

RECREATIONAL INTERPRETATIONS
Bourbon County, Kansas

Recreation

The soils of the survey area are rated in the following tables according to limitations that affect their suitability for recreation. 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 recreational uses. 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. Somewhat 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. 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 tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables 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 information in this table 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 ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas.

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, depth to 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, depth to 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, depth to 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 slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. 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; depth to 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, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

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Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
001CB: Catoosa-----	60	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Depth to bedrock Slope Restricted permeability Not rated	0.74 0.28 0.15
Rock Outcrop-----	30	Not rated		Not rated		Not rated	
001CC: Collinsville-----	50	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 1.00
Bates-----	40	Not limited		Not limited		Somewhat limited Slope Depth to bedrock	0.87 0.29
037MD: Kanima-----	100	Very limited Too clayey Restricted permeability	1.00 0.15	Very limited Too clayey Restricted permeability	1.00 0.15	Very limited Too clayey Slope Gravel content Restricted permeability	1.00 0.87 0.37 0.15
107CM: Clareson-----	60	Somewhat limited Slope Restricted permeability	0.37 0.15	Somewhat limited Slope Restricted permeability	0.37 0.15	Very limited Slope Depth to bedrock Restricted permeability Not rated	1.00 0.20 0.15
Rock Outcrop-----	20	Not rated		Not rated		Not rated	
107EF: Eram-----	50	Somewhat limited Restricted permeability Slope Depth to saturated zone	0.15 0.04 0.04	Somewhat limited Restricted permeability Slope Depth to saturated zone	0.15 0.04 0.02	Very limited Slope Depth to bedrock Restricted permeability Depth to saturated zone	1.00 0.71 0.15 0.04
Lebo-----	30	Very limited Too clayey Slope Restricted permeability	1.00 0.96 0.94	Very limited Too clayey Slope Restricted permeability	1.00 0.96 0.94	Very limited Slope Too clayey Restricted permeability Gravel content Depth to bedrock	1.00 1.00 0.94 0.32 0.01
107SN: Summit-----	85	Somewhat limited Restricted permeability	0.94	Somewhat limited Restricted permeability	0.94	Somewhat limited Restricted permeability Slope	0.94 0.13
107SO: Summit-----	85	Somewhat limited Restricted permeability	0.94	Somewhat limited Restricted permeability	0.94	Very limited Slope Restricted permeability	1.00 0.94
107VC: Verdigris-----	85	Very limited Flooding Restricted permeability	1.00 0.15	Somewhat limited Flooding Restricted permeability	0.40 0.15	Very limited Flooding Restricted permeability	1.00 0.15
133EC: Eram-----	90	Very limited Too clayey Restricted permeability Depth to saturated zone	1.00 0.94 0.44	Very limited Too clayey Restricted permeability Depth to saturated zone	1.00 0.94 0.19	Very limited Too clayey Restricted permeability Slope Depth to bedrock Depth to saturated zone	1.00 0.94 0.87 0.54 0.44
133SC: Shidler-----	50	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope	1.00 1.00

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Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Catoosa-----	40	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Content of large stones Somewhat limited Restricted permeability Slope	0.46 0.15 0.00
AED: Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Ba: Bates-----	90	Not limited		Not limited		Somewhat limited Slope	0.00
Bc: Bates-----	85	Not limited		Not limited		Very limited Slope Depth to bedrock	1.00 0.68
Bd: Bates-----	85	Not limited		Not limited		Very limited Slope Depth to bedrock	1.00 0.95
Bh: Bolivar-----	65	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope Depth to bedrock	1.00 0.16
Hector-----	20	Very limited Depth to bedrock Slope	1.00 0.16	Very limited Depth to bedrock Slope	1.00 0.16	Very limited Depth to bedrock Slope	1.00 1.00
Ca: Catoosa-----	85	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability Slope	0.15 0.00
Cs: Clareson-----	90	Somewhat limited Restricted permeability Too Stony	0.94 0.19	Somewhat limited Restricted permeability Too Stony	0.94 0.19	Somewhat limited Restricted permeability Content of large stones Depth to bedrock Too Stony Slope	0.94 0.88 0.29 0.19 0.03
De: Dennis-----	85	Very limited Depth to saturated zone Restricted permeability	1.00 0.94	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.94	Very limited Depth to saturated zone Restricted permeability Slope	1.00 0.94 0.00
DF: Dennis-----	85	Very limited Depth to saturated zone Restricted permeability	1.00 0.94	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.94	Very limited Depth to saturated zone Restricted permeability Slope	1.00 0.94 0.87
Ec: Eram-----	75	Very limited Depth to saturated zone Restricted permeability Slope	1.00 0.94 0.04	Very limited Depth to saturated zone Restricted permeability Slope	1.00 0.94 0.04	Very limited Depth to saturated zone Slope Restricted permeability Depth to bedrock	1.00 1.00 0.94 0.46
Collinsville-----	15	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 1.00
Ke: Kenoma-----	90	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 0.03
La: Lanton-----	85	Very limited Flooding Depth to saturated zone	1.00 1.00	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.75	Somewhat limited Depth to saturated zone Restricted permeability	1.00 0.94

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Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Le: Leanna-----	85	Restricted permeability	0.94			Flooding	0.60
		Very limited Flooding	1.00	Somewhat limited Restricted permeability	0.94	Very limited Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.94	Restricted permeability	0.94
		Restricted permeability	0.94			Flooding	0.60
Ma: Mason-----	90	Very limited Flooding	1.00	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15
		Restricted permeability	0.15				
No: Nowata-----	85	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Gravel content	0.92
						Slope	0.50
						Restricted permeability	0.15
						Depth to bedrock	0.06
Or: Orthents-----	100	Very limited Slope Gravel content	1.00 0.19	Very limited Slope Gravel content	1.00 0.19	Very limited Gravel content Slope	1.00 1.00
Os: Osage-----	90	Very limited Depth to saturated zone	1.00	Very limited Ponding	1.00	Very limited Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Restricted permeability	1.00	Restricted permeability	1.00
		Restricted permeability Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
Pa: Parsons-----	90	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Very limited Restricted permeability	1.00
						Depth to saturated zone	1.00
Pt: Pits, Quarries-----	100	Not rated		Not rated		Not rated	
Rc: Ringo-----	70	Very limited Restricted permeability Too clayey	1.00 1.00	Very limited Restricted permeability Too clayey	1.00 1.00	Very limited Slope	1.00
		Slope	0.63	Slope	0.63	Restricted permeability Too clayey	1.00
						Depth to bedrock	0.46
Clareson-----	15	Somewhat limited Restricted permeability	0.94	Somewhat limited Restricted permeability	0.94	Somewhat limited Content of large stones	1.00
		Too Stony	0.19	Too Stony	0.19	Restricted permeability	0.94
		Content of large stones	0.01	Content of large stones	0.01	Depth to bedrock	0.29
						Too Stony Slope	0.19 0.03
Ta: Tamaha-----	85	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ve: Verdigris-----	95	Very limited Flooding	1.00	Not limited		Slope	0.28
Vf: Verdigris, channeled	90	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.60
						Very limited Flooding Slope	1.00 0.00
W: Water-----	100	Not rated		Not rated		Not rated	

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Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Za: Zaar-----	90	Very limited Restricted permeability Too clayey Depth to saturated zone	1.00 1.00 1.00	Very limited Restricted permeability Too clayey Depth to saturated zone	1.00 1.00 0.75	Very limited Restricted permeability Too clayey Depth to saturated zone	1.00 1.00 1.00
ZAA: Zaar-----	96	Very limited Depth to saturated zone Too clayey Restricted permeability	1.00 1.00 0.94	Very limited Too clayey Restricted permeability Depth to saturated zone	1.00 0.94 0.88	Very limited Depth to saturated zone Too clayey Restricted permeability Slope	1.00 1.00 0.94 0.00
Zb: Zaar-----	90	Very limited Restricted permeability Too clayey Depth to saturated zone	1.00 1.00 1.00	Very limited Restricted permeability Too clayey Depth to saturated zone	1.00 1.00 0.75	Very limited Restricted permeability Too clayey Depth to saturated zone Slope	1.00 1.00 1.00 0.72

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Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
001CB: Catoosa-----	60	Not limited		Somewhat limited Depth to bedrock	0.74
Rock Outcrop-----	30	Not rated		Not rated	
001CC: Collinsville-----	50	Not limited		Very limited Depth to bedrock	1.00
				Droughty	1.00
				Slope	0.04
Bates-----	40	Not limited		Somewhat limited Depth to bedrock	0.29
037MD: Kanima-----	100	Very limited Too clayey	1.00	Very limited Too clayey	1.00
				Droughty	0.37
107CM: Clareson-----	60	Not limited		Somewhat limited Slope	0.37
				Depth to bedrock	0.20
				Droughty	0.00
Rock Outcrop-----	20	Not rated		Not rated	
107EF: Eram-----	50	Not limited		Somewhat limited Depth to bedrock	0.71
				Slope	0.04
				Depth to saturated zone	0.02
Lebo-----	30	Very limited Too clayey	1.00	Very limited Too clayey	1.00
				Slope	0.96
				Depth to bedrock	0.01
107SN: Summit-----	85	Not limited		Not limited	
107SO: Summit-----	85	Not limited		Not limited	
107VC: Verdigris-----	85	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
133EC: Eram-----	90	Very limited Too clayey	1.00	Very limited Too clayey	1.00
				Depth to bedrock	0.54
				Depth to saturated zone	0.19
133SC: Shidler-----	50	Not limited		Very limited Depth to bedrock	1.00
				Droughty	0.92
				Content of large stones	0.46
Catoosa-----	40	Not limited		Somewhat limited Depth to bedrock	0.39
AED: Arents, Earthen Dam-	100	Not rated		Not rated	
Ba: Bates-----	90	Not limited		Somewhat limited Depth to bedrock	0.10
Bc: Bates-----	85	Not limited		Somewhat limited Depth to bedrock	0.68
Bd: Bates-----	85	Not limited		Somewhat limited Depth to bedrock	0.95
Bh: Bolivar-----	65	Not limited		Somewhat limited Slope	0.16
				Depth to bedrock	0.16
Hector-----	20	Not limited		Very limited Depth to bedrock	1.00
				Droughty	1.00
				Slope	0.16
Ca: Catoosa-----	85	Not limited		Somewhat limited Depth to bedrock	0.74

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Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Cs: Clareson-----	90	Somewhat limited Too Stony	0.19	Somewhat limited Content of large stones Droughty Depth to bedrock	0.88 0.41 0.29
De: Dennis-----	85	Somewhat limited Depth to saturated zone	0.86	Somewhat limited Depth to saturated zone	0.94
Df: Dennis-----	85	Somewhat limited Depth to saturated zone	0.86	Somewhat limited Depth to saturated zone	0.94
Ec: Eram-----	75	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Depth to bedrock Slope	1.00 0.46 0.04
Collinsville-----	15	Not limited		Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.04
Ke: Kenoma-----	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
La: Lanton-----	85	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone Flooding	0.75 0.60
Le: Leanna-----	85	Somewhat limited Depth to saturated zone	0.86	Somewhat limited Depth to saturated zone Flooding	0.94 0.60
Ma: Mason-----	90	Not limited		Not limited	
No: Nowata-----	85	Not limited		Somewhat limited Depth to bedrock	0.06
Or: Orthents-----	100	Very limited Slope	1.00	Very limited Slope Droughty Gravel content	1.00 0.37 0.19
Os: Osage-----	90	Very limited Depth to saturated zone Ponding Too clayey	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too clayey Flooding	1.00 1.00 1.00 0.60
Pa: Parsons-----	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Pt: Pits, Quarries-----	100	Not rated		Not rated	
Rc: Ringo-----	70	Very limited Too clayey	1.00	Very limited Too clayey Slope Depth to bedrock	1.00 0.63 0.46
Clareson-----	15	Somewhat limited Too Stony Content of large stones	0.19 0.01	Very limited Content of large stones Droughty Depth to bedrock	1.00 0.41 0.29
Ta: Tamaha-----	85	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Ve: Verdigris-----	95	Not limited		Somewhat limited	

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Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Vf: Verdigris, channeled	90	Somewhat limited Flooding	0.40	Flooding	0.60
W: Water-----	100	Not rated		Very limited Flooding	1.00
Za: Zaar-----	90	Very limited Too clayey Depth to saturated zone	1.00 0.44	Not rated	
ZAA: Zaar-----	96	Very limited Too clayey Depth to saturated zone	1.00 0.73	Very limited Too clayey Depth to saturated zone	1.00 0.75
Zb: Zaar-----	90	Very limited Too clayey Depth to saturated zone	1.00 0.44	Very limited Too clayey Depth to saturated zone	1.00 0.88
				Very limited Too clayey Depth to saturated zone	1.00 0.75

