

RECREATIONAL INTERPRETATIONS
Neosho 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.

RECREATIONAL INTERPRETATIONS--Continued
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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
001OB: Osage-----	100	Very limited Depth to saturated zone Flooding Ponding Restricted permeability Too clayey	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Restricted permeability Too clayey	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Restricted permeability Too clayey Flooding	1.00 1.00 1.00 1.00 1.00 0.60
011RC: Ringo-----	70	Very limited Restricted permeability Too clayey Slope	1.00 1.00 0.63	Very limited Restricted permeability Too clayey Slope	1.00 1.00 0.63	Very limited Slope Restricted permeability Too clayey Depth to bedrock	1.00 1.00 1.00 0.46
Clareson-----	15	Somewhat limited Restricted permeability Too Stony Content of large stones	0.94 0.19 0.01	Somewhat limited Restricted permeability Too Stony Content of large stones	0.94 0.19 0.01	Somewhat limited Content of large stones Restricted permeability Depth to bedrock Too Stony Slope	1.00 0.94 0.29 0.19 0.03
037CE: Cherokee-----	99	Very limited Depth to saturated zone Restricted permeability	1.00 0.94	Very limited Depth to saturated zone Restricted permeability	1.00 0.94	Very limited Depth to saturated zone Restricted permeability	1.00 0.94
099VC: Verdigris-----	85	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
205BO: Bates-----	45	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Very limited Slope Depth to bedrock Restricted permeability	1.00 0.84 0.15
Collinsville-----	40	Very limited Depth to bedrock Slope	1.00 0.96	Very limited Depth to bedrock Slope	1.00 0.96	Very limited Slope Depth to bedrock	1.00 1.00
205KO: Kenoma-----	50	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00	Very limited Restricted permeability Slope	1.00 0.13
Olpe-----	35	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Slope Restricted permeability	0.87 0.15
205RS: Ringo-----	65	Somewhat limited Restricted permeability Slope	0.94 0.04	Somewhat limited Restricted permeability Slope	0.94 0.04	Very limited Slope Restricted permeability Depth to bedrock	1.00 0.94 0.80
Shidler-----	30	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope Gravel content Content of large stones	1.00 1.00 0.15 0.00
205SC: Shidler-----	70	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope Gravel content Content of large stones	1.00 0.87 0.15 0.00
Catoosa-----	20	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15
AED: Arents, Earthen Dam-	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
Ba: Bates-----	85	Somewhat limited Restricted permeability	0.94	Somewhat limited Restricted permeability	0.94	Somewhat limited Restricted permeability Slope	0.94 0.00
Bc: Bates-----	85	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Depth to bedrock Slope Restricted permeability	0.90 0.50 0.15
Bd: Bates-----	55	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Depth to bedrock Restricted permeability Slope	0.71 0.15 0.13
Collinsville-----	35	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope	1.00 0.13
Bh: Bates-----	45	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Very limited Slope Depth to bedrock Restricted permeability	1.00 0.71 0.15
Collinsville-----	40	Very limited Depth to bedrock Slope	1.00 0.63	Very limited Depth to bedrock Slope	1.00 0.63	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	0.15
Da: Deepwater-----	90	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability Slope	0.15 0.13
Db: Dennis-----	90	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.44	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.19	Somewhat limited Restricted permeability Depth to saturated zone Slope	0.94 0.44 0.00
Dc: Dennis-----	90	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.44	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.19	Somewhat limited Restricted permeability Slope Depth to saturated zone	0.94 0.50 0.44
Dn: Dennis-----	55	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.44	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.19	Somewhat limited Restricted permeability Slope Depth to saturated zone	0.94 0.50 0.44
Lanton-----	30	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 0.15	Somewhat limited Depth to saturated zone Flooding Restricted permeability	0.75 0.40 0.15	Very limited Flooding Depth to saturated zone Restricted permeability Slope	1.00 1.00 0.15 0.13
Eb: 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 Depth to saturated zone Slope	1.00 0.94 0.44 0.00

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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
Ec: 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
Et: Eram-----	50	Very limited Too clayey Restricted permeability Depth to saturated zone Slope	1.00 0.94 0.44 0.04	Very limited Too clayey Restricted permeability Depth to saturated zone Slope	1.00 0.94 0.19 0.04	Very limited Slope Too clayey Restricted permeability Depth to bedrock Depth to saturated zone	1.00 1.00 0.94 0.71 0.44
Lebo-----	35	Somewhat limited Slope Restricted permeability	0.63 0.60	Somewhat limited Slope Restricted permeability	0.63 0.60	Very limited Slope Restricted permeability Depth to bedrock	1.00 0.60 0.29
Ka: Kenoma-----	90	Somewhat limited Restricted permeability	0.94	Somewhat limited Restricted permeability	0.94	Somewhat limited Restricted permeability Slope	0.94 0.00
La: Lanton-----	90	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 0.15	Very limited Depth to saturated zone Restricted permeability	1.00 0.15	Very limited Depth to saturated zone Flooding Restricted permeability	1.00 0.60 0.15
M-W: Miscellaneous Water-	100	Not rated		Not rated		Not rated	
No: Nowata-----	90	Not limited		Not limited		Somewhat limited Slope Depth to bedrock Gravel content	0.50 0.46 0.11
Od: Olpe-----	55	Somewhat limited Restricted permeability Gravel content	0.94 0.38	Somewhat limited Restricted permeability Gravel content	0.94 0.38	Very limited Gravel content Restricted permeability Slope	1.00 0.94 0.87
Dennis-----	35	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.44	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.19	Somewhat limited Restricted permeability Slope Depth to saturated zone	0.94 0.87 0.44
Os: Osage-----	90	Very limited Depth to saturated zone Flooding Restricted permeability Too clayey	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability Too clayey	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability Too clayey Flooding	1.00 1.00 1.00 1.00 0.60
Pa: Parsons-----	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	1.00 1.00
Pt: Pits, Quarries-----	100	Not rated		Not rated		Not rated	
Sc: Shidler-----	50	Very limited		Very limited		Very limited	

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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
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Slope	1.00
						Content of large stones	0.46
Catoosa-----	40	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability Slope	0.15
Sd: Stephenville-----	45	Somewhat limited Too sandy	0.18	Somewhat limited Too sandy	0.18	Very limited Slope Depth to bedrock Too sandy	0.00
Darnell-----	40	Very limited Depth to bedrock Slope Too sandy	1.00 1.00 0.68	Very limited Depth to bedrock Slope Too sandy	1.00 1.00 0.68	Very limited Slope Depth to bedrock Too sandy	1.00 0.80 0.18
Va: Verdigris-----	95	Very limited Flooding	1.00	Somewhat limited Restricted permeability	0.15	Somewhat limited Flooding	0.60
		Restricted permeability	0.15			Restricted permeability	0.15
Vb: Verdigris-----	95	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
W: Water-----	100	Not rated		Not rated		Not rated	
Wa: Woodson-----	90	Very limited Depth to saturated zone Restricted permeability	1.00 0.94	Very limited Depth to saturated zone Restricted permeability	1.00 0.94	Very limited Depth to saturated zone Restricted permeability	1.00 0.94
Zb: Zaar-----	85	Very limited Too clayey Restricted permeability Depth to saturated zone	1.00 0.94 0.73	Very limited Too clayey Restricted permeability Depth to saturated zone	1.00 0.94 0.35	Very limited Too clayey Restricted permeability Depth to saturated zone	1.00 0.94 0.73
ZC: Zaar-----	96	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Too clayey	1.00	Very limited Depth to saturated zone Too clayey	1.00
		Restricted permeability	0.94	Restricted permeability Depth to saturated zone	0.94 0.88	Restricted permeability Slope	0.94 0.00

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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
001OB: Osage-----	100	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
011RC: 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
037CE: Cherokee-----	99	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
099VC: Verdigris-----	85	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
205BO: Bates-----	45	Not limited		Somewhat limited Depth to bedrock	0.84
Collinsville-----	40	Not limited		Very limited Depth to bedrock Droughty Slope	1.00 0.98 0.96
205KO: Kenoma-----	50	Not limited		Not limited	
Olpe-----	35	Not limited		Somewhat limited Droughty	0.05
205RS: Ringo-----	65	Not limited		Somewhat limited Depth to bedrock Slope	0.80 0.04
Shidler-----	30	Not limited		Very limited Depth to bedrock Droughty Content of large stones	1.00 1.00 0.00
205SC: Shidler-----	70	Not limited		Very limited Depth to bedrock Droughty Content of large stones	1.00 1.00 0.00
Catoosa-----	20	Not limited		Somewhat limited Depth to bedrock	0.80
AED: Arents, Earthen Dam-	100	Not rated		Not rated	
Ba: Bates-----	85	Not limited		Somewhat limited Depth to bedrock	0.16
Bc: Bates-----	85	Not limited		Somewhat limited Depth to bedrock	0.90
Bd: Bates-----	55	Not limited		Somewhat limited Depth to bedrock	0.71
Collinsville-----	35	Not limited		Very limited Depth to bedrock Droughty	1.00 1.00
Bh: Bates-----	45	Not limited		Somewhat limited Depth to bedrock	0.71
Collinsville-----	40	Not limited		Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.63
Ca: Catoosa-----	85	Not limited		Somewhat limited Depth to bedrock	0.65

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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
Da: Deepwater-----	90	Not limited		Not limited	
Db: Dennis-----	90	Not limited		Somewhat limited Depth to saturated zone	0.19
Dc: Dennis-----	90	Not limited		Somewhat limited Depth to saturated zone	0.19
Dn: Dennis-----	55	Not limited		Somewhat limited Depth to saturated zone	0.19
Lanton-----	30	Somewhat limited Depth to saturated zone Flooding	0.44	Very limited Flooding	1.00
			0.40	Depth to saturated zone	0.75
Eb: Eram-----	90	Very limited Too clayey	1.00	Very limited Too clayey Depth to bedrock Depth to saturated zone	1.00 0.29 0.19
Ec: Eram-----	90	Very limited Too clayey	1.00	Very limited Too clayey Depth to bedrock Depth to saturated zone	1.00 0.54 0.19
Et: Eram-----	50	Very limited Too clayey	1.00	Very limited Too clayey Depth to bedrock Depth to saturated zone Slope	1.00 0.71 0.19 0.04
Lebo-----	35	Not limited		Somewhat limited Slope Depth to bedrock	0.63 0.29
Ka: Kenoma-----	90	Not limited		Not limited	
La: Lanton-----	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
M-W: Miscellaneous Water-	100	Not rated		Not rated	
No: Nowata-----	90	Not limited		Somewhat limited Depth to bedrock Droughty	0.46 0.12
Od: Olpe-----	55	Not limited		Very limited Droughty Gravel content	1.00 0.38
Dennis-----	35	Not limited		Somewhat limited Depth to saturated zone	0.19
Os: Osage-----	90	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone Too clayey Flooding	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	
Sc: Shidler-----	50	Not limited		Very limited Depth to bedrock Droughty	1.00 0.92

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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
Catoosa-----	40	Not limited		Content of large stones	0.46
Sd: Stephenville-----	45	Somewhat limited Too sandy	0.18	Somewhat limited Depth to bedrock	0.39
Darnell-----	40	Somewhat limited Too sandy Slope	0.68 0.02	Very limited Depth to bedrock Slope Droughty	0.10 1.00 1.00 1.00
Va: Verdigris-----	95	Not limited		Somewhat limited Flooding	0.60
Vb: Verdigris-----	95	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
W: Water-----	100	Not rated		Not rated	
Wa: Woodson-----	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Zb: Zaar-----	85	Very limited Too clayey Depth to saturated zone	1.00 0.04	Very limited Too clayey Depth to saturated zone	1.00 0.35
ZC: Zaar-----	96	Very limited Too clayey Depth to saturated zone	1.00 0.73	Very limited Too clayey Depth to saturated zone	1.00 0.88

