.8); clear smooth boundary.

Bt1—10 to 15 inches; dark yellowish brown (10YR 4/6) silt loam; moderate fine subangular blocky structure; firm; common fine roots; common fine irregular and tubular pores; common distinct discontinuous dark yellowish brown (10YR 4/4) clay films on faces of peds; few fine distinct pale brown (10YR 6/3) redoximorphic depletions; many distinct discontinuous dark grayish brown (10YR 4/2) organic coatings on faces of peds; common fine rounded black (N 2/0) iron-manganese concretions; 2 percent mixed gravel; slightly acid (pH 6.4); clear smooth boundary.

Bt2—15 to 20 inches; dark yellowish brown (10YR 4/6) silty clay loam; moderate fine subangular blocky structure; firm; common fine roots; common fine tubular pores; many faint continuous dark yellowish brown (10YR 4/4) and common prominent discontinuous dark grayish brown (10YR 4/2) clay films on faces of peds; few fine distinct light brownish gray (10YR 6/2) redoximorphic depletions; common distinct discontinuous light gray (10YR 7/2) coatings of silt on faces of peds and few fine rounded black (N 2/0) iron-manganese concretions; 2 percent mixed gravel; slightly acid (pH 6.5); clear smooth boundary.

Bt3—20 to 30 inches; brown (10YR 4/3) silty clay; moderate fine angular and subangular blocky structure; very firm; common fine roots; common fine tubular pores; many distinct continuous dark grayish brown (10YR 4/2) clay films on faces of peds; few fine distinct light brownish gray (10YR 6/2) redoximorphic depletions; few fine distinct yellowish brown (10YR 5/6) redoximorphic concentrations; common prominent discontinuous red (2.5YR 4/6) iron stains on faces of peds; few fine rounded black (N 2/0) iron-manganese concretions; 10 percent mixed gravel; neutral (pH 6.7); clear wavy boundary.

2Btx1—30 to 39 inches; pale brown (10YR 6/3) gravelly silt loam; weak coarse prismatic structure parting to weak medium platy and weak fine subangular blocky; 60 percent brittle; common fine vesicular and tubular pores; many prominent discontinuous dark grayish brown (10YR 4/2) clay films on faces of peds; few fine faint light brownish gray (10YR 6/2) redoximorphic depletions; few fine distinct yellowish brown (10YR 5/6) redoximorphic concentrations; many distinct discontinuous light gray (10YR 7/2) coatings of silt on faces of peds;

few fine rounded black (N 2/0) iron-manganese concretions; 15 percent mixed gravel; slightly alkaline (pH 7.6); clear irregular boundary.

2Btx2—39 to 54 inches; pale brown (10YR 6/2) very gravelly silt loam; weak very coarse prismatic structure parting to weak fine subangular blocky; 60 percent brittle; many fine vesicular and tubular pores; many prominent discontinuous yellowish red (5YR 4/6) clay films on faces of peds; few fine distinct light gray (10YR 7/2) redoximorphic concentrations; few fine distinct yellowish brown (10YR 5/6) redoximorphic concentrations; many prominent discontinuous black (N 2/0) iron stains; few fine rounded black (N 2/0) iron-manganese concretions; 55 percent chert gravel; moderately alkaline (pH 8.2); clear wavy boundary.

3Bt—54 to 80 inches; 50 percent yellowish brown (10YR 5/6) and 50 percent yellowish red (5YR 4/6) gravelly clay; moderate medium subangular blocky structure; very firm; few fine tubular pores; common distinct discontinuous very dark grayish brown (10YR 3/2) and many distinct discontinuous yellowish red (5YR 5/6) clay films on faces of peds; few fine distinct light gray (10YR 7/2) redoximorphic depletions; common prominent discontinuous light gray (10YR 7/2) coatings of silt on faces of peds; many prominent discontinuous black (N 2/0) iron stains; few fine rounded black (N 2/0) iron-manganese concretions; 25 percent chert gravel; moderately alkaline (pH 8.1).

#### Range in Characteristics

*Depth to the fragipan:* 24 to 36 inches

#### *Ap horizon:*

Content of rock fragments—0 to 5 percent gravel

#### *Bt horizon:*

Content of rock fragments—5 to 15 percent gravel  
Texture—silt loam or silty clay loam

#### *2Btx horizon:*

Content of rock fragments—10 to 70 percent gravel or cobbles  
Texture—silt loam, loam, or silty clay loam

#### *3Bt horizon:*

Content of rock fragments—5 to 45 percent gravel or cobbles  
Texture—clay or silty clay

### **Pomme Series**

The Pomme series consists of very deep, well drained soils on footslopes. These soils formed in

loess over loamy slope alluvium. Permeability is moderate. Slopes range from 3 to 8 percent.

*Taxonomic classification:* Fine-loamy, mixed, semiactive, mesic Typic Paleudalfs

#### Typical Pedon

Pomme silt loam, 3 to 8 percent slopes; 200 feet west and 2,400 feet south of the northeast corner of sec. 34, T. 22 N., R. 7 W.; USGS Koshkonong topographic quadrangle; UTM coordinates Zone 15, 615,600 meters Easting and 4,042,750 meters Northing.

Ap—0 to 4 inches; brown (7.5YR 4/3) silt loam; moderate very fine and fine granular structure; very friable; many very fine and fine roots; many very fine irregular and tubular pores; strongly acid (pH 5.3); clear smooth boundary.

Bt1—4 to 8 inches; dark brown (7.5YR 3/4) silt loam; moderate fine subangular blocky structure; friable; many very fine and fine roots; common fine tubular pores; many distinct discontinuous strong brown (7.5YR 4/6) clay films on faces of peds; common distinct continuous yellowish brown (10YR 5/4) coatings of silt on vertical faces of peds; moderately acid (pH 5.8); clear smooth boundary.

Bt2—8 to 16 inches; reddish brown (5YR 4/4) silt loam; moderate fine and medium subangular blocky structure; friable; common very fine roots; common very fine tubular pores; many distinct discontinuous yellowish red (5YR 4/6) clay films on faces of peds; common distinct discontinuous yellowish brown (10YR 5/4) coatings of silt on vertical faces of peds; few prominent discontinuous black (N 2/0) iron stains throughout; few rounded black (N 2/0) iron-manganese concretions; 1 percent chert gravel; moderately acid (pH 5.8); clear smooth boundary.

Bt3—16 to 25 inches; yellowish red (5YR 4/6) silty clay loam; moderate fine and medium angular blocky structure; firm; few very fine roots; many very fine tubular pores; many faint discontinuous reddish brown (5YR 4/4) clay films on faces of peds; common distinct discontinuous reddish brown (5YR 5/3) coatings of silt on vertical faces of peds; few prominent discontinuous black (N 2/0) iron stains throughout; common rounded black (N 2/0) iron-manganese concretions; 1 percent chert gravel; moderately acid (pH 5.7); clear wavy boundary.

2Bt4—25 to 40 inches; dark red (2.5YR 3/6) very gravelly silty clay loam; moderate very fine angular blocky structure; firm; few fine roots; many fine irregular and tubular pores; many distinct

continuous reddish brown (2.5YR 4/4) clay films on faces of peds; common prominent discontinuous black (N 2/0) iron stains; few rounded black (N 2/0) iron-manganese concretions; 45 percent chert gravel; moderately acid (pH 5.7); gradual wavy boundary.

2Bt5—40 to 52 inches; dark red (2.5YR 3/6) silty clay loam; strong medium angular blocky structure parting to strong fine angular blocky; very firm; common fine tubular pores; many distinct continuous reddish brown (2.5YR 4/4) clay films on faces of peds; few prominent discontinuous black (N 2/0) iron stains throughout; few rounded black (N 2/0) iron-manganese concretions; 2 percent chert gravel; strongly acid (pH 5.2); gradual wavy boundary.

2Bt6—52 to 80 inches; 90 percent red (2.5YR 4/6) and 10 percent brownish yellow (10YR 6/6) gravelly silty clay; strong fine angular blocky structure; very firm; many distinct continuous reddish brown (2.5YR 4/4) clay films on faces of peds; few rounded black (N 2/0) iron-manganese concretions; 30 percent chert gravel; strongly acid (pH 5.4).

#### Range in Characteristics

##### *Ap or A horizon:*

Content of rock fragments—0 to 15 percent gravel

##### *Bt horizon:*

Content of rock fragments—0 to 15 percent gravel  
Texture—silt loam or silty clay loam

##### *2Bt horizon:*

Content of rock fragments—10 to 55 percent gravel or cobbles  
Texture—silty clay, silt loam, or silty clay loam

### **Poynor Series**

The Poynor series consists of very deep, well drained soils on uplands. These soils formed in gravelly slope alluvium and the underlying clayey residuum derived from cherty dolostone. Permeability is moderate. Slopes range from 1 to 50 percent.

*Taxonomic classification:* Loamy-skeletal over clayey, siliceous, semiactive, mesic Typic Paleudults

#### Typical Pedon

Poynor extremely gravelly silt loam in an area of Scholten-Poynor complex, 8 to 15 percent slopes; 800 feet south and 300 feet east of the northwest corner of sec. 12, T. 25 N., R. 9 W.; USGS Siloam

Springs topographic quadrangle; UTM coordinates Zone 15, 589,100 meters Easting and 4,079,930 meters Northing.

Oi—0 to 1 inch; partially decomposed organic matter.

A—1 to 3 inches; yellowish brown (10YR 5/4) extremely gravelly silt loam; weak fine granular structure; very friable; many very coarse roots; many fine irregular pores; many prominent discontinuous very dark gray (10YR 3/1) organic coatings throughout; 75 percent chert gravel; very strongly acid (pH 4.8); abrupt wavy boundary.

Bt1—3 to 8 inches; yellowish brown (10YR 5/6) extremely gravelly silt loam; weak fine subangular blocky structure; friable; common very coarse roots; many fine irregular and tubular pores; common faint discontinuous dark yellowish brown (10YR 4/6) clay films on faces of peds; few distinct discontinuous dark gray (10YR 4/1) organic coatings throughout; few fine round soft black (N 2/0) iron-manganese concretions; 65 percent chert gravel; very strongly acid (pH 4.7); clear smooth boundary.

Bt2—8 to 12 inches; light yellowish brown (10YR 6/4) very gravelly silt loam; weak very fine subangular blocky structure; friable; common very coarse roots; many fine irregular and tubular pores; many distinct discontinuous strong brown (7.5YR 5/6) clay films on faces of peds; few fine round soft black (N 2/0) iron-manganese concretions; 45 percent chert gravel; very strongly acid (pH 4.9); clear wavy boundary.

Bt3—12 to 20 inches; 50 percent strong brown (7.5YR 5/6) and 50 percent light yellowish brown (10YR 6/4) very gravelly silt loam; moderate fine subangular blocky structure; friable; common very coarse roots; common fine tubular pores; many prominent continuous yellowish red (5YR 4/6) clay films on faces of peds; many prominent discontinuous light gray (10YR 7/2) coatings of silt throughout; 40 percent chert gravel; very strongly acid (pH 4.9); abrupt smooth boundary.

2Bt4—20 to 35 inches; strong brown (7.5YR 5/6) clay; moderate fine subangular blocky structure; very firm; few fine roots; common very fine tubular pores; many prominent continuous yellowish red (5YR 4/6) and common prominent continuous red (2.5YR 4/6) clay films on faces of peds; 5 percent chert gravel; very strongly acid (pH 4.9); clear wavy boundary.

2Bt5—35 to 55 inches; 50 percent strong brown (7.5YR 4/6) and 50 percent yellowish red (5YR 4/6) gravelly clay; moderate fine and medium angular blocky structure; very firm; few fine roots; common

fine tubular pores; many distinct continuous red (2.5YR 4/6), common distinct continuous brown (10YR 5/3), and few prominent discontinuous light gray clay films on faces of peds; 20 percent chert gravel; very strongly acid (pH 5.0); gradual smooth boundary.

2Bt6—55 to 80 inches; 80 percent yellowish red (5YR 4/6) and 20 percent olive yellow (2.5Y 6/8) gravelly clay; moderate fine angular blocky structure; very firm; common very fine tubular pores; many distinct continuous red (2.5YR 4/6) clay films on faces of peds; common distinct discontinuous yellowish brown (10YR 5/4) and common prominent discontinuous light gray (10YR 7/2) coatings of silt throughout; 10 percent chert gravel and 10 percent mudstone gravel; very strongly acid (pH 4.8).

#### Range in Characteristics

*Depth to the 2Bt horizon:* 14 to 36 inches

#### *A horizon:*

Content of rock fragments—35 to 80 percent gravel, cobbles, or stones

#### *Bt horizon:*

Content of rock fragments—35 to 80 percent gravel, cobbles, or stones  
Texture—silt loam or silty clay loam

#### *2Bt horizon:*

Content of rock fragments—0 to 35 percent gravel, cobbles, or stones  
Texture—clay or silty clay

### Racket Series

The Racket series consists of very deep, well drained soils on flood plains. These soils formed in loamy alluvium. Permeability is moderate. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Fine-loamy, mixed, superactive, mesic Cumulic Hapludolls

#### Typical Pedon

Racket loam, 0 to 3 percent slopes, occasionally flooded; 1,000 feet west and 300 feet south of the northeast corner of sec. 27, T. 22 N., R. 8 W.; USGS Lanton topographic quadrangle; UTM coordinates Zone 15, 605,430 meters Easting and 4,045,380 meters Northing.

Ap—0 to 10 inches; very dark grayish brown (10YR 3/2) loam, brown (10YR 4/3) dry; weak fine subangular blocky structure parting to moderate medium granular; friable; common fine roots; few

medium and coarse roots; many very fine to medium irregular pores; neutral (pH 7.1); clear smooth boundary.

A1—10 to 23 inches; very dark grayish brown (10YR 3/2) loam, grayish brown (10YR 5/2) dry; moderate fine and medium subangular blocky structure; friable; few fine roots; many fine irregular pores; neutral (pH 6.9); clear smooth boundary.

A2—23 to 28 inches; dark brown (10YR 3/3) loam, dark yellowish brown (10YR 4/4) dry; moderate fine subangular blocky structure; friable; few fine roots; many fine irregular pores; few fine round soft black (N 2/0) iron-manganese concretions throughout; 1 percent chert gravel; neutral (pH 6.9); clear wavy boundary.

Bw1—28 to 40 inches; 70 percent dark yellowish brown (10YR 4/4) and 30 percent dark brown (10YR 3/3) loam; moderate medium subangular blocky structure; firm; very few very fine roots; common fine tubular pores; few fine round soft black (N 2/0) iron-manganese concretions throughout; neutral (pH 6.9); clear wavy boundary.

Bw2—40 to 48 inches; yellowish brown (10YR 5/4) loam; moderate very coarse subangular blocky structure; firm; few very fine roots; common very fine tubular pores and few medium vesicular pores; common medium prominent pale brown (10YR 6/3) redoximorphic depletions; common medium prominent strong brown (7.5YR 5/6) redoximorphic concentrations; few fine round soft black (N 2/0) iron-manganese concretions; 10 percent chert gravel; neutral (pH 6.9); clear wavy boundary.

Bw3—48 to 80 inches; yellowish brown (10YR 5/4) loam; moderate medium subangular blocky structure; friable; very few very fine roots; common very fine tubular pores; common medium prominent pale brown (10YR 6/3) redoximorphic depletions; common medium prominent strong brown (7.5YR 5/6) redoximorphic concentrations; few fine round soft black (N 2/0) iron-manganese concretions; 2 percent chert gravel; neutral (pH 6.8).

#### Range in Characteristics

#### *Ap horizon:*

Content of rock fragments—0 to 10 percent gravel

#### *A horizon:*

Content of rock fragments—0 to 10 percent gravel, cobbles, or stones  
Texture—silt loam or loam

#### *Bw horizon:*

Content of rock fragments—0 to 30 percent gravel or cobbles  
Texture—loam or silt loam

*2C horizon (where present):*

Content of rock fragments—0 to 60 percent gravel or cobbles

Texture—stratified sandy loam to sand

**Razort Series**

The Razort series consists of very deep, well drained soils on stream terraces. These soils formed in loamy alluvium. Permeability is moderate. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Fine-loamy, mixed, active, mesic Mollic Hapludalfs

**Typical Pedon**

Razort silt loam, 0 to 3 percent slopes, rarely flooded; 2,200 feet north and 2,500 feet east of the southwest corner of sec. 2, T. 32 N., R. 12 W.; USGS Roby topographic quadrangle; UTM coordinates Zone 15, 568,513 meters Easting and 4,151,051 meters Northing; in Texas County, Missouri.

Ap1—0 to 4 inches; dark brown (10YR 3/3) silt loam, dark brown (10YR 4/3) dry; moderate medium granular structure; very friable; many fine roots; many fine irregular pores; neutral (pH 6.8); clear smooth boundary.

Ap2—4 to 8 inches; very dark grayish brown (10YR 3/2) silt loam, dark brown (10YR 4/3) dry; moderate medium granular structure; very friable; many fine roots; many fine irregular pores; neutral (pH 6.6); clear smooth boundary.

Bt1—8 to 11 inches; brown (10YR 5/3) silt loam; weak fine subangular blocky structure; very friable; common very fine roots; many very fine tubular pores; common dark grayish brown coatings on faces of ped and in vertical pores; few fine black concretions of iron and manganese oxides; neutral (pH 6.6); clear smooth boundary.

Bt2—11 to 17 inches; dark yellowish brown (10YR 4/4) clay loam; moderate medium subangular blocky structure; friable; few fine roots; common fine tubular pores; common faint clay films on faces of ped and in pores; slightly acid (pH 6.4); gradual smooth boundary.

Bt3—17 to 27 inches; mixed dark yellowish brown (10YR 3/4) and yellowish brown (10YR 5/4) loam; moderate medium subangular blocky structure; friable; few fine roots; common fine tubular pores; common faint clay films on faces of ped and in pores; neutral (pH 6.6); gradual smooth boundary.

Bt4—27 to 42 inches; dark yellowish brown (10YR 4/4) gravelly loam; weak medium subangular blocky

structure; friable; few fine roots; common fine tubular pores; common faint clay films on faces of ped and in pores; 15 percent chert gravel; neutral (pH 6.8); gradual smooth boundary.

BC—42 to 80 inches; dark yellowish brown (10YR 4/4) loam; weak medium subangular blocky structure; friable; few fine roots; few very fine tubular pores; common medium faint brown (10YR 5/3) coatings of silt; 5 percent chert gravel; neutral (pH 6.8).

**Range in Characteristics***Ap horizon:*

Content of rock fragments—0 to 15 percent gravel

*Bt horizon:*

Content of rock fragments—0 to 15 percent gravel  
Texture—silt loam, loam, or clay loam

*BC or C horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—loam, clay loam, silty clay loam, or loamy sand

**Relfe Series**

The Relfe series consists of very deep, excessively drained soils on flood plains. These soils formed in sandy and gravelly alluvium. Permeability is rapid. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Sandy-skeletal, siliceous, mesic Mollic Udifluvents

**Typical Pedon**

Relfe gravelly sandy loam in an area of Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded; 900 feet south and 400 feet west of the northeast corner of sec. 26, T. 25 N., R. 7 W.; USGS Peace Valley topographic quadrangle; UTM coordinates Zone 15, 617,820 meters Easting and 4,074,860 meters Northing.

A—0 to 8 inches; very dark grayish brown (10YR 3/2) gravelly sandy loam, brown (10YR 4/3) dry; weak medium subangular blocky structure parting to weak fine and medium granular; very friable; many fine and very fine roots; many fine irregular and tubular pores; 30 percent chert gravel; very strongly acid (pH 4.9); clear smooth boundary.

Bw—8 to 15 inches; brown (10YR 4/3) very gravelly sandy loam; weak fine subangular blocky structure; very friable; common fine and very fine roots; many fine irregular and tubular pores; 50 percent chert gravel; very strongly acid (pH 4.8); clear smooth boundary.

- C1—15 to 21 inches; stratified brown (7.5YR 4/4) very gravelly loamy coarse sand; single grain; loose; common fine and very fine roots; many very fine tubular pores; 50 percent chert gravel; very strongly acid (pH 4.9); clear smooth boundary.
- C2—21 to 32 inches; stratified strong brown (7.5YR 4/6) extremely gravelly loamy coarse sand; single grain; loose; common fine and very fine roots; many fine irregular pores; common prominent discontinuous black (N 2/0) iron stains; 70 percent chert gravel; very strongly acid (pH 4.9); gradual smooth boundary.
- C3—32 to 80 inches; stratified strong brown (7.5YR 4/6) extremely gravelly loamy coarse sand; single grain; loose; common fine roots; common fine irregular pores; common prominent discontinuous black (N 2/0) iron stains; 65 percent chert gravel; strongly acid (pH 5.0).

#### Range in Characteristics

##### *A horizon:*

Content of rock fragments—15 to 75 percent gravel

##### *Bw horizon (where present):*

Content of rock fragments—15 to 75 percent gravel  
Texture—sandy loam or loam

##### *C horizon:*

Content of rock fragments—35 to 85 percent gravel, cobbles, or stones  
Texture—stratified sandy loam to coarse sand

### **Sandbur Series**

The Sandbur series consists of very deep, somewhat excessively drained soils on flood plains. These soils formed in loamy alluvium. Permeability is moderately rapid. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Coarse-loamy, siliceous, superactive, nonacid, mesic Mollic Udifluvents

#### Typical Pedon

Sandbur sandy loam in an area of Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded; 900 feet south and 800 feet west of the northeast corner of sec. 26, T. 25 N., R. 7 W.; USGS Peace Valley topographic quadrangle; UTM coordinates Zone 15, 617,740 meters Easting and 4,074,840 meters Northing.

A—0 to 6 inches; dark brown (10YR 3/3) sandy loam, brown (10YR 4/3) dry; weak fine granular structure; very friable; many fine to coarse roots; many fine

and very fine irregular and tubular pores; strongly acid (pH 5.5); gradual smooth boundary.

C1—6 to 16 inches; dark yellowish brown (10YR 3/4) loam; massive; very friable; many very fine to coarse roots; many fine and very fine irregular and tubular pores; common distinct discontinuous very dark grayish brown (10YR 3/2) organic stains; slightly acid (pH 6.1); gradual smooth boundary.

C2—16 to 26 inches; dark yellowish brown (10YR 3/4) loam; massive; very friable; few fine to coarse roots; common fine and very fine irregular and tubular pores; common distinct discontinuous very dark gray (10YR 3/1) organic stains; moderately acid (pH 5.9); gradual smooth boundary.

2Btb1—26 to 37 inches; brown (10YR 4/3) very gravelly loam; weak fine subangular blocky structure; friable; few fine and medium roots; many very fine irregular and tubular pores; few distinct dark grayish brown (10YR 4/2) clay films on faces of peds; common prominent black (N 2/0) iron-manganese stains; 10 percent sandstone gravel, 20 percent sandstone cobbles, and 25 percent sandstone stones; strongly acid (pH 5.5); gradual wavy boundary.

2Btb2—37 to 48 inches; brown (10YR 4/3) extremely cobbly loam; weak fine granular structure; friable; few fine and medium roots; many fine and medium irregular pores; few faint brown (10YR 4/3) clay films on faces of peds; 30 percent sandstone gravel, 20 percent sandstone cobbles, and 10 percent sandstone stones; slightly acid (pH 6.4); gradual wavy boundary.

2Btb3—48 to 80 inches; yellowish brown (10YR 5/4) extremely cobbly sandy clay loam; weak fine granular structure; friable; few fine and very fine roots; many fine and medium irregular pores; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; common prominent very pale brown (10YR 7/3) redoximorphic depletions; few prominent strong brown (7.5YR 5/8) redoximorphic concentrations; 50 percent sandstone gravel, 20 percent sandstone cobbles, and 10 percent sandstone stones; neutral (pH 6.9).

#### Range in Characteristics

##### *A horizon:*

Content of rock fragments—0 to 15 percent gravel

##### *C horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—fine sandy loam, sandy loam, or loam

##### *2Btb horizon:*

Content of rock fragments—0 to 80 percent gravel, cobbles, and stones

Texture—sandy clay loam, sandy loam, loam, loamy sand, or sand

### **Scholten Series**

The Scholten series consists of very deep, moderately well drained soils on uplands. These soils formed in gravelly slope alluvium and the underlying clayey residuum derived from dolostone. Permeability is moderate above the fragipan, very slow through it, and moderate below it. Slopes range from 1 to 35 percent.

*Taxonomic classification:* Loamy-skeletal, siliceous, active, mesic Typic Fragiudults

#### **Typical Pedon**

Scholten very gravelly silt loam in an area of Scholten-Poynor complex, 8 to 15 percent slopes; 50 feet south and 1,500 feet west of the northeast corner of sec. 15, T. 26 N., R. 10 W.; USGS Dyestone Mountain topographic quadrangle; UTM coordinates Zone 15, 586,200 meters Easting and 4,088,320 meters Northing.

Oi—0 to 1 inch; partially decomposed organic matter.

A—1 to 7 inches; brown (10YR 5/3) very gravelly silt loam; moderate medium granular structure; very friable; common very fine to coarse roots; many very fine to medium irregular pores; many prominent very dark grayish brown (10YR 3/2) organic coatings; 50 percent chert gravel; very strongly acid (pH 4.5); abrupt smooth boundary.

Bt1—7 to 15 inches; yellowish brown (10YR 5/4) gravelly silt loam; weak fine subangular blocky structure; friable; common fine to coarse roots; many very fine to medium irregular and tubular pores; common prominent reddish brown (5YR 4/4) clay films on faces of peds; few prominent dark grayish brown (10YR 4/2) organic coatings; 30 percent chert gravel; very strongly acid (pH 4.9); clear smooth boundary.

Bt2—15 to 23 inches; strong brown (7.5YR 4/6) very gravelly silt loam; weak very fine subangular blocky structure; firm; common fine to coarse roots; many very fine irregular and tubular pores; common prominent reddish brown (5YR 4/4) clay films on faces of peds; many distinct brown (10YR 5/3) coatings of silt; 50 percent chert gravel; strongly acid (pH 5.2); clear wavy boundary.

2Btx1—23 to 30 inches; strong brown (7.5YR 4/6) extremely gravelly silt loam; weak very coarse prismatic structure parting to moderate fine subangular blocky; very firm; 60 percent brittle; few fine to coarse roots between prisms; common fine

vesicular and tubular pores; common prominent brown (7.5YR 4/4) and few prominent light brownish gray (10YR 6/2) clay films between peds; few prominent yellowish brown (10YR 5/4) coatings of silt; 65 percent chert gravel; very strongly acid (pH 4.9); clear wavy boundary.

2Btx2—30 to 45 inches; yellowish brown (10YR 5/4) extremely gravelly silt loam; weak very coarse prismatic structure parting to moderate fine subangular blocky; very firm; 60 percent brittle; very few fine roots between prisms; common fine vesicular and tubular pores; common distinct yellowish brown (10YR 5/4) and few prominent light brownish gray (10YR 6/2) clay films between peds; few prominent brown (10YR 5/4) coatings of silt; 40 percent chert gravel and 30 percent mudstone gravel; very strongly acid (pH 4.9); clear wavy boundary.

3Bt1—45 to 60 inches; strong brown (7.5YR 4/6) gravelly clay; moderate fine angular blocky structure; very firm; very few very fine roots; few very fine tubular pores; common prominent yellowish red (10YR 5/4), common prominent red (2.5YR 4/6), and few distinct light brownish gray (10YR 6/2) clay films on faces of peds; 10 percent chert gravel and 20 percent mudstone gravel; very strongly acid (pH 4.6); gradual wavy boundary.

3Bt2—60 to 80 inches; yellowish red (5YR 5/6) extremely gravelly clay; moderate thin platy structure parting to moderate fine angular blocky; very firm; very few very fine roots; common very fine tubular pores; common distinct reddish yellow (5YR 6/6) and few prominent light brownish gray (10YR 6/2) clay films on faces of peds; common distinct very pale brown (10YR 7/4) coatings of silt; 20 percent chert gravel and 50 percent mudstone gravel; very strongly acid (pH 4.7).

#### **Range in Characteristics**

*Depth to the fragipan:* 12 to 36 inches

*A horizon:*

Content of rock fragments—35 to 65 percent gravel, cobbles, or stones

*Bt horizon:*

Content of rock fragments—35 to 65 percent gravel, cobbles, or stones

Texture—silt loam or silty clay loam

*2Btx horizon:*

Content of rock fragments—15 to 80 percent gravel, cobbles, or stones

Texture—silt loam, silty clay loam, or loam

**2Bt horizon:**

Content of rock fragments—15 to 80 percent gravel, cobbles, or stones

Texture—clay or silty clay

**Secesh Series**

The Secesh series consists of very deep, well drained soils on flood plains and stream terraces. These soils formed in loamy alluvium. Permeability is moderate. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Fine-loamy, siliceous, active, mesic Ultic Hapludalfs

**Typical Pedon**

Secesh silt loam, 0 to 3 percent slopes, rarely flooded; 1,500 feet south and 2,300 feet west of the northeast corner of sec. 2, T. 32 N., R. 12 W.; USGS Clear Springs topographic quadrangle; lat. 37 degrees 30 minutes 33 seconds N.; UTM coordinates Zone 15, 602,270 meters Easting and 4,095,300 meters Northing.

Ap—0 to 9 inches; dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; weak fine granular structure and weak fine subangular blocky; very friable; many fine and very fine roots; common fine and very fine irregular and tubular pores; 10 percent chert gravel; slightly acid (pH 6.5); clear smooth boundary.

BA—9 to 15 inches; 70 percent dark yellowish brown (10YR 4/4) and 30 percent dark grayish brown (10YR 4/2) loam; weak fine subangular blocky structure; friable; few fine and very fine roots; common fine and very fine irregular and tubular pores; few distinct dark brown (10YR 3/3) organic coatings; 5 percent chert gravel; neutral (pH 6.7); clear smooth boundary.

Bt1—15 to 22 inches; dark yellowish brown (10YR 4/4) loam; moderate medium subangular blocky structure; friable; few very fine roots; few fine and very fine tubular and vesicular pores; common distinct dark brown (7.5YR 3/3) and few prominent yellowish red (5YR 4/6) clay films on faces of peds; few fine black concretions of iron and manganese oxides; 2 percent chert gravel; neutral (pH 6.8); clear smooth boundary.

Bt2—22 to 33 inches; brown (7.5YR 4/4) silt loam; moderate fine and medium subangular blocky structure; friable; few very fine roots; few fine and very fine tubular and vesicular pores; common distinct brown (7.5YR 4/4) and common prominent yellowish red (5YR 4/6) clay films on faces of peds; few prominent black (N 2/0) iron-manganese

stains; few fine black concretions of iron and manganese oxides; 2 percent chert gravel; strongly acid (pH 5.3); clear wavy boundary.

Bt3—33 to 41 inches; mixed yellowish brown (10YR 5/4) and strong brown (7.5YR 5/6) silt loam; moderate fine and medium subangular blocky structure; friable; few fine and very fine tubular and vesicular pores; common distinct brown (7.5YR 4/4) and few distinct strong brown (7.5YR 4/6) clay films on faces of peds; common prominent pale brown (10YR 6/3) coatings of silt; very strongly acid (pH 4.9); abrupt smooth boundary.

2Bt4—41 to 80 inches; yellowish brown (10YR 5/4) very gravelly loam; weak fine subangular blocky structure; firm; many very fine tubular and irregular pores; common prominent yellowish red (5YR 4/6) clay films on faces of peds; few prominent black (N 2/0) iron-manganese stains; 50 percent chert gravel and 5 percent chert cobbles; strongly acid (pH 5.4).

**Range in Characteristics****Ap horizon:**

Content of rock fragments—0 to 15 percent gravel

**Bt horizon:**

Content of rock fragments—0 to 35 percent gravel  
Texture—silt loam, loam, or clay loam

**2Bt horizon:**

Content of rock fragments—0 to 65 percent gravel  
Texture—loam, clay loam, or silty clay loam

**Splitlimb Series**

The Splitlimb series consists of very deep, somewhat poorly drained soils in nearly level and gently sloping sinkholes on uplands. These soils formed in loess and silty slope alluvium. Permeability is moderate. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Fine-silty, mixed, active, mesic Aquic Paleudults

**Typical Pedon**

Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded; 1,700 feet north and 1,100 feet west of the southeast corner of sec. 2, T. 25 N., R. 9 W.; USGS Pomona topographic quadrangle; UTM coordinates Zone 15, 598,260 meters Easting and 4,080,550 meters Northing.

Ap—0 to 10 inches; brown (10YR 5/3) silt loam, pale brown (10YR 6/3) dry; moderate fine and medium granular structure; friable; common fine and very fine roots; many fine and very fine irregular and



tubular pores; very strongly acid (pH 4.9); clear smooth boundary.

Bt1—10 to 17 inches; dark yellowish brown (10YR 4/6) silt loam; moderate medium subangular blocky structure parting to moderate fine subangular blocky; friable; common fine roots; common fine and very fine tubular pores; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; few distinct brown (10YR 5/3) coatings of silt; very strongly acid (pH 4.9); clear smooth boundary.

Bt2—17 to 25 inches; brown (10YR 4/3) silty clay loam; moderate medium subangular blocky structure parting to moderate fine subangular blocky; firm; common fine and very fine roots; many very fine tubular pores; common distinct olive brown (2.5Y 4/4) clay films on faces of peds; few distinct light brownish gray (10YR 6/2) iron depletions; few fine black (N 2/0) iron-manganese concretions; very strongly acid (pH 4.7); clear smooth boundary.

2Bt3—25 to 36 inches; dark yellowish brown (10YR 4/6) silty clay loam; moderate medium subangular blocky structure; firm; few fine roots; common very fine tubular pores; common prominent gray (2.5Y 5/1) clay films on faces of peds; common distinct gray (2.5Y 6/1) iron depletions; common prominent yellowish brown (10YR 5/6) masses of iron accumulation; few fine dark red (2.5YR 3/6) iron nodules; 1 percent chert gravel; very strongly acid (pH 4.6); clear smooth boundary.

2Bt4—36 to 48 inches; light olive brown (2.5Y 5/4) silty clay loam; weak very coarse prismatic structure parting to weak fine subangular blocky; firm; many very fine tubular pores; common prominent dark gray (2.5Y 4/1) clay films on faces of peds; common fine prominent gray (10YR 6/1) iron depletions; common prominent strong brown (7.5YR 5/6) masses of iron accumulation; few fine black (N 2/0) iron-manganese concretions; 1 percent chert gravel; very strongly acid (pH 4.6); gradual wavy boundary.

2Bt5—48 to 80 inches; grayish brown (2.5YR 5/2) silty clay loam; weak very coarse prismatic structure parting to weak fine subangular blocky; firm; many very fine tubular pores; common prominent dark gray (2.5Y 4/1) clay films on faces of peds; common fine prominent gray (10YR 6/1) iron depletions; few prominent strong brown (7.5YR 5/6) and common prominent red (2.5YR 4/6) masses of iron accumulation; 1 percent chert gravel; very strongly acid (pH 4.5).

#### Range in Characteristics

*Ap horizon:*

Content of rock fragments—0 to 5 percent gravel

*Bt horizon:*

Content of rock fragments—0 to 5 percent gravel  
Texture—silt loam or silty clay loam

*2Bt horizon:*

Content of rock fragments—0 to 10 percent gravel  
Texture—silty clay loam or silt loam

### Tanglenook Series

The Tanglenook series consists of very deep, poorly drained soils on stream terraces and in basins. These soils formed in silty and clayey alluvium. Permeability is slow. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Fine, mixed, superactive, mesic Typic Argiaquolls

#### Typical Pedon

Tanglenook silt loam, basins, 0 to 3 percent slopes; 2,600 feet east and 600 feet north of the southwest corner of sec. 16, T. 23 N., R. 8 W.; USGS West Plains topographic quadrangle; UTM coordinates Zone 15, 602,520 meters Easting and 4,057,170 meters Northing.

Ap—0 to 7 inches; very dark grayish brown (10YR 3/2) silt loam, dark grayish brown (10YR 4/3) dry; weak fine granular structure; friable; many fine and very fine roots; many fine and very fine tubular pores; common prominent brown (7.5YR 4/4) masses of iron accumulation; moderately acid (pH 5.7); gradual smooth boundary.

A—7 to 15 inches; black (2.5Y 2.5/1) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; common fine tubular pores; few fine prominent light gray (5Y 7/1) skeltans; slightly acid (pH 6.3); gradual smooth boundary.

Btg1—15 to 23 inches; black (2.5Y 2.5/1) silty clay loam; moderate medium subangular blocky structure; firm; few fine tubular pores; common prominent yellowish brown (10YR 5/8) clay films on faces of peds; few prominent light olive brown (2.5Y 5/3) redoximorphic depletions; 5 percent chert gravel; neutral (pH 7.0); clear smooth boundary.

Btg2—23 to 32 inches; gray (5Y 5/1) silty clay; weak fine subangular blocky structure; firm; common fine tubular pores; common prominent light olive brown (2.5Y 5/6) and common prominent black (N 2/0) clay films on faces of peds; 2 percent chert gravel; neutral (pH 7.3); clear smooth boundary.

Btg3—32 to 43 inches; 80 percent gray (N 5/0) and 20 percent greenish gray (10GY 6/1) silty clay;

weak fine subangular blocky structure; very firm; few fine tubular pores; common prominent black (N 2.5/0) and strong brown (7.5YR 5/6) clay films on faces of peds; 2 percent chert gravel; slightly alkaline (pH 7.4); gradual wavy boundary.

Btg4—43 to 80 inches; 80 percent greenish gray (10GY 6/1) and 20 percent greenish gray (10GY 5/1) silty clay; massive; very firm; few very fine tubular pores; few faint dark greenish gray (10GY 4/1) clay films on faces of peds; common prominent light yellowish brown (2.5Y 6/3) and yellowish brown (10YR 5/6) iron stains; 2 percent chert gravel; slightly alkaline (pH 7.4).

#### Range in Characteristics

##### *Ap horizon:*

Content of rock fragments—0 to 5 percent gravel

##### *A horizon:*

Content of rock fragments—0 to 5 percent gravel  
Texture—silty clay loam or silt loam

##### *Btg horizon:*

Content of rock fragments—0 to 5 percent gravel  
Texture—silty clay, clay, or silty clay loam

### **Taterhill Series**

The Taterhill series consists of very deep, well drained soils on footslopes. These soils formed in loamy slope alluvium. Permeability is moderate. Slopes range from 3 to 8 percent.

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, mesic Typic Paleudults

#### Typical Pedon

Taterhill silt loam, 3 to 8 percent slopes; 1,400 feet north and 1,900 feet east of the southwest corner of sec. 28, T. 27 N., R. 5 W.; USGS Montier topographic quadrangle; UTM coordinates Zone 15, 633,100 meters Easting and 4,093,230 meters Northing.

Ap—0 to 11 inches; brown (10YR 4/3) silt loam; weak fine subangular blocky structure; friable; common fine roots; common fine tubular pores; 1 percent chert gravel; neutral (pH 6.6); abrupt smooth boundary.

BA—11 to 15 inches; dark yellowish brown (10YR 4/4) silt loam; weak fine subangular blocky structure; friable; common fine roots; many very fine and common medium tubular pores; 1 percent chert gravel; neutral (pH 6.7); clear smooth boundary.

Bt1—15 to 20 inches; dark brown (7.5YR 4/4) silt loam; moderate medium subangular blocky structure;

friable; common fine roots; common medium tubular pores; few distinct dark brown (7.5YR 4/4) clay films on faces of peds; 2 percent chert gravel; neutral (pH 6.7); clear smooth boundary.

Bt2—20 to 28 inches; strong brown (7.5YR 5/6) silt loam; moderate fine subangular blocky structure; friable; common fine roots; common medium tubular pores; few distinct strong brown (7.5YR 4/6) clay films on faces of peds; few prominent black (N 2/0) iron-manganese stains; 10 percent chert gravel and 2 percent chert cobbles; slightly acid (pH 6.5); clear wavy boundary.

2Bt3—28 to 36 inches; yellowish red (5YR 5/6) gravelly silt loam; moderate medium subangular blocky structure; firm; few fine roots; common medium tubular pores; few prominent red (2.5YR 4/6) clay films on faces of peds; 25 percent chert gravel and 2 percent chert cobbles; strongly acid (pH 5.2); gradual wavy boundary.

2Bt4—36 to 48 inches; 50 percent red (2.5YR 4/6) and 50 percent strong brown (7.5YR 5/6) gravelly silty clay loam; moderate medium subangular blocky structure; firm; common medium tubular pores; common distinct red (2.5YR 4/6) clay films in root channels and pores; many prominent light brown (7.5YR 6/3) coatings of silt in root channels and pores; 20 percent chert gravel and 5 percent chert cobbles; very strongly acid (pH 5.0); gradual wavy boundary.

2Bt5—48 to 80 inches; red (2.5YR 4/6) silty clay loam; strong fine angular blocky structure; firm; common medium vesicular pores; common distinct red (2.5YR 4/6) clay films in root channels and pores; common prominent pinkish gray (7.5YR 6/2) coatings of silt in root channels and pores; 10 percent chert gravel and 2 percent chert cobbles; very strongly acid (pH 4.8).

#### Range in Characteristics

##### *A or Ap horizon:*

Content of rock fragments—0 to 10 percent gravel

##### *BA horizon (where present):*

Content of rock fragments—0 to 10 percent gravel

##### *Bt horizon:*

Content of rock fragments—0 to 30 percent gravel and 0 to 5 percent cobbles  
Texture—silt loam, silty clay loam, or loam

##### *2Bt horizon:*

Content of rock fragments—5 to 70 percent gravel and 0 to 5 percent cobbles  
Texture—silt loam, silty clay loam, loam, clay loam, or sandy clay loam

### Tick Series

The Tick series consists of deep, well drained soils on gently sloping to very steep upland ridges. These soils formed in gravelly slope alluvium over dense, clayey mudstone. Permeability is moderately slow. Slopes range from 3 to 50 percent.

*Taxonomic classification:* Fine, mixed, subactive, mesic Typic Hapludults

#### Typical Pedon

Tick very gravelly silt loam, 3 to 15 percent slopes, stony; 960 feet north and 320 feet west of the southeast corner of sec. 29, T. 28 N., R. 9 W.; USGS Willow Springs North topographic quadrangle; UTM coordinates Zone 15, 593,689 meters Easting and 4,102,994 meters Northing; in Texas County, Missouri.

Oi—0 to 1 inch; slightly decomposed oak leaf litter.

A—1 to 6 inches; brown (10YR 5/3) very gravelly silt loam, light yellowish brown (10YR 6/4) dry; moderate medium granular structure; very friable; common coarse roots; many fine tubular pores; 35 percent chert gravel; strongly acid (pH 5.2); clear smooth boundary.

E—6 to 11 inches; light yellowish brown (10YR 6/4) gravelly silt loam; weak fine subangular blocky structure; very friable; few coarse roots; common very fine tubular pores and many very fine irregular pores; 15 percent chert gravel; very strongly acid (pH 4.8); clear smooth boundary.

Bt1—11 to 19 inches; brownish yellow (10YR 6/6) silty clay loam; weak medium platy structure parting to weak medium subangular blocky; friable; few coarse roots; common very fine tubular pores; common distinct clay films on faces of peds; common fine black (N 2/0) iron and manganese oxide concretions; 5 percent soft mudstone paragravel; very strongly acid (pH 4.8); clear smooth boundary.

Bt2—19 to 28 inches; mixed yellow (10YR 7/6 and 7/8) and very pale brown (10YR 8/2) paragravelly silty clay loam; moderate medium platy structure parting to moderate very fine angular blocky; friable; few medium roots; few very fine tubular pores; common distinct clay films on faces of peds; 30 percent soft mudstone paragravel; very strongly acid (pH 4.6); gradual wavy boundary.

Bt3—28 to 42 inches; mixed yellow (10YR 7/6 and 7/8) very paragravelly silty clay; strong thick platy structure parting to strong medium platy and strong fine angular blocky; firm; few fine roots; few

very fine tubular pores; common fine distinct clay films on faces of peds; 40 percent soft mudstone paragravel; very strongly acid (pH 4.6); clear wavy boundary.

2Cd—42 to 80 inches; soft, dense, clayey, stratified mudstone.

#### Range in Characteristics

*Depth to dense layer:* 40 to 60 inches

*A horizon:*

Content of rock fragments—35 to 80 percent gravel

*E horizon:*

Content of rock fragments—5 to 50 percent gravel  
Texture—silt loam or loam

*Upper part of Bt horizon:*

Content of rock fragments—0 to 35 percent gravel and paragravel  
Texture—silt loam, silty clay loam, or silty clay

*Lower part of Bt horizon:*

Content of rock fragments—10 to 60 percent gravel and paragravel  
Texture—silty clay or clay

### Tilk Series

The Tilk series consists of very deep, well drained soils on nearly level to gently sloping flood plains and alluvial fans. These soils formed in alluvium. Permeability is rapid. Slopes range from 0 to 3 percent.

*Taxonomic classification:* Loamy-skeletal, siliceous, active, mesic Ultic Hapludalfs

#### Typical Pedon

Tilk very gravelly loam, 0 to 3 percent slopes, rarely flooded; 2,100 feet south and 2,500 feet west of the northeast corner of sec. 10, T. 27 N., R. 10 W.; USGS Cabool Southeast topographic quadrangle; UTM coordinates Zone 15, 586,565 meters Easting and 4,099,020 meters Northing.

Oi—0 to 1 inch; partially decomposed oak leaf litter.

A—1 to 6 inches; dark grayish brown (10YR 4/2) very gravelly loam, brown (10YR 5/3) dry; weak fine granular structure; very friable; many fine and very fine roots; many very fine irregular pores; 45 percent chert gravel and 5 percent chert cobbles; moderately acid (pH 5.7); abrupt smooth boundary.

AB—6 to 12 inches; 50 percent brown (10YR 4/3) and 50 percent dark yellowish brown (10YR 4/4) very gravelly loam; weak very fine subangular blocky

structure; very friable; many fine to coarse roots; many very fine irregular and tubular pores; 45 percent chert gravel; strongly acid (pH 5.3); clear smooth boundary.

- Bt1—12 to 20 inches; strong brown (7.5YR 4/6) gravelly loam; moderate fine subangular blocky structure; friable; common fine and medium roots; many very fine tubular and irregular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds; 15 percent chert gravel; strongly acid (pH 5.9); clear wavy boundary.
- Bt2—20 to 27 inches; strong brown (7.5YR 4/6) extremely gravelly loam; moderate fine and medium subangular blocky structure; friable; few fine and medium roots; many fine tubular and irregular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds; common prominent black (N 2/0) iron-manganese stains; few fine black concretions of iron and manganese oxides; 60 percent chert gravel; moderately acid (pH 5.9); clear wavy boundary.
- Bt3—27 to 36 inches; strong brown (7.5YR 4/6) extremely gravelly sandy loam; moderate fine subangular blocky structure; very friable; few fine and medium roots; many very fine irregular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds; common prominent black (N 2/0) iron-manganese stains; 65 percent chert gravel; moderately acid (pH 5.9); clear wavy boundary.
- Bt4—36 to 48 inches; strong brown (7.5YR 4/6) extremely gravelly sandy loam; weak fine subangular blocky structure; very friable; few fine and medium roots; many very fine irregular pores; common distinct brown (7.5YR 4/4) and few prominent yellowish red (5YR 4/6) clay films on faces of peds; common prominent black (N 2/0) iron-manganese stains; 70 percent chert gravel; moderately acid (pH 6.0); abrupt wavy boundary.
- Bt5—48 to 80 inches; strong brown (7.5YR 5/6) silt loam; moderate fine and medium subangular blocky structure; friable; few fine and medium roots; common very fine tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds; common prominent black (N 2/0) iron-manganese stains; 2 percent chert gravel; moderately acid (pH 5.6).

#### Range in Characteristics

##### *A horizon:*

Content of rock fragments—35 to 55 percent gravel

##### *Upper part of Bt horizon:*

Content of rock fragments—35 to 80 percent gravel

Texture—loam or sandy loam

##### *Lower part of Bt horizon:*

Content of rock fragments—0 to 80 percent gravel

Texture—loam, sandy loam, or silt loam

### **Tonti Series**

The Tonti series consists of very deep, moderately well drained soils on uplands. These soils formed in loamy and gravelly slope alluvium and the underlying residuum derived from dolostone. Permeability is moderate above the fragipan, very slow through it, and moderate below it. Slopes range from 1 to 15 percent.

*Taxonomic classification:* Fine-loamy, mixed, active, mesic Typic Fragiudults

#### Typical Pedon

Tonti silt loam in an area of Fanchon-Tonti complex, 3 to 8 percent slopes; 900 feet north and 800 feet west of the southeast corner of sec. 18, T. 25 N., R. 9 W.; USGS Pomona topographic quadrangle; UTM coordinates Zone 15, 591,840 meters Easting and 4,077,140 meters Northing.

Oi—0 to 1 inch; partially decomposed organic matter.

A—1 to 7 inches; brown (10YR 4/3) silt loam; weak fine granular structure; friable; common fine to coarse roots; common fine to coarse irregular pores; 10 percent chert gravel; very strongly acid (pH 5.0); clear smooth boundary.

BE—7 to 12 inches; 50 percent brown (10YR 5/3) and 50 percent yellowish brown (10YR 5/4) gravelly silt loam; weak fine subangular blocky structure; friable; few fine to coarse roots; common very fine and fine irregular pores; 15 percent chert gravel; very strongly acid (pH 4.8); clear smooth boundary.

Bt—12 to 20 inches; yellowish brown (10YR 5/6) gravelly silt loam; moderate medium subangular blocky structure; firm; few very fine to coarse roots; common very fine to medium tubular pores; common distinct strong brown (7.5YR 4/6) clay films on faces of peds; 20 percent chert gravel; very strongly acid (pH 4.7); clear smooth boundary.

2Btx1—20 to 29 inches; yellowish brown (10YR 5/6) very gravelly silty clay loam; weak coarse prismatic structure parting to weak fine subangular blocky; extremely firm; 60 percent brittle; few very fine to coarse roots between prisms; common fine and very fine vesicular and tubular pores; common distinct dark yellowish brown (10YR 4/6) clay films between peds; common distinct light brownish gray

- (10YR 6/2) coatings of silt; 65 percent chert gravel; very strongly acid (pH 4.9); clear wavy boundary.
- 3Btx1—29 to 36 inches; red (2.5YR 4/6) very gravelly silty clay; weak very coarse prismatic structure parting to moderate fine subangular blocky; very firm; 20 percent brittle; few fine and medium roots between prisms; common fine vesicular and tubular pores; common prominent brown (10YR 4/3) and light brownish gray (10YR 6/2) clay films between pedis; 40 percent chert gravel; very strongly acid (pH 4.7); clear wavy boundary.
- 3Bt1—36 to 52 inches; red (2.5YR 4/6) clay; weak very coarse prismatic structure parting to moderate fine and very fine angular blocky; very firm; very few fine roots; common fine and medium tubular pores; common prominent dark grayish brown (10YR 4/2) and common distinct reddish brown (2.5YR 4/4) clay films between pedis; 10 percent chert gravel; very strongly acid (pH 4.8); gradual wavy boundary.
- 3Bt2—52 to 80 inches; red (2.5YR 4/6) clay; weak very coarse prismatic structure parting to moderate fine and very fine angular blocky; very firm; very few fine roots; few fine tubular pores; common distinct reddish brown (2.5YR 4/4) and few prominent dark gray (10YR 4/1) clay films between pedis; 2 percent chert gravel; very strongly acid (pH 4.5).

#### Range in Characteristics

*Depth to the fragipan:* 16 to 28 inches

*A horizon:*

Content of rock fragments—0 to 15 percent gravel

*BE horizon:*

Content of rock fragments—0 to 30 percent gravel  
Texture—silt loam or loam

*Bt horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—silt loam or silty clay loam

*2Btx horizon:*

Content of rock fragments—20 to 80 percent gravel or cobbles  
Texture—silt loam, silty clay loam, loam, or silty clay

*3Bt horizon:*

Content of rock fragments—0 to 35 percent gravel or cobbles  
Texture—clay or silty clay

#### Topazmill Series

The Topazmill series consists of very deep, well drained soils on footslopes. These soils formed in loamy slope alluvium derived from sandstone.

Permeability is moderate. Slopes range from 3 to 15 percent.

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, mesic Typic Paleudults

#### Typical Pedon

Topazmill loam, 3 to 8 percent slopes; 1,100 feet north and 1,600 feet east of the southwest corner of sec. 3, T. 23 N., R. 12 W.; USGS Sycamore topographic quadrangle; UTM coordinates Zone 15, 564,980 meters Easting and 4,061,160 meters Northing; in Ozark County, Missouri.

Ap—0 to 4 inches; dark brown (10YR 4/3) loam, pale brown (10YR 6/3) dry; weak fine granular structure; very friable; many fine roots throughout; many very fine irregular pores; neutral (pH 6.9); clear smooth boundary.

BA—4 to 8 inches; yellowish brown (10YR 5/6) fine sandy loam; weak fine subangular blocky structure; very friable; common fine roots throughout; many very fine irregular and tubular pores; few fine prominent discontinuous very dark brown (10YR 4/2) organic coatings on faces of pedis; neutral (pH 7.0); clear smooth boundary.

Bt1—8 to 17 inches; strong brown (7.5YR 4/6) fine sandy loam; weak fine subangular blocky structure; friable; few fine roots throughout; common very fine tubular pores; few fine distinct yellowish red (5YR 5/6) clay films on faces of pedis; few fine prominent pale brown (10YR 6/3) iron depletions on faces of pedis; strongly acid (pH 5.3); gradual smooth boundary.

Bt2—17 to 26 inches; strong brown (7.5YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable; many fine tubular pores; common fine prominent discontinuous yellowish red (5YR 5/6) and common medium prominent red (2.5YR 4/6) clay films on faces of pedis; few fine prominent pale brown (10YR 6/3) iron depletions on faces of pedis; very strongly acid (pH 5.0); clear smooth boundary.

2Bt3—26 to 37 inches; strong brown (7.5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; firm; many fine tubular pores; many coarse prominent red (2.5YR 3/6) and common medium prominent yellowish brown (10YR 5/4) clay films on faces of pedis; few fine prominent discontinuous pale brown (10YR 6/3) iron depletions on faces of pedis; very strongly acid (pH 4.9); clear smooth boundary.

2Bt4—37 to 57 inches; mixed yellowish brown (10YR 4/4) and strong brown (7.5YR 5/6) clay loam; moderate medium subangular blocky structure;

firm; many fine tubular pores; common coarse red (10R 4/6) clay films on faces of peds; many coarse pale brown (10YR 6/3) iron depletions; very strongly acid (pH 4.9); gradual smooth boundary.

2Bt5—57 to 80 inches; red (2.5YR 4/6) clay loam; weak medium subangular blocky structure; firm; many fine tubular and irregular pores; many medium prominent strong brown (7.5YR 5/6) and common medium prominent yellowish brown (10YR 5/4) clay films on faces of peds; common medium prominent pale brown (10YR 6/3) iron depletions on faces of peds; very strongly acid (pH 4.8); gradual smooth boundary.

### Range in Characteristics

#### *A horizon:*

Content of rock fragments—0 to 15 percent

#### *BA horizon:*

Content of rock fragments—0 to 15 percent  
Texture—fine sandy loam, loam, silt loam, or sandy loam

#### *Bt horizon:*

Content of rock fragments—0 to 35 percent  
Texture—fine sandy loam, loam, sandy clay loam, clay loam, or sandy loam

#### *2Bt horizon:*

Content of rock fragments—0 to 65 percent  
Texture—fine sandy loam, loam, sandy clay loam, clay loam, or sandy loam

## ***Viburnum Series***

The Viburnum series consists of very deep, moderately well drained soils on uplands. These soils formed in silty slope alluvium and the underlying residuum derived from dolostone. Permeability is moderately slow. Slopes range from 1 to 8 percent.

*Taxonomic classification:* Fine, mixed, active, mesic Aquic Paleudults

### Typical Pedon

Viburnum silt loam, 1 to 3 percent slopes; 300 feet south and 300 feet east of the northwest corner of sec. 36, T. 32 N., R. 8 W.; USGS Licking topographic quadrangle; UTM coordinates Zone 15, 608,889 meters Easting and 4,143,654 meters Northing; in Texas County, Missouri.

A—0 to 4 inches; brown (10YR 5/3) silt loam; pale brown (10YR 6/3) dry; weak very fine subangular blocky structure; very friable; many medium roots; many very fine vesicular pores; 5 percent chert

gravel; very strongly acid (pH 4.8); clear smooth boundary.

Bt1—4 to 10 inches; mixed dark yellowish brown (10YR 4/4) and brown (10YR 5/3) silt loam; weak very fine and fine subangular blocky structure; friable; common medium roots; many very fine vesicular pores; few faint clay films on faces of peds; 10 percent chert gravel; very strongly acid (pH 4.8); clear smooth boundary.

Bt2—10 to 17 inches; brown (7.5YR 4/4) gravelly silty clay loam; moderate fine subangular blocky structure; firm; common medium roots; many very fine vesicular pores; common faint clay films on faces of peds; 10 percent chert gravel and 5 percent chert cobbles; very strongly acid (pH 4.8); clear wavy boundary.

2Bt3—17 to 21 inches; mixed brown (7.5YR 4/4) and yellowish brown (10YR 5/4) silty clay; weak medium prismatic structure parting to moderate medium subangular blocky; firm; few medium roots; few very fine tubular pores; common prominent clay films on faces of peds; few fine prominent light brownish gray (10YR 6/2) iron depletions and brown (10YR 5/3) iron masses on faces of peds; 10 percent chert gravel; very strongly acid (pH 4.8); clear wavy boundary.

3Bt4—21 to 39 inches; mixed red (2.5YR 5/6) and dark brown (10YR 4/3) very gravelly clay; strong medium subangular blocky structure parting to strong very fine subangular blocky; firm; common medium roots; few very fine tubular pores; many faint clay films on faces of peds; common fine prominent dark grayish brown (10YR 4/2) iron depletions on faces of peds; 30 percent chert gravel and 10 percent chert cobbles; very strongly acid (pH 4.7); clear smooth boundary.

3Bt5—39 to 56 inches; mixed red (2.5YR 4/6) and yellowish brown (10YR 5/6) gravelly clay; weak medium prismatic structure parting to strong fine subangular blocky; firm; few medium roots; common very fine vesicular and tubular pores; common prominent clay films in root channels and pores; 15 percent chert gravel; very strongly acid (pH 4.6); abrupt wavy boundary.

3Bt6—56 to 80 inches; mixed dark yellowish brown (10YR 3/6), light gray (10YR 6/1), and yellowish brown (10YR 5/6) extremely gravelly clay; moderate medium subangular blocky structure parting to moderate very fine subangular blocky; firm; very few fine roots; common very fine vesicular pores; common distinct clay films on faces of peds; 45 percent chert gravel and

15 percent chert cobbles; very strongly acid (pH 4.5).

### Range in Characteristics

#### *A horizon:*

Content of rock fragments—0 to 15 percent gravel

#### *Bt and 2Bt horizons:*

Content of rock fragments—0 to 35 percent gravel and 0 to 15 percent cobbles

Texture—silt loam, silty clay loam, or silty clay

#### *3Bt horizon:*

Content of rock fragments—15 to 65 percent gravel and 0 to 20 percent cobbles

Texture—silty clay or clay

## Viraton Series

The Viraton series consists of very deep, moderately well drained soils on uplands. These soils formed in silty slope alluvium and the underlying clayey residuum. Permeability is moderate above and below the fragipan and very slow through it. Slopes range from 1 to 8 percent.

*Taxonomic classification:* Fine-loamy, siliceous, active, mesic Oxyaquic Fragiudalfs

### Typical Pedon

Viraton silt loam in an area of Gressy-Viraton complex, 3 to 8 percent slopes; 400 feet north and 1,300 feet east of the southwest corner of sec. 7, T. 21 N., R. 10 W.; USGS Caulfield topographic quadrangle; UTM coordinates Zone 15, 579,300 meters Easting and 4,039,500 meters Northing.

Ap—0 to 6 inches; dark yellowish brown (10YR 4/4) silt loam, pale brown (10YR 6/3) dry; weak fine subangular blocky structure; very friable; common very fine and fine roots; common very fine and fine tubular pores; 2 percent chert gravel; strongly acid (pH 5.5); clear smooth boundary.

Bt1—6 to 11 inches; brown (7.5YR 5/4) silt loam; strong fine subangular blocky structure; friable; few very fine and fine roots; common fine and medium tubular pores; common distinct strong brown (7.5YR 4/6) clay films on faces of peds; 5 percent chert gravel; moderately acid (pH 5.6); clear smooth boundary.

Bt2—11 to 16 inches; strong brown (7.5YR 4/6) gravelly silt loam; strong fine subangular blocky structure; firm; few very fine and fine roots; many fine, medium, and coarse vesicular and tubular pores; common distinct yellowish red (5YR 4/6) clay films on faces of peds; many prominent brown

(10YR 5/3) iron depletions; 25 percent chert gravel; strongly acid (pH 5.5); clear smooth boundary.

2Btx—16 to 26 inches; strong brown (7.5YR 5/6) extremely gravelly clay loam; weak very coarse prismatic structure parting to strong medium subangular blocky; very firm; 70 percent brittle; few fine roots between prisms; common fine vesicular and tubular pores; common distinct yellowish red (5YR 4/6) clay films on faces of peds; many prominent brown (10YR 5/3) iron depletions; 65 percent chert gravel; strongly acid (pH 5.4); clear wavy boundary.

3Bt1—26 to 36 inches; dark red (2.5YR 3/6) extremely gravelly clay; strong very fine angular blocky structure; very firm; very few very fine roots; common fine and medium vesicular and tubular pores; many distinct dark yellowish brown (10YR 3/6) clay films on faces of peds; few prominent brown (10YR 5/3) iron depletions; 60 percent chert gravel and 5 percent sandstone flagstones; strongly acid (pH 5.4); clear wavy boundary.

3Bt2—36 to 58 inches; red (2.5YR 4/6) and strong brown (7.5YR 5/6) clay; strong fine angular blocky structure; very firm; very few very fine tubular pores; common distinct dark red (2.5YR 3/6) clay films on faces of peds; 2 percent chert gravel; strongly acid (pH 5.4); clear wavy boundary.

3Bt3—58 to 80 inches; red (2.5YR 4/8) and yellow (10YR 7/8) clay; strong fine angular blocky structure; very firm; very few very fine tubular pores; common distinct red (2.5YR 4/6) clay films on faces of peds; 2 percent chert gravel; strongly acid (pH 5.4).

### Range in Characteristics

*Depth to the fragipan:* 16 to 32 inches

#### *Ap horizon:*

Content of rock fragments—0 to 15 percent gravel

#### *Bt horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—silt loam or silty clay loam

#### *2Btx horizon:*

Content of rock fragments—35 to 70 percent gravel  
Texture—silt loam, silty clay loam, or clay loam

#### *3Bt horizon:*

Content of rock fragments—0 to 70 percent gravel and cobbles  
Texture—silty clay or clay

## Wasola Series

The Wasola series consists of very deep, somewhat poorly drained soils on footslopes and in basins. These soils formed in loamy and gravelly slope alluvium over clayey residuum derived from dolostone. Permeability is slow. Slopes range from 1 to 8 percent.

*Taxonomic classification:* Fine-loamy, siliceous, active, mesic Fragiaquic Hapludalfs

### Typical Pedon

Wasola silt loam, 1 to 8 percent slopes; 625 feet north and 5,550 feet east of the southwest corner of sec. 31, T. 22 N., R. 10 W.; USGS Caulfield topographic quadrangle; UTM coordinates Zone 15, 580,500 meters Easting and 4,042,900 meters Northing.

Ap—0 to 9 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure parting to moderate fine granular; friable; common fine roots; many fine irregular and tubular pores; few fine round black (N 2/0) slightly hard concretions of iron and manganese oxide; very strongly acid (pH 4.7); clear smooth boundary.

Bt1—9 to 17 inches; yellowish brown (10YR 5/4) silt loam, moderate medium subangular blocky structure parting to weak fine subangular blocky; firm; common fine roots; common fine and medium tubular pores; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; few fine distinct grayish brown (10YR 5/2) iron depletions; few fine prominent strong brown (7.5YR 4/6) redoximorphic concentrations; few fine round black (N 2/0) slightly hard concretions of iron and manganese oxide; moderately acid (pH 5.6); clear smooth boundary.

Bt2—17 to 23 inches; yellowish brown (10YR 5/4) clay loam; moderate medium subangular blocky structure parting to weak fine subangular blocky; very firm; common fine and very fine roots; common tubular pores; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; common fine distinct grayish brown (10YR 5/2) iron depletions; common fine distinct yellowish brown (10YR 5/6) redoximorphic concentrations; common medium round black (N 2/0) slightly hard concretions of iron and manganese oxide; 10 percent chert gravel; moderately acid (pH 5.8); clear smooth boundary.

2Btx1—23 to 32 inches; yellowish brown (10YR 5/6) gravelly clay loam; moderate medium subangular blocky structure parting to weak fine subangular blocky; very firm; 30 percent brittle; common very

fine roots; common very fine tubular pores; common distinct gray (10YR 5/1) clay films on faces of peds; common medium prominent grayish brown (10YR 5/2) iron depletions; common medium prominent strong brown (7.5YR 5/6) redoximorphic concentrations; common medium round black (N 2/0) slightly hard concretions of iron and manganese oxide; 2 percent chert gravel; moderately acid (pH 5.7); clear smooth boundary.

2Btx2—32 to 48 inches; brown (10YR 4/3) very gravelly clay loam; moderate fine angular blocky structure; very firm; 30 percent brittle; few very fine roots; many very fine tubular pores; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; common fine prominent grayish brown (10YR 5/2) and few fine prominent olive yellow (2.5Y 6/8) iron depletions; few medium prominent strong brown (7.5YR 5/8) redoximorphic concentrations; common fine rounded black (N 2/0) slightly hard concretions of iron and manganese oxides; 35 percent sandstone gravel; slightly acid (pH 6.2); gradual wavy boundary.

3Bt—48 to 80 inches; brownish yellow (10YR 6/8) clay; weak fine subangular blocky structure; firm; few very fine tubular pores; common faint brownish yellow (10YR 6/6) and common prominent brown (10YR 5/3) clay films on faces of peds; common medium rounded black (N 2/0) slightly hard concretions of iron and manganese oxides; 5 percent sandstone gravel; neutral (pH 7.1).

### Range in Characteristics

#### *A or Ap horizon:*

Content of rock fragments—0 to 20 percent gravel and 0 to 5 percent cobbles

#### *Bt horizon:*

Content of rock fragments—0 to 25 percent gravel and 0 to 5 percent cobbles

Texture—silt loam, silty clay loam, or clay loam

#### *2Btx horizon:*

Content of rock fragments—0 to 50 percent gravel and 0 to 5 percent cobbles

Texture—silty clay loam, clay loam, silt loam, or loam

#### *3Bt horizon:*

Content of rock fragments—0 to 65 percent gravel and 0 to 5 percent cobbles

Texture—silty clay or clay

## Winnipeg Series

The Winnipeg series consists of very deep, well drained soils on gently sloping to moderately sloping



footslopes. These soils formed in loess and the underlying slope alluvium and residuum. Permeability is moderately slow. Slopes range from 2 to 5 percent.

*Taxonomic classification:* Fine-silty, mixed, active, mesic Typic Paleudalfs

### Typical Pedon

Winnipeg silt loam, 2 to 5 percent slopes; 1,000 feet north and 200 feet west of the southeast corner of sec. 31, T. 30 N., R. 10 W.; USGS Bucyrus topographic quadrangle; UTM coordinates Zone 15, 582,480 meters Easting and 4,123,420 meters Northing; in Texas County, Missouri.

Ap—0 to 6 inches; dark brown (10YR 4/3) silt loam, light yellowish brown (10YR 6/4) dry; weak fine granular structure; very friable; many very fine roots; many very fine irregular pores; neutral (pH 6.6); 1 percent chert gravel; clear smooth boundary.

Bt1—6 to 11 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable; common fine roots; many very fine tubular pores; few faint brown (7.5YR 4/4) clay films on faces of peds; neutral (pH 7.0); clear smooth boundary.

Bt2—11 to 16 inches; 50 percent yellowish brown (10YR 5/4) and 50 percent strong brown (7.5YR 5/8) silty clay loam; moderate medium subangular blocky structure; friable; common fine roots; many very fine tubular pores; few prominent brown (7.5YR 4/4) clay films on faces of peds; few very fine prominent black (10YR 2/1) stains of iron and manganese oxides; neutral (pH 7.0); clear smooth boundary.

2Bt3—16 to 30 inches; 40 percent red (2.5YR 4/8), 30 percent strong brown (7.5YR 4/6), and 30 percent pale brown (10YR 6/3) silty clay loam; strong medium subangular blocky structure; firm; few fine roots; many very fine tubular pores; common prominent red (5YR 4/6) clay films on faces of peds; common medium prominent black (10YR 2/1) stains of iron and manganese oxides; slightly acid (pH 6.2); clear smooth boundary.

2Bt4—30 to 38 inches; 50 percent red (2.5YR 4/8), 30 percent strong brown (7.5YR 5/6), and 20 percent pale brown (10YR 6/3) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; friable; few fine roots; common fine tubular pores; many prominent red (5YR 4/6) clay films on faces of peds and in pores; common fine prominent black (10YR 2/1) stains of iron and manganese oxides;

many fine black (10YR 2/1) concretions of iron and manganese oxides; strongly acid (pH 5.2); clear wavy boundary.

2Bt5—38 to 44 inches; 50 percent red (2.5YR 4/8), 40 percent strong brown (7.5YR 5/6), and 10 percent pale brown (10YR 6/3) clay loam; strong fine subangular blocky structure; firm; many very fine tubular pores; many prominent red (5YR 4/6) clay films on faces of peds and in pores; few fine prominent black (10YR 2/1) stains of iron and manganese oxides; 10 percent chert gravel; moderately acid (pH 5.6); abrupt smooth boundary.

3Bt6—44 to 80 inches; 70 percent red (2.5YR 4/8), 20 percent strong brown (7.5YR 5/6), and 10 percent pale brown (10YR 6/3) clay; moderate medium subangular blocky structure; firm; many very fine tubular pores; many prominent red (5YR 4/8) clay films on faces of peds and in pores; many medium prominent black (10YR 2/1) stains of iron and manganese oxides; 5 percent chert gravel; neutral (pH 6.6).

### Range in Characteristics

#### Ap horizon:

Content of rock fragments—0 to 5 percent gravel

#### Bt horizon:

Content of rock fragments—0 to 5 percent gravel  
Texture—silt loam or silty clay loam

#### 2Bt horizon:

Content of rock fragments—0 to 25 percent gravel  
Texture—silt loam, silty clay loam, clay loam, or loam

#### 3Bt horizon:

Content of rock fragments—0 to 50 percent gravel  
Texture—clay, silty clay, or silty clay loam

## Yelton Series

The Yelton series consists of very deep, moderately well drained soils on toeslopes. These soils formed in loamy slope alluvium. Permeability is moderate above and below the fragipan and slow through it. Slopes range from 8 to 15 percent.

*Taxonomic classification:* Fine-loamy, siliceous, active, mesic Typic Fragiudults

### Typical Pedon

Yelton silt loam in an area of Yelton-Topazmill-Lily complex, 8 to 15 percent slopes; 50 feet north and 2,250 feet west of the southeast corner of sec. 16, T. 33 N., R. 10 W.; USGS Slabtown Springs topographic

quadrangle; UTM coordinates Zone 15, 585,053 meters Easting and 4,157,106 meters Northing; in Texas County, Missouri.

Ap1—0 to 4 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 7/3) dry; moderate fine subangular blocky structure; very friable; common very fine roots; many very fine irregular pores; 2 percent chert gravel; neutral (pH 7.0); clear smooth boundary.

Ap2—4 to 9 inches; dark brown (10YR 4/3) loam; weak medium angular blocky structure; friable; common very fine roots; many very fine irregular pores and few very fine tubular pores; 5 percent chert gravel; slightly acid (pH 6.4); clear wavy boundary.

Bt1—9 to 13 inches; dark yellowish brown (10YR 4/6) clay loam; weak fine angular and subangular blocky structure; friable; common very fine roots; common very fine tubular pores and few fine vesicular pores; few distinct clay films on faces of peds; 5 percent chert gravel; very strongly acid (pH 4.8); gradual smooth boundary.

Bt2—13 to 21 inches; dark yellowish brown (10YR 4/6) clay loam; moderate medium subangular blocky structure; friable; few fine roots; common fine tubular pores; common prominent clay films on faces of peds; 5 percent chert gravel; very strongly acid (pH 4.6); abrupt smooth boundary.

2Btx1—21 to 25 inches; mixed dark yellowish brown (10YR 4/6) and grayish brown (10YR 5/2) loam; moderate very coarse prismatic structure parting to strong thin platy structure; very firm; 75 percent brittle; few very fine roots; many very fine tubular pores; common prominent clay films on faces of peds; many medium prominent brown (7.5YR 4/4) iron masses and common fine distinct light gray (10YR 7/1) iron depletions; 10 percent chert gravel; very strongly acid (pH 4.6); abrupt smooth boundary.

2Btx2—25 to 32 inches; light gray (10YR 7/2) loam; moderate very coarse prismatic structure parting to strong thin platy structure; very firm; 70 percent brittle; few very fine roots; many very fine tubular pores; common prominent clay films on faces of peds; common medium prominent light yellowish brown (10YR 6/4) iron masses; 10 percent chert gravel; very strongly acid (pH 4.6); abrupt smooth boundary.

2Btx3—32 to 41 inches; light gray (10YR 7/2) extremely gravelly loam; moderate very coarse prismatic structure parting to weak fine subangular blocky; very firm; 65 percent brittle; few very fine roots; many very fine tubular pores and few medium vesicular pores; few distinct clay films on

faces of peds; common medium faint white (10YR 8/2) iron depletions and many medium prominent dark yellowish brown (10YR 4/4) iron masses; many prominent black stains of iron and manganese oxides; 60 percent chert gravel and 5 percent sandstone cobbles; very strongly acid (pH 4.5); abrupt smooth boundary.

3Bt—41 to 80 inches; brownish yellow (10YR 6/6) clay loam; moderate coarse prismatic structure parting to moderate thin platy structure; very firm; common fine tubular pores; common distinct clay films on faces of peds; common medium prominent red (2.5YR 4/8) iron masses and many fine prominent white (10YR 7/2) iron depletions; 5 percent chert gravel; very strongly acid (pH 5.0).

### Range in Characteristics

*Depth to the fragipan:* 18 to 27 inches

#### *Bt horizon:*

Content of rock fragments—0 to 10 percent gravel  
Texture—clay loam, loam, or sandy clay loam

#### *2Btx horizon:*

Content of rock fragments—0 to 60 percent gravel and 0 to 20 percent cobbles  
Texture—fine sandy loam, loam, or clay loam

#### *3Bt horizon:*

Content of rock fragments—0 to 35 percent gravel or cobbles  
Texture—clay loam, loam, sandy clay loam, or clay

## Zanoni Series

The Zanoni series consists of very deep, well drained soils on stream terraces. These soils formed in loamy alluvium. Permeability is moderately rapid. Slopes range from 1 to 3 percent.

*Taxonomic classification:* Coarse-loamy, siliceous, active, mesic Ultic Hapludalfs

### Typical Pedon

Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded; 2,000 feet north and 400 feet west of the southeast corner of sec. 12, T. 26 N., R. 12 W.; USGS Nichols Knob topographic quadrangle; UTM coordinates Zone 15, 571,125 meters Easting and 4,089,120 meters Northing; in Douglas County, Missouri.

Ap—0 to 4 inches; dark brown (10YR 3/3) fine sandy loam, pale brown (10YR 6/3) dry; moderate fine granular structure; very friable; many very fine and fine roots throughout; many very fine irregular

- pores; 10 percent chert gravel; strongly acid (pH 5.5); clear smooth boundary.
- AB—4 to 9 inches; brown (10YR 4/3) fine sandy loam; weak subangular blocky structure; friable; common fine and medium roots throughout; many very fine irregular and tubular pores; 5 percent chert gravel; slightly acid (pH 6.1); clear smooth boundary.
- Bt1—9 to 18 inches; strong brown (7.5YR 4/6) and brown (7.5YR 4/4) fine sandy loam; weak fine subangular blocky structure; friable; few fine and medium roots; common very fine tubular pores; few distinct yellowish red (5YR 5/6) clay films on faces of peds; few prominent very dark grayish brown (10YR 3/2) organic coatings; 10 percent chert gravel; moderately acid (pH 5.7); gradual smooth boundary.
- Bt2—18 to 26 inches; brown (7.5YR 4/4) gravelly fine sandy loam; moderate coarse subangular blocky structure; friable; few very fine roots; many fine tubular pores; few distinct yellowish red (5YR 5/6) clay films on faces of peds; few prominent very dark grayish brown (10YR 3/2) organic coatings; 15 percent chert gravel; strongly acid (pH 5.2); clear smooth boundary.
- Bt3—26 to 34 inches; strong brown (7.5YR 4/6) gravelly fine sandy loam; weak very fine subangular blocky structure; friable; few very fine roots; many fine tubular pores; few distinct yellowish red (5YR 5/6) clay films on faces of peds; 15 percent chert gravel; very strongly acid (pH 4.8); clear smooth boundary.
- Bt4—34 to 44 inches; brown (7.5YR 4/4) gravelly fine

sandy loam; weak fine subangular blocky structure; friable; few very fine roots; many fine tubular pores; few distinct yellowish red (5YR 5/6) clay films on rock fragments; 30 percent chert gravel; very strongly acid (pH 4.8); abrupt smooth boundary.

2C1—44 to 58 inches; brown (7.5YR 5/4) extremely gravelly coarse sand; massive; friable; many fine irregular pores; 70 percent chert gravel; very strongly acid (pH 4.9); gradual smooth boundary.

2C2—58 to 80 inches; strong brown (7.5YR 5/6) extremely gravelly loamy coarse sand; massive; friable; many fine irregular pores; 80 percent chert gravel; very strongly acid (pH 4.9).

#### **Range in Characteristics**

##### *Ap horizon:*

Content of rock fragments—0 to 15 percent gravel

##### *AB horizon:*

Content of rock fragments—0 to 15 percent gravel  
Texture—sandy loam, fine sandy loam, or loam

##### *Bt horizon:*

Content of rock fragments—0 to 35 percent gravel  
Texture—sandy loam, fine sandy loam, loam, coarse sandy loam, or sandy clay loam

##### *2C horizon:*

Content of rock fragments—0 to 80 percent gravel or cobbles  
Texture—loamy sand, sandy loam, sand, coarse sand, or coarse sandy loam



# Formation of the Soils

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This section relates the soils in the survey area to the major factors of soil formation. It also describes the physiography and geology of the survey area.

## Factors of Soil Formation

Soil is the product of soil-forming processes acting on accumulated or deposited geologic material. The characteristics of the soil are determined by the type of parent material; the plant and animal life on and in the soil; the climate under which the soil-forming factors were active; topography, or lay of the land; and the length of time these forces have been active.

The parent material affects the kind of soil profile that is formed and in extreme cases determines it almost entirely. Plant and animal life are the active factors of soil formation. The climate determines the amount of water available for leaching and the amount of heat for physical and chemical changes. Together, climate and plant and animal life act on the parent material and slowly change it to a natural body that has genetically related horizons. Topography commonly modifies these other factors. Finally, time is required for changes in the parent material to result in the formation of a soil. Generally, a long time is required for the development of distinct soil horizons.

These factors of soil formation are all so closely interrelated in their effects on the soil that few generalizations can be made about the effect of any one factor unless conditions are specified for the others. Soil formation is complex, and many processes of soil development are still unknown.

## Parent Material

Parent material is the unconsolidated mass from which soil is formed. The formation or deposition of this material is the first step in the development of a soil profile. The characteristics of the parent material determine the chemical and mineralogical composition of the soil. In Howell County, three kinds of parent material, alone or in combinations, have contributed to

the formation of the soils. These three kinds of parent material are residuum, or material weathered from bedrock; loess, or wind-deposited material; and alluvium, or water-deposited material.

## 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 matter to the soil. Bacteria and fungi decompose the plant remains and help to incorporate the organic matter into the soil.

The kind of native vegetation has greatly influenced soil formation in Howell County. The basic kinds of native vegetation were prairie grasses and forest vegetation. Additions of organic matter to soils that formed under prairie grasses are largely a result of the yearly decomposition of plant materials. Plant tops decompose at the surface, and the roots decompose at various depths in the soil. As a result, soils that formed under prairie grasses have a thick, dark surface layer.

Additions of organic matter to soils that formed under forest vegetation are mostly the result of leaves and twigs that decompose on the surface. These soils have a thin, dark surface layer.

Insects, worms, humans, and other animals affect soil formation. Bacteria and fungi promote the decay of organic material, fix nitrogen, and improve tilth. Burrowing animals and insects loosen and mix various soil horizons.

In a relatively short time, human activities have greatly affected the processes of soil formation. The major alterations include changes in the type of vegetation, drainage of wet areas, and accelerated erosion. Row crops have replaced native grasses and many of the forested areas. Nearly all of the flood plains and much of the upland areas are now farmed. These changes have increased food production but have had an adverse effect in terms of sustained productivity. Accelerated erosion continues to reduce

the potential of many upland soils, and the loss of cropland to urban development is virtually irreversible.

## Climate

Climate has been and still is an important factor of soil formation. Geologic erosion, plant and animal life, and, in more recent times, accelerated erosion all have varied with the 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 slope, permeability, and 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 degree of profile development is dependent on the length of time that the parent material has been in place and subject to the soil-forming processes. Older soils show the effects of leaching and clay movement and have developed distinct horizons. Young soils show little profile development.

## Physiography and Geology

Howell County is on the Salem Plateau, which is part of the Springfield-Salem Plateaus section of the Ozark Plateaus province. The landscape varies from steep, wooded hillsides and narrow, very gravelly ridgetops to broad, nearly level to gently sloping upland divides (Koenig, 1995).

Sinkholes are very common in much of the county. The sinkholes absorb and transport much of the surface water, leaving many streams with a smaller waterflow than otherwise would be normal for the watersheds. The sinkholes range from a few feet across to more than 100 acres in size. Depth ranges from a few feet to more than 100 feet. The bottoms of the sinkholes are well drained to poorly drained. Some of the sinkholes are ponded much of the year.

The bedrock in the county has a regional dip to the south, and it drops more than 200 feet across the county. Because of weathering, the surface of the bedrock is quite uneven. Pinnacles of dolostone overlain by shallow soils rapidly give way to areas of very deep soils. Soil depth can range from less than 1 foot to more than 50 feet within a relatively short distance. The largest areas of exposed bedrock and shallow soils generally are along the major streams on the steepest hillsides. Bedrock outcroppings in Howell County consist primarily of Ordovician cherty dolostone and sandstone from the Jefferson City Formation through the upper Gasconade Formation.

From oldest to youngest, geologic formations that are exposed in the county are the Gasconade Dolostone, Roubidoux Formation, and Jefferson City and Cotter Dolostone. Mississippian and Pennsylvanian residual material is above the Jefferson City Dolostone on some of the major divides.

The Gasconade Dolostone is 300 to 350 feet thick. It consists of gray to light brown dolostone with thin to massive white porcelaneous chert. The only exposures in Howell County are bluffs along the lower part of the Eleven Point River and along Noblett Creek.

The Roubidoux Formation is 150 to 200 feet thick. It consists of cherty dolostone, sandstone, and dolomitic sandstone. Southwest of Willow Springs it is an

elevation of approximately 960 to 1,140 feet, and in the Caulfield area it is at an elevation of approximately 780 to 920 feet. From north to south in the county, the major sandstone members become thinner and the dolostone members become more prominent. Many of the hillsides that are dominantly of the Roubidoux Formation have many sandstone and chert boulders on the surface and are being managed as woodland.

The Jefferson City and Cotter Dolostone is 200 to 350 feet thick. It consists of silty to crystalline dolostone with thin to moderately thick beds of chert and thin beds of sandstone and shale. In the Caulfield area, in the southwest corner of Howell County, beds of buff-colored tripoli are at an elevation of approximately 1,000 feet. The tripoli beds are durable enough to impede excavation with a backhoe. In the Lanton, Brandsville, and Koshkonong quadrangles, a significant bed of fractured sandstone is at an elevation of 960 to 1,000 feet. In some areas it is durable enough to restrict excavation with a backhoe.

Mississippian residual material is on several conical

hills west of Moody. This material consists of large quantities of chert gravel fragments.

The Pennsylvanian Cheltenham Formation, which is composed of clay and associated clastics, lies above beds that are of Ordovician to Mississippian age. The clay is mostly brownish yellow in color, but it also contains areas that are white, purple, and red in color. At the base and intergrading with the lowest part of the clay in many places, are sandstone, chert conglomerates, and chert rubble or residuum. The clay appears to be bedded deposits laid down on a solution surface. This formation occurs on the main divides, shoulders, and headslopes, from Willow Springs to West Plains. It is 10 to 200 feet thick. Locally, the well-rounded chert pebbles on many of the hilltops are known as "hilltop gravel." Small gravel pits have been developed on ridgetops in the West Plains area.

Wells drilled for private water supplies typically are 150 to 400 feet deep, with the lower Roubidoux and upper Gasconade Formations supplying the water. Wells for public water supplies generally are deeper.





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# Glossary

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**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.** The fanlike deposit of a stream where it issues from a gorge upon a plain or of a tributary stream near or at its junction with its main stream.

**Alluvium.** Material, such as sand, silt, or clay, deposited on land by streams.

**Alpha,alpha-dipyridyl.** A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.

**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 in which a slope faces.

**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.** 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 planes.** Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.

**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.

**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.** The normal flood plain of a stream, subject to flooding.

- Boulders.** Rock fragments larger than 2 feet (60 centimeters) in diameter.
- 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.
- 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.)
- 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.
- 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.
- 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.
- Chert.** A hard, extremely dense or compact, dull to semivitreous, cryptocrystalline sedimentary rock consisting dominantly of interlocking crystals of quartz less than about 30 mm in diameter. Chert may contain amorphous silica (opal). It can contain impurities, such as calcite, iron oxide, or the remains of siliceous and other organisms. It has a tough, splintery to conchoidal fracture and may be white or variously colored gray, green, blue, pink, red, yellow, brown, and black. Chert occurs principally as nodular or concretionary segregations in limestone and dolostone.
- 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.** Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.
- 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.
- 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.
- 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.** Soil material or rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

**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.** Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.

**Conglomerate.** A coarse grained, clastic 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."

**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.** 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.
- 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.
- Divided-slope farming.** A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.
- Dolomite (mineral).** A common rock-forming rhombohedral carbonate mineral:  $\text{CaMg}(\text{CO}_3)_2$ .
- Dolostone.** A carbonate sedimentary rock consisting chiefly (more than 50 percent by weight or by areal percentages under the microscope) of the mineral dolomite.
- 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.** An area of ground at a lower elevation than the surrounding ground and in which water collects and is drained to a closed depression or lake or to a drainageway at a lower elevation. A drainageway may or may not have distinctly incised channels at its upper reaches or throughout its course.
- Droughty** (in tables). The soil holds an insufficient amount of water for plants during dry periods.
- 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 soil material.** Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.
- 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 layer of gravel or stones that

remains on the surface after fine particles are removed by sheet or rill 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. 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.

**Fan terrace.** A relict alluvial fan, no longer a site of active deposition, incised by younger and lower alluvial surfaces.

**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.

**First bottom.** The normal flood plain of a stream, subject to frequent or occasional flooding.

**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.** A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

**Fluvial.** Of or pertaining to rivers; produced by river action, as a fluvial plain.

**Footslope.** The position that forms the inner, gently inclined surface at the base of a hillslope. In profile, footslopes are commonly concave. 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.

**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.

**Gleyed soil.** Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

**Graded stripcropping.** Growing crops in strips that grade toward a protected waterway.

**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 miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. 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.

**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 out.** To form a flower head.

**Head slope.** 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.

**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 natural elevation 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; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

**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.

*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.

**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.** An elevated area between two drainageways that sheds water to those drainageways.

**Intermittent stream.** A stream, or reach of a stream, that flows for prolonged periods only 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.** Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

**Irrigation.** Application of water to soils to assist in production of crops. Methods of irrigation are:

*Basin.*—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

*Border.*—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

*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.

**K<sub>sat</sub>**. Saturated hydraulic conductivity. (See Permeability.)

**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  $\frac{1}{3}$ - or  $\frac{1}{10}$ -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.** Fine grained material, dominantly of silt-sized particles, deposited by wind.

**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.

**Masses.** Concentrations of substances in the soil matrix that do not have a clearly defined boundary with the surrounding soil material and cannot be removed as a discrete unit. Common compounds making up masses are calcium carbonate, gypsum or other soluble salts, iron oxide, and manganese oxide. Masses consisting of iron oxide or manganese oxide generally are considered a type of redoximorphic concentration.

**Mean annual increment (MAI).** The average annual increase in volume of a tree during the entire life of the tree.

**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.

**Metamorphic rock.** Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.

**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.** An area 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 natural elevation of the land surface, rising more than 1,000 feet 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.

**Muck.** Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

**Mudstone.** Sedimentary rock formed by induration of silt and clay in approximately equal amounts.

**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.** Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.

**Nose slope.** A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent.

**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.
- 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.
- Ped.** An individual natural soil aggregate, such as a granule, a prism, or a block.
- Pedisediment.** A thin layer of alluvial material that mantles an erosion surface and has been transported to its present position from higher lying areas of the erosion surface.
- 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.
- Percs slowly** (in tables). The slow movement of water through the soil adversely affects the specified use.
- 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

- Phase, soil.** A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.
- 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.
- 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.** An extensive upland mass with relatively flat summit area that is considerably elevated (more than 100 meters) above adjacent lowlands and separated from them on one or more sides by escarpments.
- 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.
- 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.

**Reaction, soil.** A measure of acidity or alkalinity of a soil, expressed in 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.** Nodules, concretions, soft masses, pore linings, and other features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.

**Redoximorphic depletions.** Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been removed. These zones are indications of the chemical reduction of iron resulting from saturation.

**Redoximorphic features.** Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha,alpha-dipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.

**Reduced matrix.** A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.

**Regolith.** The unconsolidated mantle of weathered

rock and soil material on the earth's surface; the loose earth material above the solid rock.

**Relict stream terrace.** One of a series of platforms in or adjacent to a stream valley that formed prior to the current stream system.

**Relief.** The elevations or inequalities of a land surface, considered collectively.

**Residuum (residual soil material).** Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.

**Rill.** A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.

**Riser.** The relatively short, steeply sloping area below a terrace tread that grades to a lower terrace tread or base level.

**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.

**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.

**Second bottom.** The first terrace above the normal flood plain (or first bottom) of a river.

**Sedimentary plain.** An extensive nearly level to gently rolling or moderately sloping area that is underlain by sedimentary bedrock and that has slopes of 0 to 8 percent.

**Sedimentary rock.** Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.

**Sedimentary uplands.** Land areas of bedrock formed from water- or wind-deposited sediments. These areas are higher on the landscape than the flood plain.

**Seepage** (in tables). The movement of water through the soil. Seepage adversely affects the specified use.

**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 formed by the hardening of a clay deposit.

**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 position that forms the uppermost inclined surface near the top of a hillslope. It is a transition from backslope to summit. The surface is dominantly convex in profile and erosional in origin.

**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.** A geomorphic component of hills

consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel.

**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.** Sedimentary rock made up of dominantly silt-sized particles.

**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 depression in the landscape where limestone has been dissolved.

**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.** Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.

**Slippage** (in tables). Soil mass susceptible to movement downslope when loaded, excavated, or wet.

**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.

Level .....	0 to 2 percent
Nearly level .....	0 to 3 percent
Gently sloping .....	1 to 3 percent
Moderately sloping .....	3 to 8 percent
Strongly sloping .....	8 to 15 percent
Steep .....	15 to 35 percent
Very steep .....	35 percent and higher

**Slope** (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

**Slope alluvium.** Sediment gradually transported on slopes of mountains or hills primarily by alluvial processes and characterized by particle sorting. In a profile sequence, sediments may be distinguished by differences in size and/or specific gravity of rock fragments and may be separated by stone lines. Sorting of rounded or subrounded pebbles or cobbles and burnished peds distinguish these materials from unsorted colluvial deposits.

**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.

**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.

**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.** A concentration of rock fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediment of variable thickness.

**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 surface cut formed by the erosion of hard or semiconsolidated bedrock and thinly mantled with stream deposits.

**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. It originally formed near the level of the stream and is the dissected remnants of an abandoned flood plain, streambed, or valley floor produced during a former stage of 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.

**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.

**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.** 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** (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

**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 *BR*—*bedrock*; *MPM*—*moderately decomposed plant material*; and *VAR*—*variable*. The texture modifiers that may apply to textural classes are *BY*—*bouldery*, *BYV*—*very bouldery*, *BYX*—*extremely bouldery*, *CB*—*cobbly*, *CBV*—*very cobbly*, *CBX*—*extremely cobbly*, *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.

**Tilth, soil.** The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

**Toeslope.** The position that forms 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 acid** (in tables). The soil is so acid that growth of plants is restricted.

**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.

**Trafficability.** The degree to which a soil is capable of supporting vehicular traffic across a wide range in soil moisture conditions.

**Tread.** The relatively flat surface of a terrace that was cut or built by stream or wave action.

**Upland.** Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

**Valley.** An elongated depressional area primarily developed by stream action.

**Valley fill.** In glaciated regions, material deposited in stream valleys by glacial meltwater. In nonglaciated regions, alluvium deposited by heavily loaded streams.

**Variation.** Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

**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 and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the 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

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Table 1.--Temperature and Precipitation  
(Recorded in the period 1961-90 at West Plains, Missouri)

Month	Temperature					Precipitation					
	Average daily	Average daily	Average daily	2 years in 10 will have		Average number of	Average	2 years in 10 will have--		Average number of	Average
	maximum	minimum		Maximum temperature higher than--	Minimum temperature lower than--	growing degree days*		Less than--	More than--	days with 0.10 inch or more	snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January-----	43.5	20.5	32.0	73	-7	7	2.34	0.86	3.58	4	3.7
February----	48.1	24.5	36.3	77	0	15	2.93	1.51	4.18	4	3.7
March-----	58.7	34.2	46.4	84	11	81	4.63	2.49	6.51	7	2.1
April-----	69.7	43.7	56.7	88	24	236	4.39	2.46	6.10	7	0.2
May-----	77.0	52.4	64.7	90	33	456	4.51	2.43	6.33	7	0.0
June-----	84.5	60.8	72.6	96	44	678	4.34	2.43	6.03	6	0.0
July-----	89.7	65.7	77.7	101	50	857	3.10	1.41	4.56	5	0.0
August-----	88.2	63.7	76.0	101	49	804	3.60	1.57	5.34	5	0.0
September---	80.5	56.9	68.7	96	36	560	3.87	1.57	5.81	5	0.0
October-----	71.1	43.9	57.5	90	25	257	3.18	0.76	5.09	4	0.0
November----	57.9	34.1	46.0	79	12	68	4.16	1.84	6.14	5	0.7
December----	46.5	24.9	35.7	72	-1	14	4.00	1.87	5.84	6	2.7
Yearly:											
Average---	67.9	43.8	55.9	---	---	---	---	---	---	---	---
Extreme---	107	-18	---	103	-9	---	---	---	---	---	---
Total-----	---	---	---	---	---	4032	45.05	37.95	51.67	65	13.0

\* 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 West Plains, 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--	April 7	April 19	May 1
2 years in 10 later than--	April 2	April 14	April 26
5 years in 10 later than--	March 23	April 4	April 16
First freezing temperature in fall:			
1 year in 10 earlier than--	October 26	October 14	October 4
2 years in 10 earlier than--	October 31	October 19	October 8
5 years in 10 earlier than--	November 10	October 28	October 17

Table 3.--Growing Season  
(Recorded in the period 1961-90 at West Plains, Missouri)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
9 years in 10	211	184	165
8 years in 10	218	192	171
5 years in 10	230	206	183
2 years in 10	243	220	195
1 year in 10	250	227	201

Table 4.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
70022	Tonti silt loam, 3 to 8 percent slopes-----	1,058	0.2
70025	Branson-Splitlimb complex, 1 to 3 percent slopes-----	6,847	1.2
70026	Tonti silt loam, 1 to 3 percent slopes-----	31	*
71250	Britwater silt loam, 1 to 3 percent slopes, rarely flooded-----	4,556	0.8
73000	Pomme silt loam, 3 to 8 percent slopes-----	11,493	1.9
73013	Lowassie silt loam, 0 to 3 percent slopes, frequently ponded-----	632	0.1
73017	Bendavis-Poynor complex, 15 to 50 percent slopes, rocky, very stony-----	466	*
73023	Mano-Ocie complex, 1 to 8 percent slopes-----	992	0.2
73024	Mano-Ocie complex, 8 to 15 percent slopes, stony-----	4,054	0.7
73051	Winnipeg silt loam, 2 to 5 percent slopes-----	870	0.1
73054	Viburnum silt loam, 1 to 3 percent slopes-----	12	*
73063	Bendavis-Poynor complex, 1 to 8 percent slopes-----	2,226	0.4
73068	Tick very gravelly silt loam, 3 to 15 percent slopes, stony-----	25,289	4.3
73069	Tick extremely gravelly silt loam, 15 to 50 percent slopes, very stony---	13,432	2.3
73073	Scholten-Poynor complex, 8 to 15 percent slopes-----	77,909	13.1
73076	Mano-Ocie complex, 15 to 35 percent slopes, stony-----	2,675	0.5
73077	Eudy silt loam, 1 to 8 percent slopes-----	98	*
73080	Alred-Bardley-Rock outcrop complex, 15 to 60 percent slopes, very stony--	83	*
73176	Bendavis-Poynor complex, 8 to 15 percent slopes, stony-----	879	0.1
73197	Viburnum silt loam, 3 to 8 percent slopes-----	152	*
73198	Gressy-Viraton complex, 3 to 8 percent slopes-----	13,006	2.2
73199	Moko-Rock outcrop complex, 3 to 15 percent slopes, very flaggy-----	536	*
73221	Poynor very gravelly silt loam, karst, 3 to 35 percent slopes, stony-----	15,292	2.6
73222	Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded-----	1,576	0.3
73223	Coulstone-Bender complex, 15 to 50 percent slopes, very stony-----	14,226	2.4
73226	Ocie-Gatewood complex, 3 to 15 percent slopes, stony-----	1,554	0.3
73227	Ocie-Gatewood complex, 15 to 35 percent slopes, very stony-----	952	0.2
73230	Coulstone-Bender-Gatewood complex, 15 to 60 percent slopes, rocky, very stony-----	6,455	1.1
73231	Wasola silt loam, 1 to 8 percent slopes-----	3,858	0.6
73235	Alred very gravelly silt loam, karst, 3 to 60 percent slopes, stony-----	2,410	0.4
73236	Scholten-Poynor complex, 3 to 8 percent slopes-----	18,568	3.1
73240	Jerktail silt loam, 3 to 8 percent slopes-----	1,092	0.2
73242	Fanchon-Tonti complex, 3 to 8 percent slopes-----	56,754	9.6
73243	Topazmill loam, 3 to 8 percent slopes-----	472	*
73245	Alred very gravelly silt loam, 1 to 8 percent slopes-----	5,190	0.9
73246	Alred very gravelly silt loam, 8 to 15 percent slopes-----	29,856	5.0
73247	Alred extremely gravelly silt loam, 15 to 35 percent slopes-----	10,262	1.7
73248	Alred-Bendavis complex, 8 to 15 percent slopes-----	12,071	2.0
73249	Alred-Ocie-Bendavis complex, 15 to 35 percent slopes, stony-----	15,253	2.6
73295	Taterhill silt loam, 3 to 8 percent slopes-----	18,035	3.0
73296	Yelton-Topazmill-Lily complex, 8 to 15 percent slopes-----	2,103	0.4
73297	Poynor-Scholten complex, 15 to 35 percent slopes-----	17,005	2.9
73298	Tonti-Hogcreek complex, 3 to 8 percent slopes-----	4,126	0.7
73299	Plato-Jerktail complex, 1 to 3 percent slopes-----	3,320	0.6
73300	Macedonia gravelly silt loam, 3 to 8 percent slopes-----	22,374	3.8
73301	Tick very gravelly silt loam, 3 to 8 percent slopes-----	9,339	1.6
73302	Kenaga silt loam, 1 to 3 percent slopes-----	488	*
73303	Kenaga-Egyptgrove complex, 3 to 8 percent slopes-----	18,981	3.2
73304	Kenaga-Egyptgrove-Tonti complex, karst, 3 to 15 percent slopes-----	15,628	2.6
73305	Egyptgrove gravelly silt loam, 3 to 8 percent slopes-----	6,274	1.1
73306	Gressy-Gatewood complex, rocky, 3 to 8 percent slopes-----	2,097	0.4
73307	Gressy-Viraton complex, 1 to 3 percent slopes-----	1,322	0.2
73308	Grandgulf silt loam, 1 to 3 percent slopes, rarely ponded-----	1,510	0.3
73309	Clarksville-Bendavis complex, 15 to 35 percent slopes, stony-----	5,239	0.9
73310	Scholten-Bendavis-Poynor complex, 1 to 8 percent slopes-----	5,263	0.9
73311	Scholten-Bendavis-Poynor complex, 8 to 15 percent slopes-----	19,139	3.2
73312	Alred-Bendavis complex, 1 to 8 percent slopes-----	212	*
73313	Fanchon-Tonti complex, 1 to 3 percent slopes-----	4,562	0.8
73314	Tanglenook silt loam, basins, 0 to 3 percent slopes-----	895	0.2
73315	Deible silt loam, basins, 0 to 3 percent slopes-----	1,158	0.2

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
73316	Clarksville-Tick-Mano complex, rocky, 15 to 50 percent slopes-----	4,724	0.8
74626	Tanglenook silt loam, 0 to 3 percent slopes, rarely flooded-----	1,405	0.2
74627	Hartville silt loam, 1 to 3 percent slopes, rarely flooded-----	389	*
74648	Aslinger silt loam, 3 to 8 percent slopes-----	6,465	1.1
74658	Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded-----	644	0.1
74677	Deible silt loam, 0 to 3 percent slopes, rarely flooded-----	369	*
74679	Higdon silt loam, 0 to 3 percent slopes, rarely flooded-----	685	0.1
74681	Lostpond silt loam, 1 to 3 percent slopes, rarely flooded-----	667	0.1
74690	Moniteau silt loam, 0 to 3 percent slopes, rarely flooded-----	872	0.1
75381	Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded-----	5,356	0.9
75390	Razort silt loam, 0 to 3 percent slopes, rarely flooded-----	402	*
75408	Secesh silt loam, 0 to 3 percent slopes, rarely flooded-----	5,371	0.9
75417	Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded-----	7,368	1.2
75418	Tilk very gravelly loam, 0 to 3 percent slopes, rarely flooded-----	3,997	0.7
75420	Secesh-Tilk complex, 0 to 3 percent slopes, occasionally flooded-----	16,401	2.8
75423	Cedargap very gravelly silt loam, 0 to 3 percent slopes, occasionally flooded-----	3,278	0.6
75432	Batcave-Farewell complex, 0 to 3 percent slopes, frequently flooded-----	11,043	1.9
75433	Racket loam, 0 to 3 percent slopes, occasionally flooded-----	174	*
99001	Water-----	517	*
99002	Borrow areas-----	1,420	0.2
	Total-----	593,754	100.0

\* Less than 0.1 percent.

Table 5.--Land Capability and Yields per Acre of Crops and Pasture

(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	Alfalfa hay	Caucasian bluestem	Orchardgrass -red clover	Tall fescue	Warm-season grasses	Winter wheat
		Tons	Tons	Tons	Tons	Tons	Bu
70022: Tonti-----	3e	3.40	3.80	3.00	4.00	4.20	36.00
70025: Branson-----	2e	6.70	7.00	5.20	7.00	7.50	46.00
Splitlimb----	2w	8.40	9.00	6.70	9.00	9.60	50.00
70026: Tonti-----	2e	3.40	3.80	3.00	4.00	4.20	38.00
71250: Britwater----	2e	6.20	6.00	5.00	4.00	4.20	43.00
73000: Pomme-----	3e	6.20	6.10	4.90	4.10	4.30	43.00
73013: Lowassie-----	3w	---	---	7.20	8.25	10.40	---
73017: Bendavis-----	7e	---	---	---	---	---	---
Poynor-----	7e	---	---	---	---	---	---
73023: Mano-----	4e	4.20	4.50	3.40	4.00	4.80	36.00
Ocie-----	4e	3.80	4.20	2.80	3.80	4.50	32.00
73024: Mano-----	6e	4.20	4.50	3.40	4.00	4.80	---
Ocie-----	6e	3.50	4.20	2.80	3.80	4.50	---
73051: Winnipeg-----	2e	7.50	8.00	6.20	8.00	8.50	46.00
73054: Viburnum-----	2e	4.20	4.50	3.30	4.60	4.80	43.00
73063: Bendavis-----	4e	2.00	2.30	1.60	2.20	2.40	19.00
Poynor-----	4e	4.00	4.20	3.20	4.30	4.50	29.00
73068: Tick-----	6e	3.00	3.00	2.40	3.00	3.20	---
73069: Tick-----	7e	---	---	---	---	---	---
73073: Scholten-----	6e	1.00	1.10	0.80	2.00	1.20	---
Poynor-----	6e	4.00	4.20	3.20	4.00	4.50	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Caucasian bluestem	Orchardgrass -red clover	Tall fescue	Warm-season grasses	Winter wheat
		<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Bu</i>
73076:							
Mano-----	7e	---	---	---	---	---	---
Ocie-----	7e	---	---	---	---	---	---
73077:							
Eudy-----	3e	3.30	3.50	2.60	3.50	3.70	35.00
73080:							
Alred-----	7e	---	---	---	---	---	---
Bardley-----	7e	---	---	---	---	---	---
Rock outcrop--	8s	---	---	---	---	---	---
73176:							
Bendavis-----	6e	2.00	2.25	1.60	2.20	2.40	---
Poynor-----	6e	4.00	4.20	3.20	4.20	4.50	---
73197:							
Viburnum-----	3e	4.20	4.50	3.30	4.60	4.80	38.00
73198:							
Gressy-----	3e	5.50	5.80	4.40	5.50	6.10	43.00
Viraton-----	3e	3.60	3.90	3.00	4.00	4.20	30.00
73199:							
Moko-----	6s	---	---	---	---	---	---
Rock outcrop--	8s	---	---	---	---	---	---
73221:							
Poynor-----	7e	4.00	4.20	3.20	4.00	4.50	---
73222:							
Splitlimb-----	2w	8.40	9.00	6.70	5.50	9.60	50.00
73223:							
Coulstone-----	7e	---	---	---	---	---	---
Bender-----	7e	---	---	---	---	---	---
73226:							
Ocie-----	6e	3.50	4.20	2.80	4.00	4.50	---
Gatewood-----	6e	2.40	3.00	2.00	3.80	3.20	---
73227:							
Ocie-----	7e	---	---	---	---	---	---
Gatewood-----	7e	---	---	---	---	---	---
73230:							
Coulstone-----	7e	---	---	---	---	---	---
Bender-----	7e	---	---	---	---	---	---
Gatewood-----	7e	---	---	---	---	---	---
73231:							
Wasola-----	3e	5.00	5.30	4.00	5.50	5.60	48.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Caucasian bluestem	Orchardgrass -red clover	Tall fescue	Warm-season grasses	Winter wheat
		<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Bu</i>
73235: Alred-----	7e	6.20	7.10	5.85	5.35	6.75	---
73236: Scholten-----	4e	2.25	2.65	1.10	2.25	2.65	19.00
Poynor-----	4e	6.20	7.10	5.85	5.35	6.75	29.00
73240: Jerktail-----	3e	4.00	4.30	3.20	4.20	4.50	41.00
73242: Fanchon-----	3e	5.30	5.60	4.20	5.90	6.10	41.00
Tonti-----	3e	3.40	3.70	2.80	4.00	4.20	36.00
73243: Topazmill-----	3e	6.40	6.80	5.10	7.50	7.80	43.00
73245: Alred-----	4e	4.50	4.30	3.40	5.00	4.70	32.00
73246: Alred-----	6e	4.40	4.20	3.30	4.90	4.60	---
73247: Alred-----	7e	---	---	---	---	---	---
73248: Alred-----	6e	4.40	4.20	3.30	4.90	4.60	---
Bendavis-----	6e	2.00	2.30	1.60	3.80	2.40	---
73249: Alred-----	7e	---	---	---	---	---	---
Ocie-----	7e	---	---	---	---	---	---
Bendavis-----	6e	---	---	---	---	---	---
73295: Taterhill-----	3e	6.40	6.80	5.10	7.50	7.80	43.00
73296: Yelton-----	3e	4.10	4.40	3.40	4.50	4.70	---
Topazmill-----	3e	6.40	6.80	5.10	7.50	7.80	---
Lily-----	4e	2.00	2.30	1.70	2.20	2.40	---
73297: Poynor-----	7e	---	---	---	---	---	---
Scholten-----	6e	---	---	---	---	---	---
73298: Tonti-----	3e	3.60	3.90	3.00	4.00	4.80	36.00
Hogcreek-----	3e	2.50	2.60	2.00	2.60	2.80	36.00



Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Caucasian bluestem	Orchardgrass -red clover	Tall fescue	Warm-season grasses	Winter wheat
		<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Bu</i>
73299:							
Plato-----	2e	3.00	3.30	2.20	3.20	3.50	34.00
Jerktail-----	3e	4.00	4.30	3.20	4.20	4.50	43.00
73300:							
Macedonia-----	3e	4.20	4.50	3.30	4.60	4.80	36.00
73301:							
Tick-----	4e	3.00	3.00	2.40	3.00	3.20	---
73302:							
Kenaga-----	2e	5.10	5.50	4.00	5.70	5.90	39.00
73303:							
Kenaga-----	3e	5.00	5.40	3.90	5.60	5.80	37.00
Egyptgrove-----	3e	4.80	5.20	3.70	5.40	5.60	35.00
73304:							
Kenaga-----	3e	5.00	5.40	3.90	5.60	5.80	37.00
Egyptgrove-----	3e	4.80	5.20	3.70	5.50	5.60	35.00
Tonti-----	3e	3.40	3.80	3.00	4.00	4.20	32.00
73305:							
Egyptgrove-----	3e	4.80	5.20	3.70	5.40	5.60	35.00
73306:							
Gressy-----	3e	5.50	5.80	4.40	5.50	6.10	---
Gatewood-----	6e	2.40	3.00	2.00	3.80	3.20	---
73307:							
Gressy-----	3e	5.60	5.90	4.50	5.60	6.20	46.00
Viraton-----	3e	3.70	4.00	3.10	4.10	4.30	31.00
73308:							
Grandgulf-----	1	7.50	8.00	6.20	8.00	8.50	46.00
73309:							
Clarksville---	7e	---	---	---	---	---	---
Bendavis-----	7e	---	---	---	---	---	---
73310:							
Scholten-----	4e	1.10	1.10	0.80	2.00	1.20	---
Bendavis-----	4e	2.00	2.25	1.60	2.20	2.40	---
Poynor-----	4e	4.00	4.20	3.20	4.00	4.50	---
73311:							
Scholten-----	6e	1.10	1.10	0.80	2.00	1.20	---
Bendavis-----	6e	2.00	2.25	1.60	2.20	2.40	---
Poynor-----	6e	4.00	4.20	3.20	4.00	4.50	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Caucasian bluestem	Orchardgrass -red clover	Tall fescue	Warm-season grasses	Winter wheat
		<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Bu</i>
73312:							
Alred-----	4e	4.40	4.20	3.30	4.40	4.60	---
Bendavis-----	4e	2.00	2.25	1.60	2.20	2.40	---
73313:							
Fanchon-----	2e	5.30	5.60	4.20	5.90	6.10	43.00
Tonti-----	2e	3.40	3.70	2.80	4.00	4.20	38.00
73314:							
Tanglenook----	3w	---	---	6.00	7.00	7.80	43.00
73315:							
Deible-----	4w	---	---	6.00	7.00	7.50	38.00
73316:							
Clarksville---	7e	---	---	---	---	---	---
Tick-----	7e	---	---	---	---	---	---
Mano-----	7e	---	---	---	---	---	---
74626:							
Tanglenook----	3w	---	---	5.80	7.50	7.80	46.00
74627:							
Hartville-----	2e	---	---	5.80	7.50	7.80	38.00
74648:							
Aslinger-----	3e	3.90	4.20	6.50	4.50	4.70	40.00
74658:							
Zanoni-----	2e	6.60	7.00	5.20	5.25	7.40	38.00
74677:							
Deible-----	4w	---	---	6.00	7.00	7.50	38.00
74679:							
Higdon-----	2w	---	---	7.70	8.00	10.60	50.00
74681:							
Lostpond-----	2e	---	---	7.70	8.00	10.60	46.00
74690:							
Moniteau-----	3w	---	---	7.10	8.00	9.50	38.00
75381:							
Bearthicket---	2w	9.40	10.00	7.45	9.00	10.60	50.00
75390:							
Razort-----	2e	8.70	9.30	7.00	6.75	9.80	48.00
75408:							
Secesh-----	2w	5.00	5.20	4.00	6.00	5.50	41.00
75417:							
Relfe-----	4s	2.00	2.30	1.60	3.00	2.40	---
Sandbur-----	3w	6.60	7.00	5.20	6.75	7.40	---
75418:							
Tilk-----	3s	3.00	3.10	2.40	3.00	3.30	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Caucasian bluestem	Orchardgrass -red clover	Tall fescue	Warm-season grasses	Winter wheat
		<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Bu</i>
75420: Secesh-----	2w	5.00	5.20	4.00	6.00	5.50	---
Tilk-----	3w	3.00	3.10	2.40	3.00	3.30	---
75423: Cedargap-----	3s	5.20	5.50	4.00	3.50	5.80	---
75432: Batcave-----	3w	---	---	2.40	3.00	3.20	---
Farewell-----	3w	---	---	4.00	6.00	7.00	---
75433: Racket-----	2w	8.70	9.30	7.00	6.75	9.80	---
99001. Water							
99002: Borrow areas--	8s	---	---	---	---	---	---

Table 6.--Pasture and Hayland Suitability Groups

(See text for descriptions of the groups listed in this table)

Map symbol	Map unit name	Component name	Pasture and hayland group
70022	Tonti silt loam, 3 to 8 percent slopes-----	Tonti	LyP
70025	Branson-Splitlimb complex, 1 to 3 percent slopes-----	Branson Splitlimb	LyU LyU
70026	Tonti silt loam, 1 to 3 percent slopes-----	Tonti	LyP
71250	Britwater silt loam, 1 to 3 percent slopes, rarely flooded-----	Britwater	LyU
73000	Pomme silt loam, 3 to 8 percent slopes-----	Pomme	LyU
73013	Lowassie silt loam, 0 to 3 percent slopes, frequently ponded-----	Lowassie	WCU
73017	Bendavis-Poynor complex, 15 to 50 percent slopes, rocky, very stony-----	Bendavis Poynor	GNS GNS
73023	Mano-Ocie complex, 1 to 8 percent slopes-----	Mano Ocie	GrU GrU
73024	Mano-Ocie complex, 8 to 15 percent slopes, stony-----	Mano Ocie	GrU GrU
73051	Winnipeg silt loam, 2 to 5 percent slopes-----	Winnipeg	LyU
73054	Viburnum silt loam, 1 to 3 percent slopes-----	Viburnum	CyU
73063	Bendavis-Poynor complex, 1 to 8 percent slopes-----	Bendavis Poynor	MDU GrU
73068	Tick very gravelly silt loam, 3 to 15 percent slopes, stony-----	Tick	GrU
73069	Tick extremely gravelly silt loam, 15 to 50 percent slopes, very stony-----	Tick	GNS
73073	Scholten-Poynor complex, 8 to 15 percent slopes-----	Scholten Poynor	GrP GrU
73076	Mano-Ocie complex, 15 to 35 percent slopes, stony-----	Mano Ocie	GrU GrU
73077	Eudy silt loam, 1 to 8 percent slopes-----	Eudy	MDU
73080	Alred-Bardley-Rock outcrop complex, 15 to 60 percent slopes, very stony-----	Alred Bardley Rock outcrop	GNS GNS GNS
73176	Bendavis-Poynor complex, 8 to 15 percent slopes, stony-----	Bendavis Poynor	MDU GrU
73197	Viburnum silt loam, 3 to 8 percent slopes-----	Viburnum	CyU
73198	Gressy-Viraton complex, 3 to 8 percent slopes-----	Gressy Viraton	LyU LyP
73199	Moko-Rock outcrop complex, 3 to 15 percent slopes, very flaggy-----	Moko Rock outcrop	ShU GNS
73221	Poynor very gravelly silt loam, karst, 3 to 35 percent slopes, stony-----	Poynor	GrU
73222	Splitlimb silt loam, 0 to 3 percent slopes, frequently ponded-----	Splitlimb	LyU
73223	Coulstone-Bender complex, 15 to 50 percent slopes, very stony-----	Coulstone Bender	GNS GNS
73226	Ocie-Gatewood complex, 3 to 15 percent slopes, stony-----	Ocie Gatewood	GrU MDU
73227	Ocie-Gatewood complex, 15 to 35 percent slopes, very stony-----	Ocie Gatewood	GNS GNS
73230	Coulstone-Bender-Gatewood complex, 15 to 60 percent slopes, rocky, very stony	Coulstone Bender Gatewood	GNS GNS GNS
73231	Wasola silt loam, 1 to 8 percent slopes-----	Wasola	LyU
73235	Alred very gravelly silt loam, karst, 3 to 60 percent slopes, stony-----	Alred	GrU
73236	Scholten-Poynor complex, 3 to 8 percent slopes-----	Scholten Poynor	GrP GrU
73240	Jerktail silt loam, 3 to 8 percent slopes-----	Jerktail	CyU
73242	Fanchon-Tonti complex, 3 to 8 percent slopes-----	Fanchon Tonti	LyU LyP
73243	Topazmill loam, 3 to 8 percent slopes-----	Topazmill	LyU
73245	Alred very gravelly silt loam, 1 to 8 percent slopes-----	Alred	GRU
73246	Alred very gravelly silt loam, 8 to 15 percent slopes-----	Alred	GrU
73247	Alred extremely gravelly silt loam, 15 to 35 percent slopes-----	Alred	GNS
73248	Alred-Bendavis complex, 8 to 15 percent slopes-----	Alred Bendavis	GrU MDU

Table 6.--Pasture and Hayland Suitability Groups--Continued

Map symbol	Map unit name	Component name	Pasture and hayland group
73249	Alred-Ocie-Bendavis complex, 15 to 35 percent slopes, stony-----	Alred	GNS
		Ocie	GNS
		Bendavis	GNS
73295	Taterhill silt loam, 3 to 8 percent slopes-----	Taterhill	LyU
73296	Yelton-Topazmill-Lily complex, 8 to 15 percent slopes-----	Yelton	LyP
		Topazmill	LyU
		Lily	MDU
73297	Poynor-Scholten complex, 15 to 35 percent slopes-----	Poynor	GNS
		Scholten	GNS
73298	Tonti-Hogcreek complex, 3 to 8 percent slopes-----	Tonti	LyP
		Hogcreek	LyP
73299	Plato-Jerktail complex, 1 to 3 percent slopes-----	Plato	WtP
		Jerktail	CyU
73300	Macedonia gravelly silt loam, 3 to 8 percent slopes-----	Macedonia	CyU
73301	Tick very gravelly silt loam, 3 to 8 percent slopes-----	Tick	GrU
73302	Kenaga silt loam, 1 to 3 percent slopes-----	Kenaga	LyU
73303	Kenaga-Egyptgrove complex, 3 to 8 percent slopes-----	Kenaga	LyU
		Egyptgrove	LyU
73304	Kenaga-Egyptgrove-Tonti complex, karst, 3 to 15 percent slopes-----	Kenaga	LyU
		Egyptgrove	LyU
		Tonti	LyP
73305	Egyptgrove gravelly silt loam, 3 to 8 percent slopes-----	Egyptgrove	LyU
73306	Gressy-Gatewood complex, rocky, 3 to 8 percent slopes-----	Gressy	LyU
		Gatewood	MDU
73307	Gressy-Viraton complex, 1 to 3 percent slopes-----	Gressy	LyU
		Viraton	LyP
73308	Grandgulf silt loam, 1 to 3 percent slopes, rarely ponded-----	Grandgulf	LyU
73309	Clarksville-Bendavis complex, 15 to 35 percent slopes, stony-----	Clarksville	GNS
		Bendavis	GNS
73310	Scholten-Bendavis-Poynor complex, 1 to 8 percent slopes-----	Scholten	GrP
		Bendavis	MDU
		Poynor	GRU
73311	Scholten-Bendavis-Poynor complex, 8 to 15 percent slopes-----	Scholten	GrP
		Bendavis	MDU
		Poynor	GrU
73312	Alred-Bendavis complex, 1 to 8 percent slopes-----	Alred	GrU
		Bendavis	MDU
73313	Fanchon-Tonti complex, 1 to 3 percent slopes-----	Fanchon	LyU
		Tonti	LyP
73314	Tanglenook silt loam, basins, 0 to 3 percent slopes-----	Tanglenook	CyU
73315	Deible silt loam, basins, 0 to 3 percent slopes-----	Deible	CyU
73316	Clarksville-Tick-Mano complex, rocky, 15 to 50 percent slopes-----	Clarksville	GNS
		Tick	GNS
		Mano	GNS
74626	Tanglenook silt loam, 0 to 3 percent slopes, rarely flooded-----	Tanglenook	WCB
74627	Hartville silt loam, 1 to 3 percent slopes, rarely flooded-----	Hartville	WCB
74648	Aslinger silt loam, 3 to 8 percent slopes-----	Aslinger	LyU
74658	Zanoni fine sandy loam, 1 to 3 percent slopes, rarely flooded-----	Zanoni	LyO
74677	Deible silt loam, 0 to 3 percent slopes, rarely flooded-----	Deible	WCB
74679	Higdon silt loam, 0 to 3 percent slopes, rarely flooded-----	Higdon	WLO
74681	Lostpond silt loam, 1 to 3 percent slopes, rarely flooded-----	Lostpond	WLO
74690	Moniteau silt loam, 0 to 3 percent slopes, rarely flooded-----	Moniteau	WLB
75381	Bearthicket silt loam, 0 to 3 percent slopes, rarely flooded-----	Bearthicket	LyO
75390	Razort silt loam, 0 to 3 percent slopes, rarely flooded-----	Razort	LyO
75408	Secesh silt loam, 0 to 3 percent slopes, rarely flooded-----	Secesh	LyO
75417	Relfe-Sandbur complex, 0 to 3 percent slopes, frequently flooded-----	Relfe	SyO
		Sandbur	LyO
75418	Tilk very gravelly loam, 0 to 3 percent slopes, rarely flooded-----	Tilk	GrO
75420	Secesh-Tilk complex, 0 to 3 percent slopes, occasionally flooded-----	Secesh	LyO
		Tilk	GrO
75423	Cedargap very gravelly silt loam, 0 to 3 percent slopes, occasionally flooded	Cedargap	GrO

Table 6.--Pasture and Hayland Suitability Groups--Continued

Map symbol	Map unit name	Component name	Pasture and hayland group
75432	Batcave-Farewell complex, 0 to 3 percent slopes, frequently flooded-----	Batcave Farewell	GrO WLO
75433	Racket loam, 0 to 3 percent slopes, occasionally flooded-----	Racket	LyO
99001	Water-----	Water	---
99002	Borrow areas-----	Borrow areas	GNS

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	
70022: Tonti-----	Black oak-----	60	43	Black oak, shortleaf pine
	Post oak-----	---	---	
	Shortleaf pine-----	53	71	
70025: Branson-----	Northern red oak----	70	57	Black walnut, shortleaf pine, white oak
	White oak-----	66	43	
Splitlimb-----	Black oak-----	---	---	Black oak, northern red oak, shortleaf pine
	Northern red oak----	70	57	
	Shortleaf pine-----	---	---	
	White oak-----	66	43	
70026: Tonti-----	Black oak-----	60	43	Black oak, shortleaf pine
	Post oak-----	---	---	
	Shortleaf pine-----	53	71	
71250: Britwater-----	Eastern redcedar----	50	57	Eastern redcedar, northern red oak, shortleaf pine, white oak
	Northern red oak----	70	57	
	Shortleaf pine-----	70	98	
73000: Pomme-----	Northern red oak----	65	43	Black oak, northern red oak, white oak
	White oak-----	60	43	
73013: Lowassie-----	Pin oak-----	50	29	Black oak, green ash, pin oak
	Post oak-----	45	29	
73017: Bendavis-----	Black oak-----	55	43	Black oak, scarlet oak, 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	
73023: Mano-----	Black oak-----	65	43	Northern red oak, white oak
	Northern red oak----	---	---	
	White oak-----	60	43	
Ocie-----	Black oak-----	60	43	Northern red oak, shortleaf pine, white oak
	Northern red oak----	---	---	
	White oak-----	57	43	
73024: Mano-----	Black oak-----	65	43	Northern red oak, white oak
	Northern red oak----	---	---	
	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	
73024: Ocie-----	Black oak-----	60	43	Northern red oak, shortleaf pine, white oak
	Northern red oak---	---	---	
	White oak-----	57	43	
73051: Winnipeg-----	Black oak-----	65	43	Black walnut, northern red oak, white oak
	Black walnut-----	---	---	
	Northern red oak---	66	43	
	White oak-----	60	43	
73054: Viburnum-----	Black oak-----	58	43	Black oak, scarlet oak, shortleaf pine
	Blackjack oak-----	---	---	
	Post oak-----	---	---	
	Scarlet oak-----	---	---	
73063: Bendavis-----	Black oak-----	54	43	Scarlet oak, shortleaf pine
	Post oak-----	47	29	
	Scarlet oak-----	---	---	
	Shortleaf pine-----	56	86	
Poynor-----	Black oak-----	---	---	Black oak, shortleaf pine
	Shortleaf pine-----	58	86	
	White oak-----	---	---	
73068: Tick-----	Black oak-----	55	43	Black oak
	Post oak-----	45	29	
	White oak-----	50	29	
73069: Tick-----	Black oak-----	55	43	Black oak
	Post oak-----	45	29	
	White oak-----	50	29	
73073: Scholten-----	Black oak-----	50	29	Black oak, eastern redcedar, shortleaf pine
	Blackjack oak-----	---	---	
	Hickory-----	---	---	
	Post oak-----	---	---	
Poynor-----	Black oak-----	60	43	Black oak, shortleaf pine
	Shortleaf pine-----	58	86	
	White oak-----	54	43	
73076: Mano-----	Black oak-----	65	43	Northern red oak, white oak
	Northern red oak---	---	---	
	White oak-----	60	43	
Ocie-----	Black oak-----	60	43	Northern red oak, shortleaf pine
	Northern red oak---	---	---	
	White oak-----	57	43	
73077: Eudy-----	Black oak-----	42	29	Eastern redcedar
	Eastern redcedar---	40	43	
	Post oak-----	43	29	
	White oak-----	45	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	
73080:				
Alred-----	Black oak-----	60	43	Black oak,
	Shortleaf pine-----	60	86	shortleaf pine,
	White oak-----	56	43	white oak
Bardley-----	Black oak-----	54	43	Black oak, eastern
	Post oak-----	48	29	redcedar,
	White oak-----	42	29	shortleaf pine
Rock outcrop.				
73176:				
Bendavis-----	Black oak-----	54	43	Scarlet oak,
	Post oak-----	47	29	shortleaf pine
	Scarlet oak-----	---	---	
	Shortleaf pine-----	55	86	
Poynor-----	Black oak-----	60	43	Black oak,
	Shortleaf pine-----	58	86	shortleaf pine
	White oak-----	54	43	
73197:				
Viburnum-----	Black oak-----	62	43	Scarlet oak,
	Post oak-----	---	---	shortleaf pine,
	Scarlet oak-----	---	---	white oak
	Shortleaf pine-----	58	86	
	White oak-----	---	---	
73198:				
Gressy-----	Northern red oak----	65	43	Black walnut, white
	White oak-----	65	43	oak
Viraton-----	Black oak-----	60	43	Black oak,
	Shortleaf pine-----	56	86	shortleaf pine,
	White oak-----	55	43	white oak
73199:				
Moko-----	Eastern redcedar----	30	29	Eastern redcedar
Rock outcrop.				
73221:				
Poynor-----	Black oak-----	60	43	Black oak,
	Shortleaf pine-----	58	86	shortleaf pine
	White oak-----	54	43	
73222:				
Splitlimb-----	Black oak-----	---	---	Black oak, northern
	Northern red oak----	70	57	red oak, white oak
	Shortleaf pine-----	---	---	
	White oak-----	66	43	
73223:				
Coulstone-----	Black oak-----	56	43	Black oak, scarlet
	Scarlet oak-----	---	---	oak, shortleaf
	Shortleaf pine-----	57	86	pine
	White oak-----	55	43	
Bender-----	Black oak-----	52	29	Black oak, scarlet
	Scarlet oak-----	---	---	oak, shortleaf
	Shortleaf pine-----	53	71	pine
	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	
73226:				
Ocie-----	Black oak-----	58	43	Northern red oak, shortleaf pine
	Northern red oak---	---	---	
	White oak-----	57	43	
Gatewood-----	Black oak-----	42	29	Eastern redcedar, shortleaf pine
	Eastern redcedar---	40	43	
	Post oak-----	43	29	
	White oak-----	45	29	
73227:				
Ocie-----	Black oak-----	58	43	Northern red oak, shortleaf pine
	Northern red oak---	---	---	
	White oak-----	57	43	
Gatewood-----	Black oak-----	42	29	Eastern redcedar, shortleaf pine
	Eastern redcedar---	40	43	
	Post oak-----	43	29	
	White oak-----	45	29	
73230:				
Coulstone-----	Black oak-----	56	43	Black 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	
Gatewood-----	Black oak-----	42	29	Eastern redcedar, shortleaf pine
	Eastern redcedar---	40	43	
	Post oak-----	43	29	
	White oak-----	45	29	
73231:				
Wasola-----	Northern red oak---	65	43	Black walnut, shortleaf pine, white oak
	White oak-----	65	43	
73235:				
Alred-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	56	43	
73236:				
Scholten-----	Black oak-----	50	29	Black oak, shortleaf pine, white oak
	Blackjack oak-----	---	---	
	Hickory-----	---	---	
	Post oak-----	---	---	
Poynor-----	Black oak-----	53	43	Shortleaf pine, white oak
	Shortleaf pine-----	55	86	
	White oak-----	48	29	
73240:				
Jerktail-----	Black oak-----	58	43	Northern red oak, shortleaf pine, white oak
	Blackjack oak-----	---	---	
	Hickory-----	---	---	
	Northern red oak---	---	---	
	Post oak-----	---	---	
	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	
73242:				
Fanchon-----	Northern red oak----	65	43	Black walnut, shortleaf pine, white oak
	White oak-----	65	43	
Tonti-----	Black oak-----	60	43	Black oak, shortleaf pine
	Post oak-----	---	---	
	Shortleaf pine-----	53	71	
73243:				
Topazmill-----	Black oak-----	75	57	Green ash, northern red oak, shortleaf pine, white oak
	Northern red oak----	75	57	
	White oak-----	65	43	
73245:				
Alred-----	Black oak-----	60	43	Northern red oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	56	43	
73246:				
Alred-----	Black oak-----	60	43	Northern red oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	56	43	
73247:				
Alred-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	56	43	
73248:				
Alred-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	56	43	
Bendavis-----	Black oak-----	48	29	Shortleaf pine
	Post oak-----	45	29	
	Shortleaf pine-----	---	---	
73249:				
Alred-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	56	43	
Ocie-----	Black oak-----	58	43	Northern red oak, shortleaf pine
	Northern red oak----	---	---	
	White oak-----	57	43	
Bendavis-----	Black oak-----	48	29	Shortleaf pine
	Post oak-----	45	29	
	Shortleaf pine-----	---	---	
73295:				
Taterhill-----	Northern red oak----	65	43	Black walnut, shortleaf pine, white oak
	White oak-----	65	43	
73296:				
Yelton-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	White oak-----	55	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	
73296:				
Topazmill-----	Black oak-----	75	57	Green ash, northern red oak, shortleaf pine, white oak
	Northern red oak---	75	57	
	White oak-----	65	43	
Lily-----	Black oak-----	---	---	Scarlet oak, shortleaf pine
	Northern red oak---	54	43	
	Scarlet oak-----	---	---	
	Shortleaf pine-----	58	86	
	White oak-----	45	29	
73297:				
Poynor-----	Black oak-----	60	43	Black oak, shortleaf pine
	Shortleaf pine-----	58	86	
	White oak-----	54	43	
Scholten-----	Black oak-----	50	29	Black oak, eastern redcedar, shortleaf pine
	Blackjack oak-----	---	---	
	Hickory-----	---	---	
	Post oak-----	---	---	
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-----	---	---	
73299:				
Plato-----	Black oak-----	60	43	Black oak, post oak, shortleaf pine
	Shortleaf pine-----	---	---	
	White oak-----	55	43	
Jerktail-----	Black oak-----	58	43	Northern red oak, shortleaf pine, white oak
	Blackjack oak-----	---	---	
	Hickory-----	---	---	
	Northern red oak---	---	---	
	Post oak-----	---	---	
	White oak-----	---	---	
73300:				
Macedonia-----	Black oak-----	60	43	Black oak, green ash, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	55	43	
73301:				
Tick-----	Black oak-----	55	43	Black oak
	Post oak-----	45	29	
	White oak-----	50	29	
73302:				
Kenaga-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	55	43	
73303:				
Kenaga-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	55	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	
73303:				
Egyptgrove-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	55	43	
73304:				
Kenaga-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	55	43	
Egyptgrove-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	55	43	
Tonti-----	Black oak-----	60	43	Black oak, shortleaf pine
	Post oak-----	---	---	
	Shortleaf pine-----	53	71	
73305:				
Egyptgrove-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	55	43	
73306:				
Gressy-----	Northern red oak---	65	43	Black walnut, white oak
	White oak-----	65	43	
Gatewood-----	Black oak-----	42	29	Eastern redcedar, shortleaf pine
	Eastern redcedar---	40	43	
	Post oak-----	43	29	
	White oak-----	45	29	
73307:				
Gressy-----	Northern red oak---	65	43	Black walnut, white oak
	White oak-----	65	43	
Viraton-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	56	86	
	White oak-----	55	43	
73308:				
Grandgulf-----	American sycamore---	---	---	Black walnut, cherrybark oak, northern red oak, white ash, white oak
	Black walnut-----	---	---	
	Cherrybark oak-----	95	129	
	Common hackberry---	---	---	
	Pin oak-----	96	86	
	Red maple-----	---	---	
73309:				
Clarksville-----	Black oak-----	61	43	Northern red oak, white oak
	Northern red oak---	---	---	
	Shortleaf pine-----	58	86	
	White oak-----	55	43	
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:				
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	
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	
73312:				
Alred-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	60	86	
	White oak-----	56	43	
Bendavis-----	Black oak-----	55	43	Black oak, scarlet oak, shortleaf pine
	Post oak-----	45	29	
	Scarlet oak-----	---	---	
	Shortleaf pine-----	56	86	
73313:				
Fanchon-----	Northern red oak---	65	43	Black walnut, shortleaf pine, white oak
	White oak-----	65	43	
Tonti-----	Black oak-----	60	43	Black oak, shortleaf pine
	Post oak-----	---	---	
	Shortleaf pine-----	53	71	
73314:				
Tanglenook-----	American sycamore---	---	---	Eastern cottonwood, green ash, pin oak, silver maple
	Common hackberry---	---	---	
	Eastern cottonwood--	90	100	
	Pin oak-----	---	---	
	Silver maple-----	80	79	
73315:				
Deible-----	Green ash-----	---	---	Eastern cottonwood, green ash, pin oak, silver maple
	Pin oak-----	76	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	
73316:				
Clarksville-----	Black oak-----	61	43	Northern red oak, white oak
	Northern red oak----	---	---	
	Shortleaf pine-----	58	86	
	White oak-----	55	43	
Tick-----	Black oak-----	55	43	Black oak
	Post oak-----	45	29	
	White oak-----	50	29	
Mano-----	Black oak-----	65	43	Northern red oak, white oak
	Northern red oak----	---	---	
	White oak-----	60	43	
74626:				
Tanglenook-----	American sycamore---	---	---	Eastern cottonwood, green ash, pin oak, silver maple
	Common hackberry---	---	---	
	Eastern cottonwood--	90	100	
	Pin oak-----	---	---	
	Silver maple-----	80	79	
74627:				
Hartville-----	Northern red oak----	---	---	Green ash, northern red oak, white oak
	White oak-----	55	43	
74648:				
Aslinger-----	Black oak-----	60	43	Black walnut, shortleaf pine, white oak
	Scarlet oak-----	60	43	
	Shortleaf pine-----	---	---	
	White oak-----	---	---	
74658:				
Zanoni-----	American sycamore---	85	86	Black walnut, shortleaf pine
	Black walnut-----	---	---	
	Shortleaf pine-----	---	---	
	White oak-----	75	57	
74677:				
Deible-----	Green ash-----	---	---	Eastern cottonwood, green ash, pin oak, silver maple
	Pin oak-----	76	57	
	Silver maple-----	---	---	
74679:				
Higdon-----	American sycamore---	---	---	Black walnut, green ash, pecan, white oak
	Black walnut-----	---	---	
	Green ash-----	---	---	
	White oak-----	65	43	
74681:				
Lostpond-----	Black oak-----	60	43	Black oak, shortleaf pine, white oak
	Shortleaf pine-----	56	86	
	White oak-----	55	43	
74690:				
Moniteau-----	Common hackberry---	---	---	Black willow, eastern cottonwood, green ash, pin oak, silver maple, sweetgum, white oak, willow oak
	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, green
	Black walnut-----	---	---	ash, northern red
	Common hackberry----	---	---	oak, white oak
	Pin oak-----	96	86	
	Red maple-----	---	---	
75390:				
Razort-----	American sycamore---	85	86	Black walnut,
	Eastern cottonwood--	90	100	northern red oak,
	Northern red oak---	75	57	white oak
	White oak-----	70	57	
75408:				
Secesh-----	American sycamore---	---	---	American sycamore,
	Black oak-----	---	---	black oak,
	Black walnut-----	---	---	shortleaf pine
	Shortleaf pine-----	---	---	
	White oak-----	60	43	
75417:				
Relfe-----	Black oak-----	60	43	Black oak,
	Shortleaf pine-----	---	---	shortleaf pine
Sandbur-----	American basswood---	---	---	American sycamore,
	American sycamore---	---	---	black walnut,
	Northern red oak---	---	---	green ash,
	River birch-----	---	---	northern red oak
	White oak-----	60	43	
75418:				
Tilk-----	Black oak-----	50	29	Eastern redcedar,
	Eastern redcedar---	---	---	shortleaf pine
	Post oak-----	45	29	
	Scarlet oak-----	50	29	
	Shortleaf pine-----	55	86	
75420:				
Secesh-----	American sycamore---	---	---	American sycamore,
	Black oak-----	---	---	black walnut,
	Black walnut-----	---	---	shortleaf pine
	Shortleaf pine-----	---	---	
	White oak-----	60	43	
Tilk-----	Black oak-----	50	29	Eastern redcedar,
	Eastern redcedar---	---	---	shortleaf pine
	Post oak-----	45	29	
	Scarlet oak-----	50	29	
	Shortleaf pine-----	55	86	
75423:				
Cedargap-----	Black oak-----	66	43	Black oak,
				shortleaf pine
75432:				
Batcave-----	Black oak-----	66	43	Black oak,
	Black walnut-----	---	---	shortleaf pine
	Green ash-----	---	---	



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	
75432: 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	
75433: Racket-----	American sycamore---	---	---	Black walnut
	Black cherry-----	---	---	
	Black walnut-----	72	72	
	Northern red oak----	---	---	
	White ash-----	---	---	
99001. Water				
99002. Borrow areas				

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
70022: Tonti-----	Not limited	0.00	Not limited	0.00	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
70025: Branson-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
Splitlimb-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50  0.25	Slightly limited seasonal wetness (slightly limited)	0.25	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50  0.25
70026: Tonti-----	Not limited	0.00	Not limited	0.00	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
71250: Britwater-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited slippage potential (moderately limited) low strength (moderately limited)	0.50  0.50
73000: Pomme-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited slippage potential (moderately limited) low strength (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
73013: Lowassie-----	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80	Very limited seasonal wetness (very limited)	1.00	Very limited seasonal wetness (very limited)	1.00	Very limited seasonal wetness (very limited)	1.00
	seasonal wetness (moderately limited)	0.60	seasonal wetness (moderately limited)	0.60	seasonally ponded (limited)	0.80	seasonally ponded (limited)	0.80	ponded (wetness) (very limited)	1.00
					low strength (moderately limited)	0.50			low strength (moderately limited)	0.50
73017: Bendavis-----	Limited small stones (limited)	0.67	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	small stones (limited)	0.67	seasonal wetness (slightly limited)	0.10	small stones (limited)	0.67	seasonal wetness (slightly limited)	0.10
			surface stones (moderately limited)	0.38			seasonal wetness (slightly limited)	0.10		
Poynor-----	Limited small stones (limited)	0.73	Limited slope (limited)	0.99	Moderately limited slope (moderately limited)	0.60	Limited small stones (limited)	0.73	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.14	small stones (limited)	0.73			slope (moderately limited)	0.60		
			surface stones (slightly limited)	0.03						
73023: Mano-----	Slightly limited small stones (slightly limited)	0.08	Slightly limited small stones (slightly limited)	0.08	Moderately limited low strength (moderately limited)	0.50	Slightly limited seasonal wetness (slightly limited)	0.10	Moderately limited slippage potential (moderately limited)	0.50
					seasonal wetness (slightly limited)	0.10			low strength (moderately limited)	0.50
									seasonal wetness (slightly limited)	0.10
Ocie-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited small stones (moderately limited)	0.42	Slightly limited seasonal wetness (slightly limited)	0.10	Slightly limited small stones (slightly limited)	0.30	Moderately limited slippage potential (moderately limited)	0.50
							seasonal wetness (slightly limited)	0.10	seasonal wetness (slightly limited)	0.10

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
73024: Mano-----	Slightly limited small stones (slightly limited)	0.24	Moderately limited slope (moderately limited) small stones (slightly limited) surface stones (slightly limited)	0.47 0.24 0.03	Slightly limited seasonal wetness (slightly limited)	0.10	Slightly limited seasonal wetness (slightly limited) small stones (slightly limited)	0.10 0.01	Limited slope (limited) slippage potential (moderately limited) seasonal wetness (slightly limited)	0.76 0.50 0.10
Ocie-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited slope (moderately limited) small stones (moderately limited) surface stones (slightly limited)	0.47 0.42 0.03	Slightly limited seasonal wetness (slightly limited)	0.10	Slightly limited small stones (slightly limited) seasonal wetness (slightly limited)	0.30 0.10	Limited slope (limited) slippage potential (moderately limited) seasonal wetness (slightly limited)	0.76 0.50 0.10
73051: Winnipeg-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
73054: Viburnum-----	Not limited	0.00	Not limited	0.00	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
73063: 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 0.50 0.10
Poynor-----	Limited small stones (limited)	0.67	Limited small stones (limited)	0.67	Not limited	0.00	Limited small stones (limited)	0.67	Not limited	0.00

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
73068: Tick-----	Limited small stones (limited)	0.93	Limited small stones (limited)	0.93	Not limited	0.00	Limited small stones (limited)	0.93	Limited slope (limited)	0.76
			slope (moderately limited)	0.47						
			surface stones (slightly limited)	0.01						
73069: Tick-----	Limited small stones (limited)	0.93	Limited slope (limited)	0.99	Moderately limited slope (moderately limited)	0.60	Limited small stones (limited)	0.94	Very limited slope (very limited)	1.00
			small stones (limited)	0.93			slope (moderately limited)	0.60	slippage potential (limited)	0.90
73073: Scholten-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited slope (moderately limited)	0.47	Slightly limited seasonal wetness (slightly limited)	0.28	Slightly limited small stones (slightly limited)	0.30	Limited slope (limited)	0.76
			small stones (moderately limited)	0.42			seasonal wetness (slightly limited)	0.28	seasonal wetness (slightly limited)	0.28
Poynor-----	Moderately limited small stones (moderately limited)	0.60	Moderately limited small stones (moderately limited)	0.60	Not limited	0.00	Moderately limited small stones (moderately limited)	0.60	Limited slope (limited)	0.76
			slope (moderately limited)	0.47						
73076: Mano-----	Moderately limited small 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
			small stones (moderately limited)	0.42	seasonal wetness (slightly limited)	0.10	small stones (slightly limited)	0.30	slippage potential (moderately limited)	0.50
			slope (slightly limited)				seasonal wetness (slightly limited)	0.10	seasonal wetness (slightly limited)	0.10
Ocie-----	Moderately limited small 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
			small stones (moderately limited)	0.42	seasonal wetness (slightly limited)	0.10	small stones (slightly limited)	0.30	slippage potential (moderately limited)	0.50
			slope (slightly limited)				seasonal wetness (slightly limited)	0.10	seasonal wetness (slightly limited)	0.10

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
73077: Eudy-----	Slightly limited small stones (slightly limited)	0.04	Slightly limited small stones (slightly limited)	0.04	Moderately limited low strength (moderately limited) seasonal wetness (moderately limited)	0.50 0.49	Moderately limited seasonal wetness (moderately limited)	0.49	Moderately limited low strength (moderately limited) seasonal wetness (moderately limited)	0.50 0.49
73080: Alred-----	Slightly limited slope (slightly limited)	0.16	Very limited slope (very limited) surface stones (slightly limited) small stones (slightly limited)	1.00 0.30 0.04	Limited slope (limited)	0.68	Limited slope (limited) small stones (slightly limited)	0.68 0.04	Very limited slope (very limited)	1.00
Bardley-----	Slightly limited slope (slightly limited) large stones (slightly limited) small stones (slightly limited)	0.23 0.17 0.14	Very limited slope (very limited) large stones (moderately limited) surface stones (slightly limited)	1.00 0.45 0.30	Limited slope (limited)	0.87	Limited slope (limited) large stones (slightly limited) small stones (slightly limited)	0.87 0.17 0.14	Very limited slope (very limited)	1.00
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73176: Bendavis-----	Moderately limited small stones (moderately limited)	0.60	Moderately limited small stones (moderately limited) slope (moderately limited) surface stones (slightly limited)	0.60 0.47 0.02	Slightly limited seasonal wetness (slightly limited)	0.10	Moderately limited small stones (moderately limited) seasonal wetness (slightly limited) surface stones (slightly limited)	0.60 0.10 0.02	Limited slope (limited) seasonal wetness (slightly limited)	0.76 0.10
Poynor-----	Slightly limited small stones (slightly limited)	0.24	Moderately limited slope (moderately limited) small stones (slightly limited) surface stones (slightly limited)	0.47 0.24 0.02	Not limited	0.00	Slightly limited small stones (slightly limited) surface stones (slightly limited)	0.01 0.02	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
73197: Viburnum-----	Not limited	0.00	Not limited	0.00	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
73198: Gressy-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
Viraton-----	Not limited	0.00	Not limited	0.00	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
73199: Moko-----	Limited large stones (limited) small stones (slightly limited)	0.61 0.08	Limited large stones >35% (very limited) slope (moderately limited) surface stones (slightly limited)	0.99 0.34 0.09	Not limited	0.00	Limited large stones (limited)	0.61	Moderately limited slope (moderately limited)	0.45
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73221: Poynor-----	Limited small stones (limited) slope (slightly limited)	0.81 0.01	Limited small stones (limited) slope (moderately limited) surface stones (slightly limited)	0.81 0.60 0.03	Slightly limited slope (slightly limited)	0.05	Limited small stones (limited) slope (slightly limited)	0.81 0.05	Limited slope (limited)	0.99

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
73222: Splitlimb-----	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80	Very limited ponded (wetness) (very limited)	1.00
					low strength (moderately limited)	0.50	seasonal wetness (slightly limited)	0.26	low strength (moderately limited)	0.50
					seasonal wetness (slightly limited)	0.26			seasonal wetness (slightly limited)	0.26
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
	slope (slightly limited)	0.14	small stones (moderately limited)	0.60			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
	large stones (moderately limited)	0.48	large stones (limited)	0.83	very sandy (surface) (moderately limited)	0.50	large stones (moderately limited)	0.48	very sandy (surface) (moderately limited)	0.50
	surface stones (moderately limited)	0.41	surface stones (limited)	0.78					slippage potential (moderately limited)	0.50
73226: Ocie-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited small stones (moderately limited)	0.42	Slightly limited seasonal wetness (slightly limited)	0.10	Slightly limited small stones (slightly limited)	0.30	Moderately limited slippage potential (moderately limited)	0.50
			slope (moderately limited)	0.34			seasonal wetness (slightly limited)	0.10	slope (moderately limited)	0.45
									seasonal wetness (slightly limited)	0.10
Gatewood-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited small stones (moderately limited)	0.42	Slightly limited seasonal wetness (slightly limited)	0.15	Slightly limited small stones (slightly limited)	0.30	Moderately limited slope (moderately limited)	0.45
			slope (moderately limited)	0.34			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
73227: Ocie-----	Moderately limited small 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	small stones (moderately limited)	0.42	seasonal wetness (slightly limited)	0.10	small stones (slightly limited) seasonal wetness (slightly limited)	0.30 0.10	slippage potential (moderately limited) seasonal wetness (slightly limited)	0.50 0.10
Gatewood-----	Moderately limited small stones (moderately limited)	0.51	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	small stones (moderately limited)	0.51	seasonal wetness (slightly limited)	0.15	small stones (moderately limited) seasonal wetness (slightly limited)	0.45 0.15	seasonal wetness (slightly limited)	0.15
73230: Coulstone-----	Limited surface stones (limited)	0.66	Very limited surface stones >15% (very limited)	1.00	Moderately limited slope (moderately limited)	0.60	Limited large stones (limited)	0.61	Very limited slope (very limited)	1.00
	large stones (limited)	0.61	large stones >35% (very limited)	0.99	large surface stones (moderately limited)	0.52	slope (moderately limited)	0.60	surface stones (limited)	0.66
	slope (slightly limited)	0.14	slope (limited)	0.99			large surface stones (moderately limited)	0.52	large surface stones (moderately limited)	0.52
Bender-----	Moderately limited surface stones (moderately limited)	0.41	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)	0.78			large stones (slightly limited)	0.19	slippage potential (moderately limited)	0.50
	large stones (slightly limited)	0.19	large stones (moderately limited)	0.48					surface stones (moderately limited)	0.41
Gatewood-----	Very limited small stones (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited small stones (very limited)	1.00	Very limited slope (very limited)	1.00
	slope (moderately limited)	0.37	small stones (very limited)	1.00	seasonal wetness (slightly limited)	0.15	slope (very limited) seasonal wetness (slightly limited)	1.00 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
73231: Wasola-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Slightly limited seasonal wetness (slightly limited)	0.20	Moderately limited slippage potential (moderately limited)	0.50
					seasonal wetness (slightly limited)	0.20			low strength (moderately limited)	0.50
									seasonal wetness (slightly limited)	0.20
73235: Alred-----	Limited small stones (limited)	0.86	Very limited slope (very limited)	1.00	Limited slope (limited)	0.68	Limited small stones (limited)	0.87	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.16	small stones (limited)	0.86			slope (limited)	0.68		
73236: Scholten-----	Slightly limited small stones (slightly limited)	0.15	Slightly limited small stones (slightly limited)	0.15	Slightly limited seasonal wetness (slightly limited)	0.28	Slightly limited seasonal wetness (slightly limited)	0.28	Slightly limited seasonal wetness (slightly limited)	0.28
			slope (slightly limited)	0.10						
Poynor-----	Limited small stones (limited)	0.67	Limited small stones (limited)	0.67	Not limited	0.00	Limited small stones (limited)	0.67	Not limited	0.00
			surface stones (slightly limited)	0.15						
73240: Jerktail-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Slightly limited seasonal wetness (slightly limited)	0.20	Moderately limited low strength (moderately limited)	0.50
					seasonal wetness (slightly limited)	0.20			seasonal wetness (slightly limited)	0.20
73242: Fanchon-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	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
73242: Tonti-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50  0.27	Slightly limited seasonal wetness (slightly limited)	0.27	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50  0.27
73243: Topazmill-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
73245: Alred-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited small stones (moderately limited)	0.42	Not limited	0.00	Slightly limited small stones (slightly limited)	0.30	Moderately limited slippage potential (moderately limited)	0.50
73246: Alred-----	Moderately limited small stones (moderately limited)	0.60	Moderately limited small stones (moderately limited) slope (moderately limited)	0.60 0.47	Not limited	0.00	Moderately limited small stones (moderately limited)	0.60	Limited slope (limited) slippage potential (moderately limited)	0.76  0.50
73247: Alred-----	Limited small stones (limited) slope (slightly limited)	0.89 0.14	Limited slope (limited) small stones (limited)	0.99 0.89	Moderately limited slope (moderately limited)	0.60	Limited small stones (limited) slope (moderately limited)	0.90 0.60	Very limited slope (very limited)	1.00
73248: Alred-----	Limited small stones (limited)	0.77	Limited small stones (limited) slope (moderately limited)	0.77 0.47	Not limited	0.00	Limited small stones (limited)	0.77	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
73248: Bendavis-----	Moderately limited small stones (moderately limited)	0.60	Moderately limited small stones (moderately limited)	0.60	Slightly limited seasonal wetness (slightly limited)	0.10	Moderately limited small stones (moderately limited)	0.60	Limited slope (limited)	0.76
				0.47				0.10	seasonal wetness (slightly limited)	0.10
				0.02						
73249: Alred-----	Limited large stones (limited)	0.61	Limited large stones >35% (limited)	0.99	Moderately limited slope (moderately limited)	0.60	Limited large stones (limited)	0.61	Very limited slope (very limited)	1.00
	slope (slightly limited)	0.14	slope (limited)	0.99			slope (moderately limited)	0.60		
Ocie-----	Moderately limited small 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	small stones (moderately limited)	0.42	seasonal wetness (slightly limited)	0.10	small stones (slightly limited)	0.30	slippage potential (moderately limited)	0.50
			surface stones (moderately limited)	0.38			seasonal wetness (slightly limited)	0.10	seasonal wetness (slightly limited)	0.10
Bendavis-----	Limited small stones (limited)	0.67	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	small stones (limited)	0.67	seasonal wetness (slightly limited)	0.10	small stones (limited)	0.67	seasonal wetness (slightly limited)	0.10
			surface stones (moderately limited)	0.38			seasonal wetness (slightly limited)	0.10		
73295: Taterhill-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
73296: Yelton-----	Not limited	0.00	Slightly limited slope (slightly limited)	0.10	Moderately limited low strength (moderately limited)	0.50	Slightly limited seasonal wetness (slightly limited)	0.28	Moderately limited low strength (moderately limited)	0.50
					seasonal wetness (slightly limited)	0.28			seasonal wetness (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
73296: Topazmill-----	Not limited	0.00	Slightly limited slope (slightly limited)	0.20	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited) slope (slightly limited)	0.15
Lily-----	Not limited	0.00	Slightly limited slope (slightly limited)	0.30	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited) slope (moderately limited)	0.31
73297: Poynor-----	Slightly limited slope (slightly limited)	0.14	Limited slope (limited) surface stones (slightly limited)	0.99	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited) small stones (slightly limited)	0.60	Very limited slope (very limited)	1.00
Scholten-----	Slightly limited slope (slightly limited) small stones (slightly limited)	0.14 0.11	Limited slope (limited) small stones (slightly limited)	0.99 0.11	Moderately limited slope (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.60 0.50 0.20	Moderately limited slope (moderately limited) seasonal wetness (slightly limited)	0.60 0.20	Very limited slope (very limited) slippage potential (moderately limited) low strength (moderately limited)	1.00 0.50 0.50
73298: Tonti-----	Not limited	0.00	Not limited	0.00	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	0.00	Not limited	0.00	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
73299: Plato-----	Not limited	0.00	Not limited	0.00	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
Jerktail-----	Not limited	0.00	Not limited	0.00	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
73300: Macedonia-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
73301: Tick-----	Not limited	0.00	Slightly limited surface stones (slightly limited)	0.01	Not limited	0.00	Not limited	0.00	Not limited	0.00
73302: Kenaga-----	Not limited	0.00	Not limited	0.00	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
73303: Kenaga-----	Not limited	0.00	Not limited	0.00	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
Egyptgrove-----	Slightly limited small stones (slightly limited)	0.01	Slightly limited small stones (slightly limited)	0.01	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	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
73304: Kenaga-----	Not limited	0.00	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
Egyptgrove----	Not limited	0.00	Moderately limited slope (moderately limited)	0.47	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Limited slope (limited) low strength (moderately limited)	0.76
Tonti-----	Not limited	0.00	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
73305: Egyptgrove----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
73306: Gressy-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
Gatewood-----	Moderately limited small stones (moderately limited)	0.60	Moderately limited small stones (moderately limited)	0.60	Slightly limited seasonal wetness (slightly limited)	0.15	Moderately limited small stones (moderately limited) seasonal wetness (slightly limited)	0.60	Slightly limited seasonal wetness (slightly limited)	0.15
73307: Gressy-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	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
73307: Viraton-----	Not limited	0.00	Not limited	0.00	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
73308: Grandgulf-----	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited) low strength (moderately limited)	0.80 0.50	Limited seasonally ponded (limited)	0.80	Very limited ponded (wetness) (very limited) low strength (moderately limited)	1.00 0.50
73309: Clarksville----	Limited small stones (limited) slope (slightly limited)	0.73 0.07	Limited slope (limited) small stones (limited)	0.80 0.73	Moderately limited slope (moderately limited)	0.31	Limited small stones (limited) slope (moderately limited)	0.73 0.31	Very limited slope (very limited) slippage potential (limited)	1.00 0.90
Bendavis-----	Limited small stones (limited) slope (slightly limited)	0.67 0.20	Very limited slope (very limited) small stones (limited) surface stones (moderately limited)	1.00 0.67 0.38	Limited slope (limited) seasonal wetness (slightly limited)	0.79 0.10	Limited slope (limited) small stones (limited) seasonal wetness (slightly limited)	0.79 0.67 0.10	Very limited slope (very limited) seasonal wetness (slightly limited)	1.00 0.10
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 0.50 0.10



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: Poynor-----	Limited small stones (limited)	0.67	Limited small stones (limited) surface stones (slightly limited)	0.67 0.15	Not limited	0.00	Limited small stones (limited)	0.67	Not limited	0.00
73311: Scholten-----	Slightly limited small stones (slightly limited)	0.15	Moderately limited slope (moderately limited) small stones (slightly limited)	0.47 0.15	Slightly limited seasonal wetness (slightly limited)	0.28	Slightly limited seasonal wetness (slightly limited) small stones (slightly limited)	0.28 0.15	Limited slope (limited) seasonal wetness (slightly limited)	0.76 0.28
Bendavis-----	Not limited	0.00	Moderately limited slope (moderately limited) surface stones (slightly limited)	0.47 0.02	Slightly limited seasonal wetness (slightly limited)	0.10	Slightly limited small stones (slightly limited) seasonal wetness (slightly limited)	0.15 0.10	Limited slope (limited) seasonal wetness (slightly limited)	0.76 0.10
Poynor-----	Slightly limited small stones (slightly limited)	0.24	Moderately limited slope (moderately limited) small stones (slightly limited)	0.47 0.24	Not limited	0.00	Slightly limited small stones (slightly limited)	0.01	Limited slope (limited)	0.76
73312: Alred-----	Limited small stones (limited)	0.73	Limited small stones (limited)	0.73	Not limited	0.00	Limited small stones (limited)	0.73	Not limited	0.00
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 0.50 0.10
73313: Fanchon-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	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
73313: Tonti-----	Not limited	0.00	Not limited	0.00	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
73314: Tanglenook----	Moderately limited seasonal wetness (moderately limited)	0.60	Moderately limited seasonal wetness (moderately limited)	0.60	Limited seasonal wetness (limited) low strength (moderately limited)	0.95 0.50	Limited seasonal wetness (limited)	0.95	Limited seasonal wetness (limited) low strength (moderately limited)	0.95 0.50
73315: 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)	0.95 0.50	Limited seasonal wetness (limited)	0.95	Limited seasonal wetness (limited) low strength (moderately limited)	0.95 0.50
73316: Clarksville----	Limited small stones (limited) slope (slightly limited)	0.73 0.11	Limited slope (limited) small stones (limited)	0.91 0.73	Moderately limited slope (moderately limited)	0.48	Limited small stones (limited) slope (moderately limited)	0.73 0.48	Very limited slope (very limited) slippage potential (limited)	1.00 0.90
Tick-----	Moderately limited small stones (moderately limited) slope (slightly limited)	0.42 0.14	Limited slope (limited) small stones (moderately limited) surface stones (slightly limited)	0.99 0.42 0.01	Moderately limited slope (moderately limited)	0.60	Moderately limited slope (moderately limited) small stones (slightly limited)	0.60 0.30	Very limited slope (very limited) slippage potential (limited)	1.00 0.90
Mano-----	Moderately limited small stones (moderately limited) slope (slightly limited)	0.42 0.14	Limited slope (limited) small stones (moderately limited)	0.99 0.42	Moderately limited slope (moderately limited) seasonal wetness (slightly limited)	0.60 0.10	Moderately limited slope (moderately limited) small stones (slightly limited) seasonal wetness (slightly limited)	0.60 0.30 0.10	Very limited slope (very limited) slippage potential (moderately limited) seasonal wetness (slightly limited)	1.00 0.50 0.10

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
74626: Tanglenook-----	Moderately limited seasonal wetness (moderately limited)	0.60	Moderately limited seasonal wetness (moderately limited)	0.60	Limited seasonal wetness (limited) low strength (moderately limited)	0.76 0.50	Limited seasonal wetness (limited)	0.76	Limited seasonal wetness (limited) low strength (moderately limited)	0.76 0.50
74627: Hartville-----	Not limited	0.00	Not limited	0.00	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
74648: Aslinger-----	Slightly limited small stones (slightly limited)	0.24	Slightly limited small stones (slightly limited)	0.24	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Slightly limited seasonal wetness (slightly limited) small stones (slightly limited)	0.20 0.01	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20
74658: Zanoni-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
74677: 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)	0.95 0.50	Limited seasonal wetness (limited)	0.95	Limited seasonal wetness (limited) low strength (moderately limited)	0.95 0.50
74679: Higdon-----	Not limited	0.00	Not limited	0.00	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
74681: Lostpond-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited) seasonal wetness (moderately limited)	0.50 0.45	Moderately limited seasonal wetness (moderately limited)	0.45	Moderately limited low strength (moderately limited) seasonal wetness (moderately limited)	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
74690: 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
75381: Bearthicket----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
75390: Razort-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50
75408: Secesh-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited low strength (moderately limited)	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	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Very limited flooding (very limited)	1.00
75418: Tilk-----	Limited small stones (limited)	0.65	Limited small stones (limited)	0.65	Not limited	0.00	Limited small stones (limited)	0.65	Moderately limited slippage potential (moderately limited)	0.50
75420: Secesh-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited flooding (moderately limited) low strength (moderately limited)	0.60 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
75420: Tilk-----	Moderately limited small stones (moderately limited)	0.42	Moderately limited small stones (moderately limited)	0.42	Not limited	0.00	Slightly limited small stones (slightly limited)	0.30	Moderately limited flooding (moderately limited)	0.60
75423: Cedargap-----	Moderately limited small stones (moderately limited)	0.60	Moderately limited small stones (moderately limited)	0.60	Not limited	0.00	Moderately limited small stones (moderately limited)	0.60	Moderately limited flooding (moderately limited)	0.60
75432: Batcave-----	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)	1.00	Very limited seasonal wetness (very limited) small stones (moderately limited)	1.00 0.56	Very limited seasonal wetness (very limited) flooding (very limited)	1.00 1.00
Farewell-----	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) low strength (moderately limited)	1.00 0.50	Very limited seasonal wetness (very limited)	1.00	Very limited seasonal wetness (very limited) flooding (very limited) low strength (moderately limited)	1.00 1.00 0.50
75433: Racket-----	Not limited	0.00	Not limited	0.00	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00	Moderately limited flooding (moderately limited) low strength (moderately limited)	0.60 0.50
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99002: Borrow areas---	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
70022: 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	0.00
70025: Branson-----	Slightly limited slope/erodibility (slightly limited)	0.17	Slightly limited slope/erodibility (slightly limited)	0.04	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
Splitlimb-----	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 0.25	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.25	Not limited	0.00
70026: Tonti-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00
71250: Britwater-----	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	0.00
73000: Pomme-----	Moderately limited slope/erodibility (moderately limited)	0.44	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	0.00

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
73013: Lowassie-----	Slightly limited slope/erodibility (slightly limited)	0.11	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) seasonally ponded (limited) low strength (moderately limited)	1.00 0.80 0.50	Very limited seasonal wetness (very limited)	1.00
73017: Bendavis-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.65	Slightly limited seasonal wetness (slightly limited)	0.10	Very limited slope (very limited) seasonal wetness (slightly limited)	1.00 0.10	Very limited droughty (very limited) soil reaction (slightly limited)	1.00 0.18
Poynor-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited	0.00	Very limited slope (very limited)	1.00	Limited droughty (limited)	0.84
73023: Mano-----	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	0.00
Ocie-----	Moderately limited slope/erodibility (moderately limited)	0.31	Slightly limited slope/erodibility (slightly limited)	0.10	Slightly limited seasonal wetness (slightly limited)	0.10	Moderately limited slippage potential (moderately limited) seasonal wetness (slightly limited)	0.50 0.10	Not limited	0.00
73024: Mano-----	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) slippage potential (moderately limited) seasonal wetness (slightly limited)	0.76 0.50 0.10	Not limited	0.00

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
73024: Ocie-----	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) slippage potential (moderately limited) seasonal wetness (slightly limited)	0.76 0.50 0.10	Not limited	0.00
73051: Winnipeg-----	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	0.00
73054: Viburnum-----	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	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.26	Not limited	0.00
73063: Bendavis-----	Moderately limited slope/erodibility (moderately limited)	0.31	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	Very limited droughty (very limited)	1.00
Poynor-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.10	Not limited	0.00	Not limited	0.00	Moderately limited droughty (moderately limited)	0.57
73068: Tick-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited	0.00	Limited slope (limited)	0.76	Not limited	0.00



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
73069: Tick-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited	0.00	Very limited slope (very limited) slippage potential (limited)	1.00 0.90	Not limited	0.00
73073: Scholten-----	Limited slope/erodibility (limited)	0.75	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	Limited droughty (limited)	0.84
Poynor-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited	0.00	Limited slope (limited)	0.76	Limited droughty (limited)	0.84
73076: Mano-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Slightly limited seasonal wetness (slightly limited)	0.10	Very limited slope (very limited) slippage potential (moderately limited) seasonal wetness (slightly limited)	1.00 0.50 0.10	Not limited	0.00
Ocie-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Slightly limited seasonal wetness (slightly limited)	0.10	Very limited slope (very limited) slippage potential (moderately limited) seasonal wetness (slightly limited)	1.00 0.50 0.10	Not limited	0.00
73077: Eudy-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.12	Limited low strength (limited) seasonal wetness (moderately limited)	0.80 0.49	Moderately limited low strength (moderately limited) seasonal wetness (moderately limited)	0.50 0.49	Moderately limited seasonal wetness (moderately limited)	0.39

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
73080:										
Alred-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.53	Not limited	0.00	Very limited slope (very limited)	1.00	Slightly limited droughty (slightly limited)	0.12
Bardley-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.63	Not limited	0.00	Very limited slope (very limited)	1.00	Slightly limited droughty (slightly limited)	0.30
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73176:										
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	0.00
Poynor-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited	0.00	Limited slope (limited)	0.76	Not limited	0.00
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	0.00
73198:										
Gressy-----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
Viraton-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00

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
73199: Moko-----	Moderately limited slope/erodibility (moderately limited)	0.35	Slightly limited slope/erodibility (slightly limited)	0.18	Not limited	0.00	Moderately limited slippage potential (moderately limited) slope (moderately limited)	0.50 0.45	Limited droughty (limited)	0.90
Rock outcrop--	Not rated		Not rated		Not rated		Not rated		Not rated	
73221: Poynor-----	Limited slope/erodibility (limited)	0.94	Slightly limited slope/erodibility (slightly limited)	0.29	Not limited	0.00	Limited slope (limited)	0.99	Limited droughty (limited)	0.84
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	Very limited seasonal wetness (very limited)	1.00
73223: Coulstone-----	Limited slope/erodibility (limited)	0.96	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited	0.00	Very limited slope (very limited) surface stones (limited) large surface stones (moderately limited)	1.00 0.66 0.52	Limited droughty (limited)	0.88
Bender-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.59	Not limited	0.00	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

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
73226: Ocie-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.18	Slightly limited seasonal wetness (slightly limited)	0.10	Moderately limited slippage potential (moderately limited) slope (moderately limited) seasonal wetness (slightly limited)	0.50 0.45 0.10	Not limited	0.00
Gatewood-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.18	Slightly limited seasonal wetness (slightly limited)	0.15	Moderately limited slope (moderately limited) seasonal wetness (slightly limited)	0.45 0.15	Not limited	0.00
73227: Ocie-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.65	Slightly limited seasonal wetness (slightly limited)	0.10	Very limited slope (very limited) slippage potential (moderately limited) seasonal wetness (slightly limited)	1.00 0.50 0.10	Not limited	0.00
Gatewood-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.65	Slightly limited seasonal wetness (slightly limited)	0.15	Very limited slope (very limited) seasonal wetness (slightly limited)	1.00 0.15	Not limited	0.00
73230: Coulstone-----	Limited slope/erodibility (limited)	0.96	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited	0.00	Very limited slope (very limited) surface stones (limited) large surface stones (moderately limited)	1.00 0.66 0.52	Very limited droughty (very limited)	1.00

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
73230: Bender-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.59	Not limited	0.00	Very limited slope (very limited) slippage potential (moderately limited) surface stones (moderately limited)	1.00 0.50 0.41	Very limited droughty (very limited)	1.00
Gatewood-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.78	Slightly limited seasonal wetness (slightly limited)	0.15	Very limited slope (very limited) very sandy (surface) (moderately limited) seasonal wetness (slightly limited)	1.00 0.50 0.15	Not limited	0.00
73231: Wasola-----	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 0.20	Moderately limited slippage potential (moderately limited) low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.50 0.20	Not limited	0.00
73235: Alred-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.53	Not limited	0.00	Very limited slope (very limited)	1.00	Slightly limited droughty (slightly limited)	0.12
73236: Scholten-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.12	Slightly limited seasonal wetness (slightly limited)	0.28	Slightly limited seasonal wetness (slightly limited)	0.28	Moderately limited droughty (moderately limited)	0.50
Poynor-----	Moderately limited slope/erodibility (moderately limited)	0.31	Slightly limited slope/erodibility (slightly limited)	0.10	Not limited	0.00	Not limited	0.00	Not limited	0.00

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
73240: Jerktail-----	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	0.00
73242: Fanchon-----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.08	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
Tonti-----	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 0.27	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.27	Not limited	0.00
73243: Topazmill-----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
73245: Alred-----	Moderately limited slope/erodibility (moderately limited)	0.31	Slightly limited slope/erodibility (slightly limited)	0.10	Not limited	0.00	Moderately limited slippage potential (moderately limited)	0.50	Not limited	0.00
73246: Alred-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited	0.00	Limited slope (limited) slippage potential (moderately limited)	0.76 0.50	Not limited	0.00
73247: Alred-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited	0.00	Very limited slope (very limited)	1.00	Slightly limited droughty (slightly limited)	0.12

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
73248:										
Alred-----	Moderately limited slope/erodibility (moderately limited)	0.46	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited	0.00	Limited slope (limited)	0.76	Slightly limited droughty (slightly limited)	0.12
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	Moderately limited droughty (moderately limited)	0.50
73249:										
Alred-----	Limited slope/erodibility (limited)	0.96	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited	0.00	Very limited slope (very limited)	1.00	Slightly limited droughty (slightly limited)	0.12
Ocie-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Slightly limited seasonal wetness (slightly limited)	0.10	Very limited slope (very limited) slippage potential (moderately limited) seasonal wetness (slightly limited)	1.00 0.50 0.10	Not limited	0.00
Bendavis-----	Very limited slope/erodibility (very limited)	1.00	Limited slope/erodibility (limited)	0.65	Slightly limited seasonal wetness (slightly limited)	0.10	Very limited slope (very limited) seasonal wetness (slightly limited)	1.00 0.10	Not limited	0.00
73295:										
Taterhill-----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
73296:										
Yelton-----	Limited slope/erodibility (limited)	0.67	Slightly limited slope/erodibility (slightly limited)	0.15	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.28	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.28	Not limited	0.00

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
73296:										
Topazmill-----	Limited slope/erodibility (limited)	0.78	Slightly limited slope/erodibility (slightly limited)	0.14	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited) slope (slightly limited)	0.50 0.15	Not limited	0.00
Lily-----	Limited slope/erodibility (limited)	0.89	Slightly limited slope/erodibility (slightly limited)	0.16	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited) slope (moderately limited)	0.50 0.31	Not limited	0.00
73297:										
Poynor-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited	0.00	Very limited slope (very limited)	1.00	Limited droughty (limited)	0.84
Scholten-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Limited low strength (limited) seasonal wetness (slightly limited)	0.80 0.20	Very limited slope (very limited) slippage potential (moderately limited) low strength (moderately limited)	1.00 0.50 0.50	Not limited	0.00
73298:										
Tonti-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00
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	0.00
73299:										
Plato-----	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 low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.29	Not limited	0.00



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
73299: Jerktail-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00
73300: Macedonia-----	Moderately limited slope/erodibility (moderately limited)	0.56	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
73301: Tick-----	Moderately limited slope/erodibility (moderately limited)	0.31	Slightly limited slope/erodibility (slightly limited)	0.10	Not limited	0.00	Not limited	0.00	Not limited	0.00
73302: Kenaga-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00
73303: Kenaga-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00
Egyptgrove----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
73304: Kenaga-----	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	0.00

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
73304: Egyptgrove-----	Very limited slope/erodibility (very limited)	1.00	Slightly limited slope/erodibility (slightly limited)	0.29	Limited low strength (limited)	0.80	Limited slope (limited) low strength (moderately limited)	0.76 0.50	Not limited	0.00
Tonti-----	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	0.00
73305: Egyptgrove-----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
73306: Gressy-----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.10	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
Gatewood-----	Moderately limited slope/erodibility (moderately limited)	0.44	Slightly limited slope/erodibility (slightly limited)	0.08	Slightly limited seasonal wetness (slightly limited)	0.15	Slightly limited seasonal wetness (slightly limited)	0.15	Not limited	0.00
73307: Gressy-----	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	0.00
Viraton-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00

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
73308: Grandgulf-----	Slightly limited slope/erodibility (slightly limited)	0.17	Slightly limited slope/erodibility (slightly limited)	0.04	Limited low strength (limited)	0.80	Limited seasonally ponded (limited) low strength (moderately limited)	0.80 0.50	Not limited	0.00
73309: Clarksville----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.39	Not limited	0.00	Very limited slope (very limited) slippage potential (limited)	1.00 0.90	Not limited	0.00
Bendavis-----	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 slope (very limited) seasonal wetness (slightly limited)	1.00 0.10	Moderately limited droughty (moderately limited)	0.50
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	Moderately limited droughty (moderately limited)	0.50
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	Moderately limited droughty (moderately limited)	0.50
Poynor-----	Slightly limited slope/erodibility (slightly limited)	0.25	Slightly limited slope/erodibility (slightly limited)	0.08	Not limited	0.00	Not limited	0.00	Not limited	0.00
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	Moderately limited droughty (moderately limited)	0.50

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
73311:										
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	Moderately limited droughty (moderately limited)	0.50
Poynor-----	Limited slope/erodibility (limited)	0.75	Slightly limited slope/erodibility (slightly limited)	0.24	Not limited	0.00	Limited slope (limited)	0.76	Limited droughty (limited)	0.84
73312:										
Alred-----	Moderately limited slope/erodibility (moderately limited)	0.31	Slightly limited slope/erodibility (slightly limited)	0.10	Not limited	0.00	Not limited	0.00	Slightly limited droughty (slightly limited)	0.10
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	Moderately limited droughty (moderately limited)	0.50
73313:										
Fanchon-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.04	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
Tonti-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00
73314:										
Tanglenook-----	Slightly limited slope/erodibility (slightly limited)	0.11	Slightly limited slope/erodibility (slightly limited)	0.02	Limited seasonal wetness (limited) low strength (limited)	0.95 0.80	Limited seasonal wetness (limited) low strength (moderately limited)	0.95 0.50	Limited seasonal wetness (limited)	0.95

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
73315: Deible-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.05	Limited seasonal wetness (limited) low strength (limited)	0.95 0.80	Limited seasonal wetness (limited) low strength (moderately limited)	0.95 0.50	Limited seasonal wetness (limited)	0.95
73316: Clarksville----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.45	Not limited	0.00	Very limited slope (very limited) slippage potential (limited)	1.00 0.90	Not limited	0.00
Tick-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Not limited	0.00	Very limited slope (very limited) slippage potential (limited)	1.00 0.90	Not limited	0.00
Mano-----	Very limited slope/erodibility (very limited)	1.00	Moderately limited slope/erodibility (moderately limited)	0.49	Slightly limited seasonal wetness (slightly limited)	0.10	Very limited slope (very limited) slippage potential (moderately limited) seasonal wetness (slightly limited)	1.00 0.50 0.10	Not limited	0.00
74626: Tanglenook----	Slightly limited slope/erodibility (slightly limited)	0.11	Slightly limited slope/erodibility (slightly limited)	0.02	Limited low strength (limited) seasonal wetness (limited)	0.80 0.76	Limited seasonal wetness (limited) low strength (moderately limited)	0.76 0.50	Limited seasonal wetness (limited)	0.76
74627: Hartville-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00

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
74648: Aslinger-----	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 0.20	Moderately limited low strength (moderately limited) seasonal wetness (slightly limited)	0.50 0.20	Not limited	0.00
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	0.00	Not limited	0.00
74677: Deible-----	Slightly limited slope/erodibility (slightly limited)	0.09	Slightly limited slope/erodibility (slightly limited)	0.02	Limited seasonal wetness (limited) low strength (limited)	0.95 0.80	Limited seasonal wetness (limited) low strength (moderately limited)	0.95 0.50	Limited seasonal wetness (limited)	0.95
74679: Higdon-----	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	0.00
74681: Lostpond-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.04	Limited low strength (limited) seasonal wetness (moderately limited)	0.80 0.45	Moderately limited low strength (moderately limited) seasonal wetness (moderately limited)	0.50 0.45	Moderately limited seasonal wetness (moderately limited)	0.31
74690: Moniteau-----	Slightly limited slope/erodibility (slightly limited)	0.11	Slightly limited slope/erodibility (slightly limited)	0.02	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)	0.22	Slightly limited slope/erodibility (slightly limited)	0.05	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00

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
75390: Razort-----	Slightly limited slope/erodibility (slightly limited)	0.17	Slightly limited slope/erodibility (slightly limited)	0.04	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
75408: Secesh-----	Slightly limited slope/erodibility (slightly limited)	0.22	Slightly limited slope/erodibility (slightly limited)	0.04	Limited low strength (limited)	0.80	Moderately limited low strength (moderately limited)	0.50	Not limited	0.00
75417: Relfe-----	Slightly limited slope/erodibility (slightly limited)	0.12	Slightly limited slope/erodibility (slightly limited)	0.04	Not limited	0.00	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
75418: Tilk-----	Slightly limited slope/erodibility (slightly limited)	0.06	Slightly limited slope/erodibility (slightly limited)	0.02	Not limited	0.00	Moderately limited slippage potential (moderately limited)	0.50	Moderately limited droughty (moderately limited)	0.31
75420: Secesh-----	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
Tilk-----	Slightly limited slope/erodibility (slightly limited)	0.08	Slightly limited slope/erodibility (slightly limited)	0.04	Not limited	0.00	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited) droughty (moderately limited)	0.60 0.31
75423: Cedargap-----	Slightly limited slope/erodibility (slightly limited)	0.06	Slightly limited slope/erodibility (slightly limited)	0.02	Not limited	0.00	Moderately limited flooding (moderately limited)	0.60	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
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
75433: Racket-----	Slightly limited slope/erodibility (slightly limited)	0.06	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
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99002: Borrow areas---	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
70022: 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	---
70025: Branson-----	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
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
70026: 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	---
71250: Britwater-----	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	---
73000: Pomme-----	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	---
73013: Lowassie-----	Buttonbush, ninebark	Possumhaw, sandbar willow	Black willow, bur oak, green hawthorn	Bald cypress, green ash, pecan, red maple, swamp white oak, sweetgum	Eastern cottonwood, silver maple
73017: 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	---

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
73023: Mano-----	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	---
Ocie-----	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	---
73024: Mano-----	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	---
Ocie-----	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	---
73051: Winnipeg-----	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
73054: 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	---
73063: 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	---
73068: Tick-----	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
73069: Tick-----	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	---
73073: 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	---
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	---
73076: Mano-----	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	---
Ocie-----	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	---
73077: Eudy-----	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	---
73080: Alred-----	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	---
Bardley-----	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	---
Rock outcrop.					
73176: 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
73176: 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	---
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	---
73198: Gressy-----	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	---
Viraton-----	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	---
73199. Moko  Rock outcrop					
73221: 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	---
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	---
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	---

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
73226: Ocie-----	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	---
Gatewood-----	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	---
73227: Ocie-----	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	---
Gatewood-----	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	---
73230: 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	---
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	---
Gatewood-----	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	---
73231: Wasola-----	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	---
73235: Alred-----	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
73236: 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	---
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	---
73240: Jerktail-----	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	---
73242: Fanchon-----	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	---
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	---
73243: Topazmill-----	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	---
73245: Alred-----	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	---
73246: Alred-----	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	---
73247: Alred-----	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
73248: Alred-----	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	---
73249: Alred-----	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	---
Ocie-----	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	---
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	---
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	---
73296: 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	---
Topazmill-----	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	---
Lily-----	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	---
73297: 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	---

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
73297: 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	---
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	---
73299: Plato-----	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	---
Jerktail-----	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	---
73300: Macedonia-----	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	---
73301: Tick-----	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	---
73302: Kenaga-----	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	---
73303: Kenaga-----	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	---



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
73303: Egyptgrove-----	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	---
73304: Kenaga-----	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	---
Egyptgrove-----	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	---
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	---
73305: Egyptgrove-----	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	---
73306: Grassy-----	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	---
Gateway-----	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	---
73307: Grassy-----	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	---
Viraton-----	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
73308: Grandgulf-----	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
73309: Clarksville-----	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	---
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	---
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	---

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
73312: Alred-----	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	---
73313: Fanchon-----	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	---
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	---
73314: Tanglenook-----	Buttonbush, ninebark	Possumhaw, sandbar willow	Black willow, bur oak, green hawthorn	Bald cypress, green ash, pecan, red maple, swamp white oak, sweetgum	Eastern cottonwood, silver maple
73315: Deible-----	Buttonbush, ninebark	Possumhaw, sandbar willow	Black willow, bur oak, green hawthorn	Bald cypress, green ash, pecan, red maple, swamp white oak, sweetgum	Eastern cottonwood, silver maple
73316: Clarksville-----	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	---
Tick-----	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	---
Mano-----	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	---
74626: Tanglenook-----	Buttonbush, ninebark	Possumhaw, sandbar willow	Black willow, bur oak, green hawthorn	Bald cypress, 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
74627: Hartville-----	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	---
74648: Aslinger-----	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	---
74658: Zanoni-----	Coralberry, flameleaf sumac	Eastern redcedar, gray dogwood, jack pine	Chinkapin oak, persimmon, post oak	Black oak, honeylocust	---
74677: Deible-----	Buttonbush, ninebark	Possumhaw, sandbar willow	Black willow, bur oak, green hawthorn	Bald cypress, green ash, pecan, red maple, swamp white oak, sweetgum	Eastern cottonwood, silver maple
74679: Higdon-----	Buttonbush, ninebark	Possumhaw, sandbar willow	Black willow, bur oak, green hawthorn	Bald cypress, green ash, pecan, red maple, swamp white oak, sweetgum	Eastern cottonwood, silver maple
74681: Lostpond-----	Buttonbush, ninebark	Possumhaw, sandbar willow	Black willow, bur oak, green hawthorn	Bald cypress, green ash, pecan, red maple, swamp white oak, sweetgum	Eastern cottonwood, silver maple
74690: Moniteau-----	Buttonbush, ninebark	Possumhaw, sandbar willow	Black willow, bur oak, green hawthorn	Bald cypress, green ash, pecan, red maple, swamp white oak, sweetgum	Eastern cottonwood, silver maple
75381: Bearthicket-----	American hazelnut, ninebark, wild hydrangea	American plum, blue spruce, possumhaw, roughleaf dogwood	Arborvitae, bur oak, green hawthorn, shingle oak	Austrian pine, bald cypress, hackberry, pin oak, red maple	American sycamore, eastern cottonwood, eastern white pine
75390: Razort-----	American hazelnut, ninebark, wild hydrangea	American plum, blue spruce, possumhaw, roughleaf dogwood	Arborvitae, bur oak, green hawthorn, shingle oak	Austrian pine, bald cypress, hackberry, pin oak, red maple	American sycamore, eastern cottonwood, eastern white pine
75408: Secesh-----	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
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	---
75418: Tilk-----	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	---
75420: Secesh-----	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	---
Tilk-----	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	---
75423: Cedargap-----	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	---
75432: Batcave-----	Buttonbush, ninebark	Possumhaw, sandbar willow	Black willow, bur oak, green hawthorn	Bald cypress, 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	Bald cypress, green ash, pecan, red maple, swamp white oak, sweetgum	Eastern cottonwood, silver maple
75433: Racket-----	American hazelnut, ninebark, wild hydrangea	American plum, blue spruce, possumhaw, roughleaf dogwood	Arborvitae, bur oak, green hawthorn, shingle oak	Austrian pine, bald cypress, hackberry, pin oak, red maple	American sycamore, eastern cottonwood, eastern white pine
99001. Water					
99002. Borrow areas					

Table 10.--Recreation 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
70022: 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
70025: Branson-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
Splitlimb-----	Limited wetness (limited)	0.75	Moderately limited wetness (moderately limited)	0.45	Limited wetness (limited)	0.75	Moderately limited wetness (moderately limited)	0.45
70026: 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) wetness (moderately limited) small stones (moderately limited)	1.00  0.50  0.31	Slightly limited wetness (slightly limited)	0.28
71250: Britwater-----	Limited flooding (rare) (limited)	0.90	Not limited	0.00	Not limited	0.00	Not limited	0.00
73000: Pomme-----	Not limited	0.00	Not limited	0.00	Moderately limited slope (moderately limited)	0.40	Not limited	0.00
73013: Lowassie-----	Very limited ponded (wetness) (very limited) wetness (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited ponded (wetness) (very limited) wetness (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited ponded (wetness) (very limited) wetness (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited ponded (wetness) (very limited) wetness (very limited)	1.00  1.00
73017: Bendavis-----	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	Very limited slope (very limited) large surface stones (limited) small stones (limited)	1.00  0.70  0.67

Table 10.--Recreation 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
73017: Poynor-----	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	small stones (limited)	0.73
	large surface stones (moderately limited)	0.31	large surface stones (moderately limited)	0.31	too acid (slightly limited)	0.30	large surface stones (moderately limited)	0.31
73023: Mano-----	Moderately limited small stones (moderately limited)	0.48	Moderately limited small stones (moderately limited)	0.48	Very limited small stones (very limited)	1.00	Not limited	0.00
	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	slope (limited)	0.78		
					percs slowly (moderately limited)	0.39		
Ocie-----	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Slightly limited small stones (slightly limited)	0.30
	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	slope (limited)	0.78		
					percs slowly (moderately limited)	0.39		
73024: Mano-----	Very limited small stones (limited)	1.00	Very limited small stones (limited)	1.00	Very limited slope (very limited)	1.00	Moderately limited large surface stones (moderately limited)	0.31
	slope (limited)	0.63	slope (limited)	0.63	small stones (very limited)	1.00	small stones (slightly limited)	0.01
	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39		
Ocie-----	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Moderately limited large surface stones (moderately limited)	0.31
	slope (limited)	0.63	slope (limited)	0.63	slope (very limited)	1.00	small stones (slightly limited)	0.30
	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39		
73051: Winnipeg-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
73054: Viburnum-----	Limited wetness (limited)	0.81	Moderately limited wetness (moderately limited)	0.49	Limited wetness (limited)	0.81	Moderately limited wetness (moderately limited)	0.49
	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13		
					small stones (slightly limited)	0.00		
73063: Bendavis-----	Moderately limited small stones (moderately limited)	0.33	Moderately limited small stones (moderately limited)	0.33	Very limited small stones (very limited)	1.00	Not limited	0.00
					slope (limited)	0.78		
					depth to bedrock (slightly limited)	0.27		

Table 10.--Recreation 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
73063: Poynor-----	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Very limited small stones (very limited) slope (limited)	1.00  0.78	Limited small stones (limited)	0.67
73068: Tick-----	Limited slope (limited) percs slowly (slightly limited) too acid (slightly limited)	0.63  0.26  0.06	Limited slope (limited) percs slowly (slightly limited) too acid (slightly limited)	0.63  0.26  0.06	Very limited slope (very limited) small stones (moderately limited) percs slowly (slightly limited)	1.00  0.31  0.26	Not limited	0.00
73069: Tick-----	Very limited slope (very limited) small stones (very limited) percs slowly (slightly limited)	1.00  1.00  0.26	Very limited slope (very limited) small stones (very limited) percs slowly (slightly limited)	1.00  1.00  0.26	Very limited small stones (very limited) slope (very limited) percs slowly (slightly limited)	1.00  1.00  0.26	Limited small stones (limited) slope (limited) large surface stones (slightly limited)	0.94  0.92  0.07
73073: 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  0.30
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	Moderately limited small stones (moderately limited)	0.60
73076: Mano-----	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Limited slope (limited) small stones (slightly limited)	0.92  0.30
Ocie-----	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Limited slope (limited) small stones (slightly limited)	0.92  0.30



Table 10.--Recreation 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
73077: Eudy-----	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.86	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.86
	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	small stones (very limited)	1.00		
	small stones (moderately limited)	0.33	small stones (moderately limited)	0.33	slope (limited)	0.78		
73080: 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
	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	percs slowly (moderately limited)	0.39	large surface stones (moderately limited)	0.60
	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	small stones (slightly limited)	0.00		
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
	small stones (limited)	0.71	small stones (limited)	0.71	large stones >25% (very limited)	1.00	large surface stones (moderately limited)	0.60
	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	small stones (very limited)	1.00	large stones (slightly limited)	0.17
Rock outcrop-----	Not rated		Not rated		Not rated		Not rated	
73176: Bendavis-----	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Moderately limited small stones (moderately limited)	0.60
	slope (limited)	0.63	slope (limited)	0.63	slope (very limited)	1.00	large surface stones (slightly limited)	0.13
	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	depth to bedrock (moderately limited)	0.58		
Poynor-----	Very limited small stones (limited)	1.00	Very limited small stones (limited)	1.00	Very limited small stones (very limited)	1.00	Slightly limited large surface stones (slightly limited)	0.13
	slope (limited)	0.63	slope (limited)	0.63	slope (very limited)	1.00	small stones (slightly limited)	0.01
	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13				
73197: Viburnum-----	Limited wetness (limited)	0.96	Limited wetness (limited)	0.61	Limited wetness (limited)	0.96	Limited wetness (limited)	0.61
	percs slowly (slightly limited)	0.13	percs slowly (slightly limited)	0.13	slope (moderately limited)	0.40		
					percs slowly (slightly limited)	0.13		
73198: Gressy-----	Not limited	0.00	Not limited	0.00	Moderately limited slope (moderately limited)	0.40	Not limited	0.00
					small stones (slightly limited)	0.00		

Table 10.--Recreation 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
73198: Viraton-----	Very limited percs slowly (very limited) wetness (moderately limited) too acid (slightly limited)	1.00  0.50  0.12	Very limited percs slowly (very limited) wetness (slightly limited) too acid (slightly limited)	1.00  0.28  0.12	Very limited percs slowly (very limited) wetness (moderately limited) slope (moderately limited)	1.00  0.50  0.40	Slightly limited wetness (slightly limited)	0.28
73199: Moko-----	Limited shallow to bedrock (limited) large stones (limited) small stones (moderately limited)	0.90  0.61  0.48	Limited shallow to bedrock (limited) large stones (limited) small stones (moderately limited)	0.90  0.61  0.48	Very limited large stones >25% (very limited) shallow to bedrock (very limited) small stones (very limited)	1.00  1.00  1.00	Limited large stones (limited) large surface stones (moderately limited)	0.61  0.37
Rock outcrop-----	Not rated		Not rated		Not rated		Not rated	
73221: Poynor-----	Very limited small stones (very limited) slope (very limited) large surface stones (moderately limited)	1.00  1.00  0.31	Very limited small stones (very limited) slope (very limited) large surface stones (moderately limited)	1.00  1.00  0.31	Very limited small stones (very limited) slope (very limited) too acid (slightly limited)	1.00  1.00  0.30	Limited small stones (limited) large surface stones (moderately limited) slope (slightly limited)	0.81  0.31  0.08
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
73223: Coulstone-----	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) small stones (very limited) large surface stones (very limited)	1.00  1.00  1.00	Very limited small stones (very limited) slope (very limited)	1.00  1.00	Very limited large surface stones (very limited) slope (limited) small stones (moderately limited)	1.00  0.92  0.60
Bender-----	Very limited slope (very limited) small stones (moderately limited) large stones (moderately limited)	1.00  0.52  0.48	Very limited slope (very limited) small stones (moderately limited) large stones (moderately limited)	1.00  0.52  0.48	Very limited slope (very limited) small stones (very limited) large stones >25% (very limited)	1.00  1.00  1.00	Very limited slope (very limited) large stones (moderately limited) large surface stones (moderately limited)	1.00  0.48  0.43
73226: Ocic-----	Very limited small stones (very limited) percs slowly (moderately limited) slope (slightly limited)	1.00  0.39  0.04	Very limited small stones (very limited) percs slowly (moderately limited) slope (slightly limited)	1.00  0.39  0.04	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Slightly limited small stones (slightly limited)	0.30

Table 10.--Recreation 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
73226:								
Gatewood-----	Very limited small stones (very limited) percs slowly (moderately limited) wetness (moderately limited)	1.00  0.39  0.35	Very limited small stones (very limited) percs slowly (moderately limited) wetness (slightly limited)	1.00  0.39  0.13	Very limited small stones (very limited) slope (very limited) depth to bedrock (moderately limited)	1.00  1.00  0.46	Slightly limited small stones (slightly limited) wetness (slightly limited)	0.30  0.13
73227:								
Ocie-----	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited slope (very limited) small stones (slightly limited)	1.00  0.30
Gatewood-----	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited slope (very limited) small stones (moderately limited) wetness (slightly limited)	1.00  0.45  0.13
73230:								
Coulstone-----	Very limited slope (very limited) large surface stones (very limited) large stones (limited)	1.00  1.00  0.61	Very limited slope (very limited) large surface stones (very limited) large stones (limited)	1.00  1.00  0.61	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 (limited)	1.00  0.92  0.61
Bender-----	Very limited slope (very limited) small stones (limited) large surface stones (moderately limited)	1.00  0.81  0.43	Very limited slope (very limited) small stones (limited) large surface stones (moderately limited)	1.00  0.81  0.43	Very limited slope (very limited) small stones (very limited) large stones >25% (very limited)	1.00  1.00  1.00	Very limited slope (very limited) large surface stones (moderately limited) large stones (slightly limited)	1.00  0.43  0.19
Gatewood-----	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited small stones (very limited) slope (very limited) depth to bedrock (moderately limited)	1.00  1.00  0.46	Very limited small stones (very limited) slope (very limited) wetness (slightly limited)	1.00  1.00  0.13
73231:								
Wasola-----	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	Moderately limited wetness (moderately limited) slope (moderately limited)	0.50  0.40	Slightly limited wetness (slightly limited)	0.28

Table 10.--Recreation 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
73235: Alred-----	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00  1.00  1.00  0.39	Very limited slope (very limited) small stones (limited)	1.00   0.87
73236: Scholten-----	Very limited percs slowly (very limited) wetness (limited) small stones (limited)	1.00  0.90  0.73	Very limited percs slowly (very limited) small stones (limited) wetness (moderately limited)	1.00  0.73  0.56	Very limited percs slowly (very limited) small stones (very limited) slope (limited)	1.00  1.00  1.00  0.98	Moderately limited wetness (moderately limited)	0.56
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 (limited) too acid (slightly limited)	1.00  0.78  0.12	Limited small stones (limited)	0.67
73240: Jerktail-----	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)	0.78  0.50  0.39	Slightly limited wetness (slightly limited)	0.28
73242: Fanchon-----	Not limited	0.00	Not limited	0.00	Moderately limited slope (moderately limited)	0.40	Not limited	0.00
Tonti-----	Very limited percs slowly (very limited) wetness (limited)	1.00  0.84	Very limited percs slowly (very limited) wetness (moderately limited)	1.00  0.51	Very limited percs slowly (very limited) wetness (limited) slope (moderately limited)	1.00  0.84  0.40	Moderately limited wetness (moderately limited)	0.51
73243: Topazmill-----	Not limited	0.00	Not limited	0.00	Moderately limited slope (moderately limited)	0.40	Not limited	0.00
73245: Alred-----	Very limited small stones (very limited) percs slowly (moderately limited)	1.00  0.39	Very limited small stones (very limited) percs slowly (moderately limited)	1.00  0.39	Very limited small stones (very limited) slope (limited) percs slowly (moderately limited)	1.00  0.78  0.39	Slightly limited small stones (slightly limited)	0.30

Table 10.--Recreation 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
73246: Alred-----	Very limited small stones (very limited) slope (limited) percs slowly (moderately limited)	1.00  0.63  0.39	Very limited small stones (very limited) slope (limited) percs slowly (moderately limited)	1.00  0.63  0.39	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Moderately limited small stones (moderately limited)	0.60
73247: Alred-----	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Limited slope (limited) small stones (limited)	0.92  0.90
73248: Alred-----	Very limited small stones (very limited) percs slowly (limited) slope (limited)	1.00  0.70  0.63	Very limited small stones (very limited) percs slowly (limited) slope (limited)	1.00  0.70  0.63	Very limited small stones (very limited) slope (very limited) percs slowly (limited)	1.00  1.00  0.70	Limited small stones (limited) large surface stones (slightly limited)	0.77  0.13
Bendavis-----	Very limited small stones (very limited) slope (limited) large surface stones (slightly limited)	1.00  0.63  0.13	Very limited small stones (very limited) slope (limited) large surface stones (slightly limited)	1.00  0.63  0.13	Very limited small stones (very limited) slope (very limited) depth to bedrock (moderately limited)	1.00  1.00  0.58	Moderately limited small stones (moderately limited) large surface stones (slightly limited)	0.60  0.13
73249: Alred-----	Very limited slope (very limited) small stones (limited) large stones (limited)	1.00  0.64  0.61	Very limited slope (very limited) small stones (limited) large stones (limited)	1.00  0.64  0.61	Very limited large stones >25% (very limited) slope (very limited) small stones (very limited)	1.00  1.00  1.00	Limited slope (limited) large stones (limited) large surface stones (slightly limited)	0.92  0.61  0.13
Ocie-----	Very limited slope (very limited) small stones (very limited) large surface stones (limited)	1.00  1.00  0.70	Very limited slope (very limited) small stones (very limited) large surface stones (limited)	1.00  1.00  0.70	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00  1.00  0.39	Limited slope (limited) large surface stones (limited) small stones (slightly limited)	0.92  0.70  0.30
Bendavis-----	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	Very limited slope (very limited) large surface stones (limited) small stones (limited)	1.00  0.70  0.67

Table 10.--Recreation 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
73295: Taterhill-----	Not limited	0.00	Not limited	0.00	Moderately limited slope (moderately limited)	0.40	Not limited	0.00
73296: Yelton-----	Very limited percs slowly (very limited) wetness (limited)	1.00 0.90	Very limited percs slowly (very limited) wetness (moderately limited)	1.00 0.56	Very limited percs slowly (very limited) slope (limited) wetness (limited)	1.00 0.98 0.90	Moderately limited wetness (moderately limited)	0.56
Topazmill-----	Not limited	0.00	Not limited	0.00	Very limited slope (very limited)	1.00	Not limited	0.00
Lily-----	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited) slope (very limited) depth to bedrock (limited)	1.00 1.00 0.76	Not limited	0.00
73297: Poynor-----	Very limited slope (very limited) large surface stones (moderately limited)	1.00 0.31	Very limited slope (very limited) large surface stones (moderately limited)	1.00 0.31	Very limited slope (very limited)	1.00	Limited slope (limited) large surface stones (moderately limited)	0.92 0.31
Scholten-----	Very limited slope (very limited) percs slowly (very limited) small stones (moderately limited)	1.00 1.00 0.57	Very limited slope (very limited) percs slowly (very limited) small stones (moderately limited)	1.00 1.00 0.57	Very limited slope (very limited) percs slowly (very limited) small stones (very limited)	1.00 1.00 1.00	Limited slope (limited) wetness (slightly limited)	0.92 0.28
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) wetness (moderately limited) slope (moderately limited)	1.00 0.50 0.40	Slightly limited wetness (slightly limited)	0.28
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

Table 10.--Recreation 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
73299: Plato-----	Very limited percs slowly (very limited) wetness (limited) too acid (slightly limited)	1.00  0.96  0.12	Very limited percs slowly (very limited) wetness (limited) too acid (slightly limited)	1.00  0.61  0.12	Very limited percs slowly (very limited) wetness (limited) too acid (slightly limited)	1.00  0.96  0.12	Limited wetness (limited)	0.61
Jerktail-----	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	Moderately limited wetness (moderately limited) percs slowly (moderately limited) small stones (slightly limited)	0.50  0.39  0.00	Slightly limited wetness (slightly limited)	0.28
73300: Macedonia-----	Not limited	0.00	Not limited	0.00	Limited slope (limited) small stones (moderately limited)	0.78  0.60	Not limited	0.00
73301: Tick-----	Slightly limited percs slowly (slightly limited) too acid (slightly limited)	0.26  0.06	Slightly limited percs slowly (slightly limited) too acid (slightly limited)	0.26  0.06	Limited slope (limited) small stones (moderately limited) percs slowly (slightly limited)	0.78  0.31  0.26	Not limited	0.00
73302: Kenaga-----	Limited percs slowly (limited) wetness (moderately limited)	0.86  0.50	Limited percs slowly (limited) wetness (slightly limited)	0.86  0.28	Limited percs slowly (limited) wetness (moderately limited) small stones (slightly limited)	0.86  0.50  0.00	Slightly limited wetness (slightly limited)	0.28
73303: Kenaga-----	Limited percs slowly (limited) wetness (moderately limited)	0.86  0.50	Limited percs slowly (limited) wetness (slightly limited)	0.86  0.28	Limited percs slowly (limited) wetness (moderately limited) slope (moderately limited)	0.86  0.50  0.40	Slightly limited wetness (slightly limited)	0.28
Egyptgrove-----	Limited percs slowly (limited) small stones (slightly limited)	0.86  0.12	Limited percs slowly (limited) small stones (slightly limited)	0.86  0.12	Very limited small stones (very limited) percs slowly (limited) slope (moderately limited)	1.00  0.86  0.40	Not limited	0.00

Table 10.--Recreation 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
73304: Kenaga-----	Limited percs slowly (limited) slope (limited) wetness (moderately limited)	0.86  0.63  0.50	Limited percs slowly (limited) slope (limited) wetness (slightly limited)	0.86  0.63  0.28	Very limited slope (very limited) percs slowly (limited) wetness (moderately limited)	1.00  0.86  0.50	Very limited erodes easily (very limited) wetness (slightly limited)	1.00  0.28
Egyptgrove-----	Limited percs slowly (limited) slope (limited)	0.86  0.63	Limited percs slowly (limited) slope (limited)	0.86  0.63	Very limited slope (very limited) percs slowly (limited) small stones (slightly limited)	1.00  0.86  0.00	Very limited erodes easily (very limited)	1.00
Tonti-----	Very limited percs slowly (very limited) slope (limited) wetness (moderately limited)	1.00  0.63  0.50	Very limited percs slowly (very limited) slope (limited) wetness (slightly limited)	1.00  0.63  0.28	Very limited percs slowly (very limited) slope (very limited) wetness (moderately limited)	1.00  1.00  1.00  0.50	Very limited erodes easily (very limited) wetness (slightly limited)	1.00  0.28
73305: Egyptgrove-----	Limited percs slowly (limited)	0.86	Limited percs slowly (limited)	0.86	Limited percs slowly (limited) slope (moderately limited) small stones (slightly limited)	0.86  0.40  0.00	Not limited	0.00
73306: Gressy-----	Not limited	0.00	Not limited	0.00	Moderately limited slope (moderately limited) small stones (slightly limited)	0.40  0.00	Not limited	0.00
Gatewood-----	Very limited small stones (very limited) percs slowly (moderately limited) wetness (moderately limited)	1.00  0.39  0.35	Very limited small stones (very limited) percs slowly (moderately limited) wetness (slightly limited)	1.00  0.39  0.13	Very limited small stones (very limited) depth to bedrock (moderately limited) slope (moderately limited)	1.00  0.46  0.40	Moderately limited small stones (moderately limited) wetness (slightly limited)	0.60  0.13
73307: Gressy-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
Viraton-----	Very limited percs slowly (very limited) wetness (moderately limited) too acid (slightly limited)	1.00  0.50  0.12	Very limited percs slowly (very limited) wetness (slightly limited) too acid (slightly limited)	1.00  0.28  0.12	Very limited percs slowly (very limited) wetness (moderately limited) too acid (slightly limited)	1.00  0.50  0.12	Slightly limited wetness (slightly limited)	0.28



Table 10.--Recreation 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
73308: Grandgulf-----	Very limited ponded (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
73309: Clarksville-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited small stones (very limited)	1.00	Limited small stones (limited)	0.73
	small stones (very limited)	1.00	small stones (very limited)	1.00	slope (very limited)	1.00	slope (moderately limited)	0.50
Bendavis-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited small stones (very limited)	1.00	Very limited slope (very limited)	1.00
	small stones (very limited)	1.00	small stones (very limited)	1.00	slope (very limited)	1.00	large surface stones (limited)	0.70
							small stones (limited)	0.67
73310: Scholten-----	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Very limited small stones (very limited)	1.00	Moderately limited wetness (moderately limited)	0.56
	small stones (very limited)	1.00	small stones (very limited)	1.00	percs slowly (very limited)	1.00	small stones (slightly limited)	0.30
	wetness (limited)	0.90	wetness (moderately limited)	0.56	wetness (limited)	0.90		
Bendavis-----	Moderately limited small stones (moderately limited)	0.33	Moderately limited small stones (moderately limited)	0.33	Very limited small stones (very limited)	1.00	Not limited	0.00
					slope (limited)	0.78		
					depth to bedrock (slightly limited)	0.27		
Poynor-----	Very limited small stones (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
	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	slope (moderately limited)	0.40		
					too acid (slightly limited)	0.12		
73311: Scholten-----	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Very limited slope (very limited)	1.00	Moderately limited wetness (moderately limited)	0.56
	wetness (limited)	0.90	small stones (limited)	0.73	percs slowly (very limited)	1.00		
	small stones (limited)	0.73	slope (limited)	0.63	small stones (very limited)	1.00		
Bendavis-----	Limited slope (limited)	0.63	Limited slope (limited)	0.63	Very limited slope (very limited)	1.00	Slightly limited large surface stones (slightly limited)	0.13
	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	depth to bedrock (moderately limited)	0.58		

Table 10.--Recreation 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: Poynor-----	Very limited small stones (limited) slope (limited) too acid (slightly limited)	1.00  0.63  0.12	Very limited small stones (limited) slope (limited) too acid (slightly limited)	1.00  0.63  0.12	Very limited slope (very limited) small stones (very limited) too acid (slightly limited)	1.00  1.00  1.00  0.12	Slightly limited small stones (slightly limited)	0.01
73312: Alred-----	Very limited small stones (very limited) percs slowly (moderately limited) too acid (slightly limited)	1.00  0.39  0.12	Very limited small stones (very limited) percs slowly (moderately limited) too acid (slightly limited)	1.00  0.39  0.12	Very limited small stones (very limited) slope (limited) percs slowly (moderately limited)	1.00  0.78  0.39	Limited small stones (limited)	0.73
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	0.00
73313: Fanchon-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
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) wetness (moderately limited) small stones (moderately limited)	1.00  0.50  0.31	Slightly limited wetness (slightly limited)	0.28
73314: Tanglenook-----	Very limited wetness (very limited) percs slowly (moderately limited)	1.00  0.39	Very limited wetness (very limited) percs slowly (moderately limited)	1.00  0.39	Very limited wetness (very limited) percs slowly (moderately limited)	1.00  0.39	Very limited wetness (very limited)	1.00
73315: Deible-----	Very limited wetness (very limited) percs slowly (limited)	1.00  0.86	Very limited wetness (very limited) percs slowly (limited)	1.00  0.86	Very limited wetness (very limited) percs slowly (limited)	1.00  0.86	Very limited wetness (very limited)	1.00
73316: Clarksville-----	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	Limited slope (limited) small stones (limited)	0.75  0.73

Table 10.--Recreation 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
73316:								
Tick-----	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00 1.00 0.34	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00 1.00 0.34	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00 1.00 0.34	Limited slope (limited) small stones (slightly limited) large surface stones (slightly limited)	0.92 0.30 0.07
Mano-----	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00 1.00 0.39	Very limited slope (very limited) small stones (very limited) percs slowly (moderately limited)	1.00 1.00 0.39	Very limited small stones (very limited) slope (very limited) percs slowly (moderately limited)	1.00 1.00 0.39	Limited slope (limited) small stones (slightly limited)	0.92 0.30
74626:								
Tanglenook-----	Very limited wetness (very limited) flooding (rare) (limited) percs slowly (moderately limited)	1.00 0.90 0.39	Very limited wetness (very limited) percs slowly (moderately limited)	1.00 0.39	Very limited wetness (very limited) percs slowly (moderately limited)	1.00 0.39	Very limited wetness (very limited)	1.00
74627:								
Hartville-----	Limited flooding (rare) (limited) wetness (moderately limited) percs slowly (moderately limited)	0.90 0.50 0.39	Moderately limited percs slowly (moderately limited) wetness (slightly limited)	0.39 0.28	Moderately limited wetness (moderately limited) percs slowly (moderately limited)	0.50 0.39	Slightly limited wetness (slightly limited)	0.28
74648:								
Aslinger-----	Very limited small stones (limited) wetness (moderately limited) percs slowly (slightly limited)	1.00 0.50 0.26	Very limited small stones (limited) wetness (slightly limited) percs slowly (slightly limited)	1.00 0.28 0.26	Very limited small stones (very limited) slope (limited) wetness (moderately limited)	1.00 0.78 0.50	Slightly limited wetness (slightly limited) small stones (slightly limited)	0.28 0.01
74658:								
Zanoni-----	Limited flooding (rare) (limited)	0.90	Not limited	0.00	Moderately limited small stones (moderately limited)	0.31	Not limited	0.00
74677:								
Deible-----	Very limited wetness (very limited) flooding (rare) (limited) percs slowly (limited)	1.00 0.90 0.86	Very limited wetness (very limited) percs slowly (limited)	1.00 0.86	Very limited wetness (very limited) percs slowly (limited)	1.00 0.86	Very limited wetness (very limited)	1.00

Table 10.--Recreation 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
74679: Higdon-----	Limited wetness (limited) flooding (rare) (limited)	0.96  0.90	Limited wetness (limited)	0.61	Limited wetness (limited)	0.96	Limited wetness (limited)	0.61
74681: Lostpond-----	Very limited wetness (very limited) flooding (rare) (limited)	1.00  0.90	Limited wetness (limited)	0.81	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.81
74690: 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	0.00	Not limited	0.00	Not limited	0.00
75390: Razort-----	Limited flooding (rare) (limited)	0.90	Not limited	0.00	Slightly limited small stones (slightly limited)	0.15	Not limited	0.00
75408: Secesh-----	Limited flooding (rare) (limited)	0.90	Not limited	0.00	Slightly limited large stones (slightly limited)	0.01	Not limited	0.00
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
75418: 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  0.01	Limited small stones (limited)	0.65
75420: Secesh-----	Very limited flooding (very limited)	1.00	Not limited	0.00	Moderately limited flooding (moderately limited)	0.60	Not limited	0.00

Table 10.--Recreation 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
75420: 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)	1.00  0.60	Slightly limited small stones (slightly limited)	0.30
75423: Cedargap-----	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)	1.00  0.60	Moderately limited small stones (moderately limited)	0.60
75432: Batcave-----	Very limited flooding (very limited) wetness (very limited) small stones (very limited)	1.00  1.00  1.00	Very limited wetness (very limited) small stones (very limited) flooding (moderately limited)	1.00  1.00  0.60	Very limited flooding (very limited) wetness (very limited) small stones (very limited)	1.00  1.00  1.00	Very limited wetness (very limited) flooding (moderately limited) small stones (moderately limited)	1.00  0.60  0.56
Farewell-----	Very limited flooding (very limited) wetness (very limited) small stones (moderately limited)	1.00  1.00  0.48	Very limited wetness (very limited) flooding (moderately limited) small stones (moderately limited)	1.00  0.60  0.48	Very limited flooding (very limited) small stones (very limited) wetness (very limited)	1.00  1.00  1.00	Very limited wetness (very limited) flooding (moderately limited)	1.00  0.60
75433: Racket-----	Very limited flooding (very limited)	1.00	Not limited	0.00	Moderately limited flooding (moderately limited) small stones (slightly limited)	0.60  0.00	Not limited	0.00
99001: Water-----	Not rated		Not rated		Not rated		Not rated	
99002: Borrow areas-----	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
70022: 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
70025: Branson-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited	0.00	Not limited	0.00	Not limited	0.00
Splitlimb-----	Moderately limited wetness (moderately limited) moderate erodibility (moderately limited)	0.53  0.50	Moderately limited wetness (moderately limited) moderate erodibility (moderately limited)	0.53  0.50	Moderately limited wetness (moderately limited)	0.53	Moderately limited wetness (moderately limited)	0.53	Limited wetness (limited)	0.79
70026: Tonti-----	Very limited percs slowly (very limited) droughty (limited) moderate erodibility (moderately limited)	1.00  0.90  0.50	Very limited percs slowly (very limited) moderate erodibility (moderately limited) wetness (moderately limited)	1.00  0.50  0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
71250: Britwater-----	Slightly limited droughty (slightly limited)	0.18	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00

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
73000: Pomme-----	Limited high erodibility (limited) droughty (slightly limited)	0.80 0.02	Limited high erodibility (limited)	0.80	Not limited	0.00	Not limited	0.00	Not limited	0.00
73013: Lowassie-----	Very limited wetness (very limited) ponded (wetness) (very limited) percs slowly (moderately limited)	1.00 1.00 0.39	Very limited wetness (very limited) ponded (wetness) (very limited) percs slowly (moderately limited)	1.00 1.00 0.39	Very limited wetness (very limited) seasonally ponded (limited)	1.00 0.80	Very limited wetness (very limited) seasonally ponded (limited)	1.00 0.80	Very limited wetness (very limited) seasonally ponded (limited)	1.00 0.80
73017: Bendavis-----	Very limited small stones (very limited) slope (limited)	1.00 0.91	Very limited small stones (very limited) slope (limited)	1.00 0.91	Limited small stones (limited) wetness (slightly limited)	0.67 0.28	Limited small stones (limited) wetness (slightly limited) depth to bedrock (slightly limited)	0.67 0.28 0.13	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited)	0.45 0.13
Poynor-----	Very limited droughty (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) high erodibility (limited) slope (moderately limited)	1.00 0.80 0.60	Limited small stones (limited) droughty (moderately limited)	0.73 0.57	Limited small stones (limited) droughty (moderately limited)	0.73 0.57	Moderately limited droughty (moderately limited)	0.57
73023: Mano-----	Limited droughty (limited) high erodibility (limited) small stones (moderately limited)	0.87 0.80 0.48	Limited high erodibility (limited) small stones (moderately limited) percs slowly (moderately limited)	0.80 0.48 0.39	Slightly limited wetness (slightly limited) small stones (slightly limited)	0.28 0.08	Slightly limited wetness (slightly limited)	0.28	Moderately limited wetness (moderately limited)	0.45

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
73023: Ocie-----	Very limited small stones (very limited) high erodibility (limited) droughty (limited)	1.00  0.80  0.63	Very limited small stones (very limited) high erodibility (limited) percs slowly (moderately limited)	1.00  0.80  0.39	Moderately limited small stones (moderately limited) wetness (slightly limited)	0.42  0.28	Slightly limited small stones (slightly limited) wetness (slightly limited)	0.30  0.28	Moderately limited wetness (moderately limited)	0.45
73024: Mano-----	Limited small stones (limited) droughty (limited) high erodibility (limited)	1.00  0.87  0.80	Limited small stones (limited) high erodibility (limited) percs slowly (moderately limited)	1.00  0.80  0.39	Slightly limited wetness (slightly limited) small stones (slightly limited)	0.28  0.24	Slightly limited wetness (slightly limited) small stones (slightly limited)	0.28  0.01	Moderately limited wetness (moderately limited)	0.45
Ocie-----	Very limited small stones (very limited) high erodibility (limited) droughty (limited)	1.00  0.80  0.63	Very limited small stones (very limited) high erodibility (limited) percs slowly (moderately limited)	1.00  0.80  0.39	Moderately limited small stones (moderately limited) wetness (slightly limited)	0.42  0.28	Slightly limited small stones (slightly limited) wetness (slightly limited)	0.30  0.28	Moderately limited wetness (moderately limited)	0.45
73051: Winnipeg-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited	0.00	Not limited	0.00	Not limited	0.00
73054: Viburnum-----	Moderately limited wetness (moderately limited) percs slowly (slightly limited) droughty (slightly limited)	0.55  0.13  0.02	Moderately limited wetness (moderately limited) percs slowly (slightly limited)	0.55  0.13	Moderately limited wetness (moderately limited)	0.55	Moderately limited wetness (moderately limited)	0.55	Limited wetness (limited)	0.85



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
73063:										
Bendavis-----	Limited droughty (limited)	0.95	Moderately limited moderate erodibility (moderately limited)	0.50	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Moderately limited wetness (moderately limited)	0.45
	moderate erodibility (moderately limited)	0.50	small stones (moderately limited)	0.33	small stones (slightly limited)	0.04	depth to bedrock (slightly limited)	0.27	droughty (moderately limited)	0.40
	small stones (moderately limited)	0.33	wetness (slightly limited)	0.28					depth to bedrock (slightly limited)	0.27
Poynor-----	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)	0.84
	small stones (very limited)	1.00	moderate erodibility (moderately limited)	0.50	droughty (moderately limited)	0.40	droughty (moderately limited)	0.40		
	moderate erodibility (moderately limited)	0.50	droughty (moderately limited)	0.40						
73068:										
Tick-----	Limited droughty (limited)	0.82	Limited high erodibility (limited)	0.80	Not limited	0.00	Not limited	0.00	Not limited	0.00
	high erodibility (limited)	0.80	percs slowly (slightly limited)	0.26						
	percs slowly (slightly limited)	0.26								
73069:										
Tick-----	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Limited small stones (limited)	0.93	Limited small stones (limited)	0.94	Not limited	0.00
	droughty (limited)	0.82	high erodibility (limited)	0.80						
	high erodibility (limited)	0.80	slope (moderately limited)	0.60						
73073:										
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)	0.42	small stones (slightly limited)	0.30		

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
73073: Poynor-----	Very limited droughty (very limited) small stones (very limited) high erodibility (limited)	1.00  1.00  0.80	Very limited small stones (very limited) high erodibility (limited) droughty (limited)	1.00  0.80  0.75	Limited droughty (limited) small stones (moderately limited)	0.75  0.60	Limited droughty (limited) small stones (moderately limited)	0.75  0.60	Limited droughty (limited)	0.75
73076: Mano-----	Very limited small stones (very limited) droughty (limited) high erodibility (limited)	1.00  0.87  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) wetness (slightly limited)	0.42  0.28	Slightly limited small stones (slightly limited) wetness (slightly limited)	0.30  0.28	Moderately limited wetness (moderately limited)	0.45
Ocie-----	Very limited small stones (very limited) high erodibility (limited) droughty (limited)	1.00  0.80  0.63	Very limited small stones (very limited) high erodibility (limited) slope (moderately limited)	1.00  0.80  0.60	Moderately limited small stones (moderately limited) wetness (slightly limited)	0.42  0.28	Slightly limited small stones (slightly limited) wetness (slightly limited)	0.30  0.28	Moderately limited wetness (moderately limited)	0.45
73077: Eudy-----	Limited wetness (limited) moderate erodibility (moderately limited) percs slowly (moderately limited)	0.86  0.50  0.39	Limited wetness (limited) moderate erodibility (moderately limited) percs slowly (moderately limited)	0.86  0.50  0.39	Limited wetness (limited) small stones (slightly limited)	0.86  0.04	Limited wetness (limited) depth to bedrock (slightly limited)	0.86  0.13	Very limited wetness (very limited) depth to bedrock (slightly limited)	1.00  0.13
73080: Alred-----	Very limited droughty (very limited) high erodibility (limited) slope (limited)	1.00  0.80  0.68	Limited high erodibility (limited) slope (limited) percs slowly (moderately limited)	0.80  0.68  0.39	Slightly limited droughty (slightly limited)	0.02	Slightly limited droughty (slightly limited)	0.02	Slightly limited droughty (slightly limited)	0.02

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
73080:										
Bardley-----	Very limited droughty (very limited) slope (limited) high erodibility (limited)	1.00 0.87 0.80	Limited slope (limited) high erodibility (limited) droughty (limited)	0.87 0.80 0.72	Limited droughty (limited) large stones (slightly limited) small stones (slightly limited)	0.72 0.72 0.17 0.14	Limited droughty (limited) depth to bedrock (moderately limited) large stones (slightly limited)	0.72 0.46 0.17	Limited droughty (limited) depth to bedrock (moderately limited) large stones (slightly limited)	0.72 0.46 0.17
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73176:										
Bendavis-----	Very limited droughty (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) high erodibility (limited) depth to bedrock (moderately limited)	1.00 0.80 0.58	Moderately limited small stones (moderately limited) droughty (moderately limited) wetness (slightly limited)	0.60 0.45 0.28	Moderately limited small stones (moderately limited) depth to bedrock (moderately limited) droughty (moderately limited)	0.60 0.58 0.45	Moderately limited depth to bedrock (moderately limited) droughty (moderately limited) wetness (moderately limited)	0.58 0.45 0.45
Poynor-----	Limited small stones (limited) droughty (very limited) high erodibility (limited)	1.00 0.99 0.80	Limited small stones (limited) high erodibility (limited)	1.00 0.80	Slightly limited small stones (slightly limited)	0.24	Slightly limited small stones (slightly limited)	0.01	Not limited	0.00
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
73198:										
Grassy-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited	0.00	Not limited	0.00	Not limited	0.00

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
73198: Viraton-----	Very limited percs slowly (very limited) droughty (limited) moderate erodibility (moderately limited)	1.00 0.98 0.50	Very limited percs slowly (very limited) moderate erodibility (moderately limited) wetness (moderately limited)	1.00 0.50 0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
73199: Moko-----	Very limited droughty (very limited) shallow to bedrock (very limited) large stones >35% (very limited)	1.00 1.00 0.99	Very limited droughty (very limited) shallow to bedrock (very limited) large stones >35% (very limited)	1.00 1.00 0.99	Very limited droughty (very limited) large stones (limited) small stones (slightly limited)	1.00 0.61 0.08	Very limited droughty (very limited) shallow to bedrock (very limited) large stones (limited)	1.00 1.00 0.61	Very limited shallow to bedrock (very limited) droughty (very limited) large stones (limited)	1.00 1.00 0.61
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73221: Poynor-----	Very limited droughty (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) high erodibility (limited) droughty (moderately limited)	1.00 0.80 0.57	Limited small stones (limited) droughty (moderately limited)	0.81 0.57	Limited small stones (limited) droughty (moderately limited)	0.81 0.57	Moderately limited droughty (moderately limited)	0.57
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 1.00 0.60	Limited droughty (very limited) small stones (moderately limited)	1.00 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 1.00 0.40 0.14	Very limited droughty (very limited) large stones (moderately limited) depth to bedrock (moderately limited)	1.00 1.00 0.40 0.32	Very limited droughty (very limited) large stones (moderately limited) depth to bedrock (moderately limited)	1.00 1.00 0.40 0.32
73226:										
Ocie-----	Very limited small stones (very limited) high erodibility (limited) droughty (limited)	1.00 0.80 0.63	Very limited small stones (very limited) high erodibility (limited) percs slowly (moderately limited)	1.00 0.80 0.39	Moderately limited small stones (moderately limited) wetness (slightly limited)	0.42 0.28	Slightly limited small stones (slightly limited) wetness (slightly limited)	0.30 0.28	Moderately limited wetness (moderately limited)	0.45
Gatewood-----	Very limited droughty (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) high erodibility (limited) depth to bedrock (moderately limited)	1.00 0.80 0.46	Moderately limited small stones (moderately limited) wetness (moderately limited) droughty (moderately limited)	0.42 0.36 0.31	Moderately limited depth to bedrock (moderately limited) wetness (moderately limited) droughty (moderately limited)	0.46 0.36 0.31	Moderately limited wetness (moderately limited) depth to bedrock (moderately limited) droughty (moderately limited)	0.51 0.46 0.31
73227:										
Ocie-----	Very limited small stones (very limited) slope (limited) high erodibility (limited)	1.00 0.91 0.80	Very limited small stones (very limited) slope (limited) high erodibility (limited)	1.00 0.91 0.80	Moderately limited small stones (moderately limited) wetness (slightly limited)	0.42 0.28	Slightly limited small stones (slightly limited) wetness (slightly limited)	0.30 0.28	Moderately limited wetness (moderately limited)	0.45

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
73227:										
Gatewood-----	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) wetness (moderately limited)	0.51 0.36	Moderately limited small stones (moderately limited) wetness (moderately limited) depth to bedrock (slightly limited)	0.45 0.36 0.13	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited)	0.51 0.13
73230:										
Coulstone-----	Very limited droughty (very limited) large stones >35% (very limited) high erodibility (limited)	1.00 0.99 0.80	Very limited droughty (very limited) large stones >35% (very limited) high erodibility (limited)	1.00 0.99 0.80	Very limited droughty (very limited) large stones (limited) small stones (slightly limited)	1.00 0.61 0.02	Very limited droughty (very limited) large stones (limited)	1.00 0.61	Very limited droughty (very limited) large stones (limited)	1.00 0.61
Bender-----	Very limited droughty (very limited) small stones (limited) high erodibility (limited)	1.00 0.81 0.80	Very limited droughty (very limited) small stones (limited) high erodibility (limited)	1.00 0.81 0.80	Very limited droughty (very limited) large stones (slightly limited) small stones (slightly limited)	1.00 0.19 0.17	Very limited droughty (very limited) depth to bedrock (moderately limited) large stones (slightly limited)	1.00 0.32 0.19	Very limited droughty (very limited) depth to bedrock (moderately limited) large stones (slightly limited)	1.00 0.32 0.19
Gatewood-----	Very limited droughty (very limited) small stones (very limited) slope (very limited)	1.00 1.00 1.00	Very limited small stones (very limited) slope (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) wetness (moderately limited) droughty (moderately limited)	1.00 0.36 0.31	Very limited small stones (very limited) depth to bedrock (moderately limited) wetness (moderately limited)	1.00 0.46 0.36	Moderately limited wetness (moderately limited) depth to bedrock (moderately limited) droughty (moderately limited)	0.51 0.46 0.31
73231:										
Wasola-----	Limited high erodibility (limited) wetness (moderately limited)	0.80 0.44	Limited high erodibility (limited) wetness (moderately limited)	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
73235: 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) slope (limited)	1.00  0.80  0.68	Limited small stones (limited) droughty (slightly limited)	0.86  0.02	Limited small stones (limited) droughty (slightly limited)	0.87  0.02	Slightly limited droughty (slightly limited)	0.02
73236: Scholten-----	Very limited droughty (very limited) percs slowly (very limited) high erodibility (limited)	1.00  1.00  0.80	Very limited percs slowly (very limited) high erodibility (limited) small stones (limited)	1.00  0.80  0.73	Limited droughty (limited) wetness (moderately limited) small stones (slightly limited)	0.70  0.58  0.15	Limited droughty (limited) wetness (moderately limited)	0.70  0.58	Limited wetness (limited) droughty (limited)	0.93  0.70
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	0.00
73240: Jerktail-----	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
73242: Fanchon-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited	0.00	Not limited	0.00	Not limited	0.00

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
73242: Tonti-----	Very limited percs slowly (very limited) droughty (limited) wetness (moderately limited)	1.00  0.91  0.56	Very limited percs slowly (very limited) wetness (moderately limited) moderate erodibility (moderately limited)	1.00  0.56  0.50	Moderately limited wetness (moderately limited)	0.56	Moderately limited wetness (moderately limited)	0.56	Limited wetness (limited)	0.88
73243: Topazmill-----	Limited high erodibility (limited)	0.80	Limited high erodibility (limited)	0.80	Not limited	0.00	Not limited	0.00	Not limited	0.00
73245: Alred-----	Very limited small stones (very limited) droughty (limited) high erodibility (limited)	1.00  0.87  0.80	Very limited small stones (very limited) high erodibility (limited) percs slowly (moderately limited)	1.00  0.80  0.39	Moderately limited small stones (moderately limited)	0.42	Slightly limited small stones (slightly limited)	0.30	Not limited	0.00
73246: Alred-----	Very limited small stones (very limited) droughty (limited) high erodibility (limited)	1.00  0.87  0.80	Very limited small stones (very limited) high erodibility (limited) percs slowly (moderately limited)	1.00  0.80  0.39	Moderately limited small stones (moderately limited)	0.60	Moderately limited small stones (moderately limited)	0.60	Not limited	0.00
73247: 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) slope (moderately limited)	1.00  0.80  0.60	Limited small stones (limited) droughty (slightly limited)	0.89  0.02	Limited small stones (limited) droughty (slightly limited)	0.90  0.02	Slightly limited droughty (slightly limited)	0.02



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
73248:										
Alred-----	Very limited droughty (very limited)	1.00	Very limited small stones (very limited)	1.00	Limited small stones (limited)	0.77	Limited small stones (limited)	0.77	Slightly limited droughty (slightly limited)	0.02
	small stones (very limited)	1.00	high erodibility (limited)	0.80	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02		
	high erodibility (limited)	0.80	percs slowly (limited)	0.70						
Bendavis-----	Very limited droughty (very limited)	1.00	Very limited small stones (very limited)	1.00	Moderately limited small stones (moderately limited)	0.60	Moderately limited small stones (moderately limited)	0.60	Moderately limited depth to bedrock (moderately limited)	0.58
	small stones (very limited)	1.00	high erodibility (limited)	0.80	droughty (moderately limited)	0.45	depth to bedrock (moderately limited)	0.58	droughty (moderately limited)	0.45
	high erodibility (limited)	0.80	depth to bedrock (moderately limited)	0.58	wetness (slightly limited)	0.28	droughty (moderately limited)	0.45	wetness (moderately limited)	0.45
73249:										
Alred-----	Very limited droughty (very limited)	1.00	Limited large stones >35% (very limited)	0.99	Limited large stones (limited)	0.61	Limited large stones (limited)	0.61	Limited large stones (limited)	0.61
	large stones >35% (very limited)	0.99	high erodibility (limited)	0.80	small stones (slightly limited)	0.13	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02
	high erodibility (limited)	0.80	small stones (limited)	0.64	droughty (slightly limited)	0.02				
Ocie-----	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Moderately limited small stones (moderately limited)	0.42	Slightly limited small stones (slightly limited)	0.30	Moderately limited wetness (moderately limited)	0.45
	high erodibility (limited)	0.80	high erodibility (limited)	0.80	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28		
	droughty (limited)	0.63	slope (moderately limited)	0.60						
Bendavis-----	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Limited small stones (limited)	0.67	Limited small stones (limited)	0.67	Moderately limited wetness (moderately limited)	0.45
	slope (limited)	0.91	slope (limited)	0.91	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	depth to bedrock (slightly limited)	0.13
							depth to bedrock (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
73295: Taterhill-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited	0.00	Not limited	0.00	Not limited	0.00
73296: Yelton-----	Very limited percs slowly (very limited) droughty (limited) high erodibility (limited)	1.00 0.88 0.80	Very limited percs slowly (very limited) high erodibility (limited) wetness (moderately limited)	1.00 0.80 0.58	Moderately limited wetness (moderately limited)	0.58	Moderately limited wetness (moderately limited)	0.58	Limited wetness (limited)	0.93
Topazmill-----	Limited high erodibility (limited)	0.80	Limited high erodibility (limited)	0.80	Not limited	0.00	Not limited	0.00	Not limited	0.00
Lily-----	Very limited droughty (very limited) high erodibility (limited)	1.00 0.80	Limited high erodibility (limited) depth to bedrock (limited)	0.80 0.76	Moderately limited droughty (moderately limited)	0.48	Limited depth to bedrock (limited) droughty (moderately limited)	0.76 0.48	Limited depth to bedrock (limited) droughty (moderately limited)	0.76 0.48
73297: Poynor-----	Very limited droughty (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) high erodibility (limited) slope (moderately limited)	1.00 0.80 0.60	Limited small stones (limited) droughty (moderately limited)	0.81 0.57	Limited small stones (limited) droughty (moderately limited)	0.81 0.57	Slightly limited droughty (slightly limited)	0.10
Scholten-----	Very limited percs slowly (very limited) droughty (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited percs slowly (very limited) high erodibility (limited) slope (moderately limited)	1.00 0.80 0.60	Moderately limited wetness (moderately limited) small stones (slightly limited) droughty (slightly limited)	0.44 0.11 0.10	Moderately limited wetness (moderately limited) droughty (slightly limited)	0.44 0.10	Moderately limited wetness (moderately limited) droughty (moderately limited)	0.59 0.57

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
73299:										
Plato-----	Very limited percs slowly (very limited) high erodibility (limited) droughty (limited)	1.00  0.80  0.63	Very limited percs slowly (very limited) high erodibility (limited) wetness (moderately limited)	1.00  0.80  0.60	Moderately limited wetness (moderately limited)	0.60	Moderately limited wetness (moderately limited)	0.60	Limited wetness (limited)	0.99
Jerktail-----	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
73300:										
Macedonia-----	Limited droughty (limited) high erodibility (limited) small stones (moderately limited)	0.87  0.80  0.33	Limited high erodibility (limited) small stones (moderately limited)	0.80  0.33	Slightly limited small stones (slightly limited)	0.04	Not limited	0.00	Not limited	0.00

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
73301: Tick-----	Limited droughty (limited) high erodibility (limited) percs slowly (slightly limited)	0.82  0.80  0.26	Limited high erodibility (limited) percs slowly (slightly limited)	0.80  0.26	Not limited	0.00	Not limited	0.00	Not limited	0.00
73302: Kenaga-----	Limited percs slowly (limited) high erodibility (limited) wetness (moderately limited)	0.86  0.80  0.44	Limited percs slowly (limited) high erodibility (limited) wetness (moderately limited)	0.86  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
73303: Kenaga-----	Limited percs slowly (limited) high erodibility (limited) wetness (moderately limited)	0.86  0.80  0.44	Limited percs slowly (limited) high erodibility (limited) wetness (moderately limited)	0.86  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
Egyptgrove----	Limited percs slowly (limited) high erodibility (limited) droughty (moderately limited)	0.86  0.80  0.47	Limited percs slowly (limited) high erodibility (limited) small stones (slightly limited)	0.86  0.80  0.12	Slightly limited small stones (slightly limited)	0.01	Not limited	0.00	Not limited	0.00
73304: Kenaga-----	Limited percs slowly (limited) high erodibility (limited) wetness (moderately limited)	0.86  0.80  0.44	Limited percs slowly (limited) high erodibility (limited) wetness (moderately limited)	0.86  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
73304:										
Egyptgrove-----	Limited percs slowly (limited) high erodibility (limited) droughty (moderately limited)	0.86 0.80 0.47	Limited percs slowly (limited) high erodibility (limited)	0.86 0.80	Not limited	0.00	Not limited	0.00	Not limited	0.00
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
73305:										
Egyptgrove-----	Limited percs slowly (limited) high erodibility (limited) droughty (moderately limited)	0.86 0.80 0.47	Limited percs slowly (limited) high erodibility (limited)	0.86 0.80	Not limited	0.00	Not limited	0.00	Not limited	0.00
73306:										
Gressy-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited	0.00	Not limited	0.00	Not limited	0.00
Gatewood-----	Very limited droughty (very limited) small stones (very limited) moderate erodibility (moderately limited)	1.00 1.00 0.50	Very limited small stones (very limited) moderate erodibility (moderately limited) depth to bedrock (moderately limited)	1.00 0.50 0.46	Moderately limited small stones (moderately limited) wetness (moderately limited) droughty (moderately limited)	0.60 0.36 0.31	Moderately limited small stones (moderately limited) depth to bedrock (moderately limited) wetness (moderately limited)	0.60 0.46 0.36	Moderately limited wetness (moderately limited) depth to bedrock (moderately limited) droughty (moderately limited)	0.51 0.46 0.31
73307:										
Gressy-----	Moderately limited moderate erodibility (moderately limited)	0.50	Moderately limited moderate erodibility (moderately limited)	0.50	Not limited	0.00	Not limited	0.00	Not limited	0.00

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
73307: Viraton-----	Very limited percs slowly (very limited) droughty (limited) moderate erodibility (moderately limited)	1.00  0.98  0.50	Very limited percs slowly (very limited) moderate erodibility (moderately limited) wetness (moderately limited)	1.00  0.50  0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
73308: Grandgulf-----	Very limited ponded (wetness) (very limited)	1.00	Very limited ponded (wetness) (very limited)	1.00	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80
73309: Clarksville----	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) slope (moderately limited)	1.00  0.80  0.31	Limited small stones (limited) droughty (slightly limited)	0.73  0.01	Limited small stones (limited) droughty (slightly limited)	0.73  0.01	Slightly limited droughty (slightly limited)	0.01
Bendavis-----	Very limited small stones (very limited) droughty (limited)	1.00  0.87	Very limited small stones (very limited) high erodibility (limited)	1.00  0.80	Limited small stones (limited) wetness (slightly limited)	0.67  0.28	Limited small stones (limited) wetness (slightly limited) depth to bedrock (slightly limited)	0.67  0.28  0.13	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited)	0.45  0.13
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

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
73310:										
Bendavis-----	Limited droughty (limited)	0.95	Limited high erodibility (limited)	0.80	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Moderately limited wetness (moderately limited)	0.45
	high erodibility (limited)	0.80	small stones (moderately limited)	0.33	small stones (slightly limited)	0.04	depth to bedrock (slightly limited)	0.27	depth to bedrock (slightly limited)	0.27
	small stones (moderately limited)	0.33	wetness (slightly limited)	0.28						
Poynor-----	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Limited small stones (limited)	0.67	Limited small stones (limited)	0.67	Not limited	0.00
	high erodibility (limited)	0.80	high erodibility (limited)	0.80						
	droughty (moderately limited)	0.47								
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	high erodibility (limited)	0.80	wetness (moderately limited)	0.58	wetness (moderately limited)	0.58	droughty (limited)	0.70
	high erodibility (limited)	0.80	small stones (limited)	0.73	small stones (slightly limited)	0.15				
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	Limited small stones (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 (limited)	1.00	high erodibility (limited)	0.80	small stones (slightly limited)	0.24	small stones (slightly limited)	0.01		
	high erodibility (limited)	0.80	droughty (moderately limited)	0.57						

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
73312: Alred-----	Very limited droughty (very limited) small stones (very limited) high erodibility (limited)	1.00 1.00 0.80	Very limited small stones (very limited) high erodibility (limited) percs slowly (moderately limited)	1.00 0.80 0.39	Limited small stones (limited) droughty (slightly limited)	0.73 0.08	Limited small stones (limited) droughty (slightly limited)	0.73 0.08	Slightly limited droughty (slightly limited)	0.08
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
73313: Fanchon-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
Tonti-----	Very limited percs slowly (very limited) droughty (limited) wetness (moderately limited)	1.00 0.90 0.44	Very limited percs slowly (very limited) wetness (moderately limited)	1.00 0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
73314: Tanglenook-----	Very limited wetness (very limited) percs slowly (moderately limited)	1.00 0.39	Very limited wetness (very limited) percs slowly (moderately limited)	1.00 0.39	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
73315: Deible-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.86	Very limited wetness (very limited) percs slowly (limited)	1.00 0.86	Very limited wetness (very limited)	1.00	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
73316:										
Clarksville----	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) slope (moderately limited)	1.00 0.80 0.48	Limited small stones (limited) droughty (slightly limited)	0.73 0.01	Limited small stones (limited) droughty (slightly limited)	0.73 0.01	Slightly limited droughty (slightly limited)	0.01
Tick-----	Very limited small stones (very limited) droughty (limited) high erodibility (limited)	1.00 0.82 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)	0.42	Slightly limited small stones (slightly limited)	0.30	Not limited	0.00
Mano-----	Very limited small stones (very limited) droughty (limited) high erodibility (limited)	1.00 0.87 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) wetness (slightly limited)	0.42 0.28	Slightly limited small stones (slightly limited) wetness (slightly limited)	0.30 0.28	Moderately limited wetness (moderately limited)	0.45
74626:										
Tanglenook----	Very limited wetness (very limited) percs slowly (moderately limited)	1.00 0.39	Very limited wetness (very limited) percs slowly (moderately limited)	1.00 0.39	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
74627:										
Hartville-----	Moderately limited wetness (moderately limited) percs slowly (moderately limited)	0.44 0.39	Moderately limited wetness (moderately limited) percs slowly (moderately limited)	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

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
74648: Aslinger-----	Limited high erodibility (limited) droughty (moderately limited) wetness (moderately limited)	0.80  0.49  0.44	Limited high erodibility (limited) wetness (moderately limited) percs slowly (slightly limited)	0.80  0.44  0.26	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.59
74658: Zanoni-----	Slightly limited droughty (slightly limited)	0.26	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
74677: Deible-----	Very limited wetness (very limited) percs slowly (limited) droughty (slightly limited)	1.00  0.86  0.01	Very limited wetness (very limited) percs slowly (limited)	1.00  0.86	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
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
74681: Lostpond-----	Limited wetness (limited) high erodibility (limited)	0.81  0.80	Limited wetness (limited) high erodibility (limited)	0.81  0.80	Limited wetness (limited)	0.81	Limited wetness (limited)	0.81	Very limited wetness (very limited)	1.00
74690: Moniteau-----	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	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
75381: Bearthicket----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
75390: Razort-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
75408: Secesh-----	Limited droughty (limited)	0.70	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
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	0.00	Not limited	0.00	Not limited	0.00
75418: Tilk-----	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) droughty (moderately limited)	1.00  0.50 0.34	Limited small stones (limited) droughty (moderately limited)	0.65  0.34	Limited small stones (limited) droughty (moderately limited)	0.65  0.34	Moderately limited droughty (moderately limited)	0.34
75420: Secesh-----	Limited droughty (limited) flooding (moderately limited)	0.70  0.60	Moderately limited flooding (moderately limited)	0.60	Not limited	0.00	Not limited	0.00	Not limited	0.00

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
75420: 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) droughty (moderately limited)	1.00  0.60  0.34	Moderately limited small stones (moderately limited) droughty (moderately limited)	0.42  0.34	Moderately limited droughty (moderately limited) small stones (slightly limited)	0.34  0.30	Moderately limited droughty (moderately limited)	0.34
75423: Cedargap-----	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) droughty (slightly limited)	1.00  0.60  0.17	Moderately limited small stones (moderately limited) droughty (slightly limited)	0.60  0.17	Moderately limited small stones (moderately limited) droughty (slightly limited)	0.60  0.17	Slightly limited droughty (slightly limited)	0.17
75432: Batcave-----	Very limited wetness (very limited) small stones (very limited) flooding (limited)	1.00  1.00  0.90	Very limited wetness (very limited) small stones (very limited) flooding (limited)	1.00  1.00  0.90	Very limited wetness (very limited) small stones (moderately limited)	1.00  0.58	Very limited wetness (very limited) small stones (moderately limited)	1.00  0.56	Very limited wetness (very limited)	1.00
Farewell-----	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
75433: Racket-----	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited)	0.60	Not limited	0.00	Not limited	0.00	Not limited	0.00
99001: Water-----	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
99002: Borrow areas---	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
70022: Tonti-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Limited slope (limited)	0.66
70025: Branson-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.42
Splitlimb-----	Limited wetness (limited)	0.79	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.37	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.37	Moderately limited seepage (moderately limited)	0.36
70026: Tonti-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00
71250: Britwater-----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
73000: Pomme-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited) slope (moderately limited)	0.45 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
73013: Lowassie-----	Very limited wetness (very limited)	1.00	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80	Limited seasonally ponded (limited)	0.80
	seasonally ponded (limited)	0.80	infrequent flooding (limited)	0.80						
73017: Bendavis-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited)	0.80	Limited small stones (limited)	0.67	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
	depth to bedrock (slightly limited)	0.13	small stones (limited)	0.67			soil reaction (slightly limited)	0.18	soil reaction (slightly limited)	0.18
			deep to water (limited)	0.61						
Poynor-----	Moderately limited droughty (moderately limited)	0.57	Very limited deep to water (very limited)	1.00	Limited small stones (limited)	0.73	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
			infrequent flooding (limited)	0.80	droughty (moderately limited)	0.57			seepage (moderately limited)	0.45
			small stones (limited)	0.73						
73023: Mano-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Limited deep to water (limited)	0.61	Limited slope (limited)	0.66
			deep to water (limited)	0.61						
Ocie-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited)	0.80	Slightly limited small stones (slightly limited)	0.30	Limited deep to water (limited)	0.61	Limited slope (limited)	0.66
			deep to water (limited)	0.61						
			small stones (slightly limited)	0.30						

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
73024: Mano-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited) deep to water (limited) small stones (slightly limited)	0.80 0.61 0.01	Slightly limited small stones (slightly limited)	0.01	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
Ocie-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited) deep to water (limited) small stones (slightly limited)	0.80 0.61 0.30	Slightly limited small stones (slightly limited)	0.30	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
73051: Winnipeg-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
73054: Viburnum-----	Limited wetness (limited)	0.85	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.35	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.35	Slightly limited seepage (slightly limited)	0.18
73063: 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	0.00	Limited deep to water (limited)	0.61	Limited slope (limited) seepage (moderately limited)	0.66 0.54
Poynor-----	Moderately limited droughty (moderately limited)	0.40	Very limited deep to water (very limited) infrequent flooding (limited) small stones (limited)	1.00 0.80 0.67	Limited small stones (limited) droughty (moderately limited)	0.67 0.40	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
73068: Tick-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (slightly limited)	1.00 0.07
73069: Tick-----	Not limited	0.00	Very limited deep to water (very limited) small stones (limited) infrequent flooding (limited)	1.00 0.94 0.80	Limited small stones (limited)	0.94	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (slightly limited)	1.00 0.07
73073: 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	Very limited slope (very limited)	1.00
Poynor-----	Limited droughty (limited)	0.75	Very limited deep to water (very limited) infrequent flooding (limited) small stones (moderately limited)	1.00 0.80 0.60	Limited droughty (limited) small stones (moderately limited)	0.75 0.60	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
73076: Mano-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited) deep to water (limited) small stones (slightly limited)	0.80 0.61 0.30	Slightly limited small stones (slightly limited)	0.30	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00

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
73076: Ocie-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited)	0.80	Slightly limited small stones (slightly limited)	0.30	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
			deep to water (limited)	0.61						
			small stones (slightly limited)	0.30						
73077: Eudy-----	Very limited wetness (very limited)	1.00	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Slightly limited deep to water (slightly limited)	0.11	Limited slope (limited)	0.66
	depth to bedrock (slightly limited)	0.13	deep to water (slightly limited)	0.11						
73080: Alred-----	Slightly limited droughty (slightly limited)	0.02	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
			infrequent flooding (limited)	0.80						
Bardley-----	Limited droughty (limited)	0.72	Very limited deep to water (very limited)	1.00	Limited droughty (limited)	0.72	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
	depth to bedrock (moderately limited)	0.46	infrequent flooding (limited)	0.80	large stones (slightly limited)	0.17			seepage (moderately limited)	0.33
	large stones (slightly limited)	0.17	large stones (slightly limited)	0.17						
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73176: Bendavis-----	Moderately limited depth to bedrock (moderately limited)	0.58	Limited infrequent flooding (limited)	0.80	Moderately limited small stones (moderately limited)	0.60	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
	droughty (moderately limited)	0.45	deep to water (limited)	0.61	droughty (moderately limited)	0.45			seepage (moderately limited)	0.45
	wetness (moderately limited)	0.45	small stones (moderately limited)	0.60						

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
73176: Poynor-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited) small stones (slightly limited)	1.00 0.80 0.01	Slightly limited small stones (slightly limited)	0.01	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
73197: Viburnum-----	Limited wetness (limited)	0.99	Limited infrequent flooding (limited) deep to water (slightly limited)	0.80 0.30	Not limited	0.00	Slightly limited deep to water (slightly limited)	0.30	Moderately limited slope (moderately limited) seepage (slightly limited)	0.31 0.18
73198: Grassy-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited) slope (moderately limited)	0.48 0.31
Viraton-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Moderately limited slope (moderately limited)	0.31
73199: Moko-----	Very limited shallow to bedrock (very limited) droughty (very limited) large stones (limited)	1.00 1.00 0.61	Very limited deep to water (very limited) infrequent flooding (limited) large stones (limited)	1.00 0.80 0.61	Very limited droughty (very limited) large stones (limited)	1.00 0.61	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
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
73221: Poynor-----	Moderately limited droughty (moderately limited)	0.57	Very limited deep to water (very limited) small stones (limited) infrequent flooding (limited)	1.00 0.81 0.80	Limited small stones (limited) (moderately limited)	0.81 0.57	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.33
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 0.48 0.32	Very limited deep to water (very limited) infrequent flooding (limited) large stones (moderately limited)	1.00 0.80 0.48	Very limited droughty (very limited) large stones (moderately limited)	1.00 0.48	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (limited)	1.00 0.89
73226: Ocie-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited) deep to water (limited) small stones (slightly limited)	0.80 0.61 0.30	Slightly limited small stones (slightly limited)	0.30	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00

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
73226: Gatewood-----	Moderately limited wetness (moderately limited)	0.51	Limited infrequent flooding (limited)	0.80	Moderately limited droughty (moderately limited)	0.31	Moderately limited deep to water (moderately limited)	0.53	Very limited slope (very limited)	1.00
	depth to bedrock (moderately limited)	0.46	deep to water (moderately limited)	0.53	small stones (slightly limited)	0.30				
	droughty (moderately limited)	0.31	small stones (slightly limited)	0.30						
73227: Ocie-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited)	0.80	Slightly limited small stones (slightly limited)	0.30	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
			deep to water (limited)	0.61						
			small stones (slightly limited)	0.30						
Gatewood-----	Moderately limited wetness (moderately limited)	0.51	Limited infrequent flooding (limited)	0.80	Moderately limited small stones (moderately limited)	0.45	Moderately limited deep to water (moderately limited)	0.53	Very limited slope (very limited)	1.00
	depth to bedrock (slightly limited)	0.13	deep to water (moderately limited)	0.53						
			small stones (moderately limited)	0.45						
73230: Coulstone-----	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	Very limited slope (very limited)	1.00
	large stones (limited)	0.61	infrequent flooding (limited)	0.80	large stones (limited)	0.61			seepage (limited)	0.79
			large stones (limited)	0.61						
Bender-----	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	Very limited slope (very limited)	1.00
	depth to bedrock (moderately limited)	0.32	infrequent flooding (limited)	0.80	large stones (slightly limited)	0.19			seepage (limited)	0.89
	large stones (slightly limited)	0.19	large stones (slightly limited)	0.19						

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
73230: Gatewood-----	Moderately limited wetness (moderately limited)	0.51	Very limited small stones (very limited)	1.00	Very limited small stones (very limited)	1.00	Moderately limited deep to water (moderately limited)	0.53	Very limited slope (very limited)	1.00
	depth to bedrock (moderately limited)	0.46	infrequent flooding (limited)	0.80	droughty (moderately limited)	0.31				
	droughty (moderately limited)	0.31	deep to water (moderately limited)	0.53						
73231: Wasola-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited)	0.80	Limited small stones (limited)	0.73	Moderately limited deep to water (moderately limited)	0.45	Moderately limited slope (moderately limited)	0.31
			small stones (limited)	0.73						
			deep to water (moderately limited)	0.45						
73235: Alred-----	Slightly limited droughty (slightly limited)	0.02	Very limited deep to water (very limited)	1.00	Limited small stones (limited)	0.87	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
			small stones (limited)	0.87	droughty (slightly limited)	0.02				
			infrequent flooding (limited)	0.80						
73236: Scholten-----	Limited wetness (limited)	0.93	Limited infrequent flooding (limited)	0.80	Limited droughty (limited)	0.70	Moderately limited deep to water (moderately limited)	0.32	Limited slope (limited)	0.91
	droughty (limited)	0.70	deep to water (moderately limited)	0.32						
Poynor-----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Limited small stones (limited)	0.67	Very limited deep to water (very limited)	1.00	Limited slope (limited)	0.66
			infrequent flooding (limited)	0.80					seepage (moderately limited)	0.36
			small stones (limited)	0.67						

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
73240: Jerktail-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Limited slope (limited)	0.66
73242: Fanchon-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited) slope (moderately limited)	0.45 0.31
Tonti-----	Limited wetness (limited)	0.88	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.34	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.34	Moderately limited slope (moderately limited)	0.31
73243: Topazmill-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited) slope (moderately limited)	0.45 0.31
73245: Alred-----	Not limited	0.00	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	Limited slope (limited)	0.66
73246: Alred-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited) small stones (moderately limited)	1.00 0.80 0.60	Moderately limited small stones (moderately limited)	0.60	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00

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
73247: Alred-----	Slightly limited droughty (slightly limited)	0.02	Very limited deep to water (very limited) small stones (limited) infrequent flooding (limited)	1.00 0.90 0.80	Limited small stones (limited) droughty (slightly limited)	0.90 0.02	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
73248: Alred-----	Slightly limited droughty (slightly limited)	0.02	Very limited deep to water (very limited) infrequent flooding (limited) small stones (limited)	1.00 0.80 0.77	Limited small stones (limited) droughty (slightly limited)	0.77 0.02	Very limited deep to water (very limited)	1.00	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) small stones (moderately limited)	0.80 0.61 0.60	Moderately limited small stones (moderately limited) droughty (moderately limited)	0.60 0.45	Limited deep to water (limited)	0.61	Very limited slope (very limited) seepage (moderately limited)	1.00 0.45
73249: Alred-----	Limited large stones (limited) droughty (slightly limited)	0.61 0.02	Very limited deep to water (very limited) infrequent flooding (limited) large stones (limited)	1.00 0.80 0.61	Limited large stones (limited) droughty (slightly limited)	0.61 0.02	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
Ocie-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited) deep to water (limited) small stones (slightly limited)	0.80 0.61 0.30	Slightly limited small stones (slightly limited)	0.30	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00



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
73249: Bendavis-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited)	0.80	Limited small stones (limited)	0.67	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
	depth to bedrock (slightly limited)	0.13	small stones (limited)	0.67						
			deep to water (limited)	0.61						
73295: Taterhill-----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.48
			infrequent flooding (limited)	0.80					slope (moderately limited)	0.31
73296: Yelton-----	Limited wetness (limited)	0.93	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.32	Limited slope (limited)	0.91
			deep to water (moderately limited)	0.32						
Topazmill-----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	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
Lily-----	Limited depth to bedrock (limited)	0.76	Very limited deep to water (very limited)	1.00	Moderately limited droughty (moderately limited)	0.48	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
	droughty (moderately limited)	0.48	infrequent flooding (limited)	0.80						
73297: Poynor-----	Moderately limited droughty (moderately limited)	0.57	Very limited deep to water (very limited)	1.00	Moderately limited droughty (moderately limited)	0.57	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

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
73297: Scholten-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited)	0.80	Slightly limited droughty (slightly limited)	0.10	Moderately limited deep to water (moderately limited)	0.45	Very limited slope (very limited)	1.00
	droughty (slightly limited)	0.10	deep to water (moderately limited)	0.45						
73298: Tonti-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Moderately limited slope (moderately limited)	0.31
			deep to water (moderately limited)	0.45						
Hogcreek-----	Limited wetness (limited)	0.85	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.35	Moderately limited slope (moderately limited)	0.31
	depth to bedrock (slightly limited)	0.18	deep to water (moderately limited)	0.35						
73299: Plato-----	Limited wetness (limited)	0.99	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Slightly limited deep to water (slightly limited)	0.30	Not limited	0.00
			deep to water (slightly limited)	0.30						
Jerktail-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00
			deep to water (moderately limited)	0.45						
73300: Macedonia-----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	Very limited deep to water (very limited)	1.00	Limited slope (limited)	0.66
			infrequent flooding (limited)	0.80					seepage (moderately limited)	0.36

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
73301: Tick-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Limited slope (limited) seepage (slightly limited)	0.66 0.07
73302: Kenaga-----	Moderately limited wetness (moderately limited)	0.59	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00
73303: Kenaga-----	Moderately limited wetness (moderately limited)	0.59	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Moderately limited slope (moderately limited)	0.31
Egyptgrove----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited slope (moderately limited)	0.31
73304: Kenaga-----	Moderately limited wetness (moderately limited)	0.59	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Very limited slope (very limited)	1.00
Egyptgrove----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
Tonti-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Very limited slope (very limited)	1.00

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
73305: Egyptgrove-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited slope (moderately limited)	0.31
73306: Gressy-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited) slope (moderately limited)	0.48 0.31
Gatewood-----	Moderately limited wetness (moderately limited) depth to bedrock (moderately limited) droughty (moderately limited)	0.51 0.46 0.31	Limited infrequent flooding (limited) small stones (moderately limited) deep to water (moderately limited)	0.80 0.60 0.53	Moderately limited small stones (moderately limited) droughty (moderately limited)	0.60 0.31	Moderately limited deep to water (moderately limited)	0.53	Moderately limited slope (moderately limited)	0.31
73307: Gressy-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (limited)	1.00 0.80	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
Viraton-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00
73308: Grandgulf-----	Limited seasonally ponded (limited)	0.80	Very limited deep to water (very limited) seasonally ponded (limited)	1.00 0.80	Limited seasonally ponded (limited)	0.80	Very limited deep to water (very limited) seasonally ponded (limited)	1.00 0.80	Limited seasonally ponded (limited) seepage (moderately limited)	0.80 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
73309: Clarksville----	Slightly limited droughty (slightly limited)	0.01	Very limited deep to water (very limited) small stones (limited)	1.00 0.73	Limited small stones (limited) droughty (slightly limited)	0.73 0.01	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.42
Bendavis-----	Moderately limited wetness (moderately limited) depth to bedrock (slightly limited)	0.45 0.13	Limited infrequent flooding (limited) small stones (limited) deep to water (limited)	0.80 0.67 0.61	Limited small stones (limited)	0.67	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
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	0.00	Limited deep to water (limited)	0.61	Limited slope (limited) seepage (moderately limited)	0.66 0.54
Poynor-----	Not limited	0.00	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
73311: Scholten-----	Limited wetness (limited) droughty (limited)	0.93 0.70	Limited infrequent flooding (limited) deep to water (moderately limited)	0.80 0.32	Limited droughty (limited)	0.70	Moderately limited deep to water (moderately limited)	0.32	Very limited slope (very limited)	1.00

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: Bendavis-----	Moderately limited depth to bedrock (moderately limited)	0.58	Limited infrequent flooding (limited)	0.80	Moderately limited droughty (moderately limited)	0.45	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
	droughty (moderately limited)	0.45	deep to water (limited)	0.61					seepage (moderately limited)	0.45
	wetness (moderately limited)	0.45								
Poynor-----	Moderately limited droughty (moderately limited)	0.57	Very limited deep to water (very limited)	1.00	Moderately limited droughty (moderately limited)	0.57	Very limited deep to water (very limited)	1.00	Very limited slope (very limited)	1.00
			infrequent flooding (limited)	0.80	small stones (slightly limited)	0.01			seepage (moderately limited)	0.36
			small stones (slightly limited)	0.01						
73312: Alred-----	Slightly limited droughty (slightly limited)	0.08	Very limited deep to water (very limited)	1.00	Limited small stones (limited)	0.73	Very limited deep to water (very limited)	1.00	Limited slope (limited)	0.66
			infrequent flooding (limited)	0.80	droughty (slightly limited)	0.08				
			small stones (limited)	0.73						
Bendavis-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Limited deep to water (limited)	0.61	Limited slope (limited)	0.66
	depth to bedrock (slightly limited)	0.27	deep to water (limited)	0.61					seepage (moderately limited)	0.54
73313: Fanchon-----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
			infrequent flooding (limited)	0.80						
Tonti-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00
			deep to water (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
73314: Tanglenook-----	Very limited wetness (very limited)	1.00	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Not limited	0.00	Not limited	0.00
73315: Deible-----	Very limited wetness (very limited)	1.00	Limited infrequent flooding (limited)	0.80	Not limited	0.00	Not limited	0.00	Not limited	0.00
73316: Clarksville----	Slightly limited droughty (slightly limited)	0.01	Very limited deep to water (very limited) infrequent flooding (limited) small stones (limited)	1.00 0.80 0.73	Limited small stones (limited) droughty (slightly limited)	0.73 0.01	Very limited deep to water (very limited)	1.00	Very limited slope (very limited) seepage (moderately limited)	1.00 0.42
Tick-----	Not limited	0.00	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)	1.00
Mano-----	Moderately limited wetness (moderately limited)	0.45	Limited infrequent flooding (limited) deep to water (limited) small stones (slightly limited)	0.80 0.61 0.30	Slightly limited small stones (slightly limited)	0.30	Limited deep to water (limited)	0.61	Very limited slope (very limited)	1.00
74626: Tanglenook-----	Very limited wetness (very limited)	1.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
74627: Hartville-----	Moderately limited wetness (moderately limited)	0.59	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00	Moderately limited deep to water (moderately limited)	0.45	Not limited	0.00

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
74648: Aslinger-----	Moderately limited wetness (moderately limited)	0.59	Limited infrequent flooding (limited) deep to water (moderately limited) small stones (slightly limited)	0.80 0.45 0.01	Slightly limited small stones (slightly limited)	0.01	Moderately limited deep to water (moderately limited)	0.45	Limited slope (limited) seepage (slightly limited)	0.66 0.07
74658: Zanoni-----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.82
74677: Deible-----	Very limited wetness (very limited)	1.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
74679: Higdon-----	Limited wetness (limited)	0.99	Slightly limited deep to water (slightly limited)	0.30	Not limited	0.00	Slightly limited deep to water (slightly limited)	0.30	Moderately limited seepage (moderately limited)	0.36
74681: Lostpond-----	Very limited wetness (very limited)	1.00	Slightly limited deep to water (slightly limited)	0.15	Not limited	0.00	Slightly limited deep to water (slightly limited)	0.15	Moderately limited seepage (moderately limited)	0.42
74690: Moniteau-----	Very limited wetness (very limited)	1.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Slightly limited seepage (slightly limited)	0.18
75381: Bearthicket----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
75390: Razort-----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	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
75408: Secesh-----	Not limited	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	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	0.00	Very limited deep to water (very limited)	1.00	Not limited	0.00	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.79
75418: Tilk-----	Moderately limited droughty (moderately limited)	0.34	Very limited deep to water (very limited) small stones (limited)	1.00 0.65	Limited small stones (limited) droughty (moderately limited)	0.65 0.34	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.79
75420: Secesh-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (moderately limited)	1.00 0.50	Not limited	0.00	Very limited deep to water (very limited)	1.00	Moderately limited seepage (moderately limited)	0.45
Tilk-----	Moderately limited droughty (moderately limited)	0.34	Very limited deep to water (very limited) infrequent flooding (moderately limited) small stones (slightly limited)	1.00 0.50 0.30	Moderately limited droughty (moderately limited) small stones (slightly limited)	0.34 0.30	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
75423: Cedargap-----	Slightly limited droughty (slightly limited)	0.17	Very limited deep to water (very limited) small stones (moderately limited) infrequent flooding (moderately limited)	1.00 0.60 0.50	Moderately limited small stones (moderately limited) droughty (slightly limited)	0.60 0.17	Very limited deep to water (very limited)	1.00	Limited seepage (limited)	0.68
75432: Batcave-----	Very limited wetness (very limited)	1.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	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	0.00	Moderately limited seepage (moderately limited)	0.42
75433: Racket-----	Not limited	0.00	Very limited deep to water (very limited) infrequent flooding (moderately limited)	1.00 0.50	Limited deep to water (limited)	0.85	Very limited deep to water (very limited)	1.00	Limited deep to water (limited) seepage (moderately limited)	0.85 0.45
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99002: Borrow areas---	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
70022: 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
70025: Branson-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
Splitlimb-----	Limited wetness (limited) shrink-swell (moderately limited)	0.79 0.45	Very limited wetness (very limited) shrink-swell (moderately limited)	1.00 0.45	Moderately limited wetness (moderately limited) shrink-swell (moderately limited)	0.45 0.45	Very limited low strength (very limited) wetness (moderately limited) shrink-swell (moderately limited)	1.00 0.45	Moderately limited wetness (moderately limited)	0.45
70026: Tonti-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.04	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Slightly limited too acid (slightly limited) wetness (slightly limited)	0.30 0.28
71250: Britwater-----	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	0.00
73000: Pomme-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.15	Not limited	0.00	Not limited	0.00

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
73013: Lowassie-----	Very limited wetness (very limited)	1.00	Very limited ponded (very limited)	1.00	Very limited ponded (wetness) (very limited)	1.00	Very limited low strength (very limited)	1.00	Very limited wetness (very limited)	1.00
	ponded (very limited)	1.00	wetness (very limited)	1.00	wetness (very limited)	1.00	ponded (wetness) (very limited)	1.00	ponded (wetness) (very limited)	1.00
	shrink-swell (very limited)	1.00	shrink-swell (slightly limited)	0.27	shrink-swell (very limited)	1.00	wetness (very limited)	1.00		
73017: Bendavis-----	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
	wetness (moderately limited)	0.45	slope (very limited)	1.00	depth to bedrock (slightly limited)	0.25	depth to bedrock (slightly limited)	0.25	small stones (very limited)	1.00
	depth to bedrock (slightly limited)	0.25	wetness (very limited)	1.00					too acid (limited)	0.84
Poynor-----	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)	0.14					small stones (very limited)	1.00
									too acid (limited)	0.61
73023: Mano-----	Moderately limited wetness (moderately limited)	0.45	Very limited wetness (very limited)	1.00	Moderately limited slope (moderately limited)	0.45	Not limited	0.00	Moderately limited small stones (moderately limited)	0.48
			shrink-swell (moderately limited)	0.50					too acid (slightly limited)	0.30
Ocie-----	Very limited shrink-swell (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited shrink-swell (very limited)	1.00	Very limited low strength (very limited)	1.00	Very limited small stones (very limited)	1.00
	wetness (moderately limited)	0.45	shrink-swell (limited)	0.71	slope (moderately limited)	0.45	shrink-swell (very limited)	1.00		
			depth to bedrock (moderately limited)	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
73024: Mano-----	Limited slope (limited) wetness (moderately limited)	0.76 0.45	Very limited wetness (very limited) slope (limited) shrink-swell (moderately limited)	1.00 0.76 0.50	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Very limited small stones (limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.30
Ocie-----	Very limited shrink-swell (very limited) slope (limited) wetness (moderately limited)	1.00 0.76 0.45	Very limited wetness (very limited) slope (limited) shrink-swell (limited)	1.00 0.76 0.71	Very limited slope (very limited) shrink-swell (very limited)	1.00 1.00	Very limited low strength (very limited) shrink-swell (very limited) slope (limited)	1.00 1.00 0.63	Very limited small stones (very limited) slope (limited)	1.00 0.63
73051: Winnipeg-----	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited)	0.33	Moderately limited shrink-swell (moderately limited)	0.45	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00 0.45	Not limited	0.00
73054: Viburnum-----	Limited wetness (limited) shrink-swell (moderately limited)	0.85 0.45	Very limited wetness (very limited) shrink-swell (moderately limited)	1.00 0.45	Moderately limited wetness (moderately limited) shrink-swell (moderately limited)	0.49 0.45	Moderately limited wetness (moderately limited) shrink-swell (moderately limited)	0.49 0.45	Moderately limited wetness (moderately limited)	0.49
73063: 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

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
73063: Poynor-----	Not limited	0.00	Slightly limited shrink-swell (slightly limited)	0.14	Moderately limited slope (moderately limited)	0.45	Not limited	0.00	Very limited small stones (very limited) droughty (moderately limited) too acid (slightly limited)	1.00  0.40  0.30
73068: Tick-----	Limited slope (limited) shrink-swell (moderately limited)	0.76  0.45	Limited slope (limited) shrink-swell (slightly limited)	0.76  0.30	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 (moderately limited)	0.63  0.36
73069: Tick-----	Very limited slope (very limited) shrink-swell (moderately limited)	1.00  0.45	Very limited slope (very limited) shrink-swell (slightly limited)	1.00  0.30	Very limited slope (very limited) shrink-swell (moderately limited)	1.00  0.45	Very limited low strength (very limited) slope (very limited) shrink-swell (moderately limited)	1.00  1.00  0.45	Very limited slope (very limited) small stones (very limited) too acid (moderately limited)	1.00  1.00  0.36
73073: Scholten-----	Limited wetness (limited) slope (limited) shrink-swell (moderately limited)	0.93  0.76  0.45	Very limited wetness (very limited) slope (limited) shrink-swell (slightly limited)	1.00  0.76  0.25	Very limited slope (very limited) wetness (moderately limited) shrink-swell (moderately limited)	1.00  0.56  0.45	Limited slope (limited) wetness (moderately limited) shrink-swell (moderately limited)	0.63  0.56  0.45	Very limited small stones (very limited) droughty (limited) slope (limited)	1.00  0.70  0.63
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) droughty (limited) slope (limited)	1.00  0.75  0.63

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
73076:										
Mano-----	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					small stones (very limited)	1.00
			shrink-swell (moderately limited)	0.50					too acid (slightly limited)	0.30
Ocie-----	Very limited shrink-swell (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
	slope (very limited)	1.00	wetness (very limited)	1.00	shrink-swell (very limited)	1.00	slope (very limited)	1.00	small stones (very limited)	1.00
	wetness (moderately limited)	0.45	shrink-swell (limited)	0.71			shrink-swell (very limited)	1.00		
73077:										
Eudy-----	Very limited wetness (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00	Very limited shrink-swell (very limited)	1.00	Very limited low strength (very limited)	1.00	Limited wetness (limited)	0.86
	shrink-swell (very limited)	1.00	wetness (very limited)	1.00	wetness (limited)	0.86	shrink-swell (very limited)	1.00	small stones (moderately limited)	0.33
	depth to bedrock (slightly limited)	0.25	shrink-swell (very limited)	1.00	slope (moderately limited)	0.45	wetness (limited)	0.86	depth to bedrock (slightly limited)	0.13
73080:										
Alred-----	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 (slightly limited)	0.15	shrink-swell (moderately limited)	0.45	slope (very limited)	1.00	too acid (slightly limited)	0.12
	large stones (slightly limited)	0.00	large stones (slightly limited)	0.00	large stones (slightly limited)	0.00	shrink-swell (moderately limited)	0.45	droughty (slightly limited)	0.02
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	large stones (limited)	0.99
	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	droughty (limited)	0.72
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		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
73176: Bendavis-----	Limited slope (limited)	0.76	Very limited hard bedrock <40" (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Very limited small stones (very limited)	1.00
	depth to bedrock (moderately limited)	0.59	wetness (very limited)	1.00	depth to bedrock (moderately limited)	0.59	depth to bedrock (moderately limited)	0.59	slope (limited)	0.63
	wetness (moderately limited)	0.45	slope (limited)	0.76					depth to bedrock (moderately limited)	0.58
Poynor-----	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 (limited)	1.00
	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.32	shrink-swell (moderately limited)	0.45	slope (limited)	0.63	slope (limited)	0.63
							shrink-swell (moderately limited)	0.45	too acid (slightly limited)	0.30
73197: Viburnum-----	Limited wetness (limited)	0.99	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.61	Limited wetness (limited)	0.61	Limited wetness (limited)	0.61
	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45		
					slope (slightly limited)	0.15				
73198: Gressy-----	Not limited	0.00	Slightly limited shrink-swell (slightly limited)	0.18	Slightly limited slope (slightly limited)	0.15	Slightly limited low strength (slightly limited)	0.22	Not limited	0.00
Viraton-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited)	1.00	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Moderately limited too acid (moderately limited)	0.42
			shrink-swell (slightly limited)	0.20	slope (slightly limited)	0.15			wetness (slightly limited)	0.28
73199: Moko-----	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 large stones >30% (very limited)	1.00
	large stones (limited)	0.99	large stones (limited)	0.99	slope (very limited)	1.00	large stones (limited)	0.99	shallow to bedrock (very limited)	1.00
	slope (moderately limited)	0.45	slope (moderately limited)	0.45	large stones (limited)	0.99	low strength (slightly limited)	0.22	droughty (very limited)	1.00



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
73199: Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73221: Poynor-----	Limited slope (limited)	0.99	Limited slope (limited) shrink-swell (slightly limited)	0.99 0.14	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited small stones (very limited) slope (very limited) too acid (limited)	1.00 1.00 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
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 slope (very limited) droughty (very limited) large stones >30% (very limited)	1.00 1.00 1.00

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
73226:										
Ocie-----	Very limited shrink-swell (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited shrink-swell (very limited)	1.00	Very limited low strength (very limited)	1.00	Very limited small stones (very limited)	1.00
	slope (moderately limited)	0.45	shrink-swell (limited)	0.85	slope (very limited)	1.00	shrink-swell (very limited)	1.00	slope (slightly limited)	0.04
	wetness (moderately limited)	0.45	slope (moderately limited)	0.45			slope (slightly limited)	0.04		
Gatewood-----	Very limited shrink-swell (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00	Very limited shrink-swell (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)	0.53	wetness (very limited)	1.00	slope (very limited)	1.00	shrink-swell (very limited)	1.00	depth to bedrock (moderately limited)	0.46
	wetness (moderately limited)	0.51	shrink-swell (very limited)	1.00	depth to bedrock (moderately limited)	0.53	depth to bedrock (moderately limited)	0.53	droughty (moderately limited)	0.31
73227:										
Ocie-----	Very limited shrink-swell (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
	slope (very limited)	1.00	wetness (very limited)	1.00	shrink-swell (very limited)	1.00	slope (very limited)	1.00	small stones (very limited)	1.00
	wetness (moderately limited)	0.45	shrink-swell (limited)	0.85			shrink-swell (very limited)	1.00	too acid (slightly limited)	0.06
Gatewood-----	Very limited shrink-swell (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
	slope (very limited)	1.00	wetness (very limited)	1.00	shrink-swell (very limited)	1.00	slope (very limited)	1.00	small stones (very limited)	1.00
	wetness (moderately limited)	0.51	shrink-swell (very limited)	1.00	depth to bedrock (slightly limited)	0.25	shrink-swell (very limited)	1.00	wetness (slightly limited)	0.13
73230:										
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 stones (limited)	0.88	large stones (limited)	0.88	large stones (limited)	0.88	large stones (limited)	0.88	droughty (very limited)	1.00
									large stones >30% (very limited)	1.00

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
73230: Bender-----	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
	large stones (limited)	0.71	large stones (very limited)	1.00	large stones (limited)	0.71	large stones (limited)	0.71	droughty (very limited)	1.00
	depth to bedrock (moderately limited)	0.46	large stones (limited)	0.71	depth to bedrock (moderately limited)	0.46	depth to bedrock (moderately limited)	0.46	large stones >30% (very limited)	1.00
Gatewood-----	Very limited shrink-swell (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
	slope (very limited)	1.00	wetness (very limited)	1.00	shrink-swell (very limited)	1.00	slope (very limited)	1.00	small stones (very limited)	1.00
	depth to bedrock (moderately limited)	0.53	shrink-swell (very limited)	1.00	depth to bedrock (moderately limited)	0.53	shrink-swell (very limited)	1.00	depth to bedrock (moderately limited)	0.46
73231: Wasola-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited)	1.00	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28
			shrink-swell (moderately limited)	0.53	slope (slightly limited)	0.15				
73235: Alred-----	Very limited shrink-swell (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
	slope (very limited)	1.00	shrink-swell (limited)	0.62	shrink-swell (very limited)	1.00	slope (very limited)	1.00	small stones (very limited)	1.00
							shrink-swell (very limited)	1.00	too acid (slightly limited)	0.12
73236: Scholten-----	Limited wetness (limited)	0.93	Very limited wetness (very limited)	1.00	Limited slope (limited)	0.68	Moderately limited wetness (moderately limited)	0.56	Limited small stones (limited)	0.73
			shrink-swell (slightly limited)	0.04	wetness (moderately limited)	0.56			droughty (limited)	0.70
									wetness (moderately limited)	0.56

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
73236: Poynor-----	Not limited	0.00	Slightly limited shrink-swell (slightly limited)	0.14	Moderately limited slope (moderately limited)	0.45	Not limited	0.00	Very limited small stones (very limited) too acid (moderately limited)	1.00 0.42
73240: Jerktail-----	Very limited shrink-swell (very limited) wetness (moderately limited)	1.00 0.59	Very limited wetness (very limited) shrink-swell (very limited) depth to bedrock (slightly limited)	1.00 1.00 0.22	Very limited shrink-swell (very limited) slope (moderately limited) wetness (slightly limited)	1.00 0.45 0.28	Very limited shrink-swell (very limited) wetness (slightly limited)	1.00 0.28	Slightly limited wetness (slightly limited)	0.28
73242: Fanchon-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.15	Very limited low strength (very limited)	1.00	Slightly limited too acid (slightly limited)	0.24
Tonti-----	Limited wetness (limited)	0.88	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.01	Moderately limited wetness (moderately limited) slope (slightly limited)	0.51 0.15	Moderately limited wetness (moderately limited)	0.51	Moderately limited wetness (moderately limited) too acid (slightly limited)	0.51 0.12
73243: Topazmill-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.15	Slightly limited low strength (slightly limited)	0.22	Not limited	0.00
73245: Alred-----	Not limited	0.00	Moderately limited shrink-swell (moderately limited)	0.50	Moderately limited slope (moderately limited)	0.45	Not limited	0.00	Very limited small stones (very limited) too acid (slightly limited)	1.00 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
73246: Alred-----	Limited slope (limited)	0.76	Limited slope (limited) shrink-swell (moderately limited)	0.76 0.50	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Very limited small stones (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.30
73247: Alred-----	Very limited shrink-swell (very limited) slope (very limited)	1.00 1.00	Very limited slope (very limited) shrink-swell (limited)	1.00 0.62	Very limited slope (very limited) shrink-swell (very limited)	1.00 1.00	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) too acid (slightly limited)	1.00 1.00 0.12
73248: Alred-----	Very limited shrink-swell (very limited) slope (limited) large stones (slightly limited)	1.00 0.76 0.01	Limited slope (limited) shrink-swell (limited) large stones (slightly limited)	0.76 0.62 0.01	Very limited slope (very limited) shrink-swell (very limited) large stones (slightly limited)	1.00 1.00 0.01	Very limited low strength (very limited) shrink-swell (very limited) slope (limited)	1.00 1.00 0.63	Very limited small stones (very limited) slope (limited) too acid (slightly limited)	1.00 0.63 0.12
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	Very limited small stones (very limited) slope (limited) depth to bedrock (moderately limited)	1.00 0.63 0.58
73249: Alred-----	Very limited shrink-swell (very limited) slope (very limited) large stones (slightly limited)	1.00 1.00 0.01	Very limited slope (very limited) shrink-swell (limited) large stones (slightly limited)	1.00 0.62 0.01	Very limited slope (very limited) shrink-swell (very limited) large stones (slightly limited)	1.00 1.00 0.01	Very limited low strength (very limited) slope (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited large stones >30% (very limited) slope (very limited) small stones (limited)	1.00 1.00 0.64

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
73249: Ocie-----	Very limited shrink-swell (very limited) slope wetness (moderately limited)	1.00 1.00 0.45	Very limited slope (very limited) wetness (very limited) shrink-swell (limited)	1.00 1.00 0.71	Very limited slope (very limited) shrink-swell (very limited)	1.00 1.00	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)	1.00 1.00
Bendavis-----	Very limited slope (very limited) wetness (moderately limited) depth to bedrock (slightly limited)	1.00 0.45 0.25	Very limited hard bedrock <40" (very limited) slope (very limited) wetness (very limited)	1.00 1.00 1.00	Very limited slope (very limited) depth to bedrock (slightly limited)	1.00 0.25	Very limited slope (very limited) depth to bedrock (slightly limited)	1.00 0.25	Very limited slope (very limited) small stones (very limited) too acid (slightly limited)	1.00 1.00 0.30
73295: Taterhill-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.15	Very limited low strength (very limited)	1.00	Not limited	0.00
73296: Yelton-----	Limited wetness (limited)	0.93	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.12	Limited slope (limited) wetness (moderately limited)	0.68 0.56	Moderately limited wetness (moderately limited)	0.56	Moderately limited wetness (moderately limited)	0.56
Topazmill-----	Slightly limited slope (slightly limited)	0.15	Slightly limited slope (slightly limited)	0.15	Limited slope (limited)	0.83	Slightly limited low strength (slightly limited)	0.22	Not limited	0.00
Lily-----	Limited depth to bedrock (limited) slope (moderately limited)	0.76 0.31	Very limited hard bedrock <40" (very limited) slope (moderately limited)	1.00 0.31	Limited slope (limited) depth to bedrock (limited)	0.99 0.76	Limited depth to bedrock (limited)	0.76	Limited depth to bedrock (limited) droughty (moderately limited) too acid (slightly limited)	0.76 0.48 0.06

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
73297: Poynor-----	Very limited slope (very limited)	1.00	Very limited slope (very limited) shrink-swell (slightly limited)	1.00 0.14	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited) droughty (moderately limited) too acid (slightly limited)	1.00 0.57 0.30
Scholten-----	Very limited slope (very limited) wetness (moderately limited) large stones (slightly limited)	1.00 0.59 0.01	Very limited wetness (very limited) slope (very limited) shrink-swell (slightly limited)	1.00 1.00 0.05	Very limited slope (very limited) wetness (slightly limited) large stones (slightly limited)	1.00 0.28 0.01	Very limited slope (very limited) wetness (slightly limited) large stones (slightly limited)	1.00 0.28 0.01	Very limited slope (very limited) small stones (moderately limited) wetness (slightly limited)	1.00 0.57 0.28
73298: Tonti-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.04	Slightly limited wetness (slightly limited) slope (slightly limited)	0.28 0.15	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
73299: Plato-----	Very limited shrink-swell (very limited) wetness (limited)	1.00 0.99	Very limited wetness (very limited) shrink-swell (limited)	1.00 0.84	Very limited shrink-swell (very limited) wetness (limited)	1.00 0.61	Very limited shrink-swell (very limited) low strength (very limited) wetness (limited)	1.00 1.00 0.61	Limited wetness (limited) too acid (moderately limited)	0.61 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
73299: Jerktail-----	Very limited shrink-swell (very limited) wetness (moderately limited)	1.00 0.59	Very limited wetness (very limited) shrink-swell (very limited) depth to bedrock (slightly limited)	1.00 1.00 0.22	Very limited shrink-swell (very limited) wetness (slightly limited)	1.00 0.28	Very limited shrink-swell (very limited) wetness (slightly limited)	1.00 0.28	Slightly limited wetness (slightly limited)	0.28
73300: Macedonia-----	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited slope (moderately limited) shrink-swell (moderately limited)	0.45 0.45	Moderately limited shrink-swell (moderately limited)	0.45	Slightly limited too acid (slightly limited)	0.30
73301: Tick-----	Moderately limited shrink-swell (moderately limited)	0.45	Slightly limited shrink-swell (slightly limited)	0.30	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	Moderately limited too acid (moderately limited)	0.36
73302: Kenaga-----	Moderately limited wetness (moderately limited) shrink-swell (moderately limited)	0.59 0.45	Very limited wetness (very limited) shrink-swell (moderately limited)	1.00 0.45	Moderately limited shrink-swell (moderately limited) wetness (slightly limited)	0.45 0.28	Moderately limited shrink-swell (moderately limited) wetness (slightly limited)	0.45 0.28	Slightly limited wetness (slightly limited)	0.28
73303: Kenaga-----	Moderately limited wetness (moderately limited) shrink-swell (moderately limited)	0.59 0.45	Very limited wetness (very limited) shrink-swell (moderately limited)	1.00 0.45	Moderately limited shrink-swell (moderately limited) wetness (slightly limited) slope (slightly limited)	0.45 0.28 0.15	Moderately limited shrink-swell (moderately limited) wetness (slightly limited)	0.45 0.28	Slightly limited wetness (slightly limited)	0.28
Egyptgrove-----	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited) slope (slightly limited)	0.45 0.15	Moderately limited shrink-swell (moderately limited)	0.45	Slightly limited small stones (slightly limited)	0.12



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
73304: Kenaga-----	Limited slope (limited)	0.76	Very limited wetness (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Limited slope (limited)	0.63
	wetness (moderately limited)	0.59	slope (limited)	0.76	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	wetness (slightly limited)	0.28
	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28		
Egyptgrove-----	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
	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45		
Tonti-----	Limited slope (limited)	0.76	Very limited wetness (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Limited slope (limited)	0.63
	wetness (moderately limited)	0.59	slope (limited)	0.76	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	too acid (slightly limited)	0.30
			shrink-swell (slightly limited)	0.04					wetness (slightly limited)	0.28
73305: Egyptgrove-----	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited)	0.45	Moderately limited shrink-swell (moderately limited)	0.45	Not limited	0.00
					slope (slightly limited)	0.15				
73306: Grassy-----	Not limited	0.00	Slightly limited shrink-swell (slightly limited)	0.18	Slightly limited slope (slightly limited)	0.15	Slightly limited low strength (slightly limited)	0.22	Not limited	0.00
Gatewood-----	Very limited shrink-swell (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00	Very limited shrink-swell (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)	0.53	wetness (very limited)	1.00	depth to bedrock (moderately limited)	0.53	shrink-swell (very limited)	1.00	depth to bedrock (moderately limited)	0.46
	wetness (moderately limited)	0.51	shrink-swell (very limited)	1.00	slope (slightly limited)	0.15	depth to bedrock (moderately limited)	0.53	droughty (moderately limited)	0.31

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
73307: Gressy-----	Not limited	0.00	Slightly limited shrink-swell (slightly limited)	0.22	Not limited	0.00	Slightly limited low strength (slightly limited)	0.22	Not limited	0.00
Viraton-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00 0.20	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Moderately limited too acid (moderately limited) wetness (slightly limited)	0.42 0.28
73308: Grandgulf-----	Very limited ponded (very limited)	1.00	Very limited ponded (very limited)	1.00	Very limited ponded (wetness) (very limited)	1.00	Very limited ponded (wetness) (very limited) low strength (very limited)	1.00 1.00	Very limited ponded (wetness) (very limited)	1.00
73309: 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) small stones (very limited) too acid (slightly limited)	1.00 1.00 0.18
Bendavis-----	Very limited slope (very limited) wetness (moderately limited) depth to bedrock (slightly limited)	1.00 0.45 0.25	Very limited hard bedrock <40" (very limited) slope (very limited) wetness (very limited)	1.00 1.00 1.00	Very limited slope (very limited) depth to bedrock (slightly limited)	1.00 0.25	Very limited slope (very limited) depth to bedrock (slightly limited)	1.00 0.25	Very limited slope (very limited) small stones (very limited) too acid (slightly limited)	1.00 1.00 0.18
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

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: Bendavis-----	Moderately limited wetness (moderately limited)	0.45	Very limited hard bedrock <40" (very limited)	1.00	Moderately limited slope (moderately limited)	0.45	Moderately limited depth to bedrock (moderately limited)	0.42	Moderately limited small stones (moderately limited)	0.33
	depth to bedrock (moderately limited)	0.42	wetness (very limited)	1.00	depth to bedrock (moderately limited)	0.42			too acid (slightly limited)	0.30
									depth to bedrock (slightly limited)	0.27
Poynor-----	Not limited	0.00	Slightly limited shrink-swell (slightly limited)	0.14	Slightly limited slope (slightly limited)	0.15	Not limited	0.00	Very limited small stones (very limited)	1.00
									too acid (moderately limited)	0.42
73311: Scholten-----	Limited wetness (limited)	0.93	Very limited wetness (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Limited small stones (limited)	0.73
	slope (limited)	0.76	slope (limited)	0.76	wetness (moderately limited)	0.56	wetness (moderately limited)	0.56	droughty (limited)	0.70
			shrink-swell (slightly limited)	0.04					slope (limited)	0.63
Bendavis-----	Limited slope (limited)	0.76	Very limited hard bedrock <40" (very limited)	1.00	Very limited slope (very limited)	1.00	Limited slope (limited)	0.63	Limited slope (limited)	0.63
	depth to bedrock (moderately limited)	0.59	wetness (very limited)	1.00	depth to bedrock (moderately limited)	0.59	depth to bedrock (moderately limited)	0.59	depth to bedrock (moderately limited)	0.58
	wetness (moderately limited)	0.45	slope (limited)	0.76					droughty (moderately limited)	0.45
Poynor-----	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 (limited)	1.00
			shrink-swell (slightly limited)	0.14					slope (limited)	0.63
									droughty (moderately limited)	0.57

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
73312: Alred-----	Not limited	0.00	Limited shrink-swell (limited)	0.81	Moderately limited slope (moderately limited)	0.45	Not limited	0.00	Very limited small stones (very limited) too acid (moderately limited) droughty (slightly limited)	1.00  0.42  0.08
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
73313: Fanchon-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Very limited low strength (very limited)	1.00	Slightly limited too acid (slightly limited)	0.24
Tonti-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited) shrink-swell (slightly limited)	1.00  0.04	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Slightly limited too acid (slightly limited) wetness (slightly limited)	0.30  0.28
73314: Tanglenook-----	Very limited wetness (very limited) shrink-swell (very limited)	1.00  1.00	Very limited wetness (very limited) shrink-swell (very limited)	1.00  1.00	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
73315: Deible-----	Very limited wetness (very limited) shrink-swell (very limited)	1.00  1.00	Very limited wetness (very limited) shrink-swell (very limited)	1.00  1.00	Very limited wetness (very limited) shrink-swell (very limited)	1.00  1.00	Very limited wetness (very limited) shrink-swell (very limited)	1.00  1.00	Very limited wetness (very limited)	1.00

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
73316: 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) small stones (very limited) too acid (slightly limited)	1.00 1.00 0.18
Tick-----	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited slope (very limited) shrink-swell (slightly limited)	1.00 0.30	Very limited slope (very limited) shrink-swell (moderately limited)	1.00 0.45	Very limited low strength (very limited) slope (very limited) shrink-swell (moderately limited)	1.00 1.00 0.45	Very limited slope (very limited) small stones (very limited) too acid (moderately limited)	1.00 1.00 0.36
Mano-----	Very limited slope (very limited) wetness (moderately limited)	1.00 0.45	Very limited slope (very limited) wetness (very limited) shrink-swell (moderately limited)	1.00 1.00 0.50	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 (slightly limited)	1.00 1.00 0.30
74626: Tanglenook----	Very limited wetness (very limited) flooding (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited flooding (very limited) wetness (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited flooding (very limited) wetness (very limited) shrink-swell (very limited)	1.00 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
74627: Hartville-----	Very limited flooding (very limited) shrink-swell (very limited) wetness (moderately limited)	1.00 1.00 0.59	Very limited flooding (very limited) wetness (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited flooding (very limited) shrink-swell (very limited) wetness (slightly limited)	1.00 1.00 0.28	Very limited low strength (very limited) shrink-swell (very limited) flooding (rare) (limited)	1.00 1.00 0.90	Slightly limited wetness (slightly limited)	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
74648: Aslinger-----	Moderately limited wetness (moderately limited)	0.59	Very limited wetness (very limited)	1.00	Moderately limited slope (moderately limited) wetness (slightly limited)	0.45 0.28	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited) too acid (slightly limited)	0.28 0.18
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	0.00
74677: Deible-----	Very limited wetness (very limited) flooding (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited flooding (very limited) wetness (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited flooding (very limited) wetness (very limited) shrink-swell (very limited)	1.00 1.00 1.00	Very limited wetness (very limited) shrink-swell (very limited) flooding (rare) (limited)	1.00 1.00 0.90	Very limited wetness (very limited)	1.00
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 (slightly limited)	1.00 1.00 0.23	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
74681: Lostpond-----	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 flooding (very limited) wetness (limited)	1.00 0.81	Limited flooding (rare) (limited) wetness (limited)	0.90 0.81	Limited wetness (limited)	0.81

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
74690: Moniteau-----	Very limited wetness (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	Very limited wetness (very limited)	1.00
	flooding (very limited)	1.00	wetness (very limited)	1.00	wetness (very limited)	1.00	wetness (very limited)	1.00		
	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.37	shrink-swell (moderately limited)	0.45	flooding (rare) (limited)	0.90		
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	0.00
75390: Razort-----	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	0.00
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	Slightly limited large stones (slightly limited)	0.01
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

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
75418: 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) droughty (moderately limited) large stones (slightly limited)	1.00 0.34 0.01
75420: Secesh-----	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
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	Very limited small stones (very limited) flooding (moderately limited) droughty (moderately limited)	1.00 0.60 0.34
75423: Cedargap-----	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) flooding (moderately limited) droughty (slightly limited)	1.00 0.60 0.17
75432: Batcave-----	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 flooding (very limited) wetness (very limited)	1.00 1.00	Very limited wetness (very limited) flooding (very limited)	1.00 1.00	Very limited wetness (very limited) flooding (very limited) small stones (very limited)	1.00 1.00 1.00 1.00



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
75432: 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 (very limited)	1.00	flooding (very limited)	1.00
	shrink-swell (moderately limited)	0.31	shrink-swell (moderately limited)	0.39	shrink-swell (moderately limited)	0.31	shrink-swell (moderately limited)	0.31	small stones (moderately limited)	0.48
75433: Racket-----	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
	shrink-swell (moderately limited)	0.45	wetness (slightly limited)	0.24	shrink-swell (moderately limited)	0.45	shrink-swell (moderately limited)	0.45		
			shrink-swell (slightly limited)	0.15						
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99002: Borrow areas---	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 fields		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
70022: Tonti-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.99	Limited wetness (limited)	0.80	Very limited small stones >35% (very limited)	1.00
	percs slowly (very limited)	1.00	slope (limited)	0.66	too clayey (limited)	0.96			too clayey (limited)	0.91
			seepage (moderately limited)	0.50	too acid (moderately limited)	0.54			too acid (moderately limited)	0.54
70025: Branson-----	Moderately limited percs slowly (moderately limited)	0.45	Limited seepage (limited)	0.68	Moderately limited too acid (moderately limited)	0.42	Not limited	0.00	Moderately limited too acid (moderately limited)	0.42
					too clayey (slightly limited)	0.19			too clayey (slightly limited)	0.06
Splitlimb-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.90	Moderately limited wetness (moderately limited)	0.55
	percs slowly (moderately limited)	0.45	seepage (moderately limited)	0.32	too acid (moderately limited)	0.48			too acid (moderately limited)	0.48
					too clayey (slightly limited)	0.04				
70026: Tonti-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.99	Limited wetness (limited)	0.80	Limited small stones (limited)	1.00
	percs slowly (very limited)	1.00	seepage (moderately limited)	0.50	too clayey (limited)	0.96			too clayey (limited)	0.91
					too acid (moderately limited)	0.54			too acid (moderately limited)	0.54
71250: Britwater-----	Moderately limited flooding (rare) (moderately limited)	0.60	Moderately limited seepage (moderately limited)	0.50	Moderately limited flooding (rare) (moderately limited)	0.60	Moderately limited flooding (rare) (moderately limited)	0.60	Limited small stones (limited)	0.72
	percs slowly (slightly limited)	0.25			too clayey (slightly limited)	0.15			too clayey (slightly limited)	0.03

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73000: Pomme-----	Slightly limited percs slowly (slightly limited)	0.25	Moderately limited seepage (moderately limited) slope (moderately limited)	0.50 0.31	Very limited too clayey (very limited) too acid (slightly limited)	1.00 0.18	Not limited	0.00	Very limited too clayey (very limited) too acid (slightly limited)	1.00 0.18
73013: Lowassie-----	Very limited ponded (wetness) (very limited) wetness (very limited) percs slowly (limited)	1.00 1.00 0.93	Very limited wetness (very limited) ponded (wetness) (very limited)	1.00 1.00	Very limited ponded (wetness) (very limited) wetness (very limited) too clayey (limited)	1.00 1.00 0.80	Very limited wetness (very limited) ponded (wetness) (very limited)	1.00 1.00	Very limited ponded (wetness) (very limited) wetness (very limited) too clayey (moderately limited)	1.00 1.00 0.60
73017: Bendavis-----	Very limited depth to bedrock (very limited) slope (very limited) wetness (very limited)	1.00 1.00 1.00	Very limited slope (very limited) wetness (very limited) depth to bedrock (very limited)	1.00 1.00 1.00	Very limited slope (very limited) depth to bedrock (very limited) wetness (limited)	1.00 1.00 1.00 0.79	Very limited depth to bedrock (very limited) slope (very limited) wetness (limited)	1.00 1.00 1.00 0.61	Very limited depth to bedrock (very limited) slope (very limited) small stones >35% (very limited)	1.00 1.00 1.00 1.00
Poynor-----	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 (moderately limited)	1.00 1.00 0.36	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
73023: Mano-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.93	Very limited wetness (very limited) slope (limited) seepage (moderately limited)	1.00 0.66 0.50	Very limited too clayey (very limited) wetness (limited)	1.00 0.79	Limited wetness (limited)	0.61	Very limited too clayey (very limited) hard to pack (limited) wetness (moderately limited)	1.00 0.70 0.40

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73023: Ocie-----	Very limited percs slowly (very limited) wetness (very limited) depth to bedrock (moderately limited)	1.00  1.00  0.42	Very limited wetness (very limited) slope (limited) seepage (moderately limited)	1.00  0.66  0.50	Very limited depth to bedrock (very limited) too clayey (very limited) wetness (limited)	1.00  1.00  1.00  0.79	Limited wetness (limited) depth to bedrock (slightly limited)	0.61  0.25	Very limited too clayey (very limited) hard to pack (limited) wetness (moderately limited)	1.00  0.70  0.40
73024: Mano-----	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  0.79  0.63	Limited slope (limited) wetness (limited)	0.63  0.61	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00  0.70  0.63
Ocie-----	Very limited percs slowly (very limited) wetness (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) too clayey (very limited) wetness (limited)	1.00  1.00  1.00  0.79	Limited slope (limited) wetness (limited) depth to bedrock (slightly limited)	0.63  0.61  0.25	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00  0.70  0.63
73051: Winnipeg-----	Slightly limited percs slowly (slightly limited)	0.25	Moderately limited seepage (moderately limited)	0.50	Limited too clayey (limited)	0.76	Not limited	0.00	Moderately limited too clayey (moderately limited)	0.54
73054: Viburnum-----	Very limited wetness (very limited) percs slowly (limited)	1.00  0.71	Very limited wetness (very limited) seepage (moderately limited)	1.00  0.50	Very limited wetness (very limited) too clayey (limited) too acid (limited)	1.00  0.90  0.76	Limited wetness (limited)	0.93	Limited small stones (limited) too clayey (limited) too acid (limited)	0.82  0.79  0.76

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73063: Bendavis-----	Very limited depth to bedrock (very limited)	1.00	Very limited wetness (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	depth to bedrock (very limited)	1.00	wetness (limited)	0.79	wetness (limited)	0.61	small stones (limited)	0.98
	percs slowly (slightly limited)	0.10	seepage (limited)	0.92	too acid (slightly limited)	0.30			wetness (moderately limited)	0.40
Poynor-----	Slightly limited percs slowly (slightly limited)	0.25	Limited slope (limited)	0.66	Limited too clayey (limited)	1.00	Not limited	0.00	Limited too clayey (limited)	0.99
			seepage (moderately limited)	0.50	too acid (limited)	0.76			too acid (limited)	0.76
									hard to pack (limited)	0.70
73068: Tick-----	Limited percs slowly (limited)	0.99	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
	slope (limited)	0.63			slope (limited)	0.63			hard to pack (limited)	0.70
					too acid (moderately limited)	0.48			slope (limited)	0.63
73069: Tick-----	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)	0.99			too clayey (very limited)	1.00			too clayey (very limited)	1.00
					too acid (moderately limited)	0.48			hard to pack (limited)	0.70
73073: 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	seepage (very limited)	1.00	too clayey (limited)	0.88	seepage (limited)	0.68	too clayey (limited)	0.76
	slope (limited)	0.63	wetness (limited)	0.74	seepage (limited)	0.73	slope (limited)	0.63	slope (limited)	0.63

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73073:										
Poynor-----	Limited slope (limited)	0.63	Very limited slope (very limited)	1.00	Very limited too clayey (very limited)	1.00	Limited seepage (limited)	0.75	Very limited too clayey (very limited)	1.00
	percs slowly (slightly limited)	0.25	seepage (very limited)	1.00	slope (limited)	0.63	slope (limited)	0.63	hard to pack (limited)	0.70
					too acid (moderately limited)	0.42			slope (limited)	0.63
73076:										
Mano-----	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	too clayey (very limited)	1.00	wetness (limited)	0.61	too clayey (very limited)	1.00
	percs slowly (limited)	0.93	seepage (moderately limited)	0.50	wetness (limited)	0.79			hard to pack (limited)	0.70
Ocie-----	Very limited percs slowly (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
	slope (very limited)	1.00	wetness (very limited)	1.00	depth to bedrock (very limited)	1.00	wetness (limited)	0.61	too clayey (very limited)	1.00
	wetness (very limited)	1.00	seepage (moderately limited)	0.50	too clayey (very limited)	1.00	depth to bedrock (slightly limited)	0.25	hard to pack (limited)	0.70
73077:										
Eudy-----	Very limited depth to bedrock (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (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	depth to bedrock (very limited)	1.00	depth to bedrock (very limited)	1.00	wetness (very limited)	1.00	too clayey (very limited)	1.00
	percs slowly (limited)	0.93	slope (limited)	0.66	too clayey (very limited)	1.00			wetness (limited)	0.86
73080:										
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 (slightly limited)	0.08	too clayey (very limited)	1.00			too clayey (very limited)	1.00
	large stones (slightly limited)	0.00	large stones (slightly limited)	0.04					hard to pack (limited)	0.70

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73080: 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 (moderately limited)	0.52	seepage (slightly limited)	0.02	too clayey (very limited)	1.00			too clayey (very limited)	1.00
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73176: 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 (slightly limited)	0.25	seepage (moderately limited)	0.50	slope (limited)	0.63			hard to pack (limited)	0.70
					too acid (moderately limited)	0.36			slope (limited)	0.63
73197: Viburnum-----	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	Limited small stones (limited)	0.98
	percs slowly (limited)	0.71	seepage (moderately limited)	0.50	too clayey (limited)	0.90			too clayey (limited)	0.79
			slope (moderately limited)	0.31	too acid (limited)	0.76			too acid (limited)	0.76
73198: Gressy-----	Limited percs slowly (limited)	0.93	Limited seepage (limited)	0.98	Very limited too clayey (very limited)	1.00	Not limited	0.00	Very limited too clayey (very limited)	1.00
			slope (moderately limited)	0.31	too acid (slightly limited)	0.06			hard to pack (limited)	0.70
									too acid (slightly limited)	0.06

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73198: Viraton-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited too clayey (very limited)	1.00	Limited wetness (limited)	0.80	Very limited too clayey (very limited)	1.00
	percs slowly (very limited)	1.00	seepage (moderately limited)	0.50	wetness (limited)	0.99			small stones (moderately limited)	0.51
			slope (moderately limited)	0.31	too acid (moderately limited)	0.48			wetness (moderately limited)	0.50
73199: Moko-----	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 (limited)	0.99	slope (very limited)	1.00	slope (slightly limited)	0.04	slope (slightly limited)	0.04	large stones (limited)	0.99
	slope (slightly limited)	0.04	large stones (limited)	0.81					small stones (moderately limited)	0.50
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73221: Poynor-----	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited too clayey (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited too clayey (very limited)	1.00
	percs slowly (moderately limited)	0.52	seepage (moderately limited)	0.50	slope (very limited)	1.00			slope (very limited)	1.00
					too acid (moderately limited)	0.36			hard to pack (limited)	0.70
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



Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
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)	0.97
					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
73226: Ocie-----	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)	0.61	Very limited too clayey (very limited)	1.00
	percs slowly (limited)	0.93	slope (very limited)	1.00	too clayey (very limited)	1.00	depth to bedrock (slightly limited)	0.25	small stones (limited)	0.83
	depth to bedrock (moderately limited)	0.42	seepage (moderately limited)	0.50	wetness (limited)	0.79	slope (slightly limited)	0.04	hard to pack (limited)	0.70
Gatewood-----	Very limited depth to bedrock (very limited)	1.00	Very limited wetness (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	depth to bedrock (very limited)	1.00	too clayey (very limited)	1.00	wetness (limited)	0.69	too clayey (very limited)	1.00
	slope (slightly limited)	0.04	slope (very limited)	1.00	wetness (limited)	0.89	slope (slightly limited)	0.04	hard to pack (limited)	0.70
73227: Ocie-----	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	depth to bedrock (very limited)	1.00	wetness (limited)	0.61	too clayey (very limited)	1.00
	percs slowly (limited)	0.93	seepage (moderately limited)	0.50	too clayey (very limited)	1.00	depth to bedrock (slightly limited)	0.25	hard to pack (limited)	0.70

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73227:										
Gatewood-----	Very limited		Very limited		Very limited		Very limited		Very limited	
	depth to bedrock (very limited)	1.00	slope (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	wetness (very limited)	1.00	depth to bedrock (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	wetness (very limited)	1.00	depth to bedrock (very limited)	1.00	too clayey (very limited)	1.00	wetness (limited)	0.69	too clayey (very limited)	1.00
73230:										
Coulstone-----	Very limited		Very limited		Very limited		Very limited		Very limited	
	slope (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	large stones (limited)	0.88	seepage (very limited)	1.00	large stones (very limited)	1.00	seepage (limited)	0.79	large stones >35% (very limited)	1.00
			large stones (very limited)	1.00	seepage (limited)	0.67			too acid (slightly limited)	0.18
Bender-----	Very limited		Very limited		Very limited		Very limited		Very limited	
	depth to bedrock (very limited)	1.00	slope (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	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)	0.71	seepage (very limited)	1.00	seepage (limited)	0.96	seepage (limited)	0.97	seepage (limited)	0.99
Gatewood-----	Very limited		Very limited		Very limited		Very limited		Very limited	
	depth to bedrock (very limited)	1.00	slope (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	wetness (very limited)	1.00	depth to bedrock (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	wetness (very limited)	1.00	depth to bedrock (very limited)	1.00	too clayey (very limited)	1.00	wetness (limited)	0.69	too clayey (very limited)	1.00
73231:										
Wasola-----	Very limited		Very limited		Limited		Limited		Moderately limited	
	wetness (very limited)	1.00	wetness (very limited)	1.00	wetness (limited)	0.99	wetness (limited)	0.80	wetness (moderately limited)	0.50
	percs slowly (limited)	0.93	seepage (moderately limited)	0.50	too clayey (moderately limited)	0.31			too acid (slightly limited)	0.30
			slope (moderately limited)	0.31	too acid (slightly limited)	0.30				

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73235: 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
									hard to pack (limited)	0.70
73236: Scholten-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.96	Very limited small stones >35% (very limited)	1.00
	percs slowly (very limited)	1.00	slope (limited)	0.91	too clayey (limited)	0.88			too clayey (limited)	0.76
			seepage (limited)	0.68	too acid (moderately limited)	0.48			wetness (moderately limited)	0.59
Poynor-----	Moderately limited percs slowly (moderately limited)	0.45	Limited seepage (limited)	0.82	Very limited too clayey (very limited)	1.00	Not limited	0.00	Very limited too clayey (very limited)	1.00
			slope (limited)	0.66	too acid (moderately limited)	0.42			hard to pack (limited)	0.70
									small stones (limited)	0.70
73240: Jerktail-----	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)	0.80	Very limited too clayey (very limited)	1.00
	percs slowly (limited)	0.93	slope (limited)	0.66	too clayey (very limited)	1.00			hard to pack (limited)	0.70
	depth to bedrock (slightly limited)	0.22	depth to bedrock (slightly limited)	0.22	wetness (limited)	0.99			wetness (moderately limited)	0.50
73242: Fanchon-----	Slightly limited percs slowly (slightly limited)	0.25	Moderately limited seepage (moderately limited)	0.50	Very limited too clayey (very limited)	1.00	Not limited	0.00	Very limited too clayey (very limited)	1.00
			slope (moderately limited)	0.31	too acid (slightly limited)	0.30			too acid (slightly limited)	0.30

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73242: Tonti-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.94	Limited too clayey (limited)	0.99
	percs slowly (very limited)	1.00	seepage (limited)	0.68	too clayey (limited)	1.00			hard to pack (limited)	0.70
			slope (moderately limited)	0.31	too acid (moderately limited)	0.42			wetness (moderately limited)	0.57
73243: Topazmill-----	Slightly limited percs slowly (slightly limited)	0.25	Moderately limited seepage (moderately limited)	0.50	Slightly limited too acid (slightly limited)	0.30	Not limited	0.00	Slightly limited too acid (slightly limited)	0.30
			slope (moderately limited)	0.31	too clayey (slightly limited)	0.11				
73245: Alred-----	Limited percs slowly (limited)	0.93	Limited slope (limited)	0.66	Very limited too clayey (very limited)	1.00	Not limited	0.00	Very limited too clayey (very limited)	1.00
			seepage (moderately limited)	0.50					hard to pack (limited)	0.70
									small stones (moderately limited)	0.47
73246: Alred-----	Limited percs slowly (limited)	0.93	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
	slope (limited)	0.63	seepage (moderately limited)	0.50	slope (limited)	0.63			hard to pack (limited)	0.70
									slope (limited)	0.63
73247: 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
									hard to pack (limited)	0.70

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73248:										
Alred-----	Limited percs slowly (limited) slope (limited) large stones (slightly limited)	0.97  0.63  0.01	Very limited slope (very limited) seepage (moderately limited) large stones (slightly limited)	1.00  0.50  0.08	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
Bendavis-----	Very limited depth to bedrock (very limited) wetness (very limited) slope (limited)	1.00  1.00  0.63	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) wetness (limited) slope (limited)	1.00  0.79  0.63	Very limited depth to bedrock (very limited) slope (limited) wetness (limited)	1.00  0.63  0.61	Very limited depth to bedrock (very limited) small stones >35% (very limited) slope (limited)	1.00  1.00  0.63
73249:										
Alred-----	Very limited slope (very limited) percs slowly (limited) large stones (slightly limited)	1.00  0.93  0.01	Very limited slope (very limited) seepage (moderately limited) large stones (slightly limited)	1.00  0.50  0.08	Very limited slope (very limited) too clayey (very limited)	1.00  1.00	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
Ocie-----	Very limited percs slowly (very limited) slope (very limited) wetness (very limited)	1.00  1.00  1.00	Very limited slope (very limited) wetness (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 slope (very limited) wetness (limited) depth to bedrock (slightly limited)	1.00  0.61  0.25	Very limited slope (very limited) too clayey (very limited) hard to pack (limited)	1.00  1.00  0.70
Bendavis-----	Very limited depth to bedrock (very limited) slope (very limited) wetness (very limited)	1.00  1.00  1.00	Very limited slope (very limited) wetness (very limited) depth to bedrock (very limited)	1.00  1.00  1.00	Very limited slope (very limited) depth to bedrock (very limited) wetness (limited)	1.00  1.00  0.79	Very limited depth to bedrock (very limited) slope (very limited) wetness (limited)	1.00  1.00  0.61	Very limited depth to bedrock (very limited) slope (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 fields		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
73295: Taterhill-----	Slightly limited percs slowly (slightly limited)	0.20	Limited seepage (limited) slope (moderately limited)	0.92 0.31	Slightly limited too acid (slightly limited) too clayey (slightly limited)	0.30 0.04	Not limited	0.00	Slightly limited too acid (slightly limited) small stones (slightly limited)	0.30 0.07
73296: Yelton-----	Very limited wetness (very limited) percs slowly (very limited)	1.00 1.00	Very limited wetness (very limited) slope (limited)	1.00 0.91	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
Topazmill-----	Slightly limited percs slowly (slightly limited)	0.25	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Slightly limited too acid (slightly limited) too clayey (slightly limited)	0.30 0.11	Not limited	0.00	Slightly limited too acid (slightly limited)	0.30
Lily-----	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited) seepage (very limited) slope (very limited)	1.00 1.00 1.00	Very limited depth to bedrock (very limited) seepage (limited) too acid (slightly limited)	1.00 0.79 0.12	Very limited depth to bedrock (very limited) seepage (limited)	1.00 0.75	Very limited depth to bedrock (very limited) seepage (moderately limited) too acid (slightly limited)	1.00 0.50 0.12
73297: Poynor-----	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 (limited) too acid (moderately limited)	1.00 0.88 0.36	Very limited slope (very limited)	1.00	Very limited slope (very limited) too clayey (limited) hard to pack (limited)	1.00 0.76 0.70

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73297: 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
	wetness (very limited)	1.00	wetness (very limited)	1.00	too clayey (limited)	1.00	wetness (limited)	0.80	too clayey (limited)	0.99
	percs slowly (very limited)	1.00	seepage (moderately limited)	0.50	wetness (limited)	0.99			small stones (limited)	0.80
73298: Tonti-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.99	Limited wetness (limited)	0.80	Limited small stones (limited)	0.98
	percs slowly (very limited)	1.00	seepage (moderately limited)	0.50	too clayey (limited)	0.96			too clayey (limited)	0.91
			slope (moderately limited)	0.31	too acid (moderately limited)	0.54			too acid (moderately limited)	0.54
Hogcreek-----	Very limited percs slowly (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00	Very limited depth to bedrock (very limited)	1.00
	depth to bedrock (very limited)	1.00	depth to bedrock (very limited)	1.00	depth to bedrock (very limited)	1.00	wetness (limited)	0.93	wetness (moderately limited)	0.57
	wetness (very limited)	1.00	seepage (limited)	0.68						
73299: Plato-----	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 (very limited)	1.00			too clayey (limited)	0.70			too clayey (moderately limited)	0.45
									small stones (slightly limited)	0.04
Jerktail-----	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)	0.80	Very limited too clayey (very limited)	1.00
	percs slowly (limited)	0.93	depth to bedrock (slightly limited)	0.22	too clayey (very limited)	1.00			hard to pack (limited)	0.70
	depth to bedrock (slightly limited)	0.22			wetness (limited)	0.99			wetness (moderately limited)	0.50

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73300: Macedonia-----	Moderately limited percs slowly (moderately limited)	0.45	Limited slope (limited) seepage (slightly limited)	0.66 0.08	Very limited too clayey (very limited) too acid (moderately limited)	1.00 0.54	Not limited	0.00	Very limited too clayey (very limited) hard to pack (limited) too acid (moderately limited)	1.00 0.70 0.54
73301: Tick-----	Limited percs slowly (limited)	0.99	Limited slope (limited)	0.66	Very limited too clayey (very limited) too acid (moderately limited)	1.00 0.48	Not limited	0.00	Very limited too clayey (very limited) hard to pack (limited) too acid (moderately limited)	1.00 0.70 0.48
73302: Kenaga-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.98	Very limited wetness (very limited) seepage (slightly limited)	1.00 0.08	Limited wetness (limited) too clayey (limited) too acid (moderately limited)	0.99 0.88 0.42	Limited wetness (limited)	0.80	Limited too clayey (limited) wetness (moderately limited) too acid (moderately limited)	0.76 0.50 0.42
73303: Kenaga-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.98	Very limited wetness (very limited) slope (moderately limited) seepage (slightly limited)	1.00 0.31 0.08	Limited wetness (limited) too clayey (limited) too acid (moderately limited)	0.99 0.88 0.42	Limited wetness (limited)	0.80	Limited too clayey (limited) hard to pack (limited) wetness (moderately limited)	0.76 0.70 0.50
Egyptgrove-----	Limited percs slowly (limited)	0.98	Moderately limited slope (moderately limited) seepage (slightly limited)	0.31 0.08	Very limited too clayey (very limited) too acid (moderately limited)	1.00 0.42	Not limited	0.00	Very limited too clayey (very limited) hard to pack (limited) too acid (moderately limited)	1.00 0.70 0.42



Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73304:										
Kenaga-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.99	Limited wetness (limited)	0.80	Limited too clayey (limited)	0.76
	perc slowly (limited)	0.98	slope (very limited)	1.00	too clayey (limited)	0.88	slope (limited)	0.63	slope (limited)	0.63
	slope (limited)	0.63	seepage (slightly limited)	0.08	slope (limited)	0.63			wetness (moderately limited)	0.50
Egyptgrove-----	Limited perc slowly (limited)	0.98	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
	slope (limited)	0.63	seepage (slightly limited)	0.08	slope (limited)	0.63			slope (limited)	0.63
					too acid (moderately limited)	0.42			too acid (moderately limited)	0.42
Tonti-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.99	Limited wetness (limited)	0.80	Limited small stones (limited)	0.98
	perc slowly (very limited)	1.00	slope (very limited)	1.00	too clayey (limited)	0.96	slope (limited)	0.63	too clayey (limited)	0.91
	slope (limited)	0.63	seepage (moderately limited)	0.50	slope (limited)	0.63			slope (limited)	0.63
73305:										
Egyptgrove-----	Limited perc slowly (limited)	0.98	Moderately limited slope (moderately limited)	0.31	Very limited too clayey (very limited)	1.00	Not limited	0.00	Very limited too clayey (very limited)	1.00
			seepage (slightly limited)	0.08	too acid (moderately limited)	0.42			small stones (limited)	0.89
									too acid (moderately limited)	0.42
73306:										
Grossy-----	Limited perc slowly (limited)	0.93	Limited seepage (limited)	0.98	Very limited too clayey (very limited)	1.00	Not limited	0.00	Very limited too clayey (very limited)	1.00
			slope (moderately limited)	0.31	too acid (slightly limited)	0.06			hard to pack (limited)	0.70
									too acid (slightly limited)	0.06

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73306: Gatewood-----	Very limited depth to bedrock (very limited)	1.00	Very limited wetness (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	depth to bedrock (very limited)	1.00	too clayey (very limited)	1.00	wetness (limited)	0.69	too clayey (very limited)	1.00
			slope (moderately limited)	0.31	wetness (limited)	0.89			hard to pack (limited)	0.70
73307: Gressy-----	Limited percs slowly (limited)	0.93	Moderately limited seepage (moderately limited)	0.50	Limited too clayey (limited)	1.00	Not limited wetness (limited)	0.00	Limited too clayey (limited)	0.99
					too acid (slightly limited)	0.06			hard to pack (limited)	0.70
									too acid (slightly limited)	0.06
Viraton-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited too clayey (very limited)	1.00	Limited wetness (limited)	0.80	Very limited too clayey (very limited)	1.00
	percs slowly (very limited)	1.00	seepage (moderately limited)	0.50	wetness (limited)	0.99			small stones (moderately limited)	0.51
					too acid (moderately limited)	0.48			wetness (moderately limited)	0.50
73308: Grandgulf-----	Very limited ponded (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	Very limited ponded (wetness) (very limited)	1.00
	percs slowly (slightly limited)	0.25	seepage (moderately limited)	0.50						
73309: 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
	percs slowly (moderately limited)	0.52	seepage (moderately limited)	0.32	too clayey (limited)	0.90			small stones (limited)	0.83
					too acid (moderately limited)	0.42			too clayey (limited)	0.79

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73309: Bendavis-----	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	wetness (very limited)	1.00	depth to bedrock (very limited)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	wetness (very limited)	1.00	depth to bedrock (very limited)	1.00	wetness (limited)	0.79	wetness (limited)	0.61	small stones >35% (very limited)	1.00
73310: Scholten-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.96	Very limited small stones >35% (very limited)	1.00
	percs slowly (very limited)	1.00	seepage (limited)	0.68	too clayey (limited)	0.88			too clayey (limited)	0.76
			slope (limited)	0.66	too acid (moderately limited)	0.48			wetness (moderately limited)	0.59
Bendavis-----	Very limited depth to bedrock (very limited)	1.00	Very limited wetness (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	depth to bedrock (very limited)	1.00	wetness (limited)	0.79	wetness (limited)	0.61	small stones (limited)	0.82
	percs slowly (slightly limited)	0.10	seepage (limited)	0.92	too acid (slightly limited)	0.30			wetness (moderately limited)	0.40
Poynor-----	Moderately limited percs slowly (moderately limited)	0.45	Limited seepage (limited)	0.82	Very limited too clayey (very limited)	1.00	Not limited	0.00	Very limited too clayey (very limited)	1.00
			slope (moderately limited)	0.31	too acid (moderately limited)	0.42			small stones (limited)	0.96
									too acid (moderately limited)	0.42
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

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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: Bendavis-----	Very limited depth to bedrock (very limited) wetness (very limited) slope (limited)	1.00  1.00  0.63	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) wetness (limited) slope (limited)	1.00  0.79  0.63	Very limited depth to bedrock (very limited) slope (limited) wetness (limited)	1.00  0.63  0.61	Very limited depth to bedrock (very limited) small stones >35% (very limited) slope (limited)	1.00  1.00  0.63
Poynor-----	Limited slope (limited) percs slowly (moderately limited)	0.63  0.45	Very limited slope (very limited) seepage (moderately limited)	1.00  0.50	Very limited too clayey (very limited) slope (limited) too acid (moderately limited)	1.00  0.63  0.42	Limited slope (limited)	0.63	Very limited too clayey (very limited) hard to pack (limited) slope (limited)	1.00  0.70  0.63
73312: Alred-----	Limited percs slowly (limited)	0.93	Limited slope (limited) seepage (moderately limited)	0.66  0.50	Very limited too clayey (very limited) too acid (slightly limited)	1.00  0.30	Not limited	0.00	Very limited too clayey (very limited) hard to pack (limited) too acid (slightly limited)	1.00  0.70  0.30
Bendavis-----	Very limited depth to bedrock (very limited) wetness (very limited) percs 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  0.82  0.40
73313: Fanchon-----	Slightly limited percs slowly (slightly limited)	0.25	Moderately limited seepage (moderately limited)	0.50	Very limited too clayey (very limited) too acid (slightly limited)	1.00  0.30	Not limited	0.00	Very limited too clayey (very limited) too acid (slightly limited)	1.00  0.30

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73313: Tonti-----	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00	Limited wetness (limited)	0.99	Limited wetness (limited)	0.80	Very limited small stones >35% (very limited)	1.00
	percs slowly (very limited)	1.00	seepage (moderately limited)	0.50	too clayey (limited)	0.96			too clayey (limited)	0.91
					too acid (moderately limited)	0.54			too acid (moderately limited)	0.54
73314: Tanglenook----	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 (limited)	0.93			too clayey (limited)	0.80			too clayey (moderately limited)	0.60
73315: 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 (limited)	0.98			too clayey (limited)	0.71			too clayey (moderately limited)	0.47
73316: 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
	percs slowly (moderately limited)	0.52	seepage (moderately limited)	0.32	too clayey (limited)	0.90			small stones (limited)	0.83
					too acid (moderately limited)	0.42			too clayey (limited)	0.79
Tick-----	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)	0.99			too clayey (very limited)	1.00			too clayey (very limited)	1.00
					too acid (moderately limited)	0.48			hard to pack (limited)	0.70

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
73316: Mano-----	Very limited slope (very limited) wetness (very limited) percs slowly (limited)	1.00 1.00 0.93	Very limited slope (very limited) wetness (very limited) seepage (moderately limited)	1.00 1.00 0.50	Very limited slope (very limited) too clayey (very limited) wetness (limited)	1.00 1.00 0.79	Very limited slope (very limited) wetness (limited)	1.00 0.61	Very limited slope (very limited) too clayey (very limited) hard to pack (limited)	1.00 1.00 0.70
74626: Tanglenook-----	Very limited wetness (very limited) percs slowly (limited) flooding (rare) (moderately limited)	1.00 0.93 0.60	Very limited wetness (very limited)	1.00	Very limited wetness (very limited) too clayey (limited) flooding (rare) (moderately limited)	1.00 0.84 0.60	Very limited wetness (very limited) flooding (rare) (moderately limited)	1.00 0.60	Very limited wetness (very limited) too clayey (limited)	1.00 0.68
74627: Hartville-----	Very limited wetness (very limited) percs slowly (limited) flooding (rare) (moderately limited)	1.00 0.93 0.60	Very limited wetness (very limited)	1.00	Limited wetness (limited) too clayey (limited) flooding (rare) (moderately limited)	0.99 0.62 0.60	Limited wetness (limited) flooding (rare) (moderately limited)	0.80 0.60	Moderately limited wetness (moderately limited) too clayey (moderately limited)	0.50 0.33
74648: Aslinger-----	Very limited wetness (very limited) percs slowly (limited)	1.00 0.82	Very limited wetness (very limited) slope (limited) seepage (moderately limited)	1.00 0.66 0.32	Limited wetness (limited) too clayey (limited) too acid (moderately limited)	0.99 0.98 0.42	Limited wetness (limited)	0.80	Limited too clayey (limited) small stones (limited) wetness (moderately limited)	0.95 0.73 0.50
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 (moderately limited)	1.00 0.33

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
74677: Deible-----	Very limited wetness (very limited) percs slowly (limited) flooding (rare) (moderately limited)	1.00  0.98  0.60	Very limited wetness (very limited)	1.00	Very limited wetness (very limited) too clayey (limited) flooding (rare) (moderately limited)	1.00  0.80  0.60	Very limited wetness (very limited) flooding (rare) (moderately limited)	1.00  0.60	Very limited wetness (very limited) too clayey (moderately limited)	1.00  0.60
74679: Higdon-----	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	Limited wetness (limited) flooding (rare) (moderately limited)	0.99  0.60	Moderately limited wetness (moderately limited)	0.60
74681: Lostpond-----	Very limited wetness (very limited) flooding (rare) (moderately limited) percs slowly (slightly limited)	1.00  0.60  0.30	Very limited wetness (very limited) seepage (limited)	1.00  0.68	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	Limited wetness (limited) small stones (slightly limited)	0.81  0.15
74690: 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	

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
75390: Razort-----	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)	0.79 0.60	Limited seepage (limited) flooding (rare) (moderately limited)	0.75 0.60	Moderately limited seepage (moderately limited) small stones (slightly limited)	0.50 0.04
75408: Secesh-----	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) too clayey (moderately limited)	0.60 0.31	Moderately limited flooding (rare) (moderately limited)	0.60	Slightly limited too clayey (slightly limited) small stones (slightly limited)	0.15 0.13
75417: Relfe-----	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 (very limited) too sandy (moderately limited)	1.00 1.00 0.60	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited seepage (very limited) small stones >35% (very limited) too sandy (moderately limited)	1.00 1.00 0.60
Sandbur-----	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 0.67	Very limited flooding (very limited) seepage (limited)	1.00 0.75	Very limited too sandy (very limited) seepage (moderately limited)	1.00 0.50
75418: Tilk-----	Moderately limited flooding (rare) (moderately limited)	0.60	Very limited seepage (very limited)	1.00	Limited seepage (limited) flooding (rare) (moderately limited) too acid (moderately limited)	0.99 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



Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
75420: Secesh-----	Very limited flooding (very limited) perc's slowly (slightly limited)	1.00 0.25	Very limited flooding (very limited) seepage (moderately limited)	1.00 0.50	Very limited flooding (very limited) too clayey (slightly limited)	1.00 0.04	Very limited flooding (very limited)	1.00	Slightly limited small stones (slightly limited)	0.11
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 (very limited) too acid (moderately limited)	1.00 1.00 0.36	Very limited flooding (very limited) seepage (limited)	1.00 0.75	Very limited small stones >35% (very limited) seepage (moderately limited) too acid (moderately limited)	1.00 0.50 0.36
75423: Cedargap-----	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) too clayey (slightly limited)	1.00 0.67 0.04	Very limited flooding (very limited) seepage (limited)	1.00 0.88	Very limited small stones >35% (very limited) seepage (slightly limited)	1.00 0.09
75432: Batcave-----	Very limited wetness (very limited) flooding (very limited) perc's 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
Farewell-----	Very limited wetness (very limited) flooding (very limited) perc's 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

Table 13.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		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
75433: Racket-----	Very limited flooding (very limited) wetness (moderately limited) percs slowly (slightly limited)	1.00 0.37 0.25	Very limited flooding (very limited) seepage (very limited)	1.00 1.00	Very limited flooding (very limited) seepage (very limited) wetness (slightly limited)	1.00 1.00 0.19	Very limited flooding (very limited)	1.00	Very limited seepage (very limited) small stones (slightly limited)	1.00 0.02
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99002: Borrow areas---	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
70022: Tonti-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Possible excess fines (bottom layer)	0.75	Very limited small stones (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	shrink-swell (slightly limited)	0.04	excess fines (bottom layer)	1.00			dense layer <20" (very limited)	1.00	wetness (very limited)	1.00
							area reclaim (very limited)	1.00	cutbanks cave (very limited)	1.00
70025: Branson-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Slightly limited too acid (slightly limited)	0.12	Slightly limited cutbanks cave (slightly limited)	0.29
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00			too clayey (slightly limited)	0.06
Splitlimb-----	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)	0.71	Very limited wetness (very limited)	1.00
	wetness (limited)	0.71	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too acid (moderately limited)	0.48	cutbanks cave (slightly limited)	0.29
	shrink-swell (moderately limited)	0.45					too clayey (moderately limited)	0.33		
70026: Tonti-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Possible excess fines (bottom layer)	0.75	Very limited small stones (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	shrink-swell (slightly limited)	0.04	excess fines (bottom layer)	1.00			dense layer <20" (very limited)	1.00	wetness (very limited)	1.00
							area reclaim (very limited)	1.00	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
71250: Britwater-----	Not limited	0.00	Improbable excess fines (thickest layer)	1.00	Possible 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	excess fines (bottom layer)	0.99	area reclaim (very limited) too clayey (moderately limited)	1.00 0.55	too clayey (slightly limited)	0.03
73000: Pomme-----	Not limited	0.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Limited small stones (limited)	0.92	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	too clayey (limited) too acid (slightly limited)	0.61 0.18	too clayey (very limited)	1.00
73013: Lowassie-----	Very limited wetness (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 ponded (wetness) (very limited)	1.00
	low strength (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too clayey (very limited)	1.00	wetness (very limited)	1.00
	shrink-swell (slightly limited)	0.27					too acid (moderately limited)	0.54	too clayey (moderately limited)	0.60
73017: Bendavis-----	Very limited depth to bedrock (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Possible excess fines (bottom layer)	0.75	Very limited slope (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00
	slope (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.75	small stones (very limited)	1.00	slope (very limited)	1.00
	wetness (slightly limited)	0.12					large surface stones (limited)	0.70	cutbanks cave (very limited)	1.00
Poynor-----	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 (limited)	0.92	excess fines (bottom layer)	1.00			small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
	shrink-swell (slightly limited)	0.14					too acid (moderately limited)	0.36	too clayey (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
73023:										
Mano-----	Very limited low strength (very limited) shrink-swell (moderately limited) wetness (slightly limited)	1.00  0.50  0.12	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Improbable excess fines (bottom layer)	1.00  1.00	Very limited small stones (very limited) too acid (slightly limited) wetness (slightly limited)	1.00  0.30  0.12	Very limited cutbanks cave (very limited) too clayey (very limited) wetness (very limited)	1.00  1.00  1.00
Ocie-----	Very limited low strength (very limited) shrink-swell (limited) depth to bedrock (slightly limited)	1.00  0.71  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) small stones (limited) wetness (slightly limited)	1.00  0.88  0.12	Very limited too clayey (very limited) cutbanks cave (very limited) wetness (very limited)	1.00  1.00  1.00
73024:										
Mano-----	Very limited low strength (very limited) shrink-swell (moderately limited) wetness (slightly limited)	1.00  0.50  0.12	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Improbable excess fines (bottom layer)	1.00  1.00	Very limited small stones (very limited) slope (limited) too acid (moderately limited)	1.00  0.63  0.48	Very limited cutbanks cave (very limited) too clayey (very limited) wetness (very limited)	1.00  1.00  1.00
Ocie-----	Very limited low strength (very limited) shrink-swell (limited) depth to bedrock (slightly limited)	1.00  0.71  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) small stones (very limited) slope (limited)	1.00  1.00  0.63	Very limited too clayey (very limited) cutbanks cave (very limited) wetness (very limited)	1.00  1.00  1.00
73051:										
Winnipeg-----	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00  0.33	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	Moderately limited too clayey (moderately limited)	0.55	Moderately limited too clayey (moderately limited) cutbanks cave (slightly limited)	0.54  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
73054: Viburnum-----	Limited wetness (limited) shrink-swell (moderately limited)	0.76 0.45	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Improbable excess fines (thickest layer)	1.00	Very limited too clayey (very limited) area reclaim (very limited) wetness (limited)	1.00 1.00 0.76	Very limited wetness (very limited) cutbanks cave (very limited) too clayey (limited)	1.00 1.00 0.79
73063: 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)	0.99 0.99	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) wetness (very limited)	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)	1.00	Very limited small stones (very limited) too acid (moderately limited) too clayey (moderately limited)	1.00 0.42 0.33	Very limited cutbanks cave (very limited) too clayey (limited)	1.00 0.99
73068: Tick-----	Very limited low strength (very limited) shrink-swell (slightly limited)	1.00 0.30	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 0.42	Very limited too clayey (very limited) slope (limited) cutbanks cave (slightly limited)	1.00 0.63 0.29
73069: Tick-----	Very limited low strength (very limited) slope (limited) shrink-swell (slightly limited)	1.00 0.92 0.30	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) too acid (moderately limited)	1.00 1.00 0.42	Very limited slope (very limited) too clayey (very limited) cutbanks cave (slightly limited)	1.00 1.00 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
73073: Scholten-----	Limited wetness (limited)	0.82	Improbable excess fines (thickest layer)	1.00	Possible excess fines (thickest layer)	1.00	Very limited small stones (very limited)	1.00	Very limited wetness (very limited)	1.00
	shrink-swoll (slightly limited)	0.25	excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.75	area reclaim (very limited)	1.00	cutbanks cave (very limited)	1.00
							dense layer (limited)	1.00	dense layer (limited)	1.00
Poynor-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Possible excess fines (bottom layer)	1.00	Very limited small stones (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
	shrink-swoll (slightly limited)	0.14	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.75	slope (limited)	0.63	too clayey (very limited)	1.00
							too acid (moderately limited)	0.42	slope (limited)	0.63
73076: Mano-----	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 (limited)	0.92	excess fines (bottom layer)	1.00			small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
	shrink-swoll (moderately limited)	0.50					too acid (moderately limited)	0.48	too clayey (very limited)	1.00
Ocie-----	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 too clayey (very limited)	1.00
	slope (limited)	0.92	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too clayey (very limited)	1.00	slope (very limited)	1.00
	shrink-swoll (limited)	0.71					small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
73077: Eudy-----	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	small stones (very limited)	1.00	wetness (very limited)	1.00
	shrink-swoll (very limited)	1.00					wetness (limited)	0.98	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
73080:										
Alred-----	Very limited low strength (very limited) slope (very limited) shrink-swell (slightly limited)	1.00  1.00 0.15	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Probable excess fines (bottom layer) Excess fines (thickest layer)	1.00  0.42	Very limited slope (very limited) small stones (very limited) large surface stones (moderately limited)	1.00  1.00 0.60	Very limited slope (very limited) too clayey (very limited) cutbanks cave (slightly limited)	1.00  1.00 0.29
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
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73176:										
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) wetness (very limited)	1.00  1.00
Poynor-----	Very limited low strength (very limited) shrink-swell (moderately limited)	1.00  0.32	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	1.00  0.99	Very limited too clayey (very limited) slope (limited) too acid (moderately limited)	1.00  0.63 0.36	Very limited too clayey (very limited) slope (limited) cutbanks cave (slightly limited)	1.00  0.63 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
73198:										
Gressy-----	Slightly limited low strength (slightly limited)	0.22	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Slightly limited small stones (slightly limited)	0.12	Very limited cutbanks cave (very limited)	1.00
	shrink-swll (slightly limited)	0.18	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	area reclaim (slightly limited)	0.08	too clayey (very limited)	1.00
Viraton-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Probable excess fines (bottom layer)	1.00	Very limited small stones (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	shrink-swll (slightly limited)	0.20	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.25	dense layer <20" (very limited)	1.00	wetness (very limited)	1.00
							too acid (limited)	0.68	cutbanks cave (very limited)	1.00
73199:										
Moko-----	Very limited depth to bedrock (very limited)	1.00	Possible excess fines (thickest layer)	1.00	Probable small stones (thickest layer)	0.83	Very limited depth to bedrock (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00
	large stones (limited)	0.99	excess fines (bottom layer)	1.00	small stones (bottom layer)	0.66	small stones (very limited)	1.00	large stones (limited)	0.99
	low strength (slightly limited)	0.22	small stones (thickest layer)	0.83	probable source (thickest layer)	0.50	large stones >25% (very limited)	1.00	cutbanks cave (slightly limited)	0.29
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73221:										
Poynor-----	Very limited low strength (very limited)	1.00	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
	shrink-swll (slightly limited)	0.14	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	slope (very limited)	1.00	too clayey (very limited)	1.00
	slope (slightly limited)	0.08					too acid (moderately limited)	0.36	slope (very limited)	1.00
73222:										
Splitlimb-----	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)	0.76	Very limited ponded (wetness) (very limited)	1.00
	wetness (limited)	0.76	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too acid (moderately limited)	0.48	wetness (very limited)	1.00
	shrink-swll (moderately limited)	0.45					too clayey (moderately limited)	0.33	cutbanks cave (slightly limited)	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
73223:										
Coulstone-----	Very limited low strength (very limited) slope (limited)	1.00  0.92	Probable excess fines (thickest layer) excess fines (bottom layer) small stones (thickest layer)	1.00  1.00 0.30	Probable excess fines (bottom layer) excess fines (thickest layer) small stones (thickest layer)	0.99  0.75 0.30	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 (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	Probable excess fines (thickest layer) excess fines (bottom layer) small stones (thickest layer)	1.00  1.00 0.60	Probable 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
73226:										
Ocie-----	Very limited low strength (very limited) shrink-swell (limited) depth to bedrock (slightly limited)	1.00  0.85 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) small stones (very limited) wetness (slightly limited)	1.00  1.00 0.12	Very limited too clayey (very limited) cutbanks cave (very limited) wetness (very limited)	1.00  1.00 1.00
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 (thickest layer) excess fines (bottom layer)	1.00  1.00	Very limited depth to bedrock (very limited) too clayey (very limited) small stones (moderately limited)	1.00  1.00 0.50	Very limited hard bedrock <40" (very limited) wetness (very limited) too clayey (very limited)	1.00  1.00 1.00
73227:										
Ocie-----	Very limited low strength (very limited) slope (very limited) shrink-swell (limited)	1.00  1.00 0.85	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) small stones (limited)	1.00  1.00 0.88	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
73227: Gatewood-----	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 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	too clayey (very limited)	1.00	slope (very limited)	1.00
	shrink-swell (very limited)	1.00					depth to bedrock (limited)	0.68	wetness (very limited)	1.00
73230: Coulstone-----	Limited slope (limited)	0.92	Probable excess fines (thickest layer)	1.00	Probable excess fines (thickest layer)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	large stones (limited)	0.88	excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.75	small stones (very limited)	1.00	large stones (limited)	0.88
			large stones (bottom layer)	0.30	large stones (thickest layer)	0.30	area reclaim (very limited)	1.00	cutbanks cave (slightly limited)	0.29
Bender-----	Very limited depth to bedrock (very limited)	1.00	Possible excess fines (thickest layer)	1.00	Probable excess fines (bottom layer)	0.75	Very limited depth to bedrock (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00
	slope (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.75	slope (very limited)	1.00	slope (very limited)	1.00
	large stones (limited)	0.71	small stones (thickest layer)	0.60	small stones (thickest layer)	0.60	small stones (very limited)	1.00	large stones (limited)	0.71
Gatewood-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Very limited depth to bedrock (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 (bottom layer)	1.00	slope (very limited)	1.00	slope (very limited)	1.00
	shrink-swell (very limited)	1.00					too clayey (very limited)	1.00	wetness (very limited)	1.00
73231: Wasola-----	Moderately limited shrink-swell (moderately limited)	0.53	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Very limited area reclaim (very limited)	1.00	Very limited wetness (very limited)	1.00
	wetness (moderately limited)	0.48	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	small stones (limited)	0.72	cutbanks cave (very limited)	1.00
							wetness (moderately limited)	0.48	too clayey (slightly limited)	0.15

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
73235: Alred-----	Very limited low strength (very limited) slope (very limited) shrink-swell (limited)	1.00  1.00  0.62	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Probable excess fines (bottom layer) excess fines (thickest layer)	1.00  0.42	Very limited slope (very limited) small stones (very limited)	1.00  1.00	Very limited slope (very limited) too clayey (very limited) cutbanks cave (slightly limited)	1.00  1.00  0.29
73236: 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
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) excess fines (thickest layer)	1.00  0.50	Very limited small stones (very limited) too acid (moderately limited)	1.00  0.36	Very limited cutbanks cave (very limited) too clayey (very limited)	1.00  1.00
73240: Jerktail-----	Very limited shrink-swell (very limited) wetness (moderately limited)	1.00  0.48	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) small stones (very limited) area reclaim (limited)	1.00  1.00  0.92	Very limited wetness (very limited) cutbanks cave (very limited) too clayey (very limited)	1.00  1.00  1.00
73242: Fanchon-----	Not limited	0.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	1.00  0.99	Slightly limited too acid (slightly limited)	0.24	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
73242: Tonti-----	Limited wetness (limited) shrink-swll (slightly limited)	0.78 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) wetness (limited) small stones (moderately limited)	1.00 0.78 0.50	Very limited dense layer <20" (very limited) wetness (very limited) cutbanks cave (very limited)	1.00 1.00 1.00
73243: Topazmill-----	Not limited	0.00	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	Not limited	0.00	Slightly limited cutbanks cave (slightly limited)	0.29
73245: Alred-----	Very limited low strength (very limited) shrink-swll (moderately limited)	1.00 0.50	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 acid (slightly limited)	1.00 0.30	Very limited cutbanks cave (very limited) too clayey (very limited)	1.00 1.00
73246: Alred-----	Very limited low strength (very limited) shrink-swll (moderately limited)	1.00 0.50	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 (slightly limited)	1.00 0.63 0.30	Very limited cutbanks cave (very limited) too clayey (very limited) slope (limited)	1.00 1.00 0.63
73247: Alred-----	Very limited low strength (very limited) slope (limited) shrink-swll (limited)	1.00 0.92 0.62	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Probable excess fines (bottom layer) excess fines (thickest layer)	1.00 0.42	Very limited slope (very limited) small stones (very limited) large stones (slightly limited)	1.00 1.00 0.01	Very limited slope (very limited) too clayey (very limited) cutbanks cave (slightly limited)	1.00 1.00 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
73248:										
Alred-----	Very limited low strength (very limited) shrink-swell (limited) large stones (slightly limited)	1.00  0.62  0.01	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Probable excess fines (bottom layer) excess fines (thickest layer)	1.00  0.42	Very limited small stones (very limited) slope (limited) large surface stones (slightly limited)	1.00  0.63  0.13	Very limited too clayey (very limited) slope (limited) cutbanks cave (slightly limited)	1.00  0.63  0.29
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) wetness (very limited)	1.00  1.00
73249:										
Alred-----	Very limited low strength (very limited) slope (limited) shrink-swell (limited)	1.00  0.92  0.62	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Probable excess fines (bottom layer) excess fines (thickest layer)	1.00  0.42	Very limited slope (very limited) small stones (very limited) large stones >25% (very limited)	1.00  1.00  1.00	Very limited slope (very limited) too clayey (very limited) cutbanks cave (slightly limited)	1.00  1.00  0.29
Ocie-----	Very limited low strength (very limited) slope (limited) shrink-swell (limited)	1.00  0.92  0.71	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) small stones (very limited)	1.00  1.00  1.00	Very limited too clayey (very limited) slope (very limited) cutbanks cave (very limited)	1.00  1.00  1.00
Bendavis-----	Very limited depth to bedrock (very limited) slope (very limited) wetness (slightly limited)	1.00  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)	0.99  0.99	Very limited slope (very limited) small stones (very limited) large surface stones (limited)	1.00  1.00  0.70	Very limited hard bedrock <40" (very limited) slope (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
73295: Taterhill-----	Not limited	0.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Limited area reclaim (limited)	0.92	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	too acid (slightly limited)	0.12		
73296: Yelton-----	Limited wetness (limited)	0.82	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited dense layer <20" (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	shrink-swell (slightly limited)	0.12	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	wetness (limited)	0.82	wetness (very limited)	1.00
							small stones (moderately limited)	0.50	cutbanks cave (slightly limited)	0.29
Topazmill-----	Not limited	0.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Not limited	0.00	Slightly limited cutbanks cave (slightly limited)	0.29
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00				
Lily-----	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 (slightly limited)	0.30		
							too clayey (slightly limited)	0.04		
73297: Poynor-----	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 (limited)	0.92	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
	shrink-swell (slightly limited)	0.14					too acid (moderately limited)	0.36	too clayey (limited)	0.76

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
73297: Scholten-----	Limited slope (limited)	0.92	Improbable excess fines (thickest layer)	1.00	Possible excess fines (thickest layer)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	wetness (moderately limited)	0.48	excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.62	small stones (very limited)	1.00	wetness (very limited)	1.00
	shrink-swell (slightly limited)	0.05					area reclaim (very limited)	1.00	cutbanks cave (very limited)	1.00
73298: Tonti-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Possible excess fines (thickest layer)	1.00	Very limited small stones (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	shrink-swell (slightly limited)	0.04	excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.75	dense layer <20" (very limited)	1.00	wetness (very limited)	1.00
							area reclaim (very limited)	1.00	cutbanks cave (very limited)	1.00
Hogcreek-----	Very limited depth to bedrock (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Possible excess fines (thickest layer)	1.00	Very limited small stones (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	wetness (limited)	0.76	excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.75	dense layer <20" (very limited)	1.00	hard bedrock <40" (very limited)	1.00
							wetness (limited)	0.93	wetness (very limited)	1.00
73299: Plato-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Very limited dense layer <20" (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	wetness (limited)	0.86	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	area reclaim (limited)	0.92	wetness (very limited)	1.00
	shrink-swell (limited)	0.84					wetness (limited)	0.86	cutbanks cave (very limited)	1.00
Jerktail-----	Very limited shrink-swell (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 wetness (very limited)	1.00
	wetness (moderately limited)	0.48	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
							area reclaim (limited)	0.92	too clayey (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
73300: Macedonia-----	Moderately limited shrink-swell (moderately limited)	0.45	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Very limited too clayey (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	too clayey (very limited)	1.00
							too acid (moderately limited)	0.54		
73301: Tick-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Very limited too clayey (very limited)	1.00	Very limited too clayey (very limited)	1.00
	shrink-swell (slightly limited)	0.30	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	too acid (moderately limited)	0.42	cutbanks cave (slightly limited)	0.29
							small stones (slightly limited)	0.12		
73302: Kenaga-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Limited too clayey (limited)	0.94	Very limited wetness (very limited)	1.00
	shrink-swell (moderately limited)	0.45	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	wetness (moderately limited)	0.48	cutbanks cave (very limited)	1.00
							too acid (moderately limited)	0.42	too clayey (limited)	0.76
73303: Kenaga-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Limited too clayey (limited)	0.94	Very limited wetness (very limited)	1.00
	shrink-swell (moderately limited)	0.45	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	small stones (moderately limited)	0.50	too clayey (limited)	0.76
							wetness (moderately limited)	0.48	cutbanks cave (slightly limited)	0.29
Egyptgrove-----	Moderately limited shrink-swell (moderately limited)	0.45	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited too clayey (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	small stones (limited)	0.92	too clayey (very limited)	1.00
							too acid (moderately limited)	0.42		

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
73304:										
Kenaga-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Limited too clayey (limited)	0.94	Very limited wetness (very limited)	1.00
	shrink-swoll (moderately limited)	0.45	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	small stones (limited)	0.88	too clayey (limited)	0.76
							slope (limited)	0.63	slope (limited)	0.63
Egyptgrove----	Moderately limited shrink-swoll (moderately limited)	0.45	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Very limited too clayey (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
							small stones (moderately limited)	0.50	slope (limited)	0.63
Tonti-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Possible excess fines (thickest layer)	1.00	Very limited small stones (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	shrink-swoll (slightly limited)	0.04	excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.75	dense layer <20" (very limited)	1.00	wetness (very limited)	1.00
							area reclaim (very limited)	1.00	cutbanks cave (very limited)	1.00
73305:										
Egyptgrove----	Moderately limited shrink-swoll (moderately limited)	0.45	Improbable excess fines (thickest layer)	1.00	Possible excess fines (thickest layer)	1.00	Very limited too clayey (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.99	small stones (very limited)	1.00	too clayey (very limited)	1.00
							area reclaim (very limited)	1.00		
73306:										
Grassy-----	Slightly limited low strength (slightly limited)	0.22	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Slightly limited small stones (slightly limited)	0.12	Very limited cutbanks cave (very limited)	1.00
	shrink-swoll (slightly limited)	0.18	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	area reclaim (slightly limited)	0.08	too clayey (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
73306: Gatewood-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Very limited depth to bedrock (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 (bottom layer)	1.00	too clayey (very limited)	1.00	wetness (very limited)	1.00
	shrink-swell (very limited)	1.00					small stones (moderately limited)	0.50	too clayey (very limited)	1.00
73307: Gressy-----	Slightly limited shrink-swell (slightly limited)	0.22	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Moderately limited area reclaim (moderately limited)	0.32	Very limited cutbanks cave (very limited)	1.00
	low strength (slightly limited)	0.22	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00			too clayey (limited)	0.99
Viraton-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Probable excess fines (bottom layer)	1.00	Very limited small stones (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	shrink-swell (slightly limited)	0.20	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.25	dense layer <20" (very limited)	1.00	wetness (very limited)	1.00
							wetness (moderately limited)	0.48	cutbanks cave (very limited)	1.00
73308: Grandgulf-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (bottom layer)	1.00	Not limited	0.00	Very limited ponded (wetness) (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00			cutbanks cave (slightly limited)	0.29
73309: Clarksville----	Moderately limited slope (moderately limited)	0.50	Improbable excess fines (thickest layer)	1.00	Probable excess fines (bottom layer)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.50	small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
							too acid (slightly limited)	0.30	too clayey (limited)	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
73309: Bendavis-----	Very limited depth to bedrock (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Possible excess fines (bottom layer)	0.75	Very limited slope (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00
	slope (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.75	small stones (very limited)	1.00	slope (very limited)	1.00
	wetness (slightly limited)	0.12					large surface stones (limited)	0.70		
73310: Scholten-----	Limited wetness (limited)	0.82	Improbable excess fines (thickest layer)	1.00	Possible excess fines (thickest layer)	1.00	Very limited small stones (very limited)	1.00	Very limited wetness (very limited)	1.00
	shrink-swell (slightly limited)	0.04	excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.62	area reclaim (very limited)	1.00	cutbanks cave (very limited)	1.00
							dense layer (limited)	1.00	dense layer (limited)	1.00
Bendavis-----	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 small stones (very limited)	1.00	Very limited hard bedrock <40" (very limited)	1.00
	wetness (slightly limited)	0.12	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	depth to bedrock (limited)	0.93	cutbanks cave (very limited)	1.00
							too acid (slightly limited)	0.30	wetness (very limited)	1.00
Poynor-----	Very limited low strength (very limited)	1.00	Improbable excess fines (thickest layer)	1.00	Probable excess fines (bottom layer)	1.00	Very limited small stones (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
	shrink-swell (slightly limited)	0.14	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.50	too acid (moderately limited)	0.36	too clayey (very limited)	1.00
							area reclaim (moderately limited)	0.32		
73311: Scholten-----	Limited wetness (limited)	0.82	Improbable excess fines (thickest layer)	1.00	Possible excess fines (thickest layer)	1.00	Very limited small stones (very limited)	1.00	Very limited wetness (very limited)	1.00
	shrink-swell (slightly limited)	0.04	excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.62	area reclaim (very limited)	1.00	cutbanks cave (very limited)	1.00
							dense layer (limited)	1.00	dense layer (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
73311: 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) wetness (very limited)	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
73312: Alred-----	Very limited low strength (very limited) shrink-swell (limited)	1.00  0.81	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	1.00  0.75	Very limited small stones (very limited) too acid (moderately limited) too clayey (slightly limited)	1.00  0.48 0.25	Very limited cutbanks cave (very limited) too clayey (very limited)	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) wetness (very limited)	1.00  1.00
73313: Fanchon-----	Not limited	0.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	1.00  0.99	Slightly limited too acid (slightly limited)	0.24	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
73313: Tonti-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer)	1.00	Probable excess fines (bottom layer)	0.75	Very limited small stones (very limited)	1.00	Very limited dense layer <20" (very limited)	1.00
	shrink-swell (slightly limited)	0.04	excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.50	dense layer <20" (very limited)	1.00	wetness (very limited)	1.00
							area reclaim (very limited)	1.00	cutbanks cave (very limited)	1.00
73314: Tanglenook-----	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 (very limited)	1.00	too clayey (moderately limited)	0.60
	shrink-swell (very limited)	1.00						cutbanks cave (slightly limited)	0.29	
73315: Deible-----	Very limited wetness (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
	shrink-swell (very limited)	1.00	excess fines (bottom layer)	1.00	excess fines (thickest layer)	1.00	too clayey (very limited)	1.00	too clayey (moderately limited)	0.47
							too acid (slightly limited)	0.30	cutbanks cave (slightly limited)	0.29
73316: Clarksville----	Limited slope (limited)	0.75	Improbable excess fines (thickest layer)	1.00	Probable excess fines (bottom layer)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (thickest layer)	0.50	small stones (very limited)	1.00	cutbanks cave (very limited)	1.00
							too acid (slightly limited)	0.30	too clayey (limited)	0.79
Tick-----	Very limited low strength (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
	slope (limited)	0.92	excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	too clayey (very limited)	1.00	too clayey (very limited)	1.00
	shrink-swell (slightly limited)	0.30					too acid (moderately limited)	0.42	cutbanks cave (slightly limited)	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
73316: Mano-----	Very limited low strength (very limited) slope (limited) shrink-swell (moderately limited)	1.00  0.92  0.50	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Probable excess fines (bottom layer) excess fines (thickest layer)	1.00  0.50	Very limited slope (very limited) small stones (very limited) too acid (moderately limited)	1.00  1.00  0.48	Very limited slope (very limited) cutbanks cave (very limited) too clayey (very limited)	1.00  1.00  1.00
74626: Tanglenook-----	Very limited low strength (very limited) wetness (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 wetness (very limited) too clayey (very limited)	1.00  1.00	Very limited wetness (very limited) too clayey (limited) cutbanks cave (slightly limited)	1.00  0.68  0.29
74627: Hartville-----	Very limited low strength (very limited) shrink-swell (very limited) wetness (moderately limited)	1.00  1.00  0.48	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) wetness (moderately limited)	1.00  0.48	Very limited wetness (very limited) too clayey (moderately limited) cutbanks cave (slightly limited)	1.00  0.33  0.29
74648: Aslinger-----	Moderately limited wetness (moderately limited)	0.48	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Possible excess fines (bottom layer) excess fines (thickest layer)	0.99  0.99	Very limited dense layer <20" (very limited) small stones (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
74658: Zanoni-----	Not limited	0.00	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00  1.00	Probable excess fines (thickest layer) probable source (bottom layer)	1.00  0.25	Very limited area reclaim (very limited) too sandy (limited)	1.00  0.63	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
74677: Deible-----	Very limited wetness (very limited) shrink-swell (very limited)	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 wetness (very limited) too clayey (very limited)	1.00  1.00	Very limited wetness (very limited) too clayey (moderately limited) cutbanks cave (slightly limited)	1.00  0.60 0.29
74679: Higdon-----	Very limited low strength (very limited) wetness (limited) shrink-swell (slightly limited)	1.00  0.86 0.23	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 (slightly limited)	0.86  0.08	Very limited wetness (very limited) cutbanks cave (slightly limited)	1.00  0.29
74681: Lostpond-----	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) area reclaim (limited)	1.00  0.96 0.68	Very limited wetness (very limited) cutbanks cave (very limited)	1.00  1.00
74690: Moniteau-----	Very limited low strength (very limited) wetness (very limited) shrink-swell (moderately limited)	1.00  1.00 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	Very limited wetness (very limited) too clayey (moderately limited)	1.00  0.33	Very limited wetness (very limited) cutbanks cave (slightly limited)	1.00  0.29
75381: Bearthicket----	Very limited low strength (very limited) excess fines (bottom layer)	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	Not limited	0.00	Slightly limited cutbanks cave (slightly limited)	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
75390: Razort-----	Not limited	0.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Limited area reclaim (limited)	0.92	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00				
75408: Secesh-----	Not limited	0.00	Improbable excess fines (thickest layer)	1.00	Improbable 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	excess fines (bottom layer)	1.00	small stones (slightly limited)	0.12	too clayey (slightly limited)	0.15
							too clayey (slightly limited)	0.12		
75417: Relfe-----	Not limited	0.00	Probable excess fines (thickest layer)	1.00	Probable excess fines (thickest layer)	0.75	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)	0.25	small stones (very limited)	1.00	flooding (moderately limited)	0.60
							area reclaim (very limited)	1.00		
Sandbur-----	Not limited	0.00	Possible excess fines (thickest layer)	1.00	Possible 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)	0.97	excess fines (bottom layer)	0.99	too sandy (limited)	0.76	flooding (moderately limited)	0.60
75418: Tilk-----	Not limited	0.00	Possible excess fines (thickest layer)	1.00	Probable probable source (thickest layer)	0.33	Very limited small stones (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	0.99	probable source (bottom layer)	0.17	area reclaim (very limited)	1.00		
							too sandy (limited)	0.61		

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
75420: Secesh-----	Not limited	0.00	Improbable excess fines (thickest layer)	1.00	Improbable excess fines (thickest layer)	1.00	Limited area reclaim (limited)	0.92	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	1.00	excess fines (bottom layer)	1.00	small stones (moderately limited)	0.50	flooding (moderately limited)	0.60
							too clayey (slightly limited)	0.12		
Tilk-----	Not limited	0.00	Possible excess fines (thickest layer)	1.00	Probable excess fines (thickest layer)	0.99	Very limited small stones (very limited)	1.00	Very limited cutbanks cave (very limited)	1.00
			excess fines (bottom layer)	0.99	probable source (bottom layer)	0.17	area reclaim (very limited)	1.00	flooding (moderately limited)	0.60
							too sandy (limited)	0.61		
75423: Cedargap-----	Not limited	0.00	Improbable excess fines (thickest layer)	1.00	Probable probable source (thickest layer)	0.50	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)	0.46	area reclaim (very limited)	1.00	flooding (moderately limited)	0.60
							too sandy (moderately limited)	0.52		
75432: Bacave-----	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
Farewell-----	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
	shrink-swell (moderately limited)	0.39	excess fines (bottom layer)	1.00	excess fines (bottom layer)	0.75	area reclaim (very limited)	1.00	cutbanks cave (very limited)	1.00
	low strength (slightly limited)	0.22					small stones (moderately limited)	0.50	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
75433: Racket-----	Slightly limited shrink-swell (slightly limited)	0.15	Probable excess fines (thickest layer) probable source (bottom layer)	1.00 0.45	Improbable excess fines (thickest layer) excess fines (bottom layer)	1.00 1.00	Very limited area reclaim (very limited) too clayey (slightly limited)	1.00 0.21	Very limited cutbanks cave (very limited) flooding (moderately limited) wetness (slightly limited)	1.00 0.60 0.24
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99002: Borrow areas---	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
70022: 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
70025: Branson-----	Limited seepage (limited)	0.68	Not limited	0.00	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
Splitlimb-----	Moderately limited seepage (moderately limited)	0.32	Not limited	0.00	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
							wetness (moderately limited)	0.53	wetness (moderately limited)	0.53
70026: 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
					erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.44	erodes easily (moderately limited)	0.60
									wetness (moderately limited)	0.44
71250: Britwater-----	Moderately limited seepage (moderately limited)	0.50	Not limited	0.00	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
73000: Pomme-----	Moderately limited seepage (moderately limited)	0.50	Moderately limited slope (moderately limited)	0.40	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	slope (slightly limited)	0.10			slope (moderately limited)	0.40	slope (slightly limited)	0.10	slope (slightly limited)	0.10

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
73013: Lowassie-----	Not limited	0.00	Very limited ponded (wetness) (very limited) percs slowly (moderately limited)	1.00 0.39	Very limited ponded (wetness) (very limited) erodes easily (moderately limited) percs slowly (moderately limited)	1.00 0.60 0.39	Very limited ponded (wetness) (very limited) wetness (very limited) erodes easily (moderately limited)	1.00 1.00 0.60	Very limited wetness (very limited) erodes easily (moderately limited)	1.00 0.60
73017: Bendavis-----	Very limited slope (very limited) depth to bedrock (limited) seepage (moderately limited)	1.00 0.77 0.50	Very limited slope (very limited) percs slowly (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	Very limited slope (very limited) depth to bedrock (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) depth to bedrock (limited) large surface stones (limited)	1.00 0.77 0.70
Poynor-----	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited slope (very limited) large surface stones (moderately limited)	1.00 0.31	Very limited slope (very limited) droughty (moderately limited) large surface stones (moderately limited)	1.00 0.57 0.31	Very limited slope (very limited) large surface stones (moderately limited)	1.00 0.31	Very limited slope (very limited) droughty (moderately limited) large surface stones (moderately limited)	1.00 0.57 0.31
73023: Mano-----	Moderately limited seepage (moderately limited) slope (slightly limited)	0.50 0.20	Limited slope (limited) percs slowly (moderately limited)	0.78 0.39	Limited slope (limited) percs slowly (moderately limited)	0.78 0.39	Slightly limited wetness (slightly limited) slope (slightly limited)	0.28 0.20	Slightly limited wetness (slightly limited) slope (slightly limited)	0.28 0.20
Ocie-----	Moderately limited seepage (moderately limited) depth to bedrock (moderately limited) slope (slightly limited)	0.50 0.40 0.20	Limited slope (limited) percs slowly (moderately limited)	0.78 0.39	Limited slope (limited) percs slowly (moderately limited)	0.78 0.39	Slightly limited wetness (slightly limited) depth to bedrock (slightly limited) slope (slightly limited)	0.28 0.25 0.20	Moderately limited depth to bedrock (moderately limited) wetness (slightly limited) slope (slightly limited)	0.40 0.28 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
73024:										
Mano-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited) percs slowly (moderately limited) large surface stones (moderately limited)	1.00 0.39 0.31	Very limited slope (very limited) (moderately limited) large surface stones (moderately limited)	1.00 0.39 0.31	Limited slope (limited) large surface stones (moderately limited) wetness (slightly limited)	0.99 0.31 0.28	Limited slope (limited) large surface stones (moderately limited) wetness (slightly limited)	0.99 0.31 0.28
Ocie-----	Limited slope (limited) seepage (moderately limited) depth to bedrock (moderately limited)	0.99 0.50 0.40	Very limited slope (very limited) percs slowly (moderately limited) large surface stones (moderately limited)	1.00 0.39 0.31	Very limited slope (very limited) (moderately limited) large surface stones (moderately limited)	1.00 0.39 0.31	Limited slope (limited) large surface stones (moderately limited) wetness (slightly limited)	0.99 0.31 0.28	Limited slope (limited) depth to bedrock (moderately limited) large surface stones (moderately limited)	0.99 0.40 0.31
73051:										
Winnipeg-----	Moderately limited seepage (moderately limited)	0.50	Not limited	0.00	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
73054:										
Viburnum-----	Moderately limited seepage (moderately limited)	0.50	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 0.55	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.55
73063:										
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-----	Moderately limited seepage (moderately limited) slope (slightly limited)	0.50 0.20	Limited slope (limited)	0.78	Limited slope (limited) droughty (moderately limited)	0.78 0.40	Slightly limited slope (slightly limited)	0.20	Moderately limited droughty (moderately limited) slope (slightly limited)	0.40 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
73068: Tick-----	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
			percs slowly (slightly limited)	0.26	percs slowly (slightly limited)	0.26				
73069: Tick-----	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)	0.26	percs slowly (slightly limited)	0.26	large surface stones (slightly limited)	0.07	large surface stones (slightly limited)	0.07
			large surface stones (slightly limited)	0.07	large surface stones (slightly limited)	0.07				
73073: 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 (moderately limited)	0.58	rooting depth (limited)	0.80
					droughty (limited)	0.70		droughty (limited)	0.70	
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			droughty (limited)	0.75		droughty (limited)	0.75	
73076: Mano-----	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	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28
Ocie-----	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	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	wetness (slightly limited)	0.28	depth to bedrock (moderately limited)	0.40
	depth to bedrock (moderately limited)	0.40					depth to bedrock (slightly limited)	0.25	wetness (slightly limited)	0.28

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
73077: Eudy-----	Limited depth to bedrock (limited) slope (slightly limited)	0.77  0.20	Limited slope (limited) percs slowly (moderately limited) depth to bedrock (slightly limited)	0.78  0.39 0.13	Limited slope (limited) erodes easily (moderately limited) percs slowly (moderately limited)	0.78  0.60 0.39	Very limited depth to bedrock (very limited) wetness (limited) erodes easily (moderately limited)	1.00  0.86 0.60	Limited wetness (limited) depth to bedrock (limited) erodes easily (moderately limited)	0.86  0.77 0.60
73080: Alred-----	Very limited slope (very limited) seepage (slightly limited)	1.00  0.08	Very limited slope (very limited) large surface stones (moderately limited) percs slowly (moderately limited)	1.00  0.60 0.39	Very limited slope (very limited) large surface stones (moderately limited) percs slowly (moderately limited)	1.00  0.60 0.39	Very limited slope (very limited) large stones (very limited) large surface stones (moderately limited)	1.00  1.00 0.60	Very limited slope (very limited) large stones (very limited) large surface stones (moderately limited)	1.00  1.00 0.60
Bardley-----	Very limited slope (very limited) depth to bedrock (limited) seepage (slightly limited)	1.00  0.89 0.02	Very limited slope (very limited) large surface stones (moderately limited) depth to bedrock (moderately limited)	1.00  0.60 0.46	Very limited slope (very limited) droughty (limited) large surface stones (moderately limited)	1.00  0.72 0.60	Very limited slope (very limited) depth to bedrock (very limited) large surface stones (moderately limited)	1.00  1.00 0.60	Very limited slope (very limited) depth to bedrock (limited) droughty (limited)	1.00  0.89 0.72
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73176: 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
Poynor-----	Limited slope (limited) seepage (moderately limited)	0.99  0.50	Very limited slope (very limited) large surface stones (slightly limited)	1.00  0.13	Very limited slope (very limited) large surface stones (slightly limited)	1.00  0.13	Limited slope (limited) large surface stones (slightly limited)	0.99  0.13	Limited slope (limited) large surface stones (slightly limited)	0.99  0.13



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
73197: Viburnum-----	Slightly limited slope (slightly limited)	0.10	Moderately limited slope (moderately limited) percs slowly (slightly limited)	0.40 0.13	Moderately limited slope (moderately limited) percs slowly (slightly limited)	0.40 0.13	Moderately limited wetness (moderately limited) slope (slightly limited)	0.60 0.10	Moderately limited wetness (moderately limited) slope (slightly limited)	0.60 0.10
73198: Gressy-----	Limited seepage (limited) slope (slightly limited)	0.98 0.10	Moderately limited slope (moderately limited)	0.40	Moderately limited erodes easily (moderately limited) slope (moderately limited)	0.60 0.40	Moderately limited erodes easily (moderately limited) slope (slightly limited)	0.60 0.10	Moderately limited erodes easily (moderately limited) slope (slightly limited)	0.60 0.10
Viraton-----	Moderately limited seepage (moderately limited) slope (slightly limited)	0.50 0.10	Very limited percs slowly (very limited) slope (moderately limited)	1.00 0.40	Very limited percs slowly (very limited) erodes easily (moderately limited) slope (moderately limited)	1.00 0.60 0.40	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.44	Limited rooting depth (limited) erodes easily (moderately limited) wetness (moderately limited)	0.80 0.60 0.44
73199: Moko-----	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
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73221: Poynor-----	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited slope (very limited) large surface stones (moderately limited)	1.00 0.31	Very limited slope (very limited) droughty (moderately limited) large surface stones (moderately limited)	1.00 0.57 0.31	Very limited slope (very limited) large surface stones (moderately limited)	1.00 0.31	Very limited slope (very limited) droughty (moderately limited) large surface stones (moderately limited)	1.00 0.57 0.31

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
73222: Splitlimb-----	Moderately limited seepage (moderately limited)	0.32	Very limited ponded (wetness) (very limited) percs slowly (slightly limited)	1.00 0.13	Very limited ponded (wetness) (very limited) erodes easily (moderately limited) percs slowly (slightly limited)	1.00 0.60 0.13	Very limited ponded (wetness) (very limited) erodes easily (moderately limited) wetness (moderately limited)	1.00 0.60 0.55	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.55
73223: Coulstone-----	Very limited slope (very limited) seepage (very limited)	1.00 1.00	Very limited slope (very limited) large stones (very limited) large surface stones (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited) droughty (very limited)	1.00 1.00 1.00	Very limited slope (very limited) large surface stones (very limited)	1.00 1.00	Very limited slope (very limited) large surface stones (very limited) droughty (very limited)	1.00 1.00 1.00
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
73226: Ocie-----	Limited slope (limited) seepage (moderately limited) depth to bedrock (moderately limited)	0.70 0.50 0.40	Very limited slope (very limited) percs slowly (moderately limited)	1.00 0.39	Very limited slope (very limited) percs slowly (moderately limited)	1.00 0.39	Limited slope (limited) wetness (slightly limited) depth to bedrock (slightly limited)	0.70 0.28 0.25	Limited slope (limited) depth to bedrock (moderately limited) wetness (slightly limited)	0.70 0.40 0.28
Gatewood-----	Limited depth to bedrock (limited) slope (limited)	0.89 0.70	Very limited slope (very limited) depth to bedrock (moderately limited) percs slowly (moderately limited)	1.00 0.46 0.39	Very limited slope (very limited) depth to bedrock (moderately limited) percs slowly (moderately limited)	1.00 0.46 0.39	Very limited depth to bedrock (very limited) slope (limited) wetness (moderately limited)	1.00 0.70 0.36	Limited depth to bedrock (limited) slope (limited) wetness (moderately limited)	0.89 0.70 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
73227: Ocie-----	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	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	wetness (slightly limited)	0.28	depth to bedrock (moderately limited)	0.40
	depth to bedrock (moderately limited)	0.40					depth to bedrock (slightly limited)	0.25	wetness (slightly limited)	0.28
Gatewood-----	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)	0.77	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	depth to bedrock (very limited)	1.00	depth to bedrock (limited)	0.77
			depth to bedrock (slightly limited)	0.13	depth to bedrock (slightly limited)	0.13	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36
73230: 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	droughty (very limited)	1.00	large surface stones (very limited)	1.00	droughty (very limited)	1.00
			large surface stones (very limited)	1.00	large surface stones (very limited)	1.00	large stones (very limited)	1.00	large stones (very limited)	1.00
Bender-----	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	droughty (very limited)	1.00	depth to bedrock (very limited)	1.00	droughty (very limited)	1.00
	depth to bedrock (limited)	0.86	large surface stones (moderately limited)	0.43	large stones (limited)	0.71	large stones (very limited)	1.00	large stones (very limited)	1.00
Gatewood-----	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	depth to bedrock (moderately limited)	0.46	depth to bedrock (moderately limited)	0.46	depth to bedrock (very limited)	1.00	depth to bedrock (limited)	0.89
			percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	wetness (moderately limited)	0.36	wetness (moderately limited)	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
73231: Wasola-----	Moderately limited seepage (moderately limited)	0.50	Moderately limited slope (moderately limited)	0.40	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	slope (slightly limited)	0.10	percs slowly (moderately limited)	0.39	slope (moderately limited)	0.40	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44
					percs slowly (moderately limited)	0.39	slope (slightly limited)	0.10	slope (slightly limited)	0.10
73235: 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	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	large stones (limited)	0.74	large stones (limited)	0.74
					droughty (slightly limited)	0.02		droughty (slightly limited)	0.02	
73236: Scholten-----	Limited seepage (limited)	0.68	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Moderately limited wetness (moderately limited)	0.58	Limited rooting depth (limited)	0.80
	slope (moderately limited)	0.31	slope (limited)	0.98	slope (limited)	0.98	slope (moderately limited)	0.31	droughty (limited)	0.70
					droughty (limited)	0.70		wetness (moderately limited)	0.58	
Poynor-----	Limited seepage (limited)	0.82	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								
73240: Jerktail-----	Slightly limited depth to bedrock (slightly limited)	0.22	Limited slope (limited)	0.78	Limited slope (limited)	0.78	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	slope (slightly limited)	0.20	percs slowly (moderately limited)	0.39	erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44
					percs slowly (moderately limited)	0.39	slope (slightly limited)	0.20	depth to bedrock (slightly limited)	0.22

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
73242: Fanchon-----	Moderately limited seepage (moderately limited)	0.50	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
	slope (slightly limited)	0.10								
Tonti-----	Limited seepage (limited)	0.68	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)	0.10	slope (moderately limited)	0.40	erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.56	erodes easily (moderately limited)	0.60
			large stones (slightly limited)	0.18	slope (moderately limited)	0.40	slope (slightly limited)	0.10	wetness (moderately limited)	0.56
73243: Topazmill-----	Moderately limited seepage (moderately limited)	0.50	Moderately limited slope (moderately limited)	0.40	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	slope (slightly limited)	0.10			slope (moderately limited)	0.40	slope (slightly limited)	0.10	slope (slightly limited)	0.10
73245: Alred-----	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	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39				
73246: Alred-----	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	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39				
73247: 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	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	large stones (limited)	0.80	large stones (limited)	0.80
					droughty (slightly limited)	0.02		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
73248:										
Alred-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited slope (very limited) percs slowly (limited) large surface stones (slightly limited)	1.00 0.70 0.13	Very limited slope (very limited) percs slowly (limited) large surface stones (slightly limited)	1.00 0.70 0.13	Very limited large stones (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.99 0.13	Very limited large stones (very limited) slope (limited) large surface stones (slightly limited)	1.00 0.99 0.13
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
73249:										
Alred-----	Very limited slope (very limited) seepage (moderately limited)	1.00 0.50	Very limited slope (very limited) percs slowly (moderately limited) large surface stones (slightly limited)	1.00 0.39 0.13	Very limited slope (very limited) percs slowly (moderately limited) large surface stones (slightly limited)	1.00 0.39 0.13	Very limited slope (very limited) large stones (very limited) large surface stones (slightly limited)	1.00 1.00 0.13	Very limited slope (very limited) large stones (very limited) large surface stones (slightly limited)	1.00 1.00 0.13
Ocie-----	Very limited slope (very limited) seepage (moderately limited) depth to bedrock (moderately limited)	1.00 0.50 0.40	Very limited slope (very limited) large surface stones (limited) percs slowly (moderately limited)	1.00 0.70 0.39	Very limited slope (very limited) large surface stones (limited) percs slowly (moderately limited)	1.00 0.70 0.39	Very limited slope (very limited) large surface stones (limited) wetness (slightly limited)	1.00 0.70 0.28	Very limited slope (very limited) large surface stones (limited) depth to bedrock (moderately limited)	1.00 0.70 0.40
Bendavis-----	Very limited slope (very limited) depth to bedrock (limited) seepage (moderately limited)	1.00 0.77 0.50	Very limited slope (very limited) large surface stones (limited)	1.00 0.70	Very limited slope (very limited) large surface stones (limited)	1.00 0.70	Very limited slope (very limited) depth to bedrock (very limited) large surface stones (limited)	1.00 1.00 0.70	Very limited slope (very limited) depth to bedrock (limited) large surface stones (limited)	1.00 0.77 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
73295: Taterhill-----	Limited seepage (limited)	0.92	Moderately limited slope (moderately limited)	0.40	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	slope (slightly limited)	0.10			slope (moderately limited)	0.40	slope (slightly limited)	0.10	slope (slightly limited)	0.10
73296: Yelton-----	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 (moderately limited)	0.31	slope (limited)	0.98	slope (limited) erodes easily (moderately limited)	0.98	wetness (moderately limited) slope (moderately limited)	0.58	erodes easily (moderately limited) wetness (moderately limited)	0.60
Topazmill-----	Moderately limited seepage (moderately limited)	0.50	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Moderately limited slope (moderately limited)	0.45	Moderately limited slope (moderately limited)	0.45
	slope (moderately limited)	0.45								
Lily-----	Very limited seepage (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	Limited depth to bedrock (limited)	0.95
	depth to bedrock (limited)	0.95	depth to bedrock (limited)	0.76	depth to bedrock (limited)	0.76	slope (moderately limited)	0.60	slope (moderately limited) droughty (moderately limited)	0.60
	slope (moderately limited)	0.60								0.48
73297: Poynor-----	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 (moderately limited)	0.31	droughty (moderately limited) large surface stones (moderately limited)	0.57	large surface stones (moderately limited)	0.31	droughty (moderately limited) large surface stones (moderately limited)	0.57
										0.31

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
73297: 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 (moderately limited)	0.50	percs slowly (very limited) large stones (limited)	1.00	percs slowly (very limited) droughty (slightly limited)	1.00	large stones (very limited) wetness (moderately limited)	1.00	large stones (very limited) rooting depth (limited)	1.00
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)	0.10	slope (moderately limited)	0.40	erodes easily (moderately limited) slope (moderately limited)	0.60	wetness (moderately limited) slope (slightly limited)	0.44	erodes easily (moderately limited) wetness (moderately limited)	0.60
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
73299: Plato-----	Not limited	0.00	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
					erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.60	erodes easily (moderately limited)	0.60
									wetness (moderately limited)	0.60
Jerktail-----	Slightly limited depth to bedrock (slightly limited)	0.22	Moderately limited percs slowly (moderately limited)	0.39	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
					percs slowly (moderately limited)	0.39	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44
									depth to bedrock (slightly limited)	0.22



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
73300: Macedonia-----	Slightly limited slope (slightly limited)	0.20	Limited slope (limited)	0.78	Limited slope (limited)	0.78	Slightly limited slope (slightly limited)	0.20	Slightly limited slope (slightly limited)	0.20
	seepage (slightly limited)	0.08								
73301: Tick-----	Slightly limited slope (slightly limited)	0.20	Limited slope (limited)	0.78	Limited slope (limited)	0.78	Slightly limited slope (slightly limited)	0.20	Slightly limited slope (slightly limited)	0.20
			percs slowly (slightly limited)	0.26	percs slowly (slightly limited)	0.26				
73302: Kenaga-----	Slightly limited seepage (slightly limited)	0.08	Limited percs slowly (limited)	0.86	Limited percs slowly (limited)	0.86	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
					erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44
73303: Kenaga-----	Slightly limited slope (slightly limited)	0.10	Limited percs slowly (limited)	0.86	Limited percs slowly (limited)	0.86	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	seepage (slightly limited)	0.08	slope (moderately limited)	0.40	erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44
					slope (moderately limited)	0.40	slope (slightly limited)	0.10	slope (slightly limited)	0.10
Egyptgrove-----	Slightly limited slope (slightly limited)	0.10	Limited percs slowly (limited)	0.86	Limited percs slowly (limited)	0.86	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
	seepage (slightly limited)	0.08	slope (moderately limited)	0.40	erodes easily (moderately limited)	0.60	slope (slightly limited)	0.10	slope (slightly limited)	0.10
					slope (moderately limited)	0.40				

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
73304:										
Kenaga-----	Limited slope (limited) seepage (slightly limited)	0.99 0.08	Very limited slope (very limited) percs slowly (limited)	1.00 0.86	Very limited slope (very limited) percs slowly (limited) erodes easily (moderately limited)	1.00 0.86 0.60	Limited slope (limited) erodes easily (moderately limited) wetness (moderately limited)	0.99 0.60 0.44	Limited slope (limited) erodes easily (moderately limited) wetness (moderately limited)	0.99 0.60 0.44
Egyptgrove-----	Limited slope (limited) seepage (slightly limited)	0.99 0.08	Very limited slope (very limited) percs slowly (limited)	1.00 0.86	Very limited slope (very limited) percs slowly (limited) erodes easily (moderately limited)	1.00 0.86 0.60	Limited slope (limited) erodes easily (moderately limited)	0.99 0.60	Limited slope (limited) erodes easily (moderately limited)	0.99 0.60
Tonti-----	Limited slope (limited) seepage (moderately limited)	0.99 0.50	Very limited percs slowly (very limited) slope (very limited)	1.00 1.00	Very limited percs slowly (very limited) slope (very limited) erodes easily (moderately limited)	1.00 1.00 0.60	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
73305:										
Egyptgrove-----	Slightly limited slope (slightly limited) seepage (slightly limited)	0.10 0.08	Limited percs slowly (limited) slope (moderately limited)	0.86 0.40	Limited percs slowly (limited) erodes easily (moderately limited) slope (moderately limited)	0.86 0.60 0.40	Moderately limited erodes easily (moderately limited) slope (slightly limited)	0.60 0.10	Moderately limited erodes easily (moderately limited) slope (slightly limited)	0.60 0.10
73306:										
Grassy-----	Limited seepage (limited) slope (slightly limited)	0.98 0.10	Moderately limited slope (moderately limited)	0.40	Moderately limited erodes easily (moderately limited) slope (moderately limited)	0.60 0.40	Moderately limited erodes easily (moderately limited) slope (slightly limited)	0.60 0.10	Moderately limited erodes easily (moderately limited) slope (slightly limited)	0.60 0.10

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
73306: Gatewood-----	Limited depth to bedrock (limited) slope (slightly limited)	0.89  0.10	Moderately limited depth to bedrock (moderately limited) slope (moderately limited) percs slowly (moderately limited)	0.46  0.40 0.39	Moderately limited depth to bedrock (moderately limited) slope (moderately limited) percs slowly (moderately limited)	0.46  0.40 0.39	Very limited depth to bedrock (very limited) wetness (moderately limited) slope (slightly limited)	1.00  0.36 0.10	Limited depth to bedrock (limited) wetness (moderately limited) droughty (moderately limited)	0.89  0.36 0.31
73307: Gressy-----	Moderately limited seepage (moderately limited)	0.50	Not limited slope (very limited)	0.00	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
Viraton-----	Moderately limited seepage (moderately limited)	0.50	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited) erodes easily (moderately limited)	1.00 0.60	Moderately limited erodes easily (moderately limited) wetness (moderately limited)	0.60 0.44	Limited rooting depth (limited) erodes easily (moderately limited) wetness (moderately limited)	0.80  0.60 0.44
73308: Grandgulf-----	Moderately limited seepage (moderately limited)	0.50	Very limited ponded (wetness) (very limited)	1.00	Very limited ponded (wetness) (very limited) erodes easily (moderately limited)	1.00 0.60	Very limited ponded (wetness) (very limited) erodes easily (moderately limited)	1.00 0.60	Moderately limited erodes easily (moderately limited)	0.60
73309: Clarksville----	Very limited slope (very limited) seepage (moderately limited)	1.00  0.32	Very limited slope (very limited) large stones (slightly limited)	1.00  0.18	Very limited slope (very limited) droughty (slightly limited)	1.00  0.01	Very limited slope (very limited) large stones (slightly limited)	1.00  0.01	Very limited slope (very limited) droughty (slightly limited) large stones (slightly limited)	1.00  0.01 0.01
Bendavis-----	Very limited slope (very limited) depth to bedrock (limited) seepage (moderately limited)	1.00  0.77 0.50	Very limited slope (very limited) large surface stones (limited)	1.00  0.70	Very limited slope (very limited) large surface stones (limited)	1.00  0.70	Very limited slope (very limited) depth to bedrock (very limited) large surface stones (limited)	1.00  1.00 0.70	Very limited slope (very limited) depth to bedrock (limited) large surface stones (limited)	1.00  0.77 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
73310:										
Scholten-----	Limited seepage (limited)	0.68	Very limited percs slowly (very limited)	1.00	Very limited percs slowly (very limited)	1.00	Moderately limited wetness (moderately limited)	0.58	Limited rooting depth (limited)	0.80
	slope (slightly limited)	0.20	slope (limited)	0.78	slope (limited) droughty (limited)	0.78	slope (slightly limited)	0.20	(limited) wetness (moderately limited)	0.70
						0.70				0.58
Bendavis-----	Limited seepage (limited)	0.92	Limited slope (limited)	0.78	Limited slope (limited)	0.78	Very limited depth to bedrock (very limited)	1.00	Limited depth to bedrock (limited)	0.84
	depth to bedrock (limited)	0.84	depth to bedrock (slightly limited)	0.27	depth to bedrock (slightly limited)	0.27	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28
	slope (slightly limited)	0.20					slope (slightly limited)	0.20	slope (slightly limited)	0.20
Poynor-----	Limited seepage (limited)	0.82	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
	slope (slightly limited)	0.10								
73311:										
Scholten-----	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 (limited)	0.68	percs slowly (very limited)	1.00	percs slowly (very limited) droughty (limited)	1.00	wetness (moderately limited)	0.58	rooting depth (limited) droughty (limited)	0.80
						0.70				0.70
Bendavis-----	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)	0.92	depth to bedrock (moderately limited)	0.58	depth to bedrock (moderately limited)	0.58	slope (limited)	0.99	depth to bedrock (limited)	0.92
	seepage (moderately limited)	0.50	large surface stones (slightly limited)	0.13	droughty (moderately limited)	0.45	wetness (slightly limited)	0.28	droughty (moderately limited)	0.45
Poynor-----	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			droughty (moderately limited)	0.57			droughty (moderately limited)	0.57

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
73312: Alred-----	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	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	droughty (slightly limited)	0.08	droughty (slightly limited)	0.08
Bendavis-----	Limited seepage (limited)	0.92	Limited slope (limited)	0.78	Limited slope (limited)	0.78	Very limited depth to bedrock (very limited)	1.00	Limited depth to bedrock (limited)	0.84
	depth to bedrock (limited)	0.84	depth to bedrock (slightly limited)	0.27	depth to bedrock (slightly limited)	0.27	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28
	slope (slightly limited)	0.20					slope (slightly limited)	0.20	slope (slightly limited)	0.20
73313: Fanchon-----	Moderately limited seepage (moderately limited)	0.50	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
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
					erodes easily (moderately limited)	0.60	wetness (moderately limited)	0.44	erodes easily (moderately limited)	0.60
									wetness (moderately limited)	0.44
73314: Tanglenook----	Not limited	0.00	Moderately limited percs slowly (moderately limited)	0.39	Moderately limited erodes easily (moderately limited)	0.60	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
					percs slowly (moderately limited)	0.39	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60
73315: Deible-----	Not limited	0.00	Limited percs slowly (limited)	0.86	Limited percs slowly (limited)	0.86	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
					erodes easily (moderately limited)	0.60	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
73316: 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 (moderately limited)	0.32	large stones (slightly limited)	0.18	droughty (slightly limited)	0.01	large stones (slightly limited)	0.01	droughty (slightly limited)	0.01
									large stones (slightly limited)	0.01
Tick-----	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 (moderately limited)	0.34	percs slowly (moderately limited)	0.34	large surface stones (slightly limited)	0.07	large surface stones (slightly limited)	0.07
			large surface stones (slightly limited)	0.07	large surface stones (slightly limited)	0.07				
Mano-----	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	percs slowly (moderately limited)	0.39	percs slowly (moderately limited)	0.39	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28
74626: Tanglenook----	Not limited	0.00	Moderately limited percs slowly (moderately limited)	0.39	Moderately limited erodes easily (moderately limited)	0.60	Very limited wetness (very limited)	1.00	Very limited wetness (very limited)	1.00
					percs slowly (moderately limited)	0.39	erodes easily (moderately limited)	0.60	erodes easily (moderately limited)	0.60
74627: Hartville-----	Not limited	0.00	Moderately limited percs slowly (moderately limited)	0.39	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
					percs slowly (moderately limited)	0.39	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44
74648: Aslinger-----	Moderately limited seepage (moderately limited)	0.32	Limited slope (limited)	0.78	Limited slope (limited)	0.78	Moderately limited wetness (moderately limited)	0.44	Moderately limited wetness (moderately limited)	0.44
	slope (slightly limited)	0.20	percs slowly (slightly limited)	0.26	percs slowly (slightly limited)	0.26	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
74658: Zanoni-----	Very limited seepage (very limited)	1.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00
74677: Deible-----	Not limited	0.00	Limited percs slowly (limited)	0.86	Limited percs slowly (limited) erodes easily (moderately limited)	0.86 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
74679: Higdon-----	Moderately limited seepage (moderately limited)	0.32	Not limited	0.00	Moderately limited erodes easily (moderately limited)	0.60	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
74681: Lostpond-----	Limited seepage (limited)	0.68	Not limited	0.00	Not limited	0.00	Limited wetness (limited)	0.81	Limited wetness (limited)	0.81
74690: Moniteau-----	Not limited	0.00	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	0.00	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
75390: Razort-----	Very limited seepage (very limited)	1.00	Not limited	0.00	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60	Moderately limited erodes easily (moderately limited)	0.60
75408: Secesh-----	Moderately limited seepage (moderately limited)	0.50	Moderately limited large stones (moderately limited)	0.47	Not limited	0.00	Slightly limited large stones (slightly limited)	0.13	Slightly limited large stones (slightly limited)	0.13

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
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	0.00
75418: Tilk-----	Very limited seepage (very limited)	1.00	Slightly limited large stones (slightly limited)	0.30	Moderately limited droughty (moderately limited)	0.34	Moderately limited large stones (moderately limited)	0.52	Moderately limited large stones (moderately limited) droughty (moderately limited)	0.52 0.34
75420: Secesh-----	Moderately limited seepage (moderately limited)	0.50	Moderately limited flooding (moderately limited) large stones (slightly limited)	0.60 0.30	Moderately limited flooding (moderately limited) erodes easily (moderately limited)	0.60 0.60	Moderately limited erodes easily (moderately limited) large stones (slightly limited)	0.60 0.01	Moderately limited erodes easily (moderately limited) large stones (slightly limited)	0.60 0.01
Tilk-----	Very limited seepage (very limited)	1.00	Moderately limited flooding (moderately limited) large stones (moderately limited)	0.60 0.51	Moderately limited flooding (moderately limited) droughty (moderately limited)	0.60 0.34	Limited large stones (limited)	0.90	Limited large stones (limited) droughty (moderately limited)	0.90 0.34
75423: Cedargap-----	Very limited seepage (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited) droughty (slightly limited)	0.60 0.17	Not limited	0.00	Slightly limited droughty (slightly limited)	0.17
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
75433: Racket-----	Very limited seepage (very limited)	1.00	Moderately limited flooding (moderately limited)	0.60	Moderately limited flooding (moderately limited)	0.60	Not limited	0.00	Not limited	0.00
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99002: Borrow areas---	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
70022:										
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
70025:										
Branson-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Very limited percs slowly (very limited)	1.00
									too acid (slightly limited)	0.03
Splitlimb-----	Moderately limited wetness (moderately limited)	0.53	Moderately limited wetness (moderately limited)	0.53	Moderately limited wetness (moderately limited)	0.53	Moderately limited wetness (moderately limited)	0.53	Very limited percs slowly (very limited)	1.00
									wetness (very limited)	1.00
									too acid (slightly limited)	0.07
70026:										
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
									too acid (slightly limited)	0.14
71250:										
Britwater-----	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

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
73000: Pomme-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.10	Slightly limited slope (slightly limited)	0.10	Very limited percs slowly (very limited) slope (moderately limited)	1.00  0.31
73013: Lowassie-----	Very limited wetness (very limited) ponded (wetness) (very limited) percs slowly (limited)	1.00 1.00 0.99	Very limited wetness (very limited) ponded (wetness) (very limited) percs slowly (limited)	1.00 1.00 0.99	Very limited ponded (wetness) (very limited) wetness (very limited) percs slowly (limited)	1.00 1.00 0.99	Very limited ponded (wetness) (very limited) wetness (very limited) percs slowly (limited)	1.00 1.00 0.99	Very limited percs slowly (very limited) ponded (wetness) (very limited) wetness (very limited)	1.00 1.00 1.00
73017: Bendavis-----	Very limited slope (very limited) too acid (limited) large surface stones (limited)	1.00 0.84 0.70	Very limited slope (very limited) too acid (limited) large surface stones (limited)	1.00 0.84 0.70	Very limited slope (very limited) too acid (limited) large surface stones (limited)	1.00 0.84 0.70	Very limited depth to bedrock (very limited) slope (very limited) too acid (limited)	1.00 1.00 0.84	Very limited percs slowly (very limited) slope (very limited) depth to bedrock (very limited)	1.00 1.00 1.00
Poynor-----	Very limited slope (very limited) too acid (limited) droughty (moderately limited)	1.00 0.61 0.57	Very limited slope (very limited) too acid (limited) droughty (moderately limited)	1.00 0.61 0.57	Very limited slope (very limited) too acid (limited) droughty (moderately limited)	1.00 0.61 0.57	Very limited slope (very limited) too acid (limited) large surface stones (moderately limited)	1.00 0.61 0.31	Very limited slope (very limited) percs slowly (moderately limited) large surface stones (moderately limited)	1.00 0.38 0.31
73023: Mano-----	Slightly limited too acid (slightly limited) wetness (slightly limited)	0.30 0.28	Slightly limited too acid (slightly limited) wetness (slightly limited)	0.30 0.28	Slightly limited too acid (slightly limited) wetness (slightly limited) slope (slightly limited)	0.30 0.28 0.20	Slightly limited too acid (slightly limited) wetness (slightly limited) slope (slightly limited)	0.30 0.28 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
73023: Ocie-----	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Slightly limited wetness (slightly limited)	0.28	Very limited percs slowly (very limited)	1.00
					Slightly limited slope (slightly limited)	0.20	depth to bedrock (slightly limited) slope (slightly limited)	0.25	depth to bedrock (very limited) wetness (very limited)	1.00
73024: Mano-----	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
	large surface stones (moderately limited)	0.31	large surface stones (moderately limited)	0.31	large surface stones (moderately limited)	0.31	large surface stones (moderately limited)	0.31	slope (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
Ocie-----	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
	large surface stones (moderately limited)	0.31	large surface stones (moderately limited)	0.31	large surface stones (moderately limited)	0.31	large surface stones (moderately limited)	0.31	slope (very limited)	1.00
	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	depth to bedrock (very limited)	1.00
73051: Winnipeg-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Very limited percs slowly (very limited)	1.00
73054: Viburnum-----	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)	0.55	wetness (moderately limited)	0.55	wetness (moderately limited)	0.55	wetness (moderately limited)	0.55	wetness (very limited)	1.00
									too acid (moderately limited)	0.42

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
73063: 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 droughty (moderately limited)	0.40	Moderately limited droughty (moderately limited)	0.40	Moderately limited droughty (moderately limited)	0.40	Slightly limited too acid (slightly limited)	0.30	Limited percs slowly (limited)	0.78
	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	slope (slightly limited)	0.20	slope (limited)	0.66
					slope (slightly limited)	0.20		too acid (moderately limited)	0.42	
73068: Tick-----	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
	too acid (moderately limited)	0.36	too acid (moderately limited)	0.36	too acid (moderately limited)	0.36	too acid (moderately limited)	0.36	slope (very limited)	1.00
									too acid (slightly limited)	0.07
73069: Tick-----	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
	too acid (moderately limited)	0.36	too acid (moderately limited)	0.36	too acid (moderately limited)	0.36	too acid (moderately limited)	0.36	slope (very limited)	1.00
	large surface stones (slightly limited)	0.07	large surface stones (slightly limited)	0.07	large surface stones (slightly limited)	0.07	large surface stones (slightly limited)	0.07	too acid (slightly limited)	0.07
73073: Scholten-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Limited slope (limited)	0.99	Limited slope (limited)	0.99	Very limited slope (very limited)	1.00
	droughty (limited)	0.70	droughty (limited)	0.70	droughty (limited)	0.70	wetness (moderately limited)	0.58	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 (moderately limited)	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	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73073: Poynor-----	Limited slope (limited) droughty (limited) too acid (moderately limited)	0.76 0.75 0.42	Limited slope (limited) droughty (limited) too acid (moderately limited)	0.76 0.75 0.42	Limited slope (limited) droughty (limited) too acid (moderately limited)	0.99 0.75 0.42	Limited slope (limited) too acid (moderately limited)	0.99 0.42	Very limited slope (very limited) percs slowly (moderately limited) too acid (slightly limited)	1.00 0.32 0.03
73076: Mano-----	Very limited slope (very limited) too acid (slightly limited) wetness (slightly limited)	1.00 0.30 0.28	Very limited slope (very limited) too acid (slightly limited) wetness (slightly limited)	1.00 0.30 0.28	Very limited slope (very limited) too acid (slightly limited) wetness (slightly limited)	1.00 0.30 0.28	Very limited slope (very limited) too acid (slightly limited) wetness (slightly limited)	1.00 0.30 0.28	Very limited percs slowly (very limited) slope (very limited) wetness (very limited)	1.00 1.00 1.00
Ocie-----	Very limited slope (very limited) wetness (slightly limited)	1.00 0.28	Very limited slope (very limited) wetness (slightly limited)	1.00 0.28	Very limited slope (very limited) wetness (slightly limited)	1.00 0.28	Very limited slope (very limited) wetness (slightly limited) depth to bedrock (slightly limited)	1.00 0.28 0.25	Very limited percs slowly (very limited) slope (very limited) depth to bedrock (very limited)	1.00 1.00 1.00
73077: Eudy-----	Limited wetness (limited) depth to bedrock (slightly limited)	0.86 0.13	Limited wetness (limited) depth to bedrock (slightly limited)	0.86 0.13	Limited wetness (limited) slope (slightly limited) depth to bedrock (slightly limited)	0.86 0.20 0.13	Very limited depth to bedrock (very limited) wetness (limited) slope (slightly limited)	1.00 0.86 0.20	Very limited percs slowly (very limited) depth to bedrock (very limited) wetness (very limited)	1.00 1.00 1.00
73080: Alred-----	Very limited slope (very limited) large surface stones (moderately limited) too acid (slightly limited)	1.00 0.60 0.12	Very limited slope (very limited) large surface stones (moderately limited) too acid (slightly limited)	1.00 0.60 0.12	Very limited slope (very limited) large surface stones (moderately limited) too acid (slightly limited)	1.00 0.60 0.12	Very limited slope (very limited) large surface stones (moderately limited) too acid (slightly limited)	1.00 0.60 0.12	Very limited percs slowly (very limited) slope (very limited) large surface stones (moderately limited)	1.00 1.00 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
73080: Bardley-----	Very limited slope (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 percs slowly (very limited)	1.00
	droughty (limited)	0.72	droughty (limited)	0.72	droughty (limited)	0.72	slope (very limited)	1.00	slope (very limited)	1.00
	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	large surface stones (moderately limited)	0.60	depth to bedrock (very limited)	1.00
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73176: Bendavis-----	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 slope (very limited)	1.00
	depth to bedrock (moderately limited)	0.58	depth to bedrock (moderately limited)	0.58	depth to bedrock (moderately limited)	0.58	slope (limited)	0.99	depth to bedrock (very limited)	1.00
	droughty (moderately limited)	0.45	droughty (moderately limited)	0.45	droughty (moderately limited)	0.45	wetness (slightly limited)	0.28	wetness (very limited)	1.00
Poynor-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Limited slope (limited)	0.99	Limited slope (limited)	0.99	Very limited slope (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	percs slowly (moderately limited)	0.32
	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13
73197: Viburnum-----	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)	0.60	wetness (moderately limited)	0.60	wetness (moderately limited)	0.60	wetness (moderately limited)	0.60	wetness (very limited)	1.00
					slope (slightly limited)	0.10	slope (slightly limited)	0.10	too acid (moderately limited)	0.42
73198: Gressy-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.10	Slightly limited slope (slightly limited)	0.10	Very limited percs slowly (very limited)	1.00
									slope (moderately limited)	0.31

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
73198: Viraton-----	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 (moderately limited)	0.42	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	wetness (very limited)	1.00
					slope (slightly limited)	0.10	slope (slightly limited)	0.10	too acid (moderately limited)	0.31
73199: Moko-----	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	large stones >35% (very limited)	0.99	depth to bedrock (very limited)	1.00
	large stones >35% (very limited)	0.99	large stones >35% (very limited)	0.99	large stones >35% (very limited)	0.99	slope (limited)	0.70	too cobbly (very limited)	1.00
Rock outcrop---	Not rated		Not rated		Not rated		Not rated		Not rated	
73221: Poynor-----	Limited slope (limited)	0.99	Limited slope (limited)	0.99	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00	Very limited slope (very limited)	1.00
	too acid (limited)	0.61	too acid (limited)	0.61	too acid (limited)	0.61	too acid (limited)	0.61	percs slowly (moderately limited)	0.32
	droughty (moderately limited)	0.57	droughty (moderately limited)	0.57	droughty (moderately limited)	0.57	large surface stones (moderately limited)	0.31	large surface stones (moderately limited)	0.31
73222: Splitlimb-----	Very limited ponded (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	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	ponded (wetness) (very limited)	1.00
	wetness (moderately limited)	0.55	wetness (moderately limited)	0.55	wetness (moderately limited)	0.55	wetness (moderately limited)	0.55	wetness (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
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
73226:										
Ocie-----	Moderately limited slope (moderately limited)	0.45	Moderately limited slope (moderately limited)	0.45	Limited slope (limited)	0.70	Limited slope (limited)	0.70	Very limited percs slowly (very limited)	1.00
	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	depth to bedrock (very limited)	1.00
							depth to bedrock (slightly limited)	0.25	wetness (very limited)	1.00
Gatewood-----	Moderately limited depth to bedrock (moderately limited)	0.46	Moderately limited depth to bedrock (moderately limited)	0.46	Limited slope (limited)	0.70	Very limited depth to bedrock (very limited)	1.00	Very limited percs slowly (very limited)	1.00
	slope (moderately limited)	0.45	slope (moderately limited)	0.45	depth to bedrock (moderately limited)	0.46	slope (limited)	0.70	depth to bedrock (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
73227:										
Ocie-----	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
	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	slope (very limited)	1.00
	too acid (slightly limited)	0.06	too acid (slightly limited)	0.06	too acid (slightly limited)	0.06	depth to bedrock (slightly limited)	0.25	depth to bedrock (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
73227:										
Gatewood-----	Very limited slope (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 percs slowly (very limited)	1.00
	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	slope (very limited)	1.00	slope (very limited)	1.00
	depth to bedrock (slightly limited)	0.13	depth to bedrock (slightly limited)	0.13	depth to bedrock (slightly limited)	0.13	wetness (moderately limited)	0.36	depth to bedrock (very limited)	1.00
73230:										
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
	droughty (very limited)	1.00	droughty (very limited)	1.00	droughty (very limited)	1.00	large surface stones (very limited)	1.00	too stony (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	large surface stones (very limited)	1.00
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
Gatewood-----	Very limited slope (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 percs slowly (very limited)	1.00
	depth to bedrock (moderately limited)	0.46	depth to bedrock (moderately limited)	0.46	depth to bedrock (moderately limited)	0.46	slope (very limited)	1.00	slope (very limited)	1.00
	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	wetness (moderately limited)	0.36	depth to bedrock (very limited)	1.00
73231:										
Wasola-----	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)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	wetness (very limited)	1.00
					slope (slightly limited)	0.10	slope (slightly limited)	0.10	slope (moderately limited)	0.31

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
73235: 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
	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	slope (very limited)	1.00
	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02				
73236: 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)	0.96
	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	slope (moderately limited)	0.31	slope (limited)	0.91
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)	0.20	slope (slightly limited)	0.20	slope (limited)	0.66
									too acid (slightly limited)	0.03
73240: Jerktail-----	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)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	depth to bedrock (very limited)	1.00
					slope (slightly limited)	0.20	slope (slightly limited)	0.20	wetness (very limited)	1.00
73242: Fanchon-----	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)	0.10	slope (slightly limited)	0.10	slope (moderately limited)	0.31

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
73242: Tonti-----	Moderately limited wetness (moderately limited)	0.56	Moderately limited wetness (moderately limited)	0.56	Moderately limited wetness (moderately limited)	0.56	Moderately limited wetness (moderately limited)	0.56	Very limited wetness (very limited)	1.00
	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	slope (moderately limited)	0.31
					slope (slightly limited)	0.10	slope (slightly limited)	0.10	percs slowly (slightly limited)	0.22
73243: Topazmill-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.10	Slightly limited slope (slightly limited)	0.10	Very limited percs slowly (very limited)	1.00
									slope (moderately limited)	0.31
73245: Alred-----	Slightly limited too acid (slightly limited)	0.30	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 percs slowly (very limited)	1.00
					slope (slightly limited)	0.20	slope (slightly limited)	0.20	slope (limited)	0.66
73246: Alred-----	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
	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	slope (very limited)	1.00
73247: 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
	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	slope (very limited)	1.00
	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02	droughty (slightly limited)	0.02		

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
73248: Alred-----	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
	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	slope (very limited)	1.00
	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	too acid (slightly limited)	0.12	large surface stones (slightly limited)	0.13
Bendavis-----	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 slope (very limited)	1.00
	depth to bedrock (moderately limited)	0.58	depth to bedrock (moderately limited)	0.58	depth to bedrock (moderately limited)	0.58	slope (limited)	0.99	depth to bedrock (very limited)	1.00
	droughty (moderately limited)	0.45	droughty (moderately limited)	0.45	droughty (moderately limited)	0.45	wetness (slightly limited)	0.28	wetness (very limited)	1.00
73249: 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
	large stones >35% (very limited)	0.99	large stones >35% (very limited)	0.99	large stones >35% (very limited)	0.99	large stones >35% (very limited)	0.99	slope (very limited)	1.00
	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13	large surface stones (slightly limited)	0.13
Ocie-----	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 (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	slope (very limited)	1.00
	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	depth to bedrock (very limited)	1.00
Bendavis-----	Very limited slope (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 percs slowly (very limited)	1.00
	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	slope (very limited)	1.00	slope (very limited)	1.00
	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	large surface stones (limited)	0.70	depth to bedrock (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
73295: Taterhill-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.10	Slightly limited slope (slightly limited)	0.10	Very limited percs slowly (very limited) slope (moderately limited)	0.99
73296: Yelton-----	Moderately limited wetness (moderately limited)	0.58	Moderately limited wetness (moderately limited)	0.58	Moderately limited wetness (moderately limited) slope (moderately limited)	0.58 0.31	Moderately limited wetness (moderately limited) slope (moderately limited)	0.58 0.31	Very limited percs slowly (very limited) wetness (very limited) slope (limited)	1.00 1.00 0.91
Topazmill-----	Slightly limited slope (slightly limited)	0.15	Slightly limited slope (slightly limited)	0.15	Moderately limited slope (moderately limited)	0.45	Moderately limited slope (moderately limited)	0.45	Very limited percs slowly (very limited) slope (very limited)	1.00 1.00
Lily-----	Limited depth to bedrock (limited) droughty (moderately limited) slope (moderately limited)	0.76 0.48 0.31	Limited depth to bedrock (limited) droughty (moderately limited) slope (moderately limited)	0.76 0.48 0.31	Limited depth to bedrock (limited) slope (moderately limited) droughty (moderately limited)	0.76 0.60 0.48	Very limited depth to bedrock (very limited) slope (moderately limited) too acid (slightly limited)	1.00 0.60 0.06	Very limited depth to bedrock (very limited) slope (very limited) percs slowly (moderately limited)	1.00 1.00 0.32
73297: Poynor-----	Very limited slope (very limited) droughty (moderately limited) large surface stones (moderately limited)	1.00 0.57 0.31	Very limited slope (very limited) droughty (moderately limited) large surface stones (moderately limited)	1.00 0.57 0.31	Very limited slope (very limited) droughty (moderately limited) large surface stones (moderately limited)	1.00 0.57 0.31	Very limited slope (very limited) large surface stones (moderately limited) too acid (slightly limited)	1.00 0.31 0.30	Very limited slope (very limited) percs slowly (moderately limited) large surface stones (moderately limited)	1.00 0.32 0.31

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
73297: 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
	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)	0.10	droughty (slightly limited)	0.10	droughty (slightly limited)	0.10			too acid (moderately limited)	0.42
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)	0.10	slope (slightly limited)	0.10	slope (moderately limited)	0.31
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
73299: Plato-----	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	Very limited percs slowly (very limited)	1.00
	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	wetness (very limited)	1.00
									too acid (slightly limited)	0.21
Jerktail-----	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)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	wetness (moderately limited)	0.44	depth to bedrock (very limited)	1.00
									wetness (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
73300: Macedonia-----	Slightly limited too acid (slightly limited)	0.30	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 percs slowly (very limited)	1.00
					slope (slightly limited)	0.20	slope (slightly limited)	0.20	slope (limited)	0.66
									too acid (slightly limited)	0.14
73301: Tick-----	Moderately limited too acid (moderately limited)	0.36	Moderately limited too acid (moderately limited)	0.36	Moderately limited too acid (moderately limited)	0.36	Moderately limited too acid (moderately limited)	0.36	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)	0.07
73302: Kenaga-----	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 wetness (very limited)	1.00
									percs slowly (very limited)	1.00
									too acid (slightly limited)	0.03
73303: Kenaga-----	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 wetness (very limited)	1.00
					slope (slightly limited)	0.10	slope (slightly limited)	0.10	percs slowly (very limited)	1.00
									slope (moderately limited)	0.31
Egyptgrove-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.10	Slightly limited slope (slightly limited)	0.10	Very limited percs slowly (very limited)	1.00
									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
73304: Kenaga-----	Limited slope (limited) wetness (moderately limited)	0.76 0.44	Limited slope (limited) wetness (moderately limited)	0.76 0.44	Limited slope (limited) wetness (moderately limited)	0.99 0.44	Limited slope (limited) wetness (moderately limited)	0.99 0.44	Very limited wetness (very limited) slope (very limited) percs slowly (very limited)	1.00 1.00 1.00
Egyptgrove-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Limited slope (limited)	0.99	Limited slope (limited)	0.99	Very limited slope (very limited) percs slowly (very limited) too acid (slightly limited)	1.00 1.00 0.03
Tonti-----	Limited slope (limited) wetness (moderately limited) too acid (slightly limited)	0.76 0.44 0.30	Limited slope (limited) wetness (moderately limited) too acid (slightly limited)	0.76 0.44 0.30	Limited slope (limited) wetness (moderately limited) too acid (slightly limited)	0.99 0.44 0.30	Limited slope (limited) wetness (moderately limited) too acid (slightly limited)	0.99 0.44 0.30	Very limited percs slowly (very limited) wetness (very limited) slope (very limited)	1.00 1.00 1.00
73305: Egyptgrove-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.10	Slightly limited slope (slightly limited)	0.10	Very limited percs slowly (very limited) slope (moderately limited) too acid (slightly limited)	1.00 0.31 0.03
73306: Grassy-----	Not limited	0.00	Not limited	0.00	Slightly limited slope (slightly limited)	0.10	Slightly limited slope (slightly limited)	0.10	Very limited percs slowly (very limited) slope (moderately limited)	1.00 0.31

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
73306: Gatewood-----	Moderately limited depth to bedrock (moderately limited)	0.46	Moderately limited depth to bedrock (moderately limited)	0.46	Moderately limited depth to bedrock (moderately limited)	0.46	Very limited depth to bedrock (very limited)	1.00	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	depth to bedrock (very limited)	1.00
	droughty (moderately limited)	0.31	droughty (moderately limited)	0.31	droughty (moderately limited)	0.31	slope (slightly limited)	0.10	wetness (very limited)	1.00
73307: Gressy-----	Not limited	0.00	Not limited	0.00	Not limited	0.00	Not limited	0.00	Very limited percs slowly (very limited)	1.00
Viraton-----	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 (moderately limited)	0.42	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	too acid (moderately limited)	0.42	wetness (very limited)	1.00
									too acid (slightly limited)	0.07
73308: Grandgulf-----	Very limited ponded (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	Very limited percs slowly (very limited)	1.00
									ponded (wetness) (very limited)	1.00
73309: 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 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
	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	too acid (slightly limited)	0.03
Bendavis-----	Very limited slope (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 percs slowly (very limited)	1.00
	large surface stones (limited)	0.70	large surface stones (limited)	0.70	large surface stones (limited)	0.70	slope (very limited)	1.00	slope (very limited)	1.00
	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	large surface stones (limited)	0.70	depth to bedrock (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
73310: Scholten-----	Limited droughty (limited) wetness (moderately limited) too acid (moderately limited)	0.70  0.58  0.42	Limited droughty (limited) (moderately limited) too acid (moderately limited)	0.70  0.58  0.42	Limited droughty (limited) (moderately limited) too acid (moderately limited)	0.70  0.58  0.42	Moderately limited wetness (moderately limited) too acid (moderately limited) slope (slightly limited)	0.58  0.42  0.20	Very limited wetness (very limited) percs slowly (limited) slope (limited)	1.00  0.78  0.66
Bendavis-----	Slightly limited too acid (slightly limited) wetness (slightly limited) depth to bedrock (slightly limited)	0.30  0.28  0.27	Slightly limited too acid (slightly limited) wetness (slightly limited) depth to bedrock (slightly limited)	0.30  0.28  0.27	Slightly limited too acid (slightly limited) wetness (slightly limited) depth to bedrock (slightly limited)	0.30  0.28  0.27	Very limited depth to bedrock (very limited) too acid (slightly limited) wetness (slightly limited)	1.00  0.30  0.28	Very limited depth to bedrock (very limited) wetness (very limited) percs slowly (limited)	1.00  1.00  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) slope (slightly limited)	0.42  0.10	Moderately limited too acid (moderately limited) slope (slightly limited)	0.42  0.10	Limited percs slowly (limited) slope (moderately limited) too acid (slightly limited)	0.73  0.31  0.03
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

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: Poynor-----	Limited slope (limited)	0.76	Limited slope (limited)	0.76	Limited slope (limited)	0.99	Limited slope (limited)	0.99	Very limited slope (very limited)	1.00
	droughty (moderately limited)	0.57	droughty (moderately limited)	0.57	droughty (moderately limited)	0.57	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			too acid (slightly limited)	0.03
73312: Alred-----	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	Very limited percs slowly (very limited)	1.00
	droughty (slightly limited)	0.08	droughty (slightly limited)	0.08	slope (slightly limited)	0.20	slope (slightly limited)	0.20	slope (limited)	0.66
					droughty (slightly limited)	0.08			too acid (slightly limited)	0.07
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
73313: Fanchon-----	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
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
									too acid (slightly limited)	0.14
73314: Tanglenook-----	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
	percs slowly (limited)	0.99	percs slowly (limited)	0.99	percs slowly (limited)	0.99	percs slowly (limited)	0.99	wetness (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
73315: 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
	percs slowly (limited)	0.99	percs slowly (limited)	0.99	percs slowly (limited)	0.99	percs slowly (limited)	0.99	wetness (very limited)	1.00
73316: 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 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
	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	too acid (slightly limited)	0.18	too acid (slightly limited)	0.03
Tick-----	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
	too acid (moderately limited)	0.36	too acid (moderately limited)	0.36	too acid (moderately limited)	0.36	too acid (moderately limited)	0.36	too acid (slightly limited)	0.07
Mano-----	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
	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	too acid (slightly limited)	0.30	slope (very limited)	1.00
	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (slightly limited)	0.28	wetness (very limited)	1.00
74626: Tanglenook----	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
	percs slowly (limited)	0.99	percs slowly (limited)	0.99	percs slowly (limited)	0.99	percs slowly (limited)	0.99	wetness (very limited)	1.00
	flooding (slightly limited)	0.30	flooding (slightly limited)	0.30	flooding (slightly limited)	0.30	flooding (slightly limited)	0.30		

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
74627: Hartville-----	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.99 0.44 0.30	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.99 0.44 0.30	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.99 0.44 0.30	Limited percs slowly (limited) wetness (moderately limited) flooding (slightly limited)	0.99 0.44 0.30	Very limited percs slowly (very limited) wetness (very limited)	1.00 1.00
74648: Aslinger-----	Limited percs slowly (limited) wetness (moderately limited) too acid (slightly limited)	0.61 0.44 0.18	Limited percs slowly (limited) wetness (moderately limited) too acid (slightly limited)	0.61 0.44 0.18	Limited percs slowly (limited) wetness (moderately limited) slope (slightly limited)	0.61 0.44 0.20	Limited percs slowly (limited) wetness (moderately limited) slope (slightly limited)	0.61 0.44 0.20	Very limited percs slowly (very limited) wetness (very limited) slope (limited)	1.00 1.00 0.66
74658: Zanoni-----	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	Slightly limited percs slowly (slightly limited)	0.22
74677: Deible-----	Very limited wetness (very limited) percs slowly (limited) flooding (slightly limited)	1.00 0.99 0.30	Very limited wetness (very limited) percs slowly (limited) flooding (slightly limited)	1.00 0.99 0.30	Very limited wetness (very limited) percs slowly (limited) flooding (slightly limited)	1.00 0.99 0.30	Very limited wetness (very limited) percs slowly (limited) flooding (slightly limited)	1.00 0.99 0.30	Very limited percs slowly (very limited) wetness (very limited)	1.00 1.00
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

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
74681: Lostpond-----	Limited wetness (limited) flooding (slightly limited)	0.81 0.30	Limited wetness (limited) flooding (slightly limited)	0.81 0.30	Limited wetness (limited) flooding (slightly limited)	0.81 0.30	Limited wetness (limited) flooding (slightly limited)	0.81 0.30	Very limited wetness (very limited) percs slowly (very limited)	1.00 1.00
74690: Moniteau-----	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
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
75390: Razort-----	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
75408: Secesh-----	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
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)	1.00	Very limited flooding (very limited)	1.00	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	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75418: Tilk-----	Very limited poor filter (very limited) droughty (moderately limited) flooding (slightly limited)	1.00  0.34 0.30	Very limited poor filter (very limited) droughty (moderately limited) flooding (slightly limited)	1.00  0.34 0.30	Very limited poor filter (very limited) droughty (moderately limited) flooding (slightly limited)	1.00  0.34 0.30	Very limited poor filter (very limited) flooding (slightly limited)	1.00  0.30	Slightly limited percs slowly (moderately limited) too acid (slightly limited)	0.32  0.01
75420: Secesh-----	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) flooding (moderately limited)	1.00  0.60
Tilk-----	Very limited poor filter (very limited) flooding (limited) droughty (moderately limited)	1.00  0.90 0.34	Very limited poor filter (very limited) flooding (limited) droughty (moderately limited)	1.00  0.90 0.34	Very limited poor filter (very limited) flooding (limited) droughty (moderately limited)	1.00  0.90 0.34	Very limited poor filter (very limited) flooding (limited)	1.00  0.90	Limited flooding (moderately limited) percs slowly (moderately limited) too acid (slightly limited)	0.60  0.32 0.01
75423: Cedargap-----	Limited flooding (limited) droughty (slightly limited)	0.90  0.17	Limited flooding (limited) droughty (slightly limited)	0.90  0.17	Limited flooding (limited) droughty (slightly limited)	0.90  0.17	Limited flooding (limited)	0.90	Limited percs slowly (limited) flooding (moderately limited)	0.78  0.60
75432: Batcave-----	Very limited wetness (very limited) flooding (very limited)	1.00  1.00	Very limited wetness (very limited) flooding (very limited)	1.00  1.00	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 percs slowly (very limited) wetness (very limited) flooding (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
75432: Farewell-----	Very limited wetness (very limited) flooding (very limited)	1.00  1.00	Very limited wetness (very limited) flooding (very limited)	1.00  1.00	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 percs slowly (very limited) wetness (very limited) flooding (very limited)	1.00  1.00  1.00
75433: Racket-----	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  0.69  0.60
99001: Water-----	Not rated		Not rated		Not rated		Not rated		Not rated	
99002: Borrow areas---	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	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
70022:												
Tonti-----	0-8	SIL	CL, CL-ML	A-4, A-6	0	0-5	80-100	75-100	70-95	65-85	20-35	4-14
	8-20	GR-SICL, GR-SIL, SICL	CL, GC	A-4, A-6	0	0-5	65-100	60-100	55-95	45-85	25-40	8-20
	20-34	GRX-SIL, GRV-SICL	GP-GC, GC	A-2-6, A-2-4, A-6	0-5	0-10	30-60	20-50	15-45	10-40	25-40	7-20
	34-80	GRX-SIC, GRV-C	GW-GC, GC	A-2-7, A-7-6	0-5	0-10	15-60	5-50	5-45	5-45	45-80	25-50
70025:												
Branson-----	0-8	SIL	CL-ML, ML	A-4	0	0	95-100	90-100	85-100	75-90	15-25	3-7
	8-26	SIL, SICL	CL, CL-ML	A-4, A-6	0	0	95-100	90-100	85-100	80-95	20-35	6-15
	26-40	SICL, SIL	CL	A-6, A-4	0	0	90-100	85-100	75-100	70-95	30-40	10-15
	40-80	SICL, SIC	CL, ML	A-6, A-4, A-7-6	0	0-3	85-100	85-100	75-100	70-95	25-50	8-20
Splitlimb-----	0-10	SIL	CL-ML, ML	A-4	0	0	100	95-100	85-100	70-90	15-25	3-7
	10-20	SIL, SICL	CL, CL-ML	A-6, A-4	0	0	100	95-100	80-100	75-95	20-35	5-15
	20-29	SIL, SICL	CL	A-6, A-7-6, A-4	0	0	95-100	90-100	80-100	75-95	25-45	8-20
	29-80	SICL, SIL	CL	A-6, A-7-6, A-4	0	0	95-100	90-100	80-100	75-95	30-45	10-25
70026:												
Tonti-----	0-8	SIL	CL, CL-ML	A-4, A-6	0	0-5	80-95	75-90	70-85	60-70	20-35	4-15
	8-20	GR-SICL, GR-SIL, SICL	CL, GC	A-4, A-6	0	0-5	65-95	60-90	55-85	45-80	25-40	8-20
	20-34	GRX-SIL, GRV-SIL, GRV-SICL, GRX-SICL	GC, GC-GM	A-2-6, A-2-4, A-6	0-5	0-10	25-55	20-50	20-45	20-40	25-40	7-20
	34-80	GRX-SIC, GRV-C, GR-C, GRX-C	CH, CL, GC, GP-GC	A-7-6, A-2-7	0-5	0-10	25-75	20-70	15-65	10-60	45-80	25-50
71250:												
Britwater-----	0-6	SIL	CL, CL-ML	A-4	0	0	80-100	75-100	70-95	60-80	0-30	6-10
	6-22	GR-SICL, GR-SIL, SICL, SIL	CL, GC	A-4, A-6	0	0	60-100	55-100	50-90	45-85	23-38	8-15
	22-80	GRV-SICL, GRV-CL, GR-C	CL, GC	A-2-6, A-6, A-7-6	0	0-5	40-90	25-85	20-85	15-80	30-50	11-23
73000:												
Pomme-----	0-7	SIL	CL, CL-ML	A-4	0	0-5	80-100	75-100	70-95	50-90	20-30	6-10
	7-19	SICL, GR-SIL, GR-SICL, SIL	CL, GC	A-4, A-6	0	0-10	70-95	65-90	50-85	50-75	30-40	9-15
	19-57	GRV-SICL, GR-SICL, SICL	GC, CL	A-2-6, A-6, A-7-6	0	0-10	50-95	45-90	35-85	30-75	30-45	15-25
	57-80	C, GR-C, GRV-CL	GC, CH, CL	A-7-6, A-2-6, A-6	0	0-15	40-95	35-90	30-85	25-80	37-60	15-30
73013:												
Lowassie-----	0-10	SIL	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	85-100	20-35	5-15
	10-18	SIL, SICL	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	85-100	25-40	5-20
	18-36	SIC, C	CH, CL	A-7-6	0	0	100	100	90-100	85-95	50-70	25-40
	36-80	SIL, SICL	CL	A-4, A-6, A-7-6	0	0	95-100	90-100	85-100	80-90	30-45	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	
73017: Bendavis-----	0-3	GRV-SIL	GC, GC-GM, GM	A-1-a, A-2-4, A-4	0-5	0-5	30-55	25-50	20-45	15-40	10-20	2-8
	3-14	GR-SIL, GRV-SIL	GC, GM, CL, CL-ML	A-4, A-2-4	0-5	0-5	45-80	40-75	35-70	30-65	10-20	2-8
	14-34	GRV-SIL, GRV-SICL, GRX-SIL	GC, GC-GM	A-2, A-2-4, A-6	0-5	0-5	30-55	20-50	15-45	15-40	25-30	7-15
	34-80	BR			---	---	---	---	---	---	---	---
Poynor-----	0-4	GRV-SIL	GC, GC-GM, GM	A-1-b, A-2-4, A-4	0-5	0-20	30-55	25-50	20-45	20-40	20-30	2-8
	4-10	GRV-L, GRV-SIL, GRX-SIL	GC, GC-GM, GM	A-1-a, A-2-4, A-4	0-5	0-20	30-55	20-50	20-50	15-40	20-30	2-8
	10-28	GRV-SIL, GRV-CL, GRX-SICL	GC	A-2-4, A-2-6, A-6	0-5	0-20	25-55	20-50	20-50	15-45	25-40	10-20
	28-80	SIC, C	CH, MH, CL	A-7-5, A-7-6	0	0-10	95-100	90-100	85-95	70-90	50-80	25-40
73023: Mano-----	0-3	GR-SIL	CL, GM, CL-ML, ML	A-4	0	0-5	55-80	50-75	45-75	40-70	15-25	3-8
	3-13	GRV-SIL, GR-SIL	CL, GC-GM, GM, ML	A-4, A-1-a	0	0-5	30-80	25-75	25-75	15-70	15-25	3-8
	13-33	GRV-SIL, GRV-SICL	GC, GC-GM	A-2-4, A-6, A-1-a	0	0-5	30-55	25-50	25-45	15-40	20-30	5-15
	33-80	C, SIC, GR-C	CH, CL	A-7-6	0	0	70-95	70-95	65-90	55-85	50-75	30-45
Ocie-----	0-5	GRV-SIL	GC, GC-GM	A-1-b, A-2-4, A-4	0	0-15	35-60	30-55	25-50	20-45	0-25	4-10
	5-11	GRV-SIL, GRV-L, GR-SIL	GC, GC-GM, CL	A-1-a, A-2-4, A-6	0-5	0-20	40-80	25-75	20-60	15-55	20-30	5-15
	11-24	GRV-SICL, GRV-SIL	GC, GC-GM	A-1-a, A-2-4, A-2-6	0-5	0-20	35-55	25-50	20-45	15-35	20-30	5-15
	24-56	C, GR-C	CH, CL	A-7-6	0-5	0-15	75-95	70-90	65-85	60-80	50-70	30-40
	56-80	BR			---	---	---	---	---	---	---	---
73024: Mano-----	0-3	GRV-SIL	GC-GM, GC, GM	A-1-b, A-1-a, A-4	0	0-5	30-55	25-50	25-45	15-40	15-25	3-8
	3-13	GRV-SIL, GR-SIL	CL, GC-GM, GM, ML	A-4, A-1-a	0	0-5	30-80	25-75	25-75	15-70	15-25	3-8
	13-33	GRV-SIL, GRV-SICL	GC, GC-GM	A-2-4, A-6, A-1-a	0	0-5	30-55	25-50	25-45	15-40	20-30	5-15
	33-80	C, GR-C	CH, CL	A-7-6	0	0	70-95	70-95	65-90	55-85	50-75	30-45
Ocie-----	0-5	GRV-SIL	GC, GC-GM	A-1-b, A-2-4, A-4	0	0-15	35-60	30-55	25-50	20-45	0-25	4-10
	5-11	GRV-SIL	GC, GC-GM	A-1-a, A-2-4, A-2-6	0-5	0-20	40-60	25-55	20-45	15-35	20-30	5-15
	11-24	GRV-SIL, GRX-SIL, GRV-SICL	GC, GC-GM	A-1-a, A-2-4, A-2-6	0-5	0-20	25-55	20-50	20-45	15-35	20-30	5-15
	24-56	GR-C, C	CH, CL	A-7-6	0-5	0-15	75-95	70-90	65-85	60-80	50-70	30-40
	56-80	BR			---	---	---	---	---	---	---	---
73051: Winnipeg-----	0-6	SIL	CL, CL-ML	A-4, A-6	0	0	95-100	90-100	85-95	75-85	25-35	7-15
	6-16	SIL, SICL	CL	A-6, A-4	0	0	95-100	90-100	85-95	70-90	30-40	10-20
	16-44	SICL, SIL	CL	A-6, A-7-6	0	0	85-100	75-100	70-95	65-90	35-45	15-25
	44-80	C, GR-SIC, GRV-SICL	GC, CH, CL	A-7-6, A-2-6, A-6	0	0	45-100	35-100	35-95	30-85	35-70	15-40

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 inches	3-10 inches	4	10	40	200		
73054:	In				Pct	Pct					Pct	
Viburnum-----	0-7	SIL	CL, CL-ML	A-4	0	0	90-100	80-100	75-95	60-90	20-30	5-10
	7-20	SICL, GR-SICL	CL	A-6, A-7-6	0	0-5	70-100	60-100	55-90	55-85	35-50	15-25
	20-38	SICL, SIC, GRV-SIC	CH, CL, GC	A-2-7, A-7-6	0	0-5	50-95	45-90	35-85	30-80	45-60	20-35
	38-80	GRV-SIC, GR-C, GRX-C	GC, CH, GP-GC	A-2-7, A-7-6	0	0-10	20-75	15-60	10-60	5-55	45-70	20-40
73063:												
Bendavis-----	0-8	GR-SIL	CL, GM, ML	A-4	0	0-5	55-80	50-75	45-70	40-60	15-20	2-8
	8-10	GRV-SIL, GR-SIL, SIL	GM, CL	A-4, A-2-4	0	0-15	40-85	35-80	35-80	30-65	15-20	2-8
	10-31	GRV-SIL, GRV-L, GRX-SICL, GRV-SICL	GC, GC-GM	A-2-4, A-6, A-1-a	0-5	0-25	25-60	20-55	20-50	15-45	20-30	5-15
	31-80	BR			---	---	---	---	---	---	---	---
Poynor-----	0-4	GRV-SIL	GC, GC-GM, GM	A-1-b, A-2-4, A-4	0-5	0-20	30-55	25-50	20-45	20-40	20-30	2-8
	4-10	GRV-SIL, GR-SIL	GC, GC-GM, GM	A-1-a, A-2-4, A-4	0-5	0-20	30-60	25-55	20-50	15-40	20-30	2-8
	10-28	GRV-SICL, GRX-SIL	GC	A-2-4, A-2-6, A-6	0-5	0-20	25-55	20-50	20-50	15-45	25-40	10-20
	28-80	GR-C, C	MH, CH, GC	A-7-5, A-7-6	0	0-10	60-100	55-100	50-95	40-90	51-70	25-35
73068:												
Tick-----	0-5	GRV-SIL	GC-GM, GM	A-1-a, A-2-4, A-4	0-2	0-15	30-60	25-50	20-50	15-40	14-23	2-7
	5-10	GRV-SIL, GR-SIL, SIL, GR-L	CL, GC-GM, GM	A-1-b, A-2-4, A-4, A-6	0-15	0-15	35-100	30-90	25-85	20-70	15-30	2-11
	10-18	SICL, GR-SICL, CL	CL, GC-GM	A-7-6, A-6, A-2-4	0-15	0-10	60-100	50-100	45-95	35-90	20-42	5-18
	18-42	C, SIC, GR-SIC, GR-C	CL, CH, GC	A-7-6	0-15	0-10	55-100	50-100	50-100	45-95	41-74	20-45
	42-80	C, GR-C, GR-SIC, SIC	CH, MH, GC	A-7-5	0-15	0-15	60-100	55-100	55-100	45-95	43-77	18-36
73069:												
Tick-----	0-5	GRX-SIL	GC-GM, GM, GP-GM	A-1-a, A-2-4	0-2	0-15	25-40	15-30	10-30	10-25	14-23	2-7
	5-10	GRV-SIL, GR-SIL, SIL, GR-L	GC, GC-GM, GM, CL	A-1-b, A-2-4, A-6	0-15	0-15	50-100	35-100	30-95	25-85	15-30	2-11
	10-18	SICL, GR-SICL, CL, GR-L	CL, GC-GM	A-7-6, A-6, A-2-4	0-15	0-10	60-100	55-100	45-100	35-90	20-42	5-18
	18-42	C, SIC, GR-C	CH, CL, GC	A-7-6	0-15	0-10	55-100	50-100	50-95	45-90	41-74	20-45
	42-80	C, GR-C, GR-SIC, SIC	CH, MH, GC	A-7-5	0-15	0-15	60-100	55-100	55-100	50-95	43-77	18-36
73073:												
Scholten-----	0-7	GRV-SIL	GM, GC-GM, GC	A-2-4, A-4, A-1-b	0-3	0-15	35-55	25-50	25-45	20-40	15-25	NP-10
	7-21	GRV-SIL, CBV-SIL, GRV-SICL	GC-GM, GC, GM	A-2-4, A-4, A-1-a	0-4	0-30	30-55	25-50	20-45	15-40	15-25	NP-10
	21-34	GRX-SIL, GRV-SIL, GRX-SICL	GC-GM, GC	A-1-b, A-4, A-6	0-3	0-30	20-60	20-55	20-50	20-40	20-40	5-20
	34-80	GR-C, GRV-C, GRV-CL, CBX-C	CH, CL, GC	A-2-6, A-2-7, A-7-6	0-10	0-35	30-65	25-60	20-60	15-55	40-70	20-40



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	
73176:												
Poynor-----	0-5	GRV-SIL	GC, GC-GM, GM	A-4, A-1-b	0-5	0-20	35-55	30-50	30-50	25-40	10-30	2-10
	5-11	GRV-SIL	GC, GC-GM, GM	A-1-b, A-2-4, A-4	0-5	0-20	35-55	30-50	30-50	25-40	10-30	2-10
	11-17	GRV-SIL	GC	A-2-4, A-2-6, A-6	0-5	0-20	35-55	30-50	30-50	25-40	25-35	10-15
	17-80	C	CH, CL	A-7, A-7-6	0	0-5	90-100	85-100	80-95	70-85	50-75	30-50
73197:												
Viburnum-----	0-6	SIL	CL, CL-ML	A-4	0	0	90-100	80-100	75-95	60-90	20-30	5-10
	6-18	SICL, GR-SICL	CL	A-6, A-7-6	0	0-5	70-100	60-100	55-90	55-85	35-50	15-25
	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	45-60	20-35
	35-80	GRV-SIC, GR-C, GRX-C	GC, CH, GP-GC	A-2-7, A-7-6	0	0-7	20-75	15-60	10-60	5-55	45-70	20-40
73198:												
Gressy-----	0-7	SIL	CL, CL-ML, ML	A-4	0	0	80-100	75-100	70-95	55-85	15-25	3-8
	7-31	SIL, GR-SIL, SICL, GR-L	CL-ML, CL, GC-GM	A-4, A-6, A-2-4	0	0	65-100	50-90	45-85	30-75	20-34	5-13
	31-49	GR-CL, GRV-CL, CL	GC, CL	A-2-4, A-6, A-7-6	0	0-35	60-100	40-90	30-85	25-75	28-50	9-27
	49-80	GR-C, GRV-C, C	GC, CH	A-7-6, A-7-5	0-10	0-30	55-100	45-100	45-95	40-90	43-83	22-49
Viraton-----	0-3	SIL	CL, CL-ML	A-4, A-6	0	0	85-100	80-100	80-95	65-85	20-35	5-15
	3-7	SIL	CL, CL-ML	A-4, A-6	0	0	85-100	80-100	80-95	65-85	20-35	5-15
	7-23	GR-SICL, GRV- SIL	CL, GC	A-6, A-2-4	0	0-15	30-80	25-75	25-75	20-70	30-40	10-20
	23-48	GRX-SIL	GC, GP-GC	A-2-6, A-2-4, A-1-a	0	0-20	20-30	15-25	15-25	10-20	25-35	5-15
	48-80	C, GR-C	CH, CL	A-7, A-7-6	0	0-15	65-95	60-90	60-90	55-80	50-75	25-50
73199:												
Moko-----	0-7	FLX-L	GC, GP-GC	A-2-6, A-2-4, A-2-7	0-10	35-60	15-50	10-40	10-35	5-30	25-45	10-20
	7-12	CNX-SICL, CNV- CL, FLX-SIL, CNV-SIL	GP-GC, GC	A-2-6, A-2-7, A-2-4	0-10	30-65	15-40	10-35	10-30	5-20	25-45	10-20
	12-80	BR			---	---	---	---	---	---	---	---
Rock outcrop.												
73221:												
Poynor-----	0-4	GRV-SIL	GC, GC-GM, GM	A-1-b, A-2-4, A-4	0-5	0-20	30-55	25-50	20-45	20-40	20-30	2-8
	4-10	GRV-L, GRV-SIL	GC-GM, GM, GC	A-1-a, A-2-4, A-4	0-5	0-20	30-55	25-50	20-50	15-40	20-30	2-8
	10-28	GRV-SIL, GRV-CL	GC	A-2-6, A-6, A-2-4	0-5	0-20	30-55	25-50	20-50	15-45	25-40	10-20
	28-80	C, GR-C, SIC	CH, MH, GC	A-7-5, A-7-6	0	0-10	70-100	60-100	55-95	50-90	51-80	25-40
73222:												
Splitlimb-----	0-10	SIL	ML, CL-ML	A-4	0	0	95-100	95-100	90-100	75-90	16-23	3-7
	10-20	SIL, SICL	CL, CL-ML	A-6, A-4	0	0	95-100	95-100	90-100	75-95	20-35	5-14
	20-29	SIL, SICL	CL	A-6, A-7-6, A-4	0	0	95-100	90-100	85-100	70-95	25-44	8-22
	29-80	SICL, SIL	CL	A-6, A-7-6	0	0	90-100	85-100	80-100	65-95	30-45	11-23



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	
73230:												
Coulstone-----	0-1	MPM			---	---	---	---	---	---	---	---
	1-6	CBX-SL	SM, GW-GM, GC-GM	A-1-b, A-2-4, A-1-a	0-55	0-55	45-70	20-55	15-45	5-35	8-18	2-4
	6-29	CBX-SL, GRX-SL, CBX-L	GC, SC-SM, GW-GM	A-1-b, A-2-4, A-1-a	0	0-55	50-70	25-50	15-45	5-35	9-29	2-10
	29-42	STX-SL, CBX-L, CBX-C	GW-GC, GC-GM, GM	A-2-4, A-7-6, A-1-a	0-55	0-45	45-65	20-50	15-45	5-40	20-52	5-23
	42-80	STX-CL, GRV-C, CBX-SCL	GC, GW-GC, GM	A-2-6, A-7-6, A-2-4	0-75	0-37	30-60	15-50	15-45	5-40	23-52	7-23
Bender-----	0-1	MPM			---	---	---	---	---	---	---	---
	1-5	CBX-SL	GW-GM, GM, GC-GM	A-1-b, A-1-a	0-17	0-55	30-60	15-50	10-40	5-25	2-12	1-4
	5-21	CBX-SL, GRX- FSL, CBX-L	GM, GC-GM, GW-GM	A-1-b, A-2-4, A-1-a	0-31	0-55	30-60	15-50	10-40	5-30	2-20	1-5
	21-31	STX-SL, GRV- FSL, STX-COSL, GRX-L	GW-GM, GP-GC, GC	A-1-a, A-2-6	0-90	0-90	30-60	15-50	10-40	5-20	3-34	1-13
	31-80	BR			---	---	---	---	---	---	---	---
Gatewood-----	0-2	GRX-SIL	GC, GP-GC	A-2-6, A-2-4	0	0-15	30-50	10-30	10-25	5-20	25-35	7-15
	2-5	GRV-SIL, GR-SIL	GC-GM, GC	A-2-4, A-4, A-6	0	0-15	40-75	30-60	25-55	20-50	25-35	7-15
	5-36	C, CB-C	CH, SC	A-7-6	0-5	0-10	80-95	60-90	55-90	50-85	55-75	30-45
	36-80	BR			---	---	---	---	---	---	---	---
73231:												
Wasola-----	0-7	SIL	CL, CL-ML	A-4, A-6	0	0-5	80-100	75-100	60-90	50-85	21-30	6-11
	7-22	SICL, SIL, GR- SIL, GR-SICL	CL, GC	A-2-4, A-6	0	0-10	65-100	55-100	40-85	35-85	27-40	9-16
	22-30	GRV-SICL, GR- SICL, GR-CL, GR-L	GC, CL	A-7-6, A-2-6	0	0-30	35-80	30-75	25-60	20-60	32-45	13-25
	30-80	GRV-SICL, GR- CL, GRV-C, GRV-CL	GC, MH	A-2-7, A-2-6, A-7-5	0	0-45	40-85	30-75	20-70	15-70	37-61	15-28
73235:												
Alred-----	0-4	GRV-SIL	GC-GM, GC, GW-GC	A-1-b, A-2-6, A-1-a	0	0-15	30-35	25-30	10-30	10-25	20-35	5-15
	4-17	GRX-SIL, GR-SIL	GC-GM, GC, GP-GC	A-1-b, A-1-a, A-6	0	0-15	20-60	15-55	15-55	10-45	20-35	5-15
	17-27	CBX-SICL, GRX- SICL	GC, GP-GC	A-2-6, A-2-7, A-2-4	0	30-50	20-35	15-30	15-30	10-25	30-45	10-20
	27-80	C, GR-C	CH	A-7, A-7-6	0	0-10	75-100	70-100	65-95	60-85	65-95	40-70
73236:												
Scholten-----	0-7	GRV-SIL	GM, CL-ML, GC-GM	A-2, A-4, A-1-a	0-3	0-15	30-80	25-75	20-75	15-70	15-19	2-4
	7-21	GRV-SIL, CBX- SIL, GRV-SICL	GC-GM, CL, GC	A-4, A-2, A-6, A-1-b	0-4	0-30	30-75	25-65	25-65	25-65	18-32	4-12
	21-34	GRX-SIL, GRV- SIL, GRX-SICL	CL, GC, GC-GM	A-4, A-7-6, A-1-b	0-3	0-30	20-65	20-60	20-60	20-55	22-44	6-18
	34-80	GR-C, CBV-GRX-C	CH, CL, GC	A-2-6, A-7-6, A-2-7	0-10	0-30	20-65	20-60	20-60	15-55	38-77	17-48



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	
73236: Poynoz-----	0-4	GRV-SIL	GP-GM, GC-GM, SC-SM	A-2, A-1-a, A-2-4	0-24	0-7	25-75	25-50	20-50	10-35	12-20	2-5
	4-10	GRV-SIL, GR-SIL	GC-GM, GM, CL-ML	A-1-a, A-2-4, A-4	0-2	0-7	25-75	20-70	17-65	15-60	12-20	2-6
	10-28	GRV-SIL, GRX-SIL, CBX-SICL	GC, SC, GM	A-2-4, A-2-7, A-1-a	0-2	0-40	25-75	20-50	17-50	15-35	14-50	3-22
	28-80	GR-C, C, CB-C	CH, CL	A-7-6	0-3	0-65	80-100	70-100	65-95	60-90	41-80	20-53
73240: Jerktail-----	0-6	SIL	CL, CL-ML	A-4	0-2	0-5	80-100	70-100	60-95	50-90	21-28	4-9
	6-14	SIL, GR-SIL, GR-SICL, SICL	CL, GC	A-6, A-7-6	0-2	0-5	60-100	55-100	50-95	50-90	30-48	11-25
	14-21	GR-SICL, SICL, GR-SIC, SIC	CH, CL, GC	A-7-6, A-2-7	0-5	0-10	65-100	50-100	40-95	35-95	44-66	22-39
	21-63	GR-C, C, GRV-C	CH, GC	A-2-7, A-7-5, A-7-6	0-5	0-10	40-100	35-100	30-95	30-95	57-88	32-52
	63-80	BR			---	---	---	---	---	---	---	---
73242: Fanchon-----	0-5	SIL	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	65-95	50-90	21-30	6-11
	5-10	SIL	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	65-95	50-90	21-30	6-11
	10-28	SICL, GR-SIL, GR-SICL, SIL	CL, GC	A-4, A-6	0-3	0-5	60-100	50-95	45-90	40-80	27-40	9-16
	28-47	GRV-L, GR-CL, GRV-CL	GC, CL	A-2-6, A-6, A-7-6	0-5	0-20	45-80	35-75	35-75	30-55	32-45	13-25
	47-80	C, GR-C, GRV-C, GR-SIC	GC, CL, MH	A-7-6, A-2-6, A-7-5	0-5	0-15	30-100	25-100	25-95	20-80	37-61	15-28
Tonti-----	0-6	SIL	CL-ML, SM	A-4	0	0-4	80-100	75-95	55-90	45-85	15-25	3-6
	6-22	SICL, GR-SIL, GR-SICL, SIL	CL, GC-GM	A-4, A-6	0	0-4	65-100	60-95	55-90	45-85	25-40	7-22
	22-35	GRV-SIL, GRX-SIL, GRX-L	CL, GC, GC-GM	A-2, A-1-b, A-6	0-40	0-15	35-75	30-70	25-70	20-65	20-34	6-18
	35-80	CB-C, GR-STX-C, SIC	GW-GC, MH	A-2-7, A-7-5	0-5	0-75	20-100	5-90	5-85	5-80	41-70	17-35
73243: Topazmill-----	0-9	L	CL-ML, CL, SC-SM, SM	A-4	0	0	90-100	90-100	65-100	40-65	15-25	NP-10
	9-31	L, CL	CL	A-6, A-4	0	0	90-100	90-100	65-100	55-80	25-35	10-15
	31-80	L, SCL, CL	CL, SC	A-6, A-4	0	0	85-100	85-100	60-95	45-70	25-40	10-20
73245: Alred-----	0-3	GRV-SIL	GC-GM, GC, GM	A-2-4, A-4, A-1-b	0	0-5	35-55	30-50	30-50	25-40	16-25	3-8
	3-13	GRV-SIL	GC-GM, GC, GM	A-2-4, A-4, A-1-a	0	0-5	30-55	25-50	20-50	15-40	16-25	3-8
	13-33	GRV-SIL, GRV-SICL	GC, GC-GM	A-2-4, A-6, A-1-b	0	0-5	25-55	25-50	25-50	25-45	20-30	5-15
	33-80	C, SIC, GR-C	CH, CL	A-7-6	0	0	70-95	70-95	65-90	55-85	50-75	30-45
73246: Alred-----	0-3	GRV-SIL	GC-GM, GC, GM	A-1-b, A-4, A-2-4	0	0-5	30-55	25-50	25-50	20-40	16-25	3-8
	3-13	GRV-SIL, GR-SIL	CL, GC-GM, GM, ML	A-4, A-1-a	0	0-5	30-80	25-75	25-75	15-70	16-25	3-8
	13-33	GRV-SIL, GRV-SICL	GC, GC-GM	A-2-4, A-6, A-1-a	0	0-5	30-55	25-50	25-50	15-45	20-30	5-15
	33-80	C, SIC, GR-C	CH, CL	A-7-6	0	0	70-95	70-95	65-90	55-85	50-75	30-45

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	
73247: Alred-----	0-4	GRX-SIL	GC-GM, GC, GP-GC	A-1-a, A-2-6	0	0-20	20-35	15-30	15-30	5-20	20-35	5-15
	4-17	GRX-SIL, GR- SIL, GRV-SIL	GC-GM, GC, GP-GC	A-1-b, A-1-a, A-6	0	0-15	20-60	15-55	15-55	10-45	20-35	5-15
	17-27	CBX-SICL, GRX- SICL	GC, GP-GC	A-2-6, A-2-7, A-2-4	0	30-50	20-35	15-30	15-30	10-25	30-45	10-20
	27-80	C, GR-C	CH	A-7, A-7-6	0	0-10	75-100	70-100	65-95	60-85	65-95	40-70
73248: Alred-----	0-4	CBX-L	GC-GM, GC	A-1-a, A-2-6	0	45-65	10-35	10-30	10-25	5-20	20-35	5-15
	4-17	GRV-SIL, GRX- SIL, GR-SIL	GC-GM, GC	A-1-b, A-1-a, A-6	0	0-15	20-60	15-55	15-55	10-45	20-35	5-15
	17-27	CBX-SICL, GRX- SICL	GC, GW-GC	A-2-6, A-2-7, A-2-4	0	30-50	10-35	10-30	10-25	5-20	30-45	10-20
	27-80	C, GR-C	CH	A-7, A-7-6	0	0-10	75-100	70-100	65-95	60-85	65-95	40-70
Bendavis-----	0-5	GRV-SIL	GC, GC-GM, GM	A-2-4, A-1-b	0-5	0-5	35-50	30-45	30-45	25-35	10-25	2-10
	5-9	GRV-SIL, GR-SIL	GC, GC-GM, GM	A-2-4, A-4, A-1-b	0-5	0-5	35-65	30-60	30-60	25-50	10-25	2-10
	9-25	GRV-SIL, GRV- SICL	GC, GC-GM	A-2-6, A-2-4, A-1-b	0-5	0-5	35-50	30-45	30-45	25-35	25-35	5-15
	25-80	BR			---	---	---	---	---	---	---	---
73249: Alred-----	0-4	CBX-L	GC-GM, GC, GW-GC	A-1-a, A-2-6	0	45-65	10-35	10-30	10-25	5-20	20-35	5-15
	4-17	GRV-SIL, GRX- SIL, GR-SIL	GC-GM, GC, GP-GC	A-1-b, A-1-a, A-6	0	0-15	20-60	15-55	15-55	10-45	20-35	5-15
	17-27	CBX-SICL, GRX- SICL	GC, GW-GC	A-2-6, A-2-7, A-2-4	0	30-50	10-35	10-30	10-25	5-20	30-45	10-20
	27-80	C, GR-C	CH	A-7, A-7-6	0	0-10	75-100	70-100	65-95	60-85	65-95	40-70
Ocie-----	0-5	GRV-SIL	GC, GC-GM	A-1-b, A-2-4, A-4	0	0-15	35-60	30-55	25-50	20-45	0-25	4-10
	5-11	GRV-SIL	GC, GC-GM	A-1-a, A-2-4, A-2-6	0-5	0-20	40-55	20-50	20-45	15-35	20-30	5-15
	11-24	GRV-SIL, GRX- SIL, GRV-SICL	GC, GC-GM	A-1-a, A-2-4, A-2-6	0-5	0-20	40-55	20-50	20-45	15-35	20-30	5-15
	24-56	GR-C, C	CH, CL	A-7-6	0-5	0-15	75-95	70-90	65-85	60-80	50-70	30-40
	56-80	BR			---	---	---	---	---	---	---	---
Bendavis-----	0-3	GRV-SIL	GC, GC-GM, GM	A-2-4, A-4, A-1-a	0-5	0-5	30-55	25-50	20-45	15-40	12-20	2-8
	3-14	GR-SIL, GRV-SIL	CL, GM, CL-ML	A-4, A-1-b	0-5	0-5	35-80	30-75	25-70	20-65	12-20	2-8
	14-34	GRV-SIL, GRV- SICL	GC, GC-GM	A-2-6, A-6, A-2-4	0-5	0-5	35-60	30-50	25-45	20-40	23-30	7-12
	34-80	BR			---	---	---	---	---	---	---	---
73295: Taterhill-----	0-9	SIL	ML, CL-ML, SM	A-4	0	0	80-100	75-100	65-95	50-90	16-23	3-7
	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	19-34	5-13
	30-80	GR-CL, GRV-L, GRV-CL	GC, MH	A-2-4, A-6, A-7-6	0	0-15	45-80	20-75	20-75	15-55	25-52	8-23



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	
73299: Plato-----	0-6	SIL	CL-ML, ML	A-4	0	0	100	95-100	90-100	70-90	15-25	NP-6
	6-29	SICL, SIC, C	CL	A-7-6, A-6	0	0	85-100	80-100	75-95	65-85	35-50	15-25
	29-37	GRX-SIL, GRV- SIL, GRV-SICL	GC, GC-GM	A-1-a, A-4, A-6, A-2-6	0	0-15	25-55	20-50	15-45	15-40	25-40	5-20
	37-46	SIL, SICL, GR- SIL, CL	CL, GC	A-6, A-7-6	0	0	60-90	55-85	50-80	45-75	30-45	15-20
	46-80	GRV-C, GR-C, GR-SICL	CH, CL, GC	A-7-6, A-2-7	0	0-20	40-75	40-70	35-70	30-60	45-60	30-45
Jerktail-----	0-6	SIL	CL, CL-ML	A-4	0-2	0-5	80-100	70-100	60-95	50-90	21-28	4-9
	6-14	SIL, GR-SIL, SICL, GR-SICL	CL, GC, CH	A-6, A-7-6	0-2	0-5	60-100	55-100	50-95	50-90	30-48	11-25
	14-21	GR-SICL, SICL, GR-SIC, SIC	CH, CL, GC	A-2-7, A-7-6	0-5	0-10	65-100	50-100	40-95	35-95	44-66	22-39
	21-63	GR-C, C, GRV-C	CL, GC, CH	A-7-5, A-7-6, A-2-7	0-5	0-10	40-100	35-100	30-95	30-95	57-88	32-52
	63-80	BR			---	---	---	---	---	---	---	---
73300: Macedonia-----	0-4	GR-SIL	CL-ML, ML, CL	A-4	0	0-5	60-100	50-100	45-95	40-90	16-27	3-9
	4-9	SIL, GR-SIL, GR-SICL, SICL	CL-ML, CL	A-4, A-7-6	0	0-5	70-95	65-95	60-95	55-95	23-43	7-18
	9-18	C, GR-C, GR- SIC, SIC	CL, MH, GC	A-7-6, A-7-5, A-6	0-5	0-10	60-95	50-90	45-85	40-80	38-56	15-25
	18-80	C, GR-C, GRV-C	MH, GM	A-7-5, A-2-7	0-5	0-10	40-100	35-95	30-95	25-90	48-80	20-40
73301: Tick-----	0-5	GRV-SIL	GC-GM, GW-GM, SC-SM	A-1-a, A-2-4, A-4	0-2	0-5	45-75	15-50	10-50	10-40	14-23	2-7
	5-10	GRV-SIL, GR- SIL, SIL	GM, GC-GM, CL	A-1-a, A-2-4, A-6	0-15	0-15	50-100	35-90	25-85	15-80	15-30	2-11
	10-18	SICL, GR-SICL, CL, GR-L	CL, GC-GM	A-1-a, A-7-6, A-6	0-15	0-20	45-100	20-90	20-85	15-80	20-42	5-18
	18-42	C, SIC, GR-SIC, GR-C	CH, CL, GC	A-2-7, A-7-6	0-15	0-20	50-100	25-100	25-100	20-100	41-74	20-45
	42-80	C, GR-C, GRV- SIC, SIC	GP-GC, MH	A-2-7, A-7-5	0-15	0-24	40-100	10-100	10-100	10-100	43-77	18-36
73302: Kenaga-----	0-6	SIL	CL-ML, ML	A-4	0	0	80-100	80-100	75-95	55-90	15-23	3-7
	6-16	SICL, GR-SICL, SIL, GR-SIL	CL-ML, CL	A-4, A-7, A-6	0	0	70-100	65-95	55-90	55-80	20-47	5-20
	16-34	SICL, GR-SICL, SIC, GR-SIC	GC, SC, MH	A-7-5, A-6, A-7-6	0	0	70-100	65-100	50-80	45-75	32-61	12-28
	34-80	C, GR-C, GRV- SIC, GR-SICL	GM, MH	A-7-5, A-2-7	0	0-10	40-100	35-95	35-90	30-80	56-75	18-40
73303: Kenaga-----	0-6	SIL	CL-ML, ML	A-4	0	0-3	80-100	80-100	75-95	55-90	15-23	3-7
	6-16	SICL, GR-SICL, SIL, GR-SIL	CL-ML, CL	A-7-6, A-4, A-6	0	0-5	70-95	65-95	60-95	55-95	20-47	5-20
	16-34	SICL, CB-SICL, SIC, GR-SIC	CH, CL, MH, GC	A-7-6, A-7-5, A-2-6	0	0-15	40-90	35-80	35-80	30-75	32-61	12-28
	34-80	C, GR-GRX-C, SIC, CB-FLV-C	GM, MH	A-2-7, A-7-5	0	0-50	30-100	20-95	20-95	15-90	56-75	18-40





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	
73310: Poynor-----	0-4	GRV-SIL	GM, GC-GM	A-1-b, A-2-4, A-4	0-24	0-7	30-65	25-60	20-55	20-50	12-20	2-5
	4-10	GRV-SIL, GR-SIL	GC-GM, GM	A-1-b, A-2-4, A-4	0-2	0-7	35-65	30-60	30-55	25-50	12-20	2-6
	10-28	GRV-SIL, GRX-SIL, CBX-SICL, GRV-L	GC, GM	A-2-4, A-7-6, A-1-a	0-2	0-40	25-65	20-60	20-55	15-50	14-50	3-22
	28-80	GR-C, CB-C, GRV-C, GRX-C, CBX-C	GC, CH, GW-GC	A-7-6, A-2-7	0-3	0-65	20-80	10-75	10-75	5-70	41-80	20-53
73311: Scholten-----	0-7	GRV-SIL	GM, CL-ML	A-2-4, A-4	0-3	0-15	45-80	40-75	40-75	30-70	15-19	2-4
	7-21	GRV-SIL, CBX-SIL, GRV-SICL	GC-GM, CL	A-4, A-1-b, A-6	0-4	0-30	30-75	25-65	25-65	25-65	18-32	4-12
	21-34	GRX-SIL, GRV-SIL, GRX-SICL	CL, GC, GC-GM	A-1-b, A-2-4, A-7-6	0-3	0-30	20-65	20-60	20-60	20-55	22-44	6-18
	34-80	GR-C, GRV-C, GRX-C, CBV-C, CBX-C	CH, GC	A-2-7, A-7-6, A-2-6	0-10	0-30	20-65	20-60	20-60	15-55	38-77	17-48
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	10-25	2-10
	5-9	GRV-SIL, GR-SIL	GC-GM, GC, GM	A-4, A-2-4, A-1-b	0-5	0-5	35-65	30-60	30-60	25-50	10-25	2-10
	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	25-35	5-15
	25-80	BR			---	---	---	---	---	---	---	---
Poynor-----	0-4	GRV-SIL	CL, GC-GM, GP-GM	A-1-a, A-2-4, A-4	0-3	0-25	40-80	15-70	15-65	10-60	20-30	2-8
	4-10	GRV-SIL, GRX-SIL	CL, GC-GM, GP-GM	A-1-a, A-2-4, A-4	0-3	0-15	40-85	15-75	15-75	10-65	20-30	2-8
	10-28	GRV-SICL, GRX-SIL	GC, CL	A-2-6, A-6, A-2-4	0-5	0-45	40-70	25-60	25-55	20-55	25-40	10-20
	28-80	C, CB-C	CH, MH, GC	A-7-5, A-2-7	0-5	0-30	55-100	35-100	30-100	25-100	51-70	25-35
73312: Alred-----	0-4	GRV-SIL	GC, GC-GM	A-2-4, A-1-a, A-6	0	0-15	35-60	25-50	20-45	15-40	20-30	6-11
	4-9	GRV-L, GRX-SIL, GRV-SIL	GC, GC-GM	A-2-4, A-1-a, A-6	0	0-25	15-55	10-50	10-45	5-40	20-30	6-11
	9-26	GRV-SICL, GRV-SIL, GRX-SIL	GC	A-2-4, A-2-6, A-6	0	0-25	25-55	20-50	15-45	15-40	25-38	8-15
	26-80	C, CB-C, GR-C	MH, CH, GC	A-7-5, A-7-6	0	0-30	60-100	55-100	50-95	50-85	50-80	30-45
Bendavis-----	0-8	GR-SIL	ML, GM, CL	A-4	0-5	0-5	55-80	50-75	45-70	40-65	15-20	2-8
	8-10	GRV-SIL, GR-SIL, SIL	GM, ML, CL	A-4, A-1-b	0-5	0-15	40-90	30-85	30-80	25-75	15-20	2-8
	10-31	GRV-SIL, GRV-SICL, CB-SIL, GR-L	GC-GM, CL	A-1-b, A-4, A-6	0-5	0-20	35-80	30-75	25-70	20-65	20-30	5-15
	31-80	BR			---	---	---	---	---	---	---	---
73313: Fanchon-----	0-5	SIL	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	65-95	50-90	21-30	6-11
	5-10	SIL	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	65-95	50-90	21-30	6-11
	10-28	SICL, GR-SIL, GR-SICL, SIL	CL, GC	A-4, A-6	0-3	0-5	60-100	50-95	45-90	40-80	27-40	9-16
	28-47	GRV-L, GR-CL, GRV-CL	GC, CL	A-2-6, A-6, A-7-6	0-5	0-20	45-80	35-75	35-75	30-55	32-45	13-25
	47-80	C, GR-C, GRV-C, GR-SIC	GC, CL, MH	A-2-6, A-7-6, A-7-5	0-5	0-15	30-100	25-100	25-95	20-80	37-61	15-28

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	
73313:												
Tonti-----	0-8	SIL	CL, CL-ML	A-4, A-6	0	0-5	80-95	75-90	70-85	60-70	20-35	4-15
	8-20	GR-SICL, GR- SIL, SIL, SICL	CL, GC	A-4, A-6	0	0-5	65-95	60-90	55-85	45-80	25-40	8-20
	20-34	GRX-SIL, GRV- SICL	GC, GC-GM	A-2-6, A-2-4, A-6	0-5	0-10	30-55	25-50	20-45	20-40	25-40	7-20
	34-80	GRV-C, GR-C, GRX-C	CH, CL, GC, GW-GC	A-2-7, A-7-6	0-5	0-10	20-75	10-70	5-65	5-60	45-80	25-50
73314:												
Tanglenook-----	0-6	SIL	CL, CL-ML	A-4	0	0	100	90-100	85-100	70-90	27-32	7-10
	6-17	SICL, SIL	CL	A-6, A-7-6	0	0	100	90-100	85-100	75-90	35-45	16-25
	17-30	SIC, SICL	CH, CL	A-7-6	0	0	100	90-100	90-100	85-100	45-55	25-32
	30-56	SIC, SICL	CH, CL	A-7-6	0	0	85-100	80-100	80-100	70-100	45-55	25-32
	56-80	SIC, C, SICL	CH, CL	A-7-6	0	0	85-100	80-100	80-100	70-100	45-55	25-32
73315:												
Deible-----	0-10	SIL	CL, CL-ML, ML	A-4, A-6	0	0	85-100	80-100	75-100	75-95	17-32	3-11
	10-15	SICL, SIL	CL-ML, CL	A-4	0	0	85-100	80-100	65-100	65-95	20-30	4-10
	15-37	SIC, C, SICL	ML, CL, MH	A-4, A-7-6, A-7-5	0	0	95-100	95-100	95-100	85-95	28-59	8-26
	37-80	SIC, C	MH, CL	A-7-6, A-7-5, A-4	0	0	85-100	80-100	75-100	65-95	31-54	10-23
73316:												
Clarksville-----	0-1	MPM			---	---	---	---	---	---	---	---
	1-5	GRX-SIL	GM, GC-GM, GW-GM	A-1-b, A-4, A-1-a	0-10	0-20	20-55	10-50	10-50	5-45	10-21	2-6
	5-11	GRV-SIL, CB-SIL	GC-GM, GM, CL-ML	A-2-4, A-4, A-1-a	0-10	0-20	35-85	25-75	20-65	15-60	10-21	2-6
	11-42	GRX-SIL, GRV- SIL, CBV-L, CBV-SIL	GC, GW-GC	A-2-4, A-6, A-1-a	0-20	0-25	20-60	10-60	10-45	5-40	20-39	5-16
	42-80	GRV-C, GR-C, GRX-C, C	MH, GW-GC	A-7-5, A-2-7	0-20	0-40	20-90	10-85	10-85	5-80	41-70	17-33
Tick-----	1-0	MPM			0-2	0-15	---	---	---	---	---	---
	0-5	GRX-SIL	GC-GM, CL-ML, GP-GM	A-1-a, A-2-4, A-4	0-2	0-15	40-90	15-85	15-80	10-65	14-23	2-7
	5-10	GRV-SIL, GR- SIL, SIL, GR-L	CL, GC-GM, GM	A-1-a, A-2-4, A-6	0-15	0-15	50-100	25-100	25-95	15-85	15-30	2-11
	10-18	SICL, GR-SICL, GR-L, CL, SIC	CL, GC-GM	A-7-6, A-6, A-1-a	0-15	0-20	45-100	20-100	20-100	15-90	20-42	5-18
	18-42	C, SIC, GR-SIC, GR-C	CH, GC	A-7-6, A-2-7	0-15	0-20	50-100	25-100	25-100	20-100	41-74	20-45
	42-80	C, GR-C, GR- SIC, SIC	GP-GC, MH	A-7-5, A-2-7	0-15	0-24	35-100	10-100	10-100	10-100	43-77	18-36
Mano-----	0-3	GRV-SIL	GC-GM, GC, GM	A-1-a, A-2-4, A-4	0	0-5	30-60	25-50	25-45	15-40	16-25	3-8
	3-13	GRV-SIL	GC, GM, GC-GM	A-2-4, A-4, A-1-a	0	0-5	30-60	25-50	25-45	15-40	16-25	3-8
	13-33	GRV-SIL, GRV- SICL	GC, GC-GM	A-2-4, A-6, A-1-b	0	0-5	25-55	25-50	25-50	25-45	20-30	5-15
	33-80	C, GR-C	CH, CL	A-7-6	0	0	70-95	70-95	65-90	55-85	50-75	30-45
74626:												
Tanglenook-----	0-6	SIL	CL, CL-ML	A-4	0	0	100	100	90-100	70-90	27-32	7-10
	6-17	SICL, SIL	CL	A-6, A-7-6	0	0	100	100	95-100	85-95	35-45	16-25
	17-30	SIC, SICL, C	CH, CL	A-7-6	0	0	100	100	90-100	75-95	45-55	25-32
	30-56	SIC, SICL, C	CH, CL	A-7-6	0	0	100	100	90-100	75-95	45-55	25-32
	56-80	SIC, C, SICL	CH, CL	A-7-6	0	0	100	100	90-100	85-95	45-55	25-32



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	
<b>74627:</b>												
Hartville-----	0-7	SIL	CL, CL-ML	A-4, A-6	0	0	95-100	90-100	80-95	70-90	15-30	7-15
	7-11	SIL	CL	A-6	0	0	95-100	90-100	85-98	75-90	15-30	15-25
	11-40	SIC, SICL	CH, CL	A-7-6	0	0	95-100	85-100	80-98	75-95	50-60	30-40
	40-80	SICL	CL	A-7-6, A-6	0	0	85-95	75-95	65-95	60-90	40-50	25-40
<b>74648:</b>												
Aslinger-----	0-6	SIL	CL, CL-ML, SM	A-4	0	0	80-100	75-95	65-95	50-90	15-25	3-8
	6-22	SICL, SIL, GR-SICL, GR-SIL	CL, GC	A-4, A-6, A-7-6	0	0	70-95	65-90	50-85	50-75	27-48	9-21
	22-46	GR-CL, GR-SIL, GRV-CL	GC, CL	A-2-6, A-6, A-7-6	0	0-8	35-80	30-75	25-70	20-70	30-41	11-17
	46-80	GR-C, C, GRV-C	MH, GM	A-2-7, A-7-5	0	0-8	40-95	30-90	25-85	20-85	49-69	21-33
<b>74658:</b>												
Zanoni-----	0-7	FSL	CL-ML, ML, SM	A-4	0	0	85-100	75-100	60-85	40-55	14-23	3-6
	7-36	FSL, L, GR-SL, SL	SC-SM, CL, SM, SC	A-4, A-2-4	0	0	75-100	65-100	55-85	35-55	12-29	3-10
	36-50	SL, FSL, GR-SL, L, SCL	GM, SC-SM, SC	A-6, A-2-4, A-1-b	0	0	60-100	50-95	35-80	20-50	12-32	3-13
	50-80	SR- GRX-LS GR-L	GP-GC, SC, GW-GM	A-2-6, A-1-a	0	0	20-80	10-75	5-40	5-25	12-30	3-11
<b>74677:</b>												
Deible-----	0-10	SIL	CL, CL-ML, ML	A-4, A-6	0	0	85-100	80-100	70-100	60-90	17-32	3-11
	10-15	SIL	CL-ML, CL	A-4	0	0	85-100	80-100	70-100	60-90	20-30	4-10
	15-37	C, SIC, SICL	ML, CL, MH	A-4, A-7-5, A-7-6	0	0	85-100	80-100	75-100	70-95	28-59	8-26
	37-80	SIC, C	MH, CL	A-7-6, A-7-5, A-4	0	0	85-100	80-100	70-100	65-95	31-54	10-23
<b>74679:</b>												
Higdon-----	0-8	SIL	CL-ML, CL	A-6, A-4	0	0	100	95-100	90-100	70-90	23-30	6-11
	8-22	SIL	CL	A-6, A-4	0	0	100	95-100	90-100	70-90	27-35	9-15
	22-44	SIL, SICL	CL	A-6, A-7-6	0	0	100	80-100	70-100	60-90	30-50	11-27
	44-80	SIL, SICL, GR-SIL	CL, GC, CH	A-6, A-7-6	0	0-5	55-100	50-100	45-95	40-85	30-52	11-28
<b>74681:</b>												
Lostpond-----	0-8	SIL	CL, SC-SM	A-4, A-2-4	0	0	80-100	75-100	65-95	30-85	24-28	4-9
	8-20	SIL, SICL, GR-SIL, GR-L	GC, CL	A-2-6, A-6, A-7-6	0	0	60-100	55-95	35-90	30-80	30-48	11-25
	20-80	GR-L, SIL, C, CL, GR-C	GC, GC-GM, CL	A-7-6, A-2-6, A-6	0	0-10	55-90	45-85	30-80	25-75	34-44	14-22
<b>74690:</b>												
Moniteau-----	0-7	SIL	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	85-100	25-35	5-15
	7-14	SIL	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	85-100	25-35	5-15
	14-80	SICL, SIL	CL	A-6, A-7-6	0	0	100	100	85-100	80-95	30-45	15-25
<b>75381:</b>												
Bearthicket----	0-10	SIL	ML	A-4	0	0	100	95-100	90-100	75-90	25-35	3-10
	10-48	SIL, SICL	CL, CL-ML	A-4, A-6	0	0	100	95-100	90-100	80-90	25-40	5-15
	48-80	SIL, SICL, GR-SICL	CL, CL-ML, GC-GM	A-4, A-6	0	0	60-100	55-100	45-100	40-95	25-40	5-15
<b>75390:</b>												
Razort-----	0-7	SIL	CL-ML, CL	A-4, A-6	0	0	80-100	75-100	70-100	55-90	20-35	5-15
	7-34	SIL, L, CL	CL, SC	A-7-6, A-4	0	0	80-100	75-100	70-95	50-75	30-45	10-20
	34-80	GR-L, GRV-L	GC-GM, GC	A-6, A-4, A-1-b	0	0	35-80	30-75	25-70	20-50	20-35	5-15

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 inches	3-10 inches	4	10	40	200		
75408: Secesh-----	In											
	0-8	SIL	ML	A-4	0	0-10	85-100	80-100	75-95	60-90	20-30	NP-7
	8-11	SICL, SIL	CL, CL-ML	A-4, A-6	0	0-10	80-100	75-100	70-95	60-90	25-35	5-12
	11-27	GR-SICL, GR-SIL, L	CL, GC	A-6	0	0-10	65-90	55-85	50-75	40-65	30-40	11-20
	27-80	GR-SC, GRV-L, GRV-CL, GR-CL	GC	A-2-6, A-7-6	0	10-15	50-75	35-65	25-45	20-40	30-45	11-20
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	10-25	3-9
	6-80	SR- CBX-COS GRV-LS	GC, GW-GM, GW	A-1-a, A-2-4	0-5	0-40	25-60	10-55	5-40	3-15	8-20	2-10
Sandbur-----												
	0-8	FSL	CL, SM	A-4, A-2-4	0	0	80-100	75-100	60-80	35-55	10-30	NP-10
	8-50	SR- FS SIL	CL, SC-SM, SM	A-4, A-2-4	0	0-5	80-100	75-100	55-95	20-85	10-30	NP-10
	50-80	CBX-L, GRX-COSL, GRV-SL, STX-L	GC, GC-GM, GW-GM	A-1-a, A-2-4	0-38	0-30	30-60	20-55	10-30	5-20	10-30	NP-10
75418: Tilk-----												
	0-8	GRV-L	GC-GM, GM	A-1-b, A-1-a, A-2-4	0	0-15	35-55	25-45	20-40	15-35	16-23	2-6
	8-47	GRX-COSL, CBV-SIL	GW-GC, GW-GM, GC	A-1-a, A-2-4	0-5	0-35	20-55	10-45	5-40	5-35	17-30	3-10
	47-80	SR- CBX-LCOS GRV-SCL	GW-GM, GP-GC, GC	A-1-a, A-2-6	0-25	0-40	15-55	5-50	5-40	5-35	16-36	2-13
75420: Secesh-----												
	0-8	SIL	ML	A-4	0	0-10	85-100	80-100	75-95	60-85	20-30	NP-7
	8-11	SICL, SIL	CL, CL-ML, ML	A-4, A-6	0	0-10	80-100	75-100	70-95	60-90	25-40	5-12
	11-27	GR-SICL, GR-SIL, L	CL, GC	A-6	0	0-10	60-90	55-85	50-75	40-65	30-40	11-20
	27-80	GR-CL, GRV-L, GRV-SC	GC	A-2-6, A-6, A-7-6	0	0-15	45-70	35-65	30-60	20-40	30-45	11-20
Tilk-----												
	0-8	GRV-L	GC-GM, GM, GC	A-1-b, A-2-4	0	0-15	30-55	25-50	25-45	20-35	10-25	2-8
	8-47	GRV-SL, GRX-L	GP-GM, GC-GM, GC	A-1-a, A-2-4	0-5	0-30	25-60	15-50	10-45	5-35	10-20	3-10
	47-80	SR- CBX-LCOS GRX-COSL	GP, GC	A-1-a, A-2-4	0-25	0-40	15-55	10-50	5-30	3-20	10-20	2-10
75423: Cedargap-----												
	0-14	GRV-SIL	GC, GC-GM	A-6, A-1-b, A-2-4	0	0	35-60	25-50	25-50	20-40	20-40	4-20
	14-24	GRX-SL, SR- GR-CL GRX-SL	GC, GP-GC, SC	A-7-6, A-1-a, A-2-4	0	0	35-90	25-75	20-55	10-50	20-45	4-20
	24-49	GRX-SL, SR- GRV-SL GRX-SC	GC, GP-GC	A-1-a, A-2-4, A-2-7	0	0-8	35-65	25-50	20-40	10-30	20-45	4-20
	49-80	GRX-SCL, GRX-SC	GC, GP-GC	A-2-6, A-1-a, A-2-7	0	0-23	25-50	15-25	15-20	5-15	20-65	4-40
75432: Batcave-----												
	0-11	GR-L	ML, GM	A-4	0	0-15	60-85	50-75	45-70	40-60	25-35	3-9
	11-36	GR-L, GRV-SIL	GM, ML	A-4, A-1-a, A-2	0	0-15	35-85	25-75	20-70	15-60	25-35	3-9
	36-60	GRX-L, GRV-SIL	GC, GP-GC	A-1-a, A-2-6, A-2-4, A-6	0-20	0-20	30-70	20-60	15-55	10-50	20-35	5-20
	60-80	GRV-CL, GRX-SCL, GRV-SICL, GRV-C	GC, GP-GC	A-2-4, A-6, A-1-a, A-2-6	0-20	0-20	20-60	15-50	15-50	10-40	20-35	5-20

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						
						Pct	Pct					Pct
75432:	In											
Farewell-----	0-8	SIL	CL-ML, CL	A-6, A-4	0	0	100	95-100	90-95	75-85	20-35	5-15
	8-18	SIL, GR-SIL, L, GR-L	CL-ML, CL	A-4, A-6	0	0	90-100	60-100	55-95	50-85	20-35	5-15
	18-39	SIL, GR-CL, GR- L, SICL	CL, GC	A-4, A-6, A-7-6	0	0-5	55-95	50-90	50-85	40-70	30-45	10-25
	39-80	GR-L, GRV-CL, GRV-L, GRV-SCL	GC	A-2-4, A-2-6, A-7-6	0-2	0-10	30-55	25-50	20-45	15-40	30-45	10-25
75433:												
Racket-----	0-7	L	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	65-95	55-85	25-35	5-12
	7-42	L, GR-L, SIL	CL, CL-ML	A-4, A-6	0	0	80-100	70-100	65-95	55-95	25-40	5-20
	42-80	SR- GRX-S GR-SL	GM, GP-GM	A-1-a, A-4	0	0-15	40-85	20-75	10-50	5-50	15-30	NP-5
99001. Water												
99002: Borrow areas----	0-80	VAR	GP	A-1	---	---	---	---	---	---	0-14	---

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					
70022: 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	6-18	47-74	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	10-30	35-75	15-35	1.60-1.90	0.00-0.42	0.02-0.08	0.1-2.9	0.1-0.5	.15	.55			
	34-80	5-15	5-55	40-80	1.20-1.40	1.40-4.00	0.05-0.10	3.0-5.9	0.1-0.5	.05	.24			
70025: Branson-----	0-8	10-30	52-81	9-18	1.25-1.45	4.00-14.00	0.24-0.24	0.0-2.9	1.0-3.0	.43	.43	5	5	56
	8-26	8-22	45-77	15-32	1.25-1.45	4.00-14.00	0.18-0.20	0.0-2.9	0.5-1.0	.43	.43			
	26-40	10-22	43-67	23-35	1.25-1.45	4.00-14.00	0.16-0.20	0.0-2.9	0.1-0.5	.37	.37			
	40-80	8-22	40-72	27-45	1.20-1.40	4.00-14.00	0.05-0.18	3.0-5.9	0.1-0.2	.32	.37			
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	1.0-3.0	.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	.43	.43			
	20-29	5-18	56-78	15-35	1.50-1.70	4.00-14.00	0.16-0.20	3.0-5.9	0.2-0.5	.43	.43			
	29-80	4-14	54-73	21-37	1.50-1.70	4.00-14.00	0.15-0.19	3.0-5.9	0.1-0.3	.43	.43			
70026: 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	6-18	47-74	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	10-30	40-75	15-35	1.60-1.90	0.01-0.42	0.02-0.08	0.1-2.9	0.1-0.5	.17	.55			
	34-80	5-15	5-55	40-80	1.20-1.40	1.40-4.00	0.05-0.10	3.0-5.9	0.1-0.5	.10	.24			
71250: Britwater-----	0-6	10-35	45-82	8-20	1.35-1.45	4.00-14.00	0.18-0.24	0.1-2.9	1.0-4.0	.37	.43	5	5	56
	6-22	10-40	40-72	18-35	1.35-1.45	4.00-14.00	0.12-0.18	0.1-2.9	0.5-1.0	.32	.37			
	22-80	10-30	20-63	27-50	1.30-1.45	4.00-14.00	0.06-0.14	0.1-2.9	0.1-0.5	.10	.28			
73000: Pomme-----	0-7	10-35	50-80	10-20	1.35-1.45	4.00-14.00	0.16-0.21	0.1-2.9	1.0-4.0	.37	.37	5	5	56
	7-19	5-35	40-77	18-30	1.30-1.45	4.00-14.00	0.14-0.21	0.1-2.9	0.2-1.0	.28	.43			
	19-57	5-35	40-67	28-40	1.30-1.45	4.00-14.00	0.08-0.14	0.1-2.9	0.1-1.0	.24	.32			
	57-80	5-25	10-50	27-70	1.25-1.40	1.40-14.00	0.04-0.14	3.0-5.9	0.1-0.5	.10	.15			
73013: Lowassie-----	0-10	1-10	63-89	10-27	1.30-1.50	4.00-14.00	0.22-0.24	0.1-2.9	1.0-4.0	.55	.55	5	5	56
	10-18	1-10	55-84	15-35	1.30-1.50	4.00-14.00	0.20-0.22	0.1-2.9	0.2-2.0	.64	.64			
	18-36	1-10	25-60	40-65	1.35-1.60	0.42-1.40	0.09-0.15	6.0-8.9	0.2-1.0	.28	.28			
	36-80	1-20	45-91	8-35	1.40-1.65	1.40-4.00	0.18-0.22	0.1-2.9	0.1-0.5	.64	.64			

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					
73017: Bendavis-----	0-3	14-35	50-81	5-15	1.30-1.50	14.00-42.00	0.09-0.12	0.1-2.9	1.0-3.0	.15	.49	2	5	56
	3-14	15-35	50-77	8-18	1.30-1.50	14.00-42.00	0.09-0.17	0.1-2.9	0.5-2.0	.28	.49			
	14-34	12-30	43-78	10-30	1.30-1.50	4.00-14.00	0.10-0.15	0.1-2.9	0.1-0.8	.15	.55			
	34-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Poynor-----	0-4	10-25	55-84	6-20	1.20-1.45	14.00-42.00	0.04-0.12	0.1-2.9	1.0-3.0	.15	.43	3	7	38
	4-10	15-25	45-77	8-15	1.25-1.45	14.00-42.00	0.02-0.09	0.1-2.9	0.5-2.0	.15	.49			
	10-28	10-30	45-75	15-35	1.40-1.55	4.00-14.00	0.02-0.09	0.1-2.9	0.1-0.8	.15	.49			
	28-80	1-15	5-50	45-80	1.50-1.65	4.00-14.00	0.08-0.12	3.0-5.9	0.1-0.5	.15	.15			
73023: Mano-----	0-3	20-30	52-75	5-18	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	1.0-4.0	.24	.43	4	6	48
	3-13	20-30	55-75	5-15	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	0.5-2.0	.20	.49			
	13-33	8-20	50-80	12-30	1.30-1.40	4.00-14.00	0.04-0.14	0.1-2.9	0.2-1.0	.17	.55			
	33-80	1-20	5-44	55-75	1.30-1.60	0.42-1.40	0.06-0.12	6.0-8.9	0.1-0.8	.10	.15			
Ocie-----	0-5	10-35	50-85	5-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	1.0-4.0	.17	.49	3	7	38
	5-11	10-35	45-85	5-20	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.5-2.0	.15	.55			
	11-24	5-25	40-75	20-35	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.1-1.0	.15	.43			
	24-56	2-10	4-33	65-86	1.10-1.30	0.42-1.40	0.07-0.10	6.0-8.9	0.1-1.0	.05	.10			
	56-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73024: Mano-----	0-3	20-30	52-75	5-18	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	1.0-4.0	.15	.43	4	7	38
	3-13	20-30	55-75	5-15	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	0.5-1.0	.20	.49			
	13-33	8-20	50-80	12-30	1.30-1.40	4.00-14.00	0.04-0.14	0.1-2.9	0.2-1.0	.17	.55			
	33-80	1-20	5-40	55-75	1.30-1.60	0.42-1.40	0.06-0.12	6.0-8.9	0.1-0.8	.10	.15			
Ocie-----	0-5	10-35	50-85	5-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	1.0-4.0	.17	.49	3	7	38
	5-11	10-35	50-85	5-20	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.5-2.0	.15	.55			
	11-24	5-25	40-75	20-35	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.1-1.0	.15	.43			
	24-56	2-10	4-33	65-86	1.10-1.30	0.42-1.40	0.07-0.10	6.0-8.9	0.1-1.0	.05	.10			
	56-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73051: Winnipeg-----	0-6	5-20	60-87	8-20	1.20-1.40	4.00-14.00	0.20-0.22	0.1-2.9	1.0-4.0	.49	.49	5	5	56
	6-16	5-15	58-80	15-30	1.20-1.40	4.00-14.00	0.18-0.22	0.1-2.9	0.5-1.0	.55	.55			
	16-44	5-20	45-70	25-35	1.20-1.50	4.00-14.00	0.16-0.20	3.0-5.9	0.1-0.5	.37	.37			
	44-80	15-25	30-65	27-50	1.30-1.55	4.00-14.00	0.12-0.16	3.0-5.9	0.1-0.5	.15	.20			
73054: Viburnum-----	0-7	13-35	50-70	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	1.0-3.0	.37	.37	4	6	48
	7-20	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	.32	.43			
	20-38	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	.24	.37			
	38-80	5-20	20-45	45-70	1.10-1.40	1.40-4.00	0.03-0.12	3.0-5.9	0.1-0.3	.24	.32			

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					
73063: Bendavis-----	0-8	14-35	52-78	8-13	1.30-1.50	14.00-42.00	0.12-0.20	0.0-2.9	1.0-3.0	.15	.37	2	5	56
	8-10	14-35	52-78	8-13	1.30-1.50	14.00-42.00	0.06-0.20	0.0-2.9	0.5-2.0	.24	.37			
	10-31	12-31	40-77	11-29	1.30-1.50	4.00-14.00	0.03-0.14	0.0-2.9	0.2-0.8	.17	.37			
	31-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Poynor-----	0-4	15-30	50-80	5-20	1.20-1.45	14.00-42.00	0.04-0.12	0.1-2.9	1.0-3.0	.28	.37	3	7	38
	4-10	5-25	60-90	5-15	1.25-1.45	14.00-42.00	0.06-0.12	0.1-2.9	0.5-1.0	.28	.43			
	10-28	5-15	50-80	15-35	1.40-1.55	4.00-14.00	0.02-0.09	0.1-2.9	0.1-0.5	.28	.43			
	28-80	2-20	5-40	45-75	1.50-1.65	4.00-14.00	0.08-0.12	3.0-5.9	0.1-0.5	.24	.28			
73068: Tick-----	0-5	22-45	50-64	8-18	1.20-1.45	14.00-42.00	0.06-0.22	0.0-2.9	1.0-3.0	.15	.37	5	7	38
	5-10	14-45	45-68	9-25	1.25-1.45	14.00-42.00	0.08-0.22	0.0-2.9	0.7-2.0	.20	.43			
	10-18	11-50	32-64	27-40	1.40-1.55	4.00-14.00	0.05-0.20	0.0-2.9	0.2-0.7	.28	.32			
	18-42	1-36	20-50	40-70	1.40-1.55	1.40-4.00	0.04-0.11	3.0-5.9	0.1-0.5	.15	.17			
	42-80	1-27	19-42	40-80	1.60-1.80	0.42-1.40	0.01-0.04	3.0-5.9	0.0-0.5	.15	.15			
73069: Tick-----	0-5	22-45	50-64	8-18	1.20-1.45	14.00-42.00	0.06-0.22	0.0-2.9	1.0-3.0	.10	.37	5	8	0
	5-10	14-45	45-68	9-20	1.25-1.45	14.00-42.00	0.08-0.22	0.0-2.9	0.5-2.0	.15	.43			
	10-18	11-50	32-64	14-40	1.40-1.55	4.00-14.00	0.05-0.20	0.0-2.9	0.2-1.0	.28	.32			
	18-42	1-36	21-49	40-69	1.40-1.55	1.40-4.00	0.04-0.11	3.0-5.9	0.1-0.5	.15	.17			
	42-80	1-27	19-42	40-78	1.60-1.80	0.42-1.40	0.01-0.04	3.0-5.9	0.0-0.5	.15	.15			
73073: Scholten-----	0-7	17-33	54-74	9-13	1.20-1.40	14.00-42.00	0.07-0.19	0.1-2.9	1.0-3.0	.20	.49	4	7	38
	7-21	13-25	47-75	12-28	1.30-1.50	4.00-14.00	0.02-0.11	0.1-2.9	0.2-1.0	.24	.64			
	21-34	11-32	40-72	17-40	1.60-1.90	0.01-0.42	0.01-0.05	0.1-5.9	0.1-0.3	.17	.49			
	34-80	6-40	10-50	35-80	1.30-1.60	14.00-42.00	0.01-0.03	3.0-5.9	0.1-0.3	.10	.24			
Poynor-----	0-4	12-37	50-80	6-15	1.20-1.45	14.00-42.00	0.04-0.12	0.1-2.9	1.0-3.0	.15	.43	3	7	38
	4-10	15-30	50-70	8-16	1.25-1.45	14.00-42.00	0.02-0.09	0.1-2.9	0.2-1.0	.15	.49			
	10-28	5-15	50-80	15-35	1.40-1.55	14.00-42.00	0.02-0.09	0.1-2.9	0.1-1.0	.15	.43			
	28-80	2-40	5-40	45-86	1.50-1.65	4.00-14.00	0.07-0.09	3.0-5.9	0.1-0.9	.10	.20			
73076: Mano-----	0-3	20-30	52-75	5-18	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	1.0-4.0	.15	.43	4	7	38
	3-13	20-30	55-75	5-15	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	0.5-1.0	.20	.49			
	13-33	8-20	50-80	12-30	1.30-1.40	4.00-14.00	0.04-0.14	0.1-2.9	0.3-1.0	.17	.55			
	33-80	1-20	5-40	55-75	1.30-1.60	0.42-1.40	0.06-0.12	6.0-8.9	0.1-0.8	.10	.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					
73076: Ocie-----	0-5	10-35	50-85	5-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	1.0-4.0	.17	.49	3	7	38
	5-11	10-35	50-85	5-20	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.5-2.0	.15	.55			
	11-24	5-25	40-75	20-35	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.1-1.0	.15	.43			
	24-56	2-10	4-33	65-86	1.10-1.30	0.42-1.40	0.07-0.10	6.0-8.9	0.1-1.0	.05	.10			
	56-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73077: Eudy-----	0-6	10-35	50-80	10-18	1.30-1.50	4.00-14.00	0.19-0.24	0.0-2.9	1.0-4.0	.37	.43	2	5	56
	6-14	8-35	40-72	20-40	1.30-1.50	4.00-14.00	0.11-0.20	3.0-5.9	0.4-1.0	.37	.43			
	14-36	2-20	5-35	60-85	1.10-1.30	0.42-1.40	0.09-0.12	6.0-8.9	0.5-1.0	.10	.15			
	36-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73080: Alred-----	0-4	30-50	35-45	8-22	1.20-1.45	4.00-14.00	0.09-0.13	0.1-2.9	1.0-4.0	.10	.28	4	8	0
	4-17	10-30	60-80	11-27	1.20-1.45	4.00-14.00	0.04-0.08	0.1-2.9	0.2-1.0	.15	.64			
	17-27	10-20	50-70	27-35	1.40-1.55	4.00-14.00	0.09-0.13	0.1-2.9	0.2-0.5	.15	.43			
	27-80	1-10	5-30	60-90	1.20-1.40	0.42-1.40	0.08-0.12	3.0-5.9	0.2-0.5	.10	.15			
Bardley-----	0-4	30-50	30-50	8-27	1.20-1.45	4.00-14.00	0.09-0.13	0.1-2.9	1.0-4.0	.05	.20	2	8	0
	4-8	10-30	55-75	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	1-10	5-30	60-90	1.20-1.40	4.00-14.00	0.08-0.12	3.0-5.9	0.5-1.0	.05	.05			
	27-80	---	---	---	---	0.00-0.42	---	---	---	---	---			
Rock outcrop.														
73176: Bendavis-----	0-5	10-30	60-80	5-15	1.20-1.40	14.00-42.00	0.09-0.13	0.1-2.9	1.0-3.0	.15	.37	2	7	38
	5-9	10-30	60-80	5-15	1.20-1.40	14.00-42.00	0.09-0.13	0.1-2.9	0.5-2.0	.15	.37			
	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	.37			
	25-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Poynor-----	0-5	15-35	55-75	5-22	1.20-1.45	14.00-42.00	0.09-0.15	0.1-2.9	1.0-3.0	.28	.43	3	7	38
	5-11	15-35	55-75	5-22	1.25-1.45	14.00-42.00	0.08-0.13	0.1-2.9	0.5-1.0	.28	.43			
	11-17	15-30	55-75	18-27	1.40-1.55	4.00-14.00	0.08-0.13	0.1-2.9	0.1-0.8	.28	.43			
	17-80	5-20	10-30	42-70	1.50-1.65	4.00-14.00	0.08-0.10	3.0-5.9	0.1-0.5	.28	.28			
73197: Viburnum-----	0-6	13-35	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			

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					
73198:														
Gressy-----	0-7	15-35	50-76	9-20	1.35-1.45	14.00-42.00	0.19-0.24	0.0-2.9	1.0-4.0	.37	.43	5	5	56
	7-31	15-40	30-71	14-30	1.30-1.45	4.00-14.00	0.12-0.18	0.0-2.9	0.1-0.7	.37	.49			
	31-49	15-45	25-50	27-40	1.30-1.45	4.00-14.00	0.08-0.14	3.0-5.9	0.1-0.5	.17	.32			
	49-80	10-35	10-40	45-75	1.25-1.40	0.42-1.40	0.05-0.12	6.0-8.9	0.0-0.4	.05	.10			
Viraton-----	0-3	5-20	60-80	10-20	1.30-1.50	4.00-14.00	0.20-0.22	0.1-2.9	1.0-4.0	.43	.49	4	6	48
	3-7	5-20	60-80	10-20	1.30-1.50	4.00-14.00	0.18-0.20	0.1-2.9	0.5-2.0	.49	.49			
	7-23	5-20	55-75	18-30	1.30-1.50	4.00-14.00	0.13-0.15	3.0-5.9	0.5-0.8	.28	.43			
	23-48	15-35	50-75	15-25	1.60-1.90	0.00-0.42	0.01-0.05	0.1-2.9	0.1-0.5	.10	.43			
	48-80	5-25	10-35	45-70	1.40-1.60	0.42-4.20	0.06-0.08	6.0-8.9	0.1-0.5	.10	.10			
73199:														
Moko-----	0-7	10-50	30-50	8-27	1.25-1.50	4.00-14.00	0.08-0.13	0.0-2.9	2.0-10	.05	.24	1	8	0
	7-12	10-50	25-70	10-35	1.25-1.60	4.00-14.00	0.03-0.14	0.0-2.9	1.0-8.0	.05	.32			
	12-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Rock outcrop.														
73221:														
Poynor-----	0-4	10-25	55-84	6-20	1.20-1.45	14.00-42.00	0.04-0.12	0.1-2.9	1.0-3.0	.15	.49	3	7	38
	4-10	15-25	45-77	8-15	1.25-1.45	14.00-42.00	0.02-0.09	0.1-2.9	0.5-2.0	.17	.55			
	10-28	10-40	45-75	15-35	1.40-1.55	4.00-14.00	0.02-0.09	0.1-2.9	0.1-0.8	.15	.49			
	28-80	1-15	5-50	45-80	1.50-1.65	4.00-14.00	0.08-0.12	3.0-5.9	0.1-0.5	.15	.15			
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			
73223:														
Coulstone-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	5	56
	1-4	45-70	25-50	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	25-50	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	15-55	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	15-55	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	20-55	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	15-50	1-8	1.30-1.50	14.00-42.00	0.01-0.09	0.0-2.9	1.5-3.0	.05	.20			
	5-21	45-75	10-55	1-15	1.30-1.50	14.00-42.00	0.01-0.06	0.0-2.9	0.2-1.5	.10	.28			
	21-31	40-85	5-50	2-30	1.30-1.50	14.00-42.00	0.01-0.06	0.0-2.9	0.0-0.5	.05	.20			
	31-80	---	---	---	---	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					
73226:														
Ocie-----	0-5	10-35	45-85	5-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	1.0-4.0	.17	.49	3	7	38
	5-11	10-35	45-85	5-20	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.5-2.0	.15	.55			
	11-24	5-25	40-75	20-35	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.1-1.0	.15	.43			
	24-56	2-10	4-33	65-86	1.10-1.30	0.42-1.40	0.07-0.10	6.0-8.9	0.1-1.0	.05	.10			
	56-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Gatewood-----	0-2	15-30	50-75	10-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	1.0-4.0	.17	.43	2	7	38
	2-5	15-30	50-78	7-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	0.5-2.0	.20	.49			
	5-36	2-20	5-35	60-85	1.10-1.30	0.42-1.40	0.09-0.12	6.0-8.9	0.5-1.0	.10	.15			
	36-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73227:														
Ocie-----	0-5	15-30	52-80	5-18	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	1.0-4.0	.17	.49	3	7	38
	5-11	12-30	55-83	5-15	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	0.5-2.0	.20	.55			
	11-24	5-30	35-80	15-35	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.1-1.0	.15	.49			
	24-56	2-14	16-43	55-70	1.10-1.30	0.42-1.40	0.09-0.12	6.0-8.9	0.5-1.0	.10	.15			
	56-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Gatewood-----	0-2	15-30	50-75	10-20	1.10-1.40	4.00-14.00	0.06-0.12	0.1-2.9	1.0-4.0	.17	.49	2	7	38
	2-5	15-30	50-78	7-20	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.5-2.0	.17	.49			
	5-36	2-20	5-35	60-85	1.10-1.30	0.42-1.40	0.09-0.12	6.0-8.9	0.5-1.0	.10	.15			
	36-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73230:														
Coulstone-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	8	0
	1-6	40-70	25-55	5-12	1.20-1.45	42.00-141.00	0.03-0.10	0.1-2.9	1.0-3.0	.05	.20			
	6-29	35-70	25-55	6-24	1.25-1.45	14.00-42.00	0.02-0.09	0.1-2.9	0.2-1.0	.05	.24			
	29-42	35-60	15-55	14-50	1.40-1.55	14.00-42.00	0.02-0.10	0.1-2.9	0.1-0.3	.05	.17			
	42-80	30-55	8-40	18-50	1.50-1.65	14.00-42.00	0.02-0.11	0.1-5.9	0.1-0.3	.05	.20			
Bender-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	---	---	---	2	8	0
	1-5	50-75	17-49	1-8	1.30-1.50	14.00-42.00	0.01-0.09	0.0-2.9	1.5-3.0	.05	.20			
	5-21	45-75	10-54	1-15	1.30-1.50	14.00-42.00	0.01-0.06	0.0-2.9	0.2-1.5	.10	.28			
	21-31	40-85	5-48	2-30	1.30-1.50	14.00-42.00	0.01-0.06	0.0-2.9	0.0-0.5	.05	.20			
	31-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Gatewood-----	0-2	15-30	50-75	10-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	1.0-4.0	.05	.43	2	8	0
	2-5	15-30	50-78	7-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	0.5-2.0	.24	.49			
	5-36	2-20	5-35	60-85	1.10-1.30	0.42-1.40	0.09-0.12	6.0-8.9	0.5-1.0	.10	.15			
	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					
73231: Wasola-----	0-7	15-30	55-70	10-18	1.35-1.45	4.00-14.00	0.16-0.21	0.0-2.9	1.0-4.0	.43	.55	5	5	56
	7-22	10-25	50-70	18-35	1.30-1.45	4.00-14.00	0.14-0.21	0.0-2.9	0.2-1.0	.37	.55			
	22-30	10-35	35-55	20-35	1.25-1.40	0.42-1.40	0.02-0.08	0.0-2.9	0.1-1.0	.10	.37			
	30-80	10-40	20-55	27-60	1.25-1.40	1.40-4.00	0.04-0.14	6.0-8.9	0.1-1.0	.10	.37			
73235: Alred-----	0-4	10-40	50-80	6-27	1.20-1.45	4.00-14.00	0.09-0.13	0.1-2.9	1.0-4.0	.10	.37	4	7	38
	4-17	10-30	60-80	6-27	1.20-1.45	4.00-14.00	0.04-0.08	0.1-2.9	0.2-1.0	.15	.55			
	17-27	10-20	50-70	27-35	1.40-1.55	4.00-14.00	0.09-0.13	0.1-2.9	0.2-1.0	.05	.37			
	27-80	1-10	5-30	45-90	1.20-1.40	0.42-1.40	0.08-0.12	6.0-8.9	0.2-1.0	.05	.10			
73236: Scholten-----	0-7	17-33	54-74	9-13	1.20-1.40	12.00-42.00	0.07-0.19	0.1-2.9	1.0-3.0	.24	.49	4	7	38
	7-21	13-25	47-75	12-28	1.30-1.50	4.00-14.00	0.02-0.11	0.1-2.9	0.2-0.7	.24	.64			
	21-34	11-32	27-72	17-41	1.60-1.90	0.01-0.42	0.01-0.05	0.1-2.9	0.1-0.3	.17	.49			
	34-80	6-40	10-65	29-72	1.30-1.60	4.00-14.00	0.01-0.03	3.0-5.9	0.1-0.3	.10	.24			
Poynor-----	0-4	12-37	49-82	6-14	1.20-1.45	14.00-42.00	0.07-0.19	0.1-2.9	1.0-3.0	.15	.43	3	7	38
	4-10	12-37	49-82	6-14	1.25-1.45	14.00-42.00	0.07-0.19	0.1-2.9	0.7-2.0	.15	.49			
	10-28	5-38	27-85	10-35	1.40-1.55	4.00-14.00	0.11-0.18	0.1-2.9	0.2-1.0	.15	.49			
	28-80	2-41	10-50	45-86	1.50-1.65	4.00-14.00	0.08-0.12	3.0-5.9	0.1-0.5	.10	.15			
73240: Jerktail-----	0-6	10-35	47-80	10-18	1.30-1.50	4.00-14.00	0.19-0.24	0.0-2.9	1.0-4.0	.37	.37	4	6	48
	6-14	8-35	25-72	20-40	1.30-1.50	4.00-14.00	0.11-0.20	3.0-5.9	0.4-1.0	.32	.43			
	14-21	4-30	10-61	35-60	1.10-1.40	1.40-4.00	0.08-0.18	6.0-8.9	0.2-0.7	.20	.32			
	21-63	2-15	5-48	50-80	1.10-1.40	0.42-1.40	0.03-0.10	6.0-8.9	0.2-0.5	.10	.15			
	63-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73242: Fanchon-----	0-5	20-40	50-70	5-15	1.35-1.45	4.00-14.00	0.18-0.24	0.0-2.9	1.0-3.0	.32	.37	5	5	56
	5-10	20-40	50-70	5-15	1.35-1.45	4.00-14.00	0.16-0.22	0.0-2.9	0.5-1.0	.37	.43			
	10-28	20-40	40-65	14-30	1.30-1.45	4.00-14.00	0.14-0.21	0.0-2.9	0.1-0.5	.37	.37			
	28-47	20-35	35-55	22-40	1.30-1.45	4.00-14.00	0.08-0.14	0.0-2.9	0.1-0.5	.15	.32			
	47-80	5-35	15-40	40-75	1.25-1.40	4.00-14.00	0.10-0.14	3.0-5.9	0.1-0.5	.10	.10			
Tonti-----	0-6	8-45	48-82	10-17	1.30-1.50	14.00-42.00	0.19-0.22	0.0-2.9	1.0-3.0	.37	.49	4	5	56
	6-22	8-40	23-77	15-37	1.30-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.3-1.0	.37	.49			
	22-35	10-50	20-78	12-30	1.60-1.90	0.01-0.42	0.02-0.04	0.0-2.9	0.1-0.4	.24	.55			
	35-80	2-25	5-60	38-75	1.20-1.40	4.00-14.00	0.03-0.11	3.0-5.9	0.0-0.4	.15	.24			
73243: Topazmill-----	0-9	35-52	28-50	6-18	1.40-1.50	4.00-14.00	0.14-0.22	0.0-2.9	1.0-4.0	.37	.37	5	3	86
	9-31	20-52	28-50	15-30	1.50-1.60	4.00-14.00	0.17-0.21	0.0-2.9	0.0-0.5	.37	.37			
	31-80	20-60	20-50	18-35	1.50-1.60	4.00-14.00	0.16-0.20	0.0-2.9	0.0-0.5	.32	.32			

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					
73245: Alred-----	0-3	20-30	52-75	5-18	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	1.0-4.0	.15	.43	4	7	38
	3-13	20-30	55-75	5-15	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	0.5-2.0	.20	.49			
	13-33	8-20	50-80	12-30	1.30-1.40	4.00-14.00	0.04-0.14	0.1-2.9	0.2-1.0	.17	.55			
	33-80	1-20	5-44	55-75	1.30-1.60	0.42-1.40	0.06-0.12	6.0-8.9	0.1-0.8	.10	.15			
73246: Alred-----	0-3	20-30	52-75	5-18	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	1.0-4.0	.15	.43	4	7	38
	3-13	20-30	55-75	5-15	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	0.5-2.0	.20	.49			
	13-33	8-20	50-80	12-30	1.30-1.40	4.00-14.00	0.04-0.14	0.1-2.9	0.2-1.0	.17	.55			
	33-80	1-20	5-44	55-75	1.30-1.60	0.42-1.40	0.06-0.12	6.0-8.9	0.1-0.8	.10	.15			
73247: Alred-----	0-4	10-50	35-80	6-18	1.20-1.45	4.00-14.00	0.09-0.13	0.1-2.9	1.0-4.0	.10	.43	4	8	0
	4-17	10-30	60-80	6-18	1.20-1.45	4.00-14.00	0.04-0.08	0.1-2.9	0.2-1.0	.15	.55			
	17-27	10-20	50-70	20-35	1.40-1.55	4.00-14.00	0.09-0.13	0.1-2.9	0.2-1.0	.05	.37			
	27-80	1-10	5-30	45-90	1.20-1.40	0.42-1.40	0.08-0.12	6.0-8.9	0.2-1.0	.05	.10			
73248: Alred-----	0-4	10-55	35-80	6-18	1.20-1.45	4.00-14.00	0.09-0.13	0.1-2.9	1.0-4.0	.05	.24	4	8	0
	4-17	10-30	60-80	6-18	1.20-1.45	4.00-14.00	0.04-0.08	0.1-2.9	0.2-1.0	.15	.55			
	17-27	10-20	50-70	27-35	1.40-1.55	4.00-14.00	0.09-0.13	0.1-2.9	0.2-1.0	.05	.37			
	27-80	1-10	5-30	45-85	1.20-1.40	0.42-1.40	0.08-0.12	6.0-8.9	0.2-1.0	.05	.10			
Bendavis-----	0-5	10-30	60-80	5-15	1.20-1.40	14.00-42.00	0.09-0.13	0.1-2.9	1.0-3.0	.15	.49	2	7	38
	5-9	10-30	60-80	5-15	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	---	---	---	---	---			
73249: Alred-----	0-4	10-55	35-80	6-18	1.20-1.45	4.00-14.00	0.09-0.13	0.1-2.9	1.0-4.0	.05	.24	4	8	0
	4-17	10-30	60-80	6-18	1.20-1.45	4.00-14.00	0.04-0.08	0.1-2.9	0.2-1.0	.15	.55			
	17-27	10-20	50-70	27-35	1.40-1.55	4.00-14.00	0.09-0.13	0.1-2.9	0.2-1.0	.05	.37			
	27-80	1-10	5-30	45-90	1.20-1.40	0.42-1.40	0.08-0.12	6.0-8.9	0.2-0.5	.05	.10			
Ocie-----	0-5	10-35	45-85	5-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	1.0-4.0	.17	.49	3	7	38
	5-11	10-35	45-85	5-20	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.5-2.0	.15	.55			
	11-24	5-25	40-75	20-35	1.10-1.35	4.00-14.00	0.12-0.15	0.1-2.9	0.1-1.0	.15	.43			
	24-56	2-10	4-33	65-86	1.10-1.30	0.42-1.40	0.07-0.10	6.0-8.9	0.1-1.0	.05	.10			
	56-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Bendavis-----	0-3	14-35	50-81	5-15	1.30-1.50	14.00-42.00	0.09-0.12	0.1-2.9	1.0-3.0	.15	.49	2	7	38
	3-14	15-35	47-77	8-18	1.30-1.50	14.00-42.00	0.13-0.17	0.1-2.9	0.5-1.5	.28	.49			
	14-34	12-30	43-78	10-30	1.30-1.50	4.00-14.00	0.13-0.17	0.1-2.9	0.1-0.8	.17	.55			
	34-80	---	---	---	---	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					
73295:														
Taterhill-----	0-9	15-40	42-75	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	14-55	15-66	20-50	1.30-1.45	4.00-14.00	0.04-0.15	0.0-2.9	0.2-0.3	.10	.32			
73296:														
Yelton-----	0-3	15-35	60-80	5-20	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	15-35	45-65	5-20	1.20-1.40	4.00-14.00	0.20-0.22	0.1-2.9	0.5-2.0	.43	.49			
	8-19	15-35	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	.43			
	19-38	35-60	30-50	10-27	1.60-1.90	0.01-0.42	0.03-0.05	0.1-2.9	0.1-0.5	.32	.43			
	38-65	30-60	20-45	20-45	1.20-1.40	1.40-4.00	0.14-0.16	3.0-5.9	0.1-0.5	.28	.37			
Topazmill-----	0-9	35-52	28-50	6-18	1.40-1.50	4.00-14.00	0.14-0.22	0.0-2.9	1.0-4.0	.32	.37	5	3	86
	9-31	20-52	28-50	15-30	1.50-1.60	4.00-14.00	0.17-0.21	0.1-2.9	0.0-0.5	.32	.37			
	31-80	20-60	20-50	18-35	1.50-1.60	4.00-14.00	0.16-0.20	0.1-2.9	0.0-0.5	.28	.32			
Lily-----	0-3	30-50	25-50	10-27	1.25-1.35	14.00-42.00	0.17-0.19	0.1-2.9	0.5-4.0	.24	.28	2	3	86
	3-15	25-50	25-50	20-35	1.25-1.35	14.00-42.00	0.12-0.16	0.1-2.9	0.1-0.5	.17	.20			
	15-21	35-50	25-50	15-35	1.20-1.35	14.00-42.00	0.12-0.16	0.1-2.9	0.1-0.5	.10	.24			
	21-60	---	---	---	---	0.00-0.11	---	---	---	---	---			
73297:														
Poynor-----	0-4	17-33	54-74	8-20	1.20-1.45	14.00-42.00	0.04-0.12	0.0-2.9	1.0-3.0	.10	.43	3	7	38
	4-10	13-25	47-75	8-20	1.25-1.45	14.00-42.00	0.02-0.09	0.0-2.9	0.5-2.0	.15	.43			
	10-28	11-32	27-72	18-35	1.40-1.55	4.00-14.00	0.02-0.09	0.0-2.9	0.1-0.8	.15	.43			
	28-80	6-40	10-65	50-85	1.50-1.65	4.00-14.00	0.08-0.12	3.0-5.9	0.1-0.5	.15	.17			
Scholten-----	0-9	---	---	12-20	1.20-1.40	14.00-42.00	0.10-0.19	0.0-2.9	1.0-3.0	.24	.49	4	6	48
	9-24	---	---	20-35	1.30-1.50	4.00-14.00	0.07-0.14	0.0-2.9	0.5-1.0	.20	.49			
	24-33	---	---	20-35	1.60-1.90	0.01-0.42	0.01-0.05	1.0-2.9	0.0-0.5	.15	.49			
	33-80	---	---	40-80	1.30-1.60	4.00-14.00	0.02-0.06	3.0-5.9	0.0-0.5	.05	.24			
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	5-55	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	4	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	---	---	---	---	---			

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					
73299:														
Plato-----	0-6	5-25	55-75	12-20	1.20-1.50	4.00-14.00	0.20-0.22	0.0-2.9	1.0-4.0	.55	.55	4	5	56
	6-29	5-20	35-70	20-50	1.30-1.50	1.40-4.00	0.10-0.18	6.0-8.9	0.2-1.0	.43	.49			
	29-37	5-30	40-60	20-40	1.60-1.90	0.01-0.42	0.01-0.05	0.1-2.9	0.0-0.5	.15	.49			
	37-46	15-40	40-60	20-40	1.60-1.90	0.01-0.42	0.01-0.05	0.1-2.9	0.0-0.5	.43	.55			
	46-80	2-25	25-40	30-80	1.40-1.60	1.40-4.00	0.02-0.06	6.0-8.9	0.0-0.5	.15	.28			
Jerktail-----	0-6	10-35	47-80	10-18	1.30-1.50	4.00-14.00	0.19-0.24	0.0-2.9	1.0-4.0	.37	.37	4	6	48
	6-14	8-35	25-72	20-40	1.30-1.50	4.00-14.00	0.11-0.20	3.0-5.9	0.4-1.0	.32	.43			
	14-21	4-30	10-61	35-60	1.10-1.40	1.40-4.00	0.08-0.18	6.0-8.9	0.2-0.7	.20	.32			
	21-63	2-15	5-48	50-80	1.10-1.40	0.42-1.40	0.03-0.10	6.0-8.9	0.2-0.5	.10	.15			
	63-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73300:														
Macedonia-----	0-4	12-38	40-78	10-22	1.20-1.50	14.00-42.00	0.17-0.22	0.0-2.9	1.0-3.0	.24	.37	5	6	48
	4-9	10-35	25-72	18-40	1.30-1.50	14.00-42.00	0.16-0.20	3.0-5.9	0.5-2.0	.28	.37			
	9-18	6-18	27-59	35-55	1.10-1.40	4.00-14.00	0.09-0.14	3.0-5.9	0.3-0.8	.15	.20			
	18-80	2-18	10-53	45-87	1.10-1.40	4.00-14.00	0.02-0.10	3.0-5.9	0.1-0.7	.05	.10			
73301:														
Tick-----	0-5	22-45	45-64	8-18	1.20-1.45	14.00-42.00	0.06-0.22	0.0-2.9	1.0-3.0	.17	.37	5	7	38
	5-10	14-45	45-68	9-25	1.25-1.45	14.00-42.00	0.08-0.22	0.0-2.9	0.5-2.0	.24	.43			
	10-18	11-50	32-64	14-45	1.40-1.55	4.00-14.00	0.05-0.20	0.0-2.9	0.2-1.0	.24	.32			
	18-42	1-36	21-49	32-69	1.40-1.55	1.40-4.00	0.04-0.11	3.0-5.9	0.1-0.5	.15	.17			
	42-80	1-27	19-42	40-78	1.60-1.80	0.42-1.40	0.01-0.04	3.0-5.9	0.0-0.5	.15	.15			
73302:														
Kenaga-----	0-6	8-23	62-79	11-18	1.20-1.50	14.00-42.00	0.15-0.22	0.0-2.9	1.0-3.0	.37	.37	5	6	48
	6-16	5-25	45-77	14-40	1.30-1.50	4.00-14.00	0.12-0.18	3.0-5.9	0.2-2.0	.32	.37			
	16-34	5-20	45-70	28-60	1.10-1.40	4.00-14.00	0.08-0.14	3.0-5.9	0.1-0.5	.28	.32			
	34-80	3-26	18-62	35-70	1.60-1.80	0.42-1.40	0.03-0.08	3.0-5.9	0.1-0.5	.10	.17			
73303:														
Kenaga-----	0-6	8-23	62-79	11-18	1.20-1.50	14.00-42.00	0.15-0.22	0.0-2.9	1.0-3.0	.37	.37	5	6	48
	6-16	5-25	40-77	14-43	1.30-1.50	4.00-14.00	0.12-0.18	3.0-5.9	0.2-2.0	.32	.37			
	16-34	5-20	30-70	28-60	1.10-1.40	4.00-14.00	0.08-0.14	3.0-5.9	0.1-0.5	.20	.32			
	34-80	3-26	18-62	40-75	1.60-1.80	0.42-1.40	0.03-0.08	3.0-5.9	0.1-0.5	.17	.17			
Egyptgrove-----	0-7	7-25	62-79	11-17	1.20-1.50	14.00-42.00	0.17-0.22	0.0-2.9	1.0-3.0	.37	.43	5	6	48
	7-16	4-31	40-77	14-37	1.30-1.50	4.00-14.00	0.12-0.20	3.0-5.9	0.2-2.0	.32	.37			
	16-27	4-24	34-69	27-43	1.10-1.40	4.00-14.00	0.08-0.18	3.0-5.9	0.1-0.5	.15	.32			
	27-80	2-29	18-59	40-75	1.60-1.80	0.42-1.40	0.03-0.08	3.0-5.9	0.1-0.5	.10	.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					
73304:														
Kenaga-----	0-6	8-23	62-79	11-18	1.20-1.50	14.00-42.00	0.15-0.22	0.0-2.9	1.0-3.0	.37	.37	5	6	48
	6-16	5-25	40-77	14-43	1.30-1.50	4.00-14.00	0.12-0.18	3.0-5.9	0.2-2.0	.32	.37			
	16-34	5-20	30-70	28-60	1.10-1.40	4.00-14.00	0.08-0.14	3.0-5.9	0.1-0.5	.20	.32			
	34-80	3-26	18-62	40-75	1.60-1.80	0.42-1.40	0.03-0.08	3.0-5.9	0.1-0.5	.15	.17			
Egyptgrove-----	0-7	7-25	62-79	11-17	1.20-1.50	14.00-42.00	0.17-0.22	0.0-2.9	1.0-3.0	.37	.37	5	6	48
	7-16	4-31	40-77	14-37	1.30-1.50	4.00-14.00	0.12-0.20	3.0-5.9	0.2-2.0	.37	.37			
	16-27	4-24	34-69	27-43	1.10-1.40	4.00-14.00	0.08-0.18	3.0-5.9	0.1-0.5	.37	.37			
	27-80	2-29	18-59	40-75	1.60-1.80	0.42-1.40	0.03-0.08	3.0-5.9	0.1-0.5	.17	.17			
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	.37	.43	4	5	56
	8-20	6-18	47-74	20-35	1.30-1.50	4.00-14.00	0.12-0.18	0.1-2.9	0.1-1.0	.32	.37			
	20-34	10-30	35-75	15-35	1.60-1.90	0.00-0.42	0.02-0.08	0.1-2.9	0.1-0.5	.28	.37			
	34-80	5-15	5-55	40-80	1.20-1.40	0.42-1.40	0.05-0.10	3.0-5.9	0.1-0.5	.32	.32			
73305:														
Egyptgrove-----	0-7	7-25	62-79	11-17	1.20-1.50	14.00-42.00	0.17-0.22	0.0-2.9	1.0-3.0	.37	.43	5	6	48
	7-16	4-31	40-77	14-37	1.30-1.50	4.00-14.00	0.12-0.20	3.0-5.9	0.2-2.0	.32	.37			
	16-27	4-24	34-69	27-43	1.10-1.40	4.00-14.00	0.08-0.18	3.0-5.9	0.1-0.5	.15	.32			
	27-80	2-29	18-59	40-75	1.60-1.80	0.42-1.40	0.03-0.08	3.0-5.9	0.1-0.5	.05	.15			
73306:														
Gressy-----	0-7	15-35	45-76	9-20	1.35-1.45	14.00-42.00	0.19-0.24	0.0-2.9	1.0-4.0	.37	.43	5	5	56
	7-31	15-40	30-71	14-30	1.30-1.45	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.7	.37	.49			
	31-49	15-45	13-67	18-42	1.30-1.45	4.00-14.00	0.08-0.14	3.0-5.9	0.0-0.5	.17	.32			
	49-80	10-35	10-55	35-75	1.25-1.40	0.42-1.40	0.05-0.12	6.0-8.9	0.0-0.4	.05	.10			
Gatewood-----	0-2	15-30	50-75	10-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	1.0-4.0	.15	.43	2	7	38
	2-5	15-30	50-78	7-20	1.10-1.40	4.00-14.00	0.12-0.17	0.1-2.9	0.5-2.0	.28	.49			
	5-36	2-20	5-35	60-85	1.10-1.30	0.42-1.40	0.09-0.12	6.0-8.9	0.5-1.0	.10	.15			
	36-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73307:														
Gressy-----	0-7	15-35	45-76	8-18	1.35-1.45	4.00-14.00	0.18-0.22	0.0-2.9	1.0-4.0	.43	.43	5	5	56
	7-31	15-40	30-71	15-30	1.30-1.45	4.00-14.00	0.16-0.20	0.0-2.9	0.2-1.0	.43	.43			
	31-49	15-45	13-67	25-40	1.30-1.45	4.00-14.00	0.08-0.16	3.0-5.9	0.1-0.5	.10	.28			
	49-80	10-35	10-55	45-75	1.25-1.40	0.42-1.40	0.04-0.14	6.0-8.9	0.1-0.5	.05	.15			
Viraton-----	0-3	5-20	60-80	10-20	1.30-1.50	4.00-14.00	0.20-0.22	0.1-2.9	1.0-4.0	.43	.49	4	6	48
	3-7	5-20	60-80	10-20	1.30-1.50	4.00-14.00	0.18-0.20	0.1-2.9	0.5-2.0	.43	.49			
	7-23	5-20	55-75	18-30	1.30-1.50	4.00-14.00	0.13-0.15	3.0-5.9	0.5-0.8	.28	.43			
	23-48	15-35	50-75	15-25	1.60-1.90	0.00-0.42	0.01-0.05	0.1-2.9	0.1-0.3	.10	.43			
	48-80	5-25	10-35	40-70	1.40-1.60	0.42-4.20	0.06-0.08	6.0-8.9	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					
73308: Grandgulf-----	0-10	3-15	65-85	12-20	1.20-1.40	4.00-14.00	0.20-0.24	0.0-2.9	1.0-4.0	.43	.43	5	5	56
	10-48	5-20	55-80	15-30	1.20-1.50	4.00-14.00	0.18-0.22	0.0-2.9	0.2-1.0	.49	.49			
	48-80	5-30	55-75	20-30	1.20-1.50	4.00-14.00	0.12-0.22	0.0-2.9	0.2-1.0	.43	.43			
73309: Clarksville-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	8	56
	1-5	13-37	52-75	6-16	1.20-1.45	14.00-42.00	0.07-0.20	0.0-2.9	1.0-3.0	.10	.43			
	5-11	14-36	55-70	7-16	1.20-1.45	14.00-42.00	0.10-0.17	0.1-2.9	0.5-2.0	.15	.43			
	11-42	12-32	40-60	13-35	1.20-1.45	4.00-14.00	0.06-0.11	0.1-2.9	0.3-0.8	.10	.37			
	42-80	5-35	20-55	37-70	1.30-1.55	4.00-10.00	0.04-0.10	0.1-2.9	0.1-0.3	.10	.15			
Bendavis-----	0-3	14-35	50-81	5-15	1.30-1.50	14.00-42.00	0.09-0.12	0.1-2.9	1.0-3.0	.15	.49	2	5	56
	3-14	15-35	50-77	8-18	1.30-1.50	14.00-42.00	0.09-0.17	0.1-2.9	0.5-2.0	.28	.49			
	14-34	12-30	43-78	10-30	1.30-1.50	4.00-14.00	0.10-0.15	0.1-2.9	0.1-0.8	.15	.55			
	34-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73310: Scholten-----	0-7	15-35	50-75	5-15	1.20-1.40	14.00-42.00	0.07-0.19	0.1-2.9	1.0-3.0	.20	.49	4	7	38
	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	10-35	25-75	17-40	1.60-1.90	0.01-0.42	0.01-0.05	0.1-2.9	0.1-0.3	.17	.49			
	34-80	5-40	10-65	35-75	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	14-35	50-80	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	14-35	50-80	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	12-31	40-80	10-30	1.30-1.50	4.00-14.00	0.03-0.14	0.0-2.9	0.2-1.0	.24	.55			
	31-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
Poynor-----	0-4	10-40	50-82	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	7	38
	4-10	10-40	50-82	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	5-40	27-85	10-35	1.40-1.55	4.00-14.00	0.11-0.18	0.1-2.9	0.2-1.0	.15	.49			
	28-80	2-40	10-60	40-86	1.50-1.65	4.00-14.00	0.02-0.16	3.0-5.9	0.1-0.9	.10	.15			
73311: Scholten-----	0-7	15-35	50-75	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	7	38
	7-21	10-25	50-75	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	10-35	25-75	17-40	1.60-1.90	0.01-0.42	0.01-0.05	0.1-2.9	0.1-0.3	.15	.49			
	34-80	5-40	10-65	35-75	1.30-1.60	4.00-14.00	0.01-0.03	3.0-5.9	0.1-0.3	.10	.24			
Bendavis-----	0-5	10-30	60-80	5-15	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	5-15	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	---	---	---	---	---			

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: Poynor-----	0-4	10-40	50-80	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	10-40	50-80	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	5-40	50-80	8-35	1.40-1.55	4.00-14.00	0.02-0.09	0.1-2.9	0.1-1.0	.15	.43			
	28-80	2-40	5-60	45-85	1.50-1.65	4.00-14.00	0.08-0.12	3.0-5.9	0.1-0.9	.10	.15			
73312: Alred-----	0-4	10-50	35-75	6-18	1.30-1.50	4.00-14.00	0.09-0.13	0.0-2.9	1.0-4.0	.10	.43	4	7	38
	4-9	10-30	30-80	6-18	1.40-1.60	4.00-14.00	0.07-0.11	0.0-2.9	0.5-1.0	.10	.49			
	9-26	10-20	50-70	20-35	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	0.2-1.0	.15	.37			
	26-80	1-10	5-30	45-85	1.40-1.60	0.42-1.40	0.08-0.12	6.0-8.9	0.2-0.8	.05	.10			
	0-8	14-35	52-78	8-13	1.30-1.50	14.00-42.00	0.12-0.20	0.0-2.9	1.0-3.0	.28	.49	2	6	48
	8-10	14-35	52-78	8-13	1.30-1.50	14.00-42.00	0.06-0.20	0.0-2.9	0.5-2.0	.28	.49			
	10-31	12-31	40-77	11-29	1.30-1.50	4.00-14.00	0.03-0.14	0.0-2.9	0.2-1.0	.24	.55			
	31-80	---	---	---	---	0.00-0.11	---	---	---	---	---			
73313: Fanchon-----	0-5	20-40	50-70	5-15	1.35-1.45	4.00-14.00	0.18-0.24	0.0-2.9	1.0-3.0	.32	.37	5	5	56
	5-10	20-40	50-70	5-15	1.35-1.45	4.00-14.00	0.16-0.22	0.0-2.9	0.5-1.0	.37	.43			
	10-28	20-35	45-65	14-30	1.30-1.45	4.00-14.00	0.14-0.21	0.0-2.9	0.1-0.5	.37	.37			
	28-47	20-40	35-50	22-45	1.30-1.45	4.00-14.00	0.08-0.14	0.0-2.9	0.1-0.5	.10	.32			
	47-80	8-35	15-40	40-75	1.25-1.40	4.00-14.00	0.10-0.14	3.0-5.9	0.1-0.5	.10	.20			
	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	6-18	47-74	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	10-30	35-75	15-35	1.60-1.90	0.01-0.42	0.02-0.08	0.1-2.9	0.1-0.5	.17	.55			
	34-80	5-15	5-55	40-80	1.20-1.40	1.40-4.00	0.05-0.10	3.0-5.9	0.1-0.5	.05	.24			
73314: Tanglenook-----	0-6	5-12	61-80	15-27	1.25-1.30	4.00-14.00	0.21-0.25	0.1-2.9	3.0-6.0	.37	.37	5	6	48
	6-17	5-12	48-80	15-40	1.30-1.40	1.40-4.00	0.18-0.21	3.0-5.9	2.0-4.0	.43	.43			
	17-30	1-25	15-54	35-60	1.40-1.45	0.42-1.40	0.10-0.13	6.0-8.9	0.5-2.0	.24	.24			
	30-56	1-25	15-54	35-60	1.40-1.45	0.42-1.40	0.10-0.13	6.0-8.9	0.5-2.0	.28	.28			
	56-80	1-25	15-54	35-60	1.40-1.45	0.42-1.40	0.10-0.13	6.0-8.9	0.5-2.0	.28	.28			
73315: Deible-----	0-10	4-24	64-81	7-27	1.30-1.45	4.00-14.00	0.22-0.24	0.0-2.9	1.0-4.0	.37	.49	5	5	56
	10-15	4-21	60-79	13-35	1.30-1.45	4.00-14.00	0.20-0.22	0.0-2.9	0.3-2.0	.43	.55			
	15-37	2-15	39-69	27-60	1.35-1.50	0.42-1.40	0.10-0.20	6.0-8.9	0.3-0.9	.32	.32			
	37-80	1-28	39-62	40-60	1.35-1.50	0.42-1.40	0.10-0.20	6.0-8.9	0.1-0.5	.28	.28			



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					
73316: Clarksville-----	0-1	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	3	8	0
	1-5	13-37	52-75	6-16	1.20-1.45	14.00-42.00	0.07-0.20	0.0-2.9	1.0-3.0	.10	.43			
	5-11	14-36	55-70	7-16	1.20-1.45	14.00-42.00	0.10-0.17	0.1-2.9	0.5-2.0	.15	.43			
	11-42	12-32	40-60	13-35	1.20-1.45	4.00-14.00	0.06-0.11	0.1-2.9	0.3-0.8	.10	.37			
	42-80	5-18	20-55	37-70	1.30-1.55	4.00-10.00	0.04-0.10	0.1-2.9	0.1-0.3	.10	.15			
Tick-----	0-0	---	---	---	---	42.00-141.00	0.10-0.20	---	35-90	---	---	5	8	0
	0-5	22-45	45-64	8-18	1.20-1.45	14.00-42.00	0.06-0.22	0.0-2.9	1.0-3.0	.17	.37			
	5-10	14-45	45-68	9-25	1.25-1.45	14.00-42.00	0.08-0.22	0.0-2.9	0.7-2.0	.15	.43			
	10-18	11-50	32-64	14-45	1.40-1.55	4.00-14.00	0.05-0.20	0.0-2.9	0.2-0.7	.28	.32			
	18-42	1-36	21-49	32-69	1.40-1.55	1.40-4.00	0.04-0.11	3.0-5.9	0.1-0.5	.15	.17			
	42-80	1-27	19-42	40-78	1.60-1.80	0.42-1.40	0.01-0.04	3.0-5.9	0.0-0.5	.15	.15			
Mano-----	0-3	20-30	52-75	5-18	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	1.0-4.0	.15	.43	4	7	38
	3-13	20-30	55-75	5-15	1.20-1.40	4.00-14.00	0.13-0.18	0.1-2.9	0.5-1.0	.20	.49			
	13-33	8-20	50-80	12-30	1.30-1.40	4.00-14.00	0.04-0.14	0.1-2.9	0.3-1.0	.17	.55			
	33-80	1-20	5-44	55-75	1.30-1.60	0.42-1.40	0.06-0.12	6.0-8.9	0.1-0.8	.10	.15			
74626: Tanglenook-----	0-6	5-12	60-80	15-27	1.25-1.30	4.00-14.00	0.21-0.25	0.1-2.9	3.0-6.0	.37	.37	5	6	48
	6-17	5-12	48-80	15-40	1.30-1.40	1.40-4.00	0.18-0.21	3.0-5.9	2.0-4.0	.43	.43			
	17-30	1-25	15-54	35-60	1.40-1.45	0.42-1.40	0.10-0.13	6.0-8.9	0.5-2.0	.24	.24			
	30-56	1-25	15-54	35-60	1.40-1.45	0.42-1.40	0.10-0.13	6.0-8.9	0.5-2.0	.24	.24			
	56-80	1-25	15-54	35-60	1.40-1.45	0.42-1.40	0.10-0.13	6.0-8.9	0.5-2.0	.24	.24			
74627: Hartville-----	0-7	8-15	60-82	10-25	1.10-1.30	4.00-14.00	0.22-0.24	0.1-2.9	1.0-4.0	.43	.43	5	6	48
	7-11	8-15	60-82	10-25	1.20-1.40	4.00-14.00	0.18-0.21	3.0-5.9	0.5-1.0	.43	.43			
	11-40	5-15	40-60	35-55	1.20-1.50	0.42-1.40	0.10-0.16	6.0-8.9	0.1-0.5	.32	.32			
	40-80	5-15	45-68	27-40	1.20-1.50	1.40-4.00	0.08-0.14	6.0-8.9	0.1-0.5	.32	.32			
74648: Aslinger-----	0-6	4-35	58-76	9-19	1.35-1.45	4.00-14.00	0.18-0.24	0.0-2.9	1.0-4.0	.32	.37	5	5	56
	6-22	5-26	50-62	21-35	1.30-1.45	4.00-14.00	0.14-0.19	0.0-2.9	0.2-1.0	.24	.37			
	22-46	11-35	32-64	26-39	1.30-1.45	1.40-4.00	0.03-0.07	0.0-2.9	0.1-0.3	.15	.32			
	46-80	6-30	23-30	47-68	1.60-1.90	4.00-14.00	0.02-0.05	3.0-5.9	0.1-0.3	.05	.15			
74658: Zanoni-----	0-7	30-75	20-60	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			

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					
74677: Deible-----	0-10	4-24	64-81	7-27	1.30-1.45	4.00-14.00	0.22-0.24	0.0-2.9	1.0-4.0	.49	.49	5	5	56
	10-15	4-21	60-79	13-27	1.30-1.45	4.00-14.00	0.20-0.22	0.0-2.9	0.3-2.0	.55	.55			
	15-37	2-15	39-69	27-60	1.35-1.50	0.42-1.40	0.09-0.20	6.0-8.9	0.3-1.0	.32	.32			
	37-80	1-28	39-62	40-60	1.35-1.50	0.42-1.40	0.08-0.12	6.0-8.9	0.1-0.5	.24	.24			
74679: Higdon-----	0-8	10-20	62-75	12-20	1.20-1.45	4.00-14.00	0.22-0.24	0.1-2.9	1.0-4.0	.43	.43	5	6	48
	8-22	9-25	60-73	17-26	1.40-1.50	4.00-14.00	0.20-0.22	0.1-2.9	0.5-2.0	.49	.49			
	22-44	10-25	53-65	20-40	1.40-1.50	1.40-14.00	0.19-0.21	3.0-5.9	0.4-1.0	.43	.43			
	44-80	10-40	40-62	20-35	1.35-1.50	1.40-14.00	0.08-0.21	3.0-5.9	0.1-0.8	.37	.37			
74681: Lostpond-----	0-8	20-35	55-65	10-18	0.90-1.10	4.00-14.00	0.20-0.24	0.0-2.9	2.0-4.0	.32	.32	4	6	48
	8-20	16-35	40-60	19-32	1.25-1.45	4.00-14.00	0.15-0.22	0.1-5.9	0.7-2.0	.28	.37			
	20-80	22-40	30-50	24-50	1.30-1.60	4.00-14.00	0.08-0.16	0.1-5.9	0.1-0.4	.20	.37			
74690: Moniteau-----	0-7	3-15	65-85	12-27	1.20-1.40	4.00-14.00	0.21-0.23	0.0-2.9	1.0-4.0	.49	.49	5	6	48
	7-14	3-15	60-85	12-27	1.20-1.40	4.00-14.00	0.18-0.22	0.0-2.9	0.5-1.0	.64	.64			
	14-80	3-30	50-80	15-40	1.30-1.50	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.8	.43	.43			
75381: Bearthicket-----	0-10	10-30	50-82	8-20	1.20-1.40	4.00-14.00	0.20-0.24	0.1-2.9	1.0-4.0	.43	.43	5	5	56
	10-48	8-15	55-77	15-30	1.20-1.50	4.00-14.00	0.18-0.22	0.1-2.9	0.2-1.0	.49	.49			
	48-80	3-20	48-82	15-32	1.20-1.50	4.00-14.00	0.12-0.22	0.1-2.9	0.2-1.0	.43	.43			
75390: Razort-----	0-7	15-35	50-75	9-20	1.35-1.60	4.00-14.00	0.20-0.22	0.0-2.9	1.0-4.0	.43	.49	5	5	56
	7-34	10-40	35-70	16-30	1.35-1.60	4.00-14.00	0.17-0.22	0.0-2.9	0.5-1.0	.43	.49			
	34-80	20-50	30-50	15-27	1.35-1.50	14.00-42.00	0.08-0.20	0.0-2.9	0.5-1.0	.17	.37			
75408: Secesh-----	0-8	20-60	35-65	10-20	1.10-1.30	4.00-14.00	0.16-0.20	0.0-2.9	1.0-4.0	.32	.37	5	5	56
	8-11	10-60	20-65	10-30	1.20-1.40	4.00-14.00	0.13-0.19	0.0-2.9	0.5-1.0	.28	.37			
	11-27	20-65	15-70	15-35	1.20-1.40	4.00-14.00	0.09-0.14	0.0-2.9	0.2-0.5	.28	.37			
	27-80	25-65	5-60	15-45	1.30-1.50	4.00-14.00	0.05-0.09	0.0-2.9	0.2-0.5	.10	.24			
75417: Relfe-----	0-6	48-80	15-45	4-15	1.10-1.50	14.00-42.00	0.05-0.09	0.1-2.9	1.0-4.0	.05	.17	5	5	56
	6-80	85-96	2-35	1-13	1.10-1.30	42.00-141.00	0.03-0.05	0.1-2.9	0.0-1.0	.02	.10			
Sandbur-----	0-8	55-75	20-45	5-18	1.30-1.50	14.00-42.00	0.09-0.17	0.1-2.9	1.0-4.0	.24	.24	5	3	86
	8-50	40-90	10-55	5-18	1.20-1.50	14.00-42.00	0.06-0.20	0.1-2.9	0.1-1.0	.28	.28			
	50-80	52-85	5-35	5-27	1.35-1.60	14.00-42.00	0.04-0.10	0.1-2.9	0.1-0.5	.05	.17			

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					
75418:														
Tilk-----	0-8	31-64	27-50	7-15	1.00-1.30	14.00-42.00	0.04-0.12	0.0-2.9	1.0-4.0	.10	.28	5	8	38
	8-47	24-63	20-59	6-20	1.25-1.50	14.00-42.00	0.04-0.14	0.0-2.9	0.2-1.0	.05	.20			
	47-80	47-86	7-31	4-22	1.35-1.60	42.00-141.00	0.03-0.10	0.0-2.9	0.0-0.5	.02	.17			
75420:														
Secesh-----	0-8	20-50	50-65	10-20	1.10-1.30	4.00-14.00	0.16-0.20	0.0-2.9	1.0-4.0	.37	.37	5	5	56
	8-11	20-60	40-65	10-30	1.20-1.40	4.00-14.00	0.13-0.19	0.0-2.9	0.5-1.0	.24	.32			
	11-27	20-65	30-70	15-35	1.20-1.40	4.00-14.00	0.09-0.14	0.0-2.9	0.2-0.5	.24	.37			
	27-80	35-65	15-50	15-40	1.30-1.50	4.00-14.00	0.05-0.09	0.0-2.9	0.2-0.5	.10	.24			
Tilk-----	0-8	31-64	27-50	7-15	1.00-1.30	14.00-42.00	0.04-0.12	0.0-2.9	1.0-4.0	.10	.24	5	6	48
	8-47	24-63	27-50	6-20	1.25-1.50	14.00-42.00	0.04-0.14	0.0-2.9	0.2-1.0	.10	.28			
	47-80	47-86	7-31	4-18	1.35-1.60	42.00-141.00	0.03-0.10	0.0-2.9	0.0-0.5	.02	.15			
75423:														
Cedargap-----	0-14	15-50	50-77	10-25	1.20-1.40	14.00-42.00	0.08-0.21	0.0-2.9	3.0-6.0	.10	.28	5	7	38
	14-24	27-65	8-44	10-36	1.20-1.40	14.00-42.00	0.03-0.14	0.0-2.9	1.0-6.0	.10	.20			
	24-49	27-80	8-44	10-36	1.30-1.50	14.00-42.00	0.03-0.12	0.0-2.9	0.5-3.0	.05	.20			
	49-80	28-65	9-30	20-55	1.40-1.55	14.00-42.00	0.05-0.14	0.0-2.9	0.1-0.5	.02	.10			
75432:														
Batcave-----	0-11	25-52	30-60	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	15-60	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	10-40	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	10-50	30-70	12-35	1.40-1.65	4.00-14.00	0.14-0.22	0.0-2.9	2.0-3.0	.28	.37			
	18-39	10-50	20-60	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	20-70	10-60	16-40	1.40-1.65	4.00-14.00	0.03-0.19	3.0-8.9	0.1-1.0	.10	.32			
75433:														
Racket-----	0-7	15-40	40-70	15-27	1.25-1.45	4.00-14.00	0.18-0.24	0.0-2.9	3.0-6.0	.20	.24	5	6	48
	7-42	15-50	40-70	18-35	1.25-1.45	4.00-14.00	0.14-0.20	3.0-5.9	1.0-2.0	.32	.32			
	42-80	60-90	5-45	3-10	1.35-1.55	14.00-141.00	0.01-0.04	0.0-2.9	0.5-1.0	.05	.15			
99001. Water														
99002: Borrow areas-----	0-80	---	---	---	---	1.40-4.00	---	---	---	---	---	---	8	0

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 reaction
		exchange capacity	cation- exchange capacity	
	In	meq/100 g	meq/100 g	pH
70022:				
Tonti-----	0-8	5.0-15	4.0-10	4.5-6.5
	8-20	6.0-15	4.0-12	3.5-5.5
	20-34	5.0-14	5.0-15	3.5-5.5
	34-80	12-22	12-24	3.5-5.5
70025:				
Branson-----	0-8	6.0-11	4.0-8.0	4.5-6.5
	8-26	7.0-14	4.0-12	4.5-6.5
	26-40	8.0-17	7.0-14	4.5-6.5
	40-80	8.0-17	7.0-14	4.5-5.5
Splitlimb-----	0-10	8.0-12	4.0-12	5.1-6.5
	10-20	8.0-17	5.0-14	4.5-6.5
	20-29	7.0-17	4.0-13	4.5-6.5
	29-80	7.0-16	4.0-12	4.5-5.5
70026:				
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	10-20	3.5-5.5
71250:				
Britwater-----	0-6	5.0-15	2.0-15	5.5-7.3
	6-22	5.0-15	3.0-12	5.5-7.3
	22-80	5.0-25	3.0-15	5.5-7.3
73000:				
Pomme-----	0-7	5.0-12	2.0-15	4.5-6.5
	7-19	8.0-16	3.0-15	4.5-6.5
	19-57	8.0-16	3.0-15	4.5-6.5
	57-80	10-30	5.0-20	4.5-7.3
73013:				
Lowassie-----	0-10	5.0-12	4.0-10	4.5-6.5
	10-18	5.0-15	5.0-11	4.5-6.0
	18-36	12-35	5.0-25	3.5-5.5
	36-80	8.0-31	6.0-32	3.5-5.5
73017:				
Bendavis-----	0-3	4.0-13	2.0-6.0	3.5-6.0
	3-14	4.0-15	2.0-7.0	4.5-6.0
	14-34	8.0-16	1.0-9.0	3.5-5.5
	34-80	---	---	---
Poynor-----	0-4	5.0-12	2.0-8.0	4.5-6.5
	4-10	2.0-8.0	2.0-8.0	4.5-6.0
	10-28	3.0-10	3.0-12	3.5-6.0
	28-80	15-25	12-25	3.5-5.5
73023:				
Mano-----	0-3	5.0-15	4.0-9.0	4.5-6.5
	3-13	4.0-13	2.0-8.0	4.5-7.3
	13-33	5.0-12	3.0-10	4.5-6.5
	33-80	18-30	15-30	4.5-7.3

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
<b>73023:</b>				
Ocie-----	0-5	10-18	4.0-12	4.5-6.5
	5-11	4.0-10	1.0-6.0	4.5-6.0
	11-24	6.0-12	3.0-10	4.5-6.0
	24-56	28-42	20-40	6.6-7.8
	56-80	---	---	---
<b>73024:</b>				
Mano-----	0-3	5.0-15	4.0-9.0	4.5-6.5
	3-13	4.0-13	2.0-8.0	4.5-7.3
	13-33	5.0-12	3.0-10	4.5-6.5
	33-80	18-30	15-30	4.5-7.3
Ocie-----	0-5	10-18	4.0-12	4.5-6.5
	5-11	4.0-10	1.0-6.0	4.5-6.0
	11-24	6.0-12	3.0-10	4.5-6.0
	24-56	28-42	20-40	6.6-7.8
	56-80	---	---	---
<b>73051:</b>				
Winnipeg-----	0-6	7.0-14	5.0-15	5.1-7.3
	6-16	5.0-14	4.0-10	4.5-7.3
	16-44	10-18	6.0-12	4.5-7.3
	44-80	10-20	6.0-12	4.5-7.3
<b>73054:</b>				
Viburnum-----	0-7	8.0-18	3.0-9.0	4.5-6.5
	7-20	4.0-10	3.0-10	4.5-5.5
	20-38	5.0-15	3.0-12	3.5-5.5
	38-80	15-25	10-20	3.5-5.5
<b>73063:</b>				
Bendavis-----	0-8	4.0-11	2.0-5.0	4.5-5.5
	8-10	4.0-10	1.0-8.0	4.5-5.5
	10-31	4.0-10	1.0-8.0	3.5-5.5
	31-80	---	---	---
Poynor-----	0-4	8.0-18	3.0-9.0	3.5-6.5
	4-10	4.0-10	3.0-10	3.5-6.0
	10-28	5.0-15	3.0-12	3.5-6.0
	28-80	15-25	10-20	3.5-5.0
<b>73068:</b>				
Tick-----	0-5	5.5-11	1.7-4.6	4.5-6.5
	5-10	4.0-5.9	1.7-2.9	3.5-5.5
	10-18	4.4-8.5	3.5-7.9	3.5-5.5
	18-42	4.9-19	3.8-15	3.5-5.5
	42-80	3.1-15	2.2-12	3.5-5.5
<b>73069:</b>				
Tick-----	0-5	5.5-11	1.7-4.6	4.5-6.5
	5-10	4.0-5.9	1.7-2.9	4.5-5.5
	10-18	4.4-8.5	3.5-7.9	4.5-5.5
	18-42	4.9-19	3.8-15	4.5-5.5
	42-80	3.1-15	2.2-12	4.5-5.5
<b>73073:</b>				
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

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
<b>73073:</b>				
Poynor-----	0-4	3.0-10	3.0-8.0	4.5-6.5
	4-10	3.0-10	3.0-8.0	4.5-6.5
	10-28	3.0-10	3.0-8.0	4.5-6.5
	28-80	15-25	10-20	3.5-5.5
<b>73076:</b>				
Mano-----	0-3	5.0-15	4.0-9.0	4.5-6.5
	3-13	4.0-13	2.0-8.0	4.5-7.3
	13-33	5.0-12	3.0-10	4.5-6.5
	33-80	18-30	15-30	4.5-7.3
<b>Ocie-----</b>	0-5	10-18	4.0-12	4.5-6.5
	5-11	4.0-10	1.0-6.0	4.5-6.0
	11-24	6.0-12	3.0-10	4.5-6.0
	24-56	28-42	20-40	6.6-7.8
	56-80	---	---	---
<b>73077:</b>				
Eudy-----	0-6	7.0-12	3.0-10	4.5-6.5
	6-14	8.0-20	6.0-12	4.5-6.5
	14-36	20-38	15-35	6.6-7.8
	36-80	---	---	---
<b>73080:</b>				
Alred-----	0-4	5.0-18	4.0-16	4.5-7.3
	4-17	5.0-12	3.0-10	4.5-6.5
	17-27	8.0-13	6.0-11	4.5-6.5
	27-80	30-50	21-40	4.5-7.8
<b>Bardley-----</b>	0-4	5.0-18	4.0-16	5.1-7.3
	4-8	5.0-10	2.0-7.0	5.1-6.5
	8-27	30-50	21-40	6.6-7.8
	27-80	---	---	---
<b>Rock outcrop.</b>				
<b>73176:</b>				
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	8.0-16	3.0-12	3.5-5.5
	25-80	---	---	---
<b>Poynor-----</b>	0-5	3.0-12	3.0-10	4.5-6.5
	5-11	4.0-12	3.0-10	4.5-6.0
	11-17	7.0-15	5.0-15	3.5-6.0
	17-80	20-35	15-30	3.5-5.5
<b>73197:</b>				
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
<b>73198:</b>				
Gressy-----	0-7	5.0-12	3.0-7.0	5.1-7.3
	7-31	5.0-12	3.0-8.0	5.1-7.3
	31-49	5.0-12	4.0-13	4.5-6.0
	49-80	12-20	8.0-17	4.5-6.5

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
73198:				
Viraton-----	0-3	5.0-15	3.0-10	4.5-7.3
	3-7	5.0-15	3.0-10	4.5-5.5
	7-23	10-20	8.0-18	3.5-5.5
	23-48	5.0-15	3.0-12	3.5-5.5
	48-80	10-20	8.0-18	3.5-5.5
73199:				
Moko-----	0-7	15-30	12-25	6.6-7.8
	7-12	15-30	12-25	6.6-7.8
	12-80	---	---	---
Rock outcrop.				
73221:				
Poynor-----	0-4	5.0-12	2.0-8.0	4.5-6.5
	4-10	2.0-8.0	2.0-8.0	3.5-6.0
	10-28	3.0-10	3.0-12	3.5-6.0
	28-80	15-25	12-25	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	---	---	---
73226:				
Ocie-----	0-5	10-18	4.0-12	4.5-6.5
	5-11	4.0-10	1.0-6.0	4.5-6.0
	11-24	6.0-12	3.0-10	4.5-6.0
	24-56	28-42	20-40	6.6-7.8
	56-80	---	---	---
Gatewood-----	0-2	8.0-18	4.0-15	5.1-7.3
	2-5	3.0-10	4.0-12	5.1-7.3
	5-36	20-38	15-35	6.6-7.8
	36-80	---	---	---
73227:				
Ocie-----	0-5	5.0-20	3.0-12	5.1-7.3
	5-11	4.0-12	1.0-6.0	5.1-7.3
	11-24	5.0-12	3.0-10	4.5-6.0
	24-56	20-30	15-30	6.6-7.8
	56-80	---	---	---

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
73227:				
Gatewood-----	0-2	8.0-18	4.0-15	5.1-7.3
	2-5	3.0-10	4.0-12	5.1-6.5
	5-36	20-38	15-35	6.6-7.8
	36-80	---	---	---
73230:				
Coulstone-----	0-1	10-40	5.0-30	3.5-6.5
	1-6	3.0-12	2.0-9.0	4.5-6.0
	6-29	2.0-10	1.0-5.0	4.5-6.0
	29-42	3.0-18	1.0-9.0	4.5-6.0
	42-80	4.0-18	1.0-9.0	3.5-5.5
Bender-----				
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	2.0-5.0	1.0-15	4.5-6.0
	21-31	1.0-7.0	1.0-9.0	3.5-6.0
	31-80	---	---	---
Gatewood-----				
Gatewood-----	0-2	8.0-18	4.0-15	5.1-7.3
	2-5	3.0-10	4.0-12	5.1-7.3
	5-36	20-38	15-35	6.6-7.8
	36-80	---	---	---
73231:				
Wasola-----	0-7	5.0-12	2.0-15	4.5-6.5
	7-22	8.0-16	3.0-15	4.5-6.5
	22-30	8.0-24	3.0-15	4.5-6.5
	30-80	10-30	5.0-20	4.5-7.3
73235:				
Alred-----	0-4	5.0-18	4.0-16	4.5-6.5
	4-17	5.0-12	3.0-10	4.5-6.5
	17-27	8.0-13	6.0-11	4.5-6.5
	27-80	18-30	15-30	4.5-7.3
73236:				
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
Poynor-----				
Poynor-----	0-4	3.3-10	1.3-9.0	4.5-6.5
	4-10	3.3-10	1.3-9.0	4.5-6.5
	10-28	3.0-10	1.9-9.0	4.5-6.5
	28-80	7.4-28	5.0-23	3.5-5.5
73240:				
Jerktail-----	0-6	7.0-12	3.0-10	4.5-6.5
	6-14	8.0-20	6.0-12	4.5-6.5
	14-21	15-35	12-30	5.6-7.3
	21-63	20-35	15-35	6.6-7.8
	63-80	---	---	---
73242:				
Fanchon-----	0-5	4.0-12	3.0-8.0	4.5-6.5
	5-10	4.0-12	3.0-12	4.5-6.5
	10-28	6.0-16	3.0-12	4.5-6.5
	28-47	8.0-16	5.0-15	4.5-6.5
	47-80	10-30	10-15	3.5-5.5



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
73242:				
Tonti-----	0-6	5.0-9.0	3.0-8.0	4.5-6.5
	6-22	6.0-15	4.0-12	4.5-6.5
	22-35	5.0-18	4.0-12	4.5-5.5
	35-80	11-20	8.0-16	3.5-5.5
73243:				
Topazmill-----	0-9	5.0-15	3.0-12	5.6-7.3
	9-31	0.5-10	3.0-8.0	5.1-7.3
	31-80	0.5-10	3.0-8.0	4.5-5.5
73245:				
Alred-----	0-3	5.0-15	4.0-9.0	4.5-6.5
	3-13	4.0-13	2.0-8.0	4.5-6.5
	13-33	5.0-12	3.0-10	4.5-6.5
	33-80	18-30	15-30	4.5-7.3
73246:				
Alred-----	0-3	5.0-15	4.0-9.0	4.5-6.5
	3-13	4.0-13	2.0-8.0	4.5-6.5
	13-33	5.0-12	3.0-10	4.5-6.5
	33-80	18-30	15-30	4.5-7.3
73247:				
Alred-----	0-4	5.0-18	4.0-16	4.5-6.5
	4-17	5.0-12	3.0-10	4.5-6.5
	17-27	8.0-13	6.0-11	4.5-6.5
	27-80	18-30	15-30	4.5-7.3
73248:				
Alred-----	0-4	5.0-18	4.0-16	4.5-6.5
	4-17	5.0-12	3.0-10	4.5-6.5
	17-27	8.0-13	6.0-11	4.5-6.5
	27-80	15-30	12-25	4.5-7.3
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	2.0-8.0	3.5-5.5
	25-80	---	---	---
73249:				
Alred-----	0-4	5.0-18	4.0-16	4.5-6.5
	4-17	5.0-12	3.0-10	4.5-6.5
	17-27	8.0-13	6.0-11	4.5-6.5
	27-80	15-30	12-25	4.5-7.3
Ocie-----	0-5	10-18	4.0-12	4.5-6.5
	5-11	4.0-10	1.0-6.0	4.5-6.0
	11-24	6.0-12	3.0-10	4.5-6.0
	24-56	28-42	20-40	6.6-7.8
	56-80	---	---	---
Bendavis-----	0-3	4.0-13	0.0-9.0	4.5-6.5
	3-14	3.0-6.0	0.0-4.0	4.5-6.0
	14-34	3.0-6.0	0.0-4.0	3.5-5.5
	34-80	---	---	---
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

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
<b>73296:</b>				
Yelton-----	0-3	5.0-10	2.0-9.0	5.6-6.5
	3-8	5.0-13	2.0-9.0	3.5-6.5
	8-19	5.0-13	5.0-9.0	3.5-5.5
	19-38	5.0-11	3.0-9.0	3.5-5.5
	38-65	5.0-15	3.0-9.0	3.5-5.5
Topazmill-----	0-9	5.0-15	3.0-12	5.6-7.3
	9-31	0.5-10	3.0-8.0	5.1-7.3
	31-80	0.5-10	3.0-8.0	4.5-5.5
Lily-----	0-3	3.0-12	2.0-10	3.5-5.5
	3-15	9.0-15	5.0-12	3.5-5.5
	15-21	9.0-15	5.0-12	3.5-5.5
	21-60	---	---	---
<b>73297:</b>				
Poynor-----	0-4	3.3-10	2.0-8.0	4.5-6.5
	4-10	3.3-10	2.0-8.0	3.5-6.0
	10-28	3.0-10	4.0-12	3.5-6.0
	28-80	7.4-28	12-25	3.5-5.5
Scholten-----	0-9	5.0-16	4.0-10	4.5-6.5
	9-24	5.0-10	3.0-8.0	3.5-6.5
	24-33	5.0-10	3.0-10	3.5-6.0
	33-80	7.0-28	5.0-25	3.5-5.5
<b>73298:</b>				
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	---	---	---
<b>73299:</b>				
Plato-----	0-6	6.0-15	5.0-20	4.5-6.5
	6-29	7.0-25	5.0-25	4.5-6.5
	29-37	8.0-30	10-25	4.5-6.5
	37-46	8.0-35	6.0-20	4.5-6.5
	46-80	9.0-35	4.0-23	6.6-7.8
Jerktail-----	0-6	7.0-12	3.0-10	4.5-6.5
	6-14	8.0-20	6.0-12	4.5-6.5
	14-21	15-35	12-30	5.6-7.3
	21-63	20-35	15-35	6.6-7.8
	63-80	---	---	---
<b>73300:</b>				
Macedonia-----	0-4	5.0-12	2.0-6.0	4.5-6.5
	4-9	5.0-14	2.0-6.0	4.5-5.5
	9-18	7.0-19	5.0-13	4.5-5.5
	18-80	12-30	10-22	3.5-5.5

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
<b>73301:</b>				
Tick-----	0-5	5.5-11	1.7-4.6	4.5-6.5
	5-10	4.0-5.9	1.7-2.9	3.5-5.5
	10-18	4.4-8.5	3.5-7.9	3.5-5.5
	18-42	4.9-19	3.8-15	3.5-5.5
	42-80	3.1-15	2.2-12	3.5-5.5
<b>73302:</b>				
Kenaga-----	0-6	6.0-11	2.0-5.0	4.5-6.5
	6-16	6.0-18	2.0-11	3.5-5.5
	16-34	10-18	4.0-12	3.5-5.5
	34-80	10-18	7.0-14	3.5-5.5
<b>73303:</b>				
Kenaga-----	0-6	6.0-11	2.0-5.0	4.5-6.5
	6-16	6.0-18	2.0-11	3.5-5.5
	16-34	10-18	4.0-12	3.5-5.5
	34-80	10-18	7.0-14	3.5-5.5
Egyptgrove-----	0-7	6.0-11	2.0-5.0	4.5-6.5
	7-16	6.0-18	2.0-11	4.5-5.5
	16-27	8.0-20	3.0-12	4.5-5.5
	27-80	10-22	7.0-14	3.5-5.5
<b>73304:</b>				
Kenaga-----	0-6	6.0-11	2.0-5.0	4.5-6.5
	6-16	6.0-18	2.0-11	4.5-5.5
	16-34	10-18	4.0-12	3.5-5.5
	34-80	10-18	7.0-14	3.5-5.5
Egyptgrove-----	0-7	6.0-11	2.0-5.0	4.5-6.5
	7-16	6.0-18	2.0-11	4.5-5.5
	16-27	8.0-20	3.0-12	4.5-5.5
	27-80	10-22	7.0-14	3.5-5.5
Tonti-----	0-8	5.0-15	4.0-10	4.5-6.5
	8-20	12-22	6.0-15	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
<b>73305:</b>				
Egyptgrove-----	0-7	6.0-11	2.0-5.0	4.5-6.5
	7-16	6.0-18	2.0-11	4.5-5.5
	16-27	8.0-20	3.0-12	4.5-5.5
	27-80	10-22	7.0-14	3.5-5.5
<b>73306:</b>				
Gressy-----	0-7	5.0-12	3.0-7.0	5.1-7.3
	7-31	5.0-12	3.0-8.0	5.1-7.3
	31-49	5.0-12	4.0-13	4.5-6.0
	49-80	12-20	8.0-17	4.5-6.5
Gatewood-----	0-2	8.0-18	4.0-15	5.1-7.3
	2-5	3.0-10	4.0-12	5.1-7.3
	5-36	20-38	15-35	6.6-7.8
	36-80	---	---	---
<b>73307:</b>				
Gressy-----	0-7	5.0-12	3.0-7.0	4.5-6.5
	7-31	8.0-16	3.0-8.0	4.5-6.5
	31-49	8.0-16	4.0-13	4.5-6.5
	49-80	10-30	8.0-17	4.5-7.3

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
<b>73307:</b>				
Viraton-----	0-3	5.0-15	3.0-10	4.5-6.5
	3-7	5.0-15	3.0-10	4.5-5.5
	7-23	10-20	8.0-18	4.5-5.5
	23-48	5.0-15	3.0-12	4.5-5.5
	48-80	10-20	8.0-18	4.5-7.3
<b>73308:</b>				
Grandgulf-----	0-10	5.0-12	3.0-7.0	4.5-6.5
	10-48	5.0-15	3.0-7.0	4.5-6.5
	48-80	5.0-15	4.0-7.0	3.5-5.5
<b>73309:</b>				
Clarksville-----	0-1	10-40	5.0-30	3.5-6.5
	1-5	8.0-17	3.0-13	4.5-6.5
	5-11	4.0-7.0	2.0-6.0	4.5-6.0
	11-42	5.0-9.0	2.0-7.0	4.5-6.0
	42-80	10-20	7.0-20	3.5-5.5
Bendavis-----	0-3	4.0-13	2.0-6.0	4.5-6.5
	3-14	3.0-8.0	2.0-7.0	4.5-6.0
	14-34	3.0-9.0	1.0-9.0	3.5-5.5
	34-80	---	---	---
<b>73310:</b>				
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
<b>73311:</b>				
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
<b>73312:</b>				
Alred-----	0-4	6.0-12	4.0-10	4.5-6.5
	4-9	4.0-12	3.0-10	4.5-6.5
	9-26	8.0-15	6.0-12	4.5-6.5
	26-80	15-30	12-25	4.5-7.3

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
<b>73312:</b>				
Bendavis-----	0-8	2.1-5.1	2.0-6.0	4.5-6.0
	8-10	1.0-6.0	2.0-7.0	4.5-6.0
	10-31	3.0-10	1.0-9.0	3.5-5.5
	31-80	---	---	---
<b>73313:</b>				
Fanchon-----	0-5	4.0-12	3.0-8.0	4.5-6.5
	5-10	4.0-12	3.0-12	4.5-6.5
	10-28	6.0-16	3.0-12	4.5-6.5
	28-47	8.0-16	5.0-15	4.5-6.5
	47-80	10-30	10-15	3.5-5.5
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
<b>73314:</b>				
Tanglenook-----	0-6	15-32	8.0-20	6.1-7.3
	6-17	14-32	8.0-20	6.1-7.3
	17-30	20-40	15-35	5.6-7.3
	30-56	20-40	15-35	5.6-7.3
	56-80	20-40	15-35	6.6-7.3
<b>73315:</b>				
Deible-----	0-10	9.0-21	7.0-15	4.5-7.3
	10-15	9.0-21	7.0-15	4.5-7.3
	15-37	13-25	9.3-22	4.5-7.3
	37-80	7.0-25	5.9-23	6.0-7.8
<b>73316:</b>				
Clarksville-----	0-1	10-40	5.0-30	3.5-6.5
	1-5	8.0-17	3.0-13	4.5-6.5
	5-11	4.0-7.0	2.0-6.0	4.5-6.0
	11-42	5.0-9.0	2.0-7.0	4.5-6.0
	42-80	10-20	7.0-20	3.5-5.5
Tick-----	0-0	10-40	5.0-30	3.5-6.5
	0-5	5.5-11	1.7-4.6	4.5-6.5
	5-10	4.0-5.9	1.7-2.9	4.5-5.5
	10-18	4.4-8.5	3.5-7.9	4.5-5.5
	18-42	4.9-19	3.8-15	4.5-5.5
	42-80	3.1-15	2.2-12	4.5-5.5
Mano-----	0-3	5.0-15	4.0-9.0	4.5-6.5
	3-13	4.0-13	2.0-8.0	4.5-7.3
	13-33	5.0-12	3.0-10	4.5-6.5
	33-80	18-30	15-30	4.5-7.3
<b>74626:</b>				
Tanglenook-----	0-6	15-35	8.0-20	6.1-7.3
	6-17	14-35	8.0-20	6.1-7.3
	17-30	14-40	15-35	6.1-7.3
	30-56	14-40	15-35	6.1-7.3
	56-80	20-40	15-35	6.6-7.3
<b>74627:</b>				
Hartville-----	0-7	8.0-16	4.0-10	5.6-7.3
	7-11	8.0-16	5.0-12	5.6-7.3
	11-40	18-30	15-24	5.6-6.5
	40-80	12-25	10-25	5.6-6.5

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
<b>74648:</b>				
Aslinger-----	0-6	7.0-15	4.0-8.0	4.8-6.4
	6-22	8.0-20	5.0-17	4.3-5.5
	22-46	8.0-15	6.0-11	4.6-5.1
	46-80	11-16	7.0-12	4.6-5.0
<b>74658:</b>				
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
<b>74677:</b>				
Deible-----	0-10	7.2-14	3.5-13	6.1-7.3
	10-15	8.3-12	3.5-9.5	6.1-7.3
	15-37	12-33	9.3-29	6.1-7.3
	37-80	13-35	5.9-33	6.6-8.4
<b>74679:</b>				
Higdon-----	0-8	8.0-14	5.0-10	5.1-6.5
	8-22	8.0-15	5.0-12	5.1-6.5
	22-44	9.0-20	5.0-15	5.6-6.5
	44-80	9.0-20	5.0-15	5.6-7.3
<b>74681:</b>				
Lostpond-----	0-8	7.0-12	0.0-7.0	4.5-7.3
	8-20	8.0-20	0.0-18	5.1-7.3
	20-80	8.0-17	0.0-13	5.6-7.3
<b>74690:</b>				
Moniteau-----	0-7	10-14	7.0-12	5.1-6.5
	7-14	6.0-12	4.0-8.0	5.1-6.5
	14-80	12-20	10-14	5.1-6.0
<b>75381:</b>				
Bearthicket-----	0-10	5.0-12	3.0-12	5.1-7.3
	10-48	5.0-12	4.0-10	5.1-7.3
	48-80	7.0-12	4.0-10	5.1-6.5
<b>75390:</b>				
Razort-----	0-7	6.0-25	6.0-27	6.1-7.3
	7-34	5.0-20	5.0-20	5.6-7.3
	34-80	5.0-20	5.0-20	5.6-7.3
<b>75408:</b>				
Secesh-----	0-8	8.0-14	10-16	5.6-7.3
	8-11	8.0-14	10-16	5.1-6.5
	11-27	8.0-14	12-18	5.1-6.0
	27-80	8.0-14	12-18	5.1-6.0
<b>75417:</b>				
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
<b>Sandbur</b> -----	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
<b>75418:</b>				
Tilk-----	0-8	5.0-14	2.0-12	5.1-6.5
	8-47	3.3-8.0	1.0-5.9	4.5-7.3
	47-80	2.4-10	0.5-6.2	5.1-7.3

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
75420:				
Secesh-----	0-8	10-16	8.0-14	5.6-7.3
	8-11	10-16	8.0-14	5.1-6.5
	11-27	12-18	8.0-14	5.1-6.0
	27-80	12-18	8.0-14	5.1-6.0
Tilk-----	0-8	7.0-11	1.0-10	5.1-6.5
	8-47	5.0-11	1.0-6.0	4.5-7.3
	47-80	5.0-14	0.5-6.2	5.1-7.3
75423:				
Cedargap-----	0-14	6.0-22	0.0-17	5.1-7.3
	14-24	5.0-25	0.0-20	5.1-7.3
	24-49	5.0-25	0.0-20	5.1-7.3
	49-80	4.0-23	0.0-19	6.6-7.8
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
75433:				
Racket-----	0-7	8.0-17	0.0-10	6.1-7.3
	7-42	10-20	0.0-8.0	6.1-7.3
	42-80	2.0-8.0	0.0-8.0	6.1-7.3
99001. Water				
99002. Borrow areas				

Table 20.--Water 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	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
70022: Tonti-----	C	High		<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
			January	1.5-2.5	2.5-3.5	---	---	None	---	None
			February	1.5-2.5	2.5-3.5	---	---	None	---	None
			March	1.5-2.5	2.5-3.5	---	---	None	---	None
			April	1.5-2.5	2.5-3.5	---	---	None	---	None
			December	1.5-2.5	2.5-3.5	---	---	None	---	None
70025: Branson-----	B	Low	Jan-Dec	---	---	---	---	None	---	None
Splitlimb-----	B	Low								
			January	1.0-2.5	3.0-5.0	---	---	None	---	None
			February	1.0-2.5	3.0-5.0	---	---	None	---	None
			March	1.0-2.5	3.0-5.0	---	---	None	---	None
			April	1.0-2.5	3.0-5.0	---	---	None	---	None
			December	1.0-2.5	3.0-5.0	---	---	None	---	None
70026: Tonti-----	C	Medium								
			January	1.5-2.5	2.5-3.5	---	---	None	---	None
			February	1.5-2.5	2.5-3.5	---	---	None	---	None
			March	1.5-2.5	2.5-3.5	---	---	None	---	None
			April	1.5-2.5	2.5-3.5	---	---	None	---	None
			December	1.5-2.5	2.5-3.5	---	---	None	---	None
71250: Britwater-----	B	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
73000: Pomme-----	B	Low	Jan-Dec	---	---	---	---	None	---	None



Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
73013: Lowassie-----	D	Negligible		Ft	Ft	Ft				
January			0.0	4.0-6.0	0.0-0.5	Brief	Frequent	---	None	
February			0.0	4.0-6.0	0.0-0.5	Brief	Frequent	---	None	
March			0.0	4.0-6.0	0.0-0.5	Brief	Frequent	---	None	
April			0.0	4.0-6.0	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	4.0-6.0	0.0-0.5	Brief	Frequent	---	None	
December	0.0	4.0-6.0	0.0-0.5	Brief	Frequent	---	None			
73017: 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	
December			2.0-3.0	2.3-3.4	---	---	None	---	None	
Poynor-----	B	High	Jan-Dec	---	---	---	---	None	---	None
73023: Mano-----	C	Medium	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	
December			2.0-3.0	>6.0	---	---	None	---	None	
Ocie-----	C	High	January	2.0-3.0	3.3-5.0	---	---	None	---	None
February			2.0-3.0	3.3-5.0	---	---	None	---	None	
March			2.0-3.0	3.3-5.0	---	---	None	---	None	
April			2.0-3.0	3.3-5.0	---	---	None	---	None	
December			2.0-3.0	3.3-5.0	---	---	None	---	None	
73024: Mano-----	C	High	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	
December			2.0-3.0	>6.0	---	---	None	---	None	
Ocie-----	C	High	January	2.0-3.0	3.3-5.0	---	---	None	---	None
February			2.0-3.0	3.3-5.0	---	---	None	---	None	
March			2.0-3.0	3.3-5.0	---	---	None	---	None	
April			2.0-3.0	3.3-5.0	---	---	None	---	None	
December			2.0-3.0	3.3-5.0	---	---	None	---	None	
73051: Winnipeg-----	B	Low	Jan-Dec	---	---	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
73054: Viburnum-----	C	Very high		Ft	Ft	Ft				
			December	1.5-1.8	2.9-3.7	---	---	None	---	None
			January	1.5-1.8	2.9-3.7	---	---	None	---	None
			February	1.5-1.8	2.9-3.7	---	---	None	---	None
			March	1.5-1.8	2.9-3.7	---	---	None	---	None
			April	1.5-1.8	2.9-3.7	---	---	None	---	None
73063: 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
			December	2.0-3.0	2.3-3.4	---	---	None	---	None
Poynor-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73068: Tick-----	C	High	Jan-Dec	---	---	---	---	None	---	None
73069: Tick-----	C	Very high	Jan-Dec	---	---	---	---	None	---	None
73073: Scholten-----	C	Very 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
			December	1.3-2.2	1.5-2.3	---	---	None	---	None
Poynor-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73076: Mano-----	C	Very high								
			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
			December	2.0-3.0	>6.0	---	---	None	---	None
Ocie-----	C	Very high								
			January	2.0-3.0	3.3-5.0	---	---	None	---	None
			February	2.0-3.0	3.3-5.0	---	---	None	---	None
			March	2.0-3.0	3.3-5.0	---	---	None	---	None
			April	2.0-3.0	3.3-5.0	---	---	None	---	None
			December	2.0-3.0	3.3-5.0	---	---	None	---	None
73077: Eudy-----	C	Very high								
			January	0.9-1.7	1.7-3.3	---	---	None	---	None
			February	0.9-1.7	1.7-3.3	---	---	None	---	None
			March	0.9-1.7	1.7-3.3	---	---	None	---	None
			April	0.9-1.7	1.7-3.3	---	---	None	---	None
			December	0.9-1.7	1.7-3.3	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
73080: Alred-----	B	Very high	Jan-Dec	---	---	---	---	None	---	None
Bardley-----	B	Very high	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop.										
73176: 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
			December	2.0-3.0	2.3-3.4	---	---	None	---	None
Poynor-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73197: Viburnum-----	C	Very high	December	1.2-1.7	2.6-3.2	---	---	None	---	None
			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
73198: Gressy-----	B	Low	Jan-Dec	---	---	---	---	None	---	None
Viraton-----	C	High	January	1.5-2.5	2.5-3.5	---	---	None	---	None
			February	1.5-2.5	2.5-3.5	---	---	None	---	None
			March	1.5-2.5	2.5-3.5	---	---	None	---	None
			April	1.5-2.5	2.5-3.5	---	---	None	---	None
			December	1.5-2.5	2.5-3.5	---	---	None	---	None
73199: Moko-----	D	Very high	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop.										
73221: Poynor-----	B	Medium	Jan-Dec	---	---	---	---	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

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
73223: Coulstone-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
Bender-----	B	Very high	Jan-Dec	---	---	---	---	None	---	None
73226: Ocie-----	C	High	January	2.0-3.0	3.3-5.0	---	---	None	---	None
			February	2.0-3.0	3.3-5.0	---	---	None	---	None
			March	2.0-3.0	3.3-5.0	---	---	None	---	None
			April	2.0-3.0	3.3-5.0	---	---	None	---	None
			December	2.0-3.0	3.3-5.0	---	---	None	---	None
Gateway-----	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
			December	1.5-3.0	1.7-3.3	---	---	None	---	None
73227: Ocie-----	C	Very high	January	2.0-3.0	3.3-5.0	---	---	None	---	None
			February	2.0-3.0	3.3-5.0	---	---	None	---	None
			March	2.0-3.0	3.3-5.0	---	---	None	---	None
			April	2.0-3.0	3.3-5.0	---	---	None	---	None
			December	2.0-3.0	3.3-5.0	---	---	None	---	None
Gateway-----	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
			December	1.5-3.0	1.7-3.3	---	---	None	---	None
73230: Coulstone-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
Bender-----	B	Very high	Jan-Dec	---	---	---	---	None	---	None
Gateway-----	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
			December	1.5-3.0	1.7-3.3	---	---	None	---	None
73231: Wasola-----	B	Very high	January	1.5-2.5	>6.0	---	---	None	---	None
			February	1.5-2.5	>6.0	---	---	None	---	None
			March	1.5-2.5	>6.0	---	---	None	---	None
			April	1.5-2.5	>6.0	---	---	None	---	None
			December	1.5-2.5	>6.0	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
73235: Alred-----	B	Very high	Jan-Dec	---	---	---	---	None	---	None
73236: Scholten-----	C	Very 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
			December	1.3-2.2	1.5-2.3	---	---	None	---	None
Poynor-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73240: Jerktail-----	C	Very high	January	1.5-2.5	>6.0	---	---	None	---	None
			February	1.5-2.5	>6.0	---	---	None	---	None
			March	1.5-2.5	>6.0	---	---	None	---	None
			April	1.5-2.5	>6.0	---	---	None	---	None
			December	1.5-2.5	>6.0	---	---	None	---	None
73242: Fanchon-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
Tonti-----	C	High	January	1.1-2.3	1.3-2.5	---	---	None	---	None
			February	1.1-2.3	1.3-2.5	---	---	None	---	None
			March	1.1-2.3	1.3-2.5	---	---	None	---	None
			April	1.1-2.3	1.3-2.5	---	---	None	---	None
			December	1.1-2.3	1.3-2.5	---	---	None	---	None
73243: Topazmill-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73245: Alred-----	C	High	Jan-Dec	---	---	---	---	None	---	None
73246: Alred-----	C	High	Jan-Dec	---	---	---	---	None	---	None
73247: Alred-----	B	Very high	Jan-Dec	---	---	---	---	None	---	None
73248: Alred-----	B	High	Jan-Dec	---	---	---	---	None	---	None
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
			December	2.0-3.0	2.3-3.4	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
73249: Alred-----	B	Very high	Jan-Dec	---	---	---	---	None	---	None
Ocie-----	C	Very high	January	2.0-3.0	3.3-5.0	---	---	None	---	None
			February	2.0-3.0	3.3-5.0	---	---	None	---	None
			March	2.0-3.0	3.3-5.0	---	---	None	---	None
			April	2.0-3.0	3.3-5.0	---	---	None	---	None
			December	2.0-3.0	3.3-5.0	---	---	None	---	None
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
			December	2.0-3.0	2.3-3.4	---	---	None	---	None
73295: Taterhill-----	B	Low	Jan-Dec	---	---	---	---	None	---	None
73296: Yelton-----	C	Very high	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
			December	1.5-2.0	2.0-3.5	---	---	None	---	None
Topazmill-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
Lily-----	B	High	Jan-Dec	---	---	---	---	None	---	None
73297: Poynor-----	B	High	Jan-Dec	---	---	---	---	None	---	None
Scholten-----	C	Very high	January	1.5-2.5	2.5-3.5	---	---	None	---	None
			February	1.5-2.5	2.5-3.5	---	---	None	---	None
			March	1.5-2.5	2.5-3.5	---	---	None	---	None
			April	1.5-2.5	2.5-3.5	---	---	None	---	None
			December	1.5-2.5	2.5-3.5	---	---	None	---	None
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
			December	1.5-2.5	2.0-3.0	---	---	None	---	None
Hogcreek-----	C	High	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
			December	1.3-2.7	1.5-2.8	---	---	None	---	None

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
73299: Plato-----	C	Negligible	January	1.0-2.0	>6.0	---	---	None	---	None
February			1.0-2.0	>6.0	---	---	None	---	None	
March			1.0-2.0	>6.0	---	---	None	---	None	
April			1.0-2.0	>6.0	---	---	None	---	None	
December			1.0-2.0	>6.0	---	---	None	---	None	
Jerktail-----	C	Negligible	January	1.5-2.5	>6.0	---	---	None	---	None
February			1.5-2.5	>6.0	---	---	None	---	None	
March			1.5-2.5	>6.0	---	---	None	---	None	
April			1.5-2.5	>6.0	---	---	None	---	None	
December			1.5-2.5	>6.0	---	---	None	---	None	
73300: Macedonia-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73301: Tick-----	C	Medium	Jan-Dec	---	---	---	---	None	---	None
73302: Kenaga-----	---	High	January	1.5-2.5	>6.0	---	---	None	---	None
February			1.5-2.5	>6.0	---	---	None	---	None	
March			1.5-2.5	>6.0	---	---	None	---	None	
April			1.5-2.5	>6.0	---	---	None	---	None	
December			1.5-2.5	>6.0	---	---	None	---	None	
73303: Kenaga-----	---	High	January	1.5-2.5	>6.0	---	---	None	---	None
February			1.5-2.5	>6.0	---	---	None	---	None	
March			1.5-2.5	>6.0	---	---	None	---	None	
April			1.5-2.5	>6.0	---	---	None	---	None	
December			1.5-2.5	>6.0	---	---	None	---	None	
Egyptgrove-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73304: Kenaga-----	B	Very high	January	1.5-2.5	>6.0	---	---	None	---	None
February			1.5-2.5	>6.0	---	---	None	---	None	
March			1.5-2.5	>6.0	---	---	None	---	None	
April			1.5-2.5	>6.0	---	---	None	---	None	
December			1.5-2.5	>6.0	---	---	None	---	None	
Egyptgrove-----	B	High	Jan-Dec	---	---	---	---	None	---	None
Tonti-----	C	Very high	January	1.5-2.5	2.5-3.5	---	---	None	---	None
February			1.5-2.5	2.5-3.5	---	---	None	---	None	
March			1.5-2.5	2.5-3.5	---	---	None	---	None	
April			1.5-2.5	2.5-3.5	---	---	None	---	None	
December			1.5-2.5	2.5-3.5	---	---	None	---	None	

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
73305: Egyptgrove-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73306: Gressy-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
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
			December	1.5-3.0	1.7-3.3	---	---	None	---	None
73307: Gressy-----	B	Low	Jan-Dec	---	---	---	---	None	---	None
Viraton-----	C	High	January	1.5-2.5	2.5-3.5	---	---	None	---	None
			February	1.5-2.5	2.5-3.5	---	---	None	---	None
			March	1.5-2.5	2.5-3.5	---	---	None	---	None
			April	1.5-2.5	2.5-3.5	---	---	None	---	None
			December	1.5-2.5	2.5-3.5	---	---	None	---	None
73308: Grandgulf-----	B	Negligible	January	---	---	0.0-0.5	Very brief	Rare	---	None
			February	---	---	0.0-0.5	Very brief	Rare	---	None
			March	---	---	0.0-0.5	Very brief	Rare	---	None
			April	---	---	0.0-0.5	Very brief	Rare	---	None
			May	---	---	0.0-0.5	Very brief	Rare	---	None
			June	---	---	0.0-0.5	Very brief	Rare	---	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	Rare	---	None
			November	---	---	0.0-0.5	Very brief	Rare	---	None
			December	---	---	0.0-0.5	Very brief	Rare	---	None
73309: Clarksville-----	C	High	Jan-Dec	---	---	---	---	None	---	None
Bendavis-----	C	Very high	January	1.5-3.0	2.3-3.4	---	---	None	---	None
			February	2.0-3.0	2.3-3.4	---	---	None	---	None
			December	2.0-3.0	2.3-3.4	---	---	None	---	None
73310: 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
			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	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
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	
December			2.0-3.0	2.3-3.4	---	---	None	---	None	
Poynor-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73311: Scholten-----	C	Very 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	
December			1.3-2.2	1.5-2.3	---	---	None	---	None	
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	
December			2.0-3.0	2.3-3.4	---	---	None	---	None	
Poynor-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
73312: Alred-----	B	Medium	Jan-Dec	---	---	---	---	None	---	None
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	
December			2.0-3.0	2.3-3.4	---	---	None	---	None	
73313: Fanchon-----	B	Low	Jan-Dec	---	---	---	---	None	---	None
Tonti-----	C	High	January	1.5-2.5	5.9-5.9	1.7-2.7	---	None	---	None
February			1.5-2.5	5.9-5.9	1.7-2.7	---	None	---	None	
March			1.5-2.5	5.9-5.9	1.7-2.7	---	None	---	None	
April			1.5-2.5	5.9-5.9	1.7-2.7	---	None	---	None	
December			1.5-2.5	5.9-5.9	1.7-2.7	---	None	---	None	
73314: Tanglenook-----	D	Negligible	January	0.0-1.0	>6.0	---	---	None	---	None
February			0.0-1.0	>6.0	---	---	None	---	None	
March			0.0-1.0	>6.0	---	---	None	---	None	
April			0.0-1.0	>6.0	---	---	None	---	None	
May			0.0-1.0	>6.0	---	---	None	---	None	
November			0.0-1.0	>6.0	---	---	None	---	None	
December			0.0-1.0	>6.0	---	---	None	---	None	

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
73315: Deible-----	D	Negligible	January	0.0-1.0	>6.0	---	---	None	---	None
			February	0.0-1.0	>6.0	---	---	None	---	None
			March	0.0-1.0	>6.0	---	---	None	---	None
			April	0.0-1.0	>6.0	---	---	None	---	None
			May	0.0-1.0	>6.0	---	---	None	---	None
			November	0.0-1.0	>6.0	---	---	None	---	None
			December	0.0-1.0	>6.0	---	---	None	---	None
73316: Clarksville-----	C	High	Jan-Dec	---	---	---	---	None	---	None
Tick-----	C	Very high	Jan-Dec	---	---	---	---	None	---	None
Mano-----	C	Very high	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
			December	2.0-3.0	>6.0	---	---	None	---	None
74626: Tanglenook-----	D	Negligible	January	0.0-1.5	>6.0	---	---	None	Very brief	Rare
			February	0.0-1.5	>6.0	---	---	None	Very brief	Rare
			March	0.0-1.5	>6.0	---	---	None	Very brief	Rare
			April	0.0-1.5	>6.0	---	---	None	Very brief	Rare
			May	0.0-1.5	>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
			November	0.0-1.5	>6.0	---	---	None	Very brief	Rare
			December	0.0-1.5	>6.0	---	---	None	Very brief	Rare
74627: Hartville-----	C	Negligible	January	1.0-2.5	>6.0	---	---	None	Very brief	Rare
			February	1.0-2.5	>6.0	---	---	None	Very brief	Rare
			March	1.0-2.5	>6.0	---	---	None	Very brief	Rare
			April	1.0-2.5	>6.0	---	---	None	Very brief	Rare
			May	1.0-2.5	>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
			November	1.0-2.5	>6.0	---	---	None	Very brief	Rare
			December	1.0-2.5	>6.0	---	---	None	Very brief	Rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
74648: Aslinger-----	B	Negligible	January	1.5-2.5	2.5-3.5	---	---	None	---	None
			February	1.5-2.5	2.5-3.5	---	---	None	---	None
			March	1.5-2.5	2.5-3.5	---	---	None	---	None
			April	1.5-2.5	2.5-3.5	---	---	None	---	None
			May	1.5-2.5	2.5-3.5	---	---	None	---	None
			November	1.5-2.5	2.5-3.5	---	---	None	---	None
			December	1.5-2.5	2.5-3.5	---	---	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
74677: Deible-----	D	Negligible	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	0.0-1.0	>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
			November	0.0-1.0	>6.0	---	---	None	Very brief	Rare
			December	0.0-1.0	>6.0	---	---	None	Very brief	Rare
74679: Higdon-----	C	Very high	January	1.0-2.0	>6.0	---	---	None	Very brief	Rare
			February	1.0-2.0	>6.0	---	---	None	Very brief	Rare
			March	1.0-2.0	>6.0	---	---	None	Very brief	Rare
			April	1.0-2.0	>6.0	---	---	None	Very brief	Rare
			May	1.0-2.0	>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
			November	1.0-2.0	>6.0	---	---	None	Very brief	Rare
			December	1.0-2.0	>6.0	---	---	None	Very brief	Rare

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
74681: Lostpond-----	C	High		<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
			January	0.6-2.4	>6.0	---	---	None	Very brief	Rare
			February	0.6-2.4	>6.0	---	---	None	Very brief	Rare
			March	0.6-2.4	>6.0	---	---	None	Very brief	Rare
			April	0.6-2.4	>6.0	---	---	None	Very brief	Rare
			May	0.6-2.4	>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
			November	0.6-2.4	>6.0	---	---	None	Very brief	Rare
December	0.6-2.4	>6.0	---	---	None	Very brief	Rare			
74690: Moniteau-----	A	Negligible	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	0.0-1.0	>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
			November	0.0-1.0	>6.0	---	---	None	Very brief	Rare
			December	0.0-1.0	>6.0	---	---	None	Very brief	Rare
75381: Bearthicket-----	B	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
75390: Razort-----	B	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	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
75408: Secesh-----	B	Low		Ft	Ft	Ft				
			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			
75417: Relfe-----	A	Very low	December	---	---	---	---	None	Very brief	Frequent
			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
Sandbur-----	A	Very low	December	---	---	---	---	None	Very brief	Frequent
			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
75418: Tilk-----	B	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

Table 20.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
75420: Secesh-----	B	Low		<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
			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
			November	---	---	---	---	None	Very brief	Occasional
December	---	---	---	---	None	Very brief	Occasional			
Tilk-----	B	Very low								
			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
			November	---	---	---	---	None	Very brief	Occasional
December	---	---	---	---	None	Very brief	Occasional			
75423: Cedargap-----	B	Low								
			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
			November	---	---	---	---	None	Very brief	Occasional
December	---	---	---	---	None	Very brief	Occasional			
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			



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				
70022: Tonti-----	Fragipan	16-28	10-25	Noncemented	Moderate	High	High
70025: Branson-----	---	---	---	---	High	Moderate	Moderate
Splitlimb-----	---	---	---	---	High	High	Moderate
70026: Tonti-----	Fragipan	13-25	10-36	Noncemented	Moderate	High	High
71250: Britwater-----	---	---	---	---	Moderate	Moderate	Moderate
73000: Pomme-----	---	---	---	---	Moderate	Moderate	Moderate
73013: Lowassie-----	---	---	---	---	High	High	High
73017: Bendavis-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	High
Poynor-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	High
73023: Mano-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	High	Moderate
Ocie-----	Strongly contrasting textural stratification	15-39	---	Noncemented	Moderate	High	Moderate
	Bedrock (lithic)	40-60	---	Indurated			
73024: Mano-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	High	Moderate
Ocie-----	Strongly contrasting textural stratification	15-39	---	Noncemented	Moderate	High	Moderate
	Bedrock (lithic)	40-60	---	Indurated			
73051: Winnipeg-----	---	---	---	---	High	Moderate	Moderate
73054: 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				
73063: Bendavis-----	Bedrock (lithic)	20-39	41-60	Indurated	Moderate	Moderate	High
Poynor-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	High
73068: Tick-----	Dense material	40-60	20-40	Noncemented	Moderate	High	High
73069: Tick-----	Dense material	40-60	20-40	Noncemented	Moderate	High	High
73073: Scholten-----	Fragipan	14-31	6-29	Noncemented	Moderate	High	High
Poynor-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	High	High
73076: Mano-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	High	Moderate
Ocie-----	Strongly contrasting textural stratification	15-39	---	Noncemented	Moderate	High	Moderate
	Bedrock (lithic)	40-60	---	Indurated			
73077: Eudy-----	Bedrock (lithic)	20-40	40-60	Indurated	Moderate	High	Moderate
73080: Alred-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	High	Moderate
Bardley-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	Moderate
Rock outcrop.							
73176: Bendavis-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	High
Poynor-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	High
73197: Viburnum-----	---	---	---	---	Moderate	High	Moderate
73198: Gressy-----	---	---	---	---	Moderate	Low	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				
73198: Viraton-----	Fragipan	16-41	10-30	Noncemented	Moderate	Moderate	High
73199: Moko-----	Bedrock (lithic)	6-20	60-76	Indurated	Moderate	Low	Low
Rock outcrop.							
73221: Poynor-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	High
73222: Splitlimb-----	---	---	---	---	High	High	Moderate
73223: Coulstone-----	---	---	---	---	Moderate	Low	High
Bender-----	Bedrock (lithic)	20-39	41-61	Indurated	Moderate	Low	High
73226: Ocie-----	Bedrock (lithic)	40-60	---	Indurated	Moderate	High	Moderate
Gatewood-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	Moderate
73227: Ocie-----	Bedrock (lithic)	40-60	---	Indurated	Moderate	High	Moderate
Gatewood-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	Moderate
73230: Coulstone-----	---	---	---	---	Moderate	Low	High
Bender-----	Bedrock (lithic)	20-39	41-61	Indurated	Moderate	Low	High
Gatewood-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	Moderate
73231: Wasola-----	---	---	---	---	Low	Moderate	Moderate
73235: Alred-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	High
73236: Scholten-----	Fragipan	14-31	6-29	Noncemented	None	Moderate	High
Poynor-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	None	Moderate	High
73240: Jerktail-----	Bedrock (lithic)	60-80	0-20	Indurated	Moderate	High	Low
73242: Fanchon-----	---	---	---	---	Low	Moderate	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				
73242: Tonti-----	Fragipan	16-28	10-25	Noncemented	None	High	High
73243: Topazmill-----	---	---	---	---	Moderate	Moderate	High
73245: Alred-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	High	Moderate
73246: Alred-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	High	Moderate
73247: Alred-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	High
73248: Alred-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	High
Bendavis-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	High
73249: Alred-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	High
Ocie-----	Strongly contrasting textural stratification	15-39	---	Noncemented	Moderate	High	Moderate
	Bedrock (lithic)	40-60	---	Indurated			
Bendavis-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	High
73295: Taterhill-----	---	---	---	---	Low	Moderate	Moderate
73296: Yelton-----	Fragipan	18-27	16-40	Noncemented	Moderate	High	High
Topazmill-----	---	---	---	---	Moderate	Moderate	High
Lily-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Low	High
73297: Poynor-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	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				
73297: Scholten-----	Fragipan	14-31	6-29	Noncemented	Moderate	Moderate	High
73298: Tonti-----	Fragipan	16-28	10-25	Noncemented	Moderate	High	High
Hogcreek-----	Fragipan	18-32	7-14	Noncemented	---	High	High
	Bedrock (lithic)	20-40	40-60	Indurated			
73299: Plato-----	Fragipan	24-36	6-36	Noncemented	Moderate	High	High
Jerktail-----	Bedrock (lithic)	60-80	0-20	Indurated	Moderate	High	Low
73300: Macedonia-----	---	---	---	---	Moderate	Moderate	High
73301: Tick-----	Dense material	22-66	14-58	Noncemented	Moderate	High	High
73302: Kenaga-----	Dense material	15-44	36-66	Noncemented	---	Moderate	High
73303: Kenaga-----	Dense material	15-44	36-66	Noncemented	---	Moderate	High
Egyptgrove-----	Dense material	15-39	41-65	Noncemented	Moderate	Moderate	High
73304: Kenaga-----	Dense material	15-44	36-66	Noncemented	Moderate	Moderate	High
Egyptgrove-----	Dense material	15-39	41-65	Noncemented	Moderate	Moderate	High
Tonti-----	Fragipan	16-28	10-25	Noncemented	Moderate	High	High
73305: Egyptgrove-----	Dense material	15-39	41-65	Noncemented	Moderate	Moderate	High
73306: Gressy-----	---	---	---	---	Moderate	Low	Moderate
Gatewood-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	High	Moderate
73307: Gressy-----	---	---	---	---	Low	Moderate	Moderate
Viraton-----	Fragipan	16-41	10-30	Noncemented	Moderate	Moderate	High
73308: Grandgulf-----	---	---	---	---	None	Moderate	Moderate
73309: Clarksville-----	---	---	---	---	Moderate	Moderate	High
Bendavis-----	Bedrock (lithic)	20-40	---	Indurated	Moderate	Moderate	High
73310: Scholten-----	Fragipan	14-31	6-29	Noncemented	None	Moderate	High
Bendavis-----	Bedrock (lithic)	20-40	40-60	Indurated	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				
73310: 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
73312: Alred-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	Moderate	Moderate
Bendavis-----	Bedrock (lithic)	20-40	40-60	Indurated	Moderate	Moderate	High
73313: Fanchon-----	---	---	---	---	Low	Moderate	Moderate
Tonti-----	Fragipan	13-25	10-36	Noncemented	Moderate	High	High
73314: Tanglenook-----	---	---	---	---	High	High	Moderate
73315: Deible-----	---	---	---	---	High	High	Moderate
73316: Clarksville-----	---	---	---	---	Moderate	Moderate	High
Tick-----	Dense material	22-66	14-58	Noncemented	Moderate	High	High
Mano-----	Strongly contrasting textural stratification	15-39	41-65	Noncemented	Moderate	High	Moderate
74626: Tanglenook-----	---	---	---	---	High	High	Moderate
74627: Hartville-----	---	---	---	---	Moderate	High	Moderate
74648: Aslinger-----	---	---	---	---	Low	High	High
74658: Zanoni-----	---	---	---	---	Moderate	Low	Low
74677: Deible-----	---	---	---	---	High	High	Moderate
74679: Higdon-----	---	---	---	---	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				
74681: Lostpond-----	---	---	---	---	Moderate	High	Low
74690: Moniteau-----	---	---	---	---	High	High	High
75381: Bearthicket-----	---	---	---	---	High	Moderate	Moderate
75390: Razort-----	---	---	---	---	None	Low	Low
75408: Secesh-----	---	---	---	---	Moderate	Low	Moderate
75417: Relfe-----	---	---	---	---	Low	Low	Moderate
Sandbur-----	---	---	---	---	Moderate	Low	Low
75418: Tilk-----	---	---	---	---	Moderate	Low	Moderate
75420: Secesh-----	---	---	---	---	Moderate	Low	Moderate
Tilk-----	---	---	---	---	Moderate	Low	Moderate
75423: Cedargap-----	---	---	---	---	Moderate	Low	Low
75432: Batcave-----	---	---	---	---	Moderate	Low	Low
Farewell-----	---	---	---	---	None	High	Moderate
75433: Racket-----	---	---	---	---	Moderate	Moderate	Low
99001. Water							
99002. Borrow areas							

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
Alred-----	Loamy-skeletal over clayey, siliceous, semiactive, mesic Typic Paleudalfs
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
Branson-----	Fine-silty, mixed, active, mesic Typic Paleudults
Britwater-----	Fine-loamy, mixed, active, mesic Typic Paleudalfs
Cedargap-----	Loamy-skeletal, mixed, superactive, mesic Cumulic Hapludolls
Clarksville-----	Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults
Coulstone-----	Loamy-skeletal, siliceous, semiactive, mesic Typic Paleudults
Deible-----	Fine, mixed, active, mesic Typic Albaqualfs
Egyptgrove-----	Fine-loamy, siliceous, semiactive, mesic Typic Paleudults
Eudy-----	Fine, mixed, active, mesic Aquic Hapludalfs
Fanchon-----	Fine-loamy, siliceous, semiactive, mesic Typic Paleudults
Farewell-----	Fine-loamy, siliceous, active, mesic Typic Argiaquolls
Gatewood-----	Very-fine, mixed, active, mesic Oxyaquic Hapludalfs
Grandgulf-----	Fine-silty, mixed, active, mesic Typic Paleudults
Gressy-----	Fine-loamy, siliceous, semiactive, mesic Typic Paleudalfs
Hartville-----	Fine, mixed, active, mesic Aquic Hapludalfs
Higdon-----	Fine-silty, mixed, active, mesic Aquic Hapludalfs
Hogcreek-----	Fine-loamy, siliceous, active, mesic Typic Fragiudults
Jerktail-----	Fine, mixed, active, mesic Aquic Hapludalfs
Kenaga-----	Fine-loamy, siliceous, active, mesic Aquic Paleudults
Lily-----	Fine-loamy, siliceous, semiactive, mesic Typic Hapludults
Lostpond-----	Fine-loamy, siliceous, active, mesic Aquic Hapludalfs
Lowassie-----	Fine, smectitic, mesic Vertic Epiaquults
Macedonia-----	Fine, mixed, semiactive, mesic Typic Paleudults
Mano-----	Loamy-skeletal over clayey, mixed, semiactive, mesic Oxyaquic Hapludalfs
Moko-----	Loamy-skeletal, mixed, superactive, mesic Lithic Hapludolls
*Moniteau-----	Fine-silty, mixed, active, mesic Typic Paleaquults
Ocie-----	Loamy-skeletal over clayey, mixed, semiactive, mesic Oxyaquic Hapludalfs
Plato-----	Fine, mixed, active, mesic Aquic Fragiudalfs
Pomme-----	Fine-loamy, mixed, semiactive, mesic Typic Paleudalfs
Poynor-----	Loamy-skeletal over clayey, siliceous, semiactive, mesic Typic Paleudults
Racket-----	Fine-loamy, mixed, superactive, mesic Cumulic Hapludolls
Razort-----	Fine-loamy, mixed, active, mesic Mollic Hapludalfs
Relfe-----	Sandy-skeletal, siliceous, mesic Mollic Udifluvents
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
Tanglenook-----	Fine, mixed, superactive, mesic Typic Argiaquolls
Taterhill-----	Fine-loamy, siliceous, semiactive, mesic Typic Paleudults
Tick-----	Fine, mixed, subactive, mesic Typic Hapludults
Tilk-----	Loamy-skeletal, siliceous, active, mesic Ultic Hapludalfs
Tonti-----	Fine-loamy, mixed, active, mesic Typic Fragiudults
Topazmill-----	Fine-loamy, siliceous, semiactive, mesic Typic Paleudults
Viburnum-----	Fine, mixed, active, mesic Aquic Paleudults
Viraton-----	Fine-loamy, siliceous, active, mesic Oxyaquic Fragiudalfs
Wasola-----	Fine-loamy, siliceous, active, mesic Fragiaquic Hapludalfs
Winnipeg-----	Fine-silty, mixed, active, mesic Typic Paleudalfs
Yelton-----	Fine-loamy, siliceous, active, mesic Typic Fragiudults
Zanoni-----	Coarse-loamy, siliceous, active, mesic Ultic Hapludalfs

# NRCS Accessibility Statement

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