

RECREATIONAL INTERPRETATIONS
Marshall 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
131BS: Burchard-----	63	Somewhat limited Restricted permeability Slope	0.15 0.00	Somewhat limited Restricted permeability Slope	0.15 0.00	Very limited Slope Restricted permeability	1.00 0.15
Steinauer-----	27	Somewhat limited Slope Restricted permeability	0.16 0.15	Somewhat limited Slope Restricted permeability	0.16 0.15	Very limited Slope Restricted permeability	1.00 0.15
149BF: Benfield-----	70	Somewhat limited Restricted permeability Slope	0.39 0.04	Somewhat limited Restricted permeability Slope	0.39 0.04	Very limited Slope Depth to bedrock Restricted permeability Content of large stones	1.00 0.46 0.39 0.03
Florence-----	15	Very limited Gravel content Slope	1.00 0.04	Very limited Gravel content Slope	1.00 0.04	Very limited Gravel content Slope Content of large stones	1.00 1.00 0.00
149CS: Clime-----	70	Somewhat limited Slope Restricted permeability	0.84 0.39	Somewhat limited Slope Restricted permeability	0.84 0.39	Very limited Slope Depth to bedrock Restricted permeability	1.00 0.80 0.39
Sogn-----	15	Very limited Depth to bedrock Slope	1.00 0.84	Very limited Depth to bedrock Slope	1.00 0.84	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.00
149PS: Paxico-----	90	Very limited Flooding Depth to saturated zone	1.00 0.07	Somewhat limited Flooding Depth to saturated zone	0.40 0.03	Very limited Flooding Depth to saturated zone	1.00 0.07
149WB: Wabash-----	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 1.00	Very limited Depth to saturated zone Restricted permeability Too clayey Flooding	1.00 1.00 1.00 1.00 0.60
201CR: Crete-----	99	Somewhat limited Restricted permeability	0.05	Somewhat limited Restricted permeability	0.05	Somewhat limited Restricted permeability	0.05
201CS: Crete-----	95	Somewhat limited Restricted permeability	0.05	Somewhat limited Restricted permeability	0.05	Somewhat limited Restricted permeability Slope	0.05 0.00
201CT: Crete-----	100	Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.41	Somewhat limited Slope Restricted permeability	0.87 0.41
201CX: Crete, eroded-----	90	Somewhat limited Restricted permeability	0.05	Somewhat limited Restricted permeability	0.05	Somewhat limited Slope Restricted permeability	0.87 0.05
201EU: Eudora-----	94	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
201HO: Hobbs-----	85	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
201KS: Kipson-----	70	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 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
Sogn-----	15	Very limited Depth to bedrock Slope	1.00 0.16	Very limited Depth to bedrock Slope	1.00 0.16	Content of large stones Gravel content Very limited Depth to bedrock Slope Content of large stones	0.20 0.08 1.00 1.00 0.00
201MC: Mayberry-----	85	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 Slope	1.00 0.94 0.87
201MH: Morrill-----	90	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Slope Restricted permeability Gravel content	0.87 0.15 0.06
600BF: Benfield-----	45	Somewhat limited Slope Restricted permeability	0.84 0.39	Somewhat limited Slope Restricted permeability	0.84 0.39	Very limited Slope Restricted permeability Depth to bedrock Content of large stones	1.00 0.39 0.10 0.03
Florence-----	30	Very limited Gravel content Slope	1.00 0.16	Very limited Gravel content Slope	1.00 0.16	Very limited Gravel content Slope Depth to bedrock Content of large stones	1.00 1.00 0.46 0.00
600CS: Cline-----	50	Somewhat limited Slope Restricted permeability	0.84 0.39	Somewhat limited Slope Restricted permeability	0.84 0.39	Very limited Slope Depth to bedrock Restricted permeability	1.00 0.46 0.39
Sogn-----	30	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.00
600MA: Mayberry-----	85	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 Slope	1.00 0.94 0.50
AED: Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Ea: Eudora-----	90	Very limited Flooding	1.00	Not limited		Not limited	
Ga: Geary-----	100	Not limited		Not limited		Somewhat limited Slope	0.87
Ka: Kennebec-----	95	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
Kb: Kennebec-----	90	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
Kc: Kipson-----	70	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Content of large stones Gravel content Very limited Depth to bedrock Slope	1.00 1.00 0.20 0.08 1.00 1.00
Sogn-----	15	Very limited Depth to bedrock Slope	1.00 0.00	Very limited Depth to bedrock Slope	1.00 0.00	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
						Content of large stones	0.00
La: Ladysmith-----	100	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45
Ma: Morrill-----	85	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability Slope Gravel content	0.15 0.13 0.06
Mb: Morrill-----	85	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Very limited Slope	1.00
						Restricted permeability Gravel content	0.15 0.06
Mc: Morrill, eroded----	85	Somewhat limited Restricted permeability	0.15	Somewhat limited Restricted permeability	0.15	Very limited Slope	1.00
						Restricted permeability Gravel content	0.15 0.06
Me: Muir-----	80	Very limited Flooding	1.00	Not limited		Not limited	
Na: Nodaway-----	85	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
Oa: Olmitz-----	88	Not limited		Not limited		Somewhat limited Slope	0.13
Ob: Ortello-----	91	Not limited		Not limited		Very limited Slope	1.00
Pa: Pawnee-----	88	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.39	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.19	Somewhat limited Restricted permeability Depth to saturated zone Slope	0.94 0.39 0.13
Pb: Pawnee-----	88	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.39	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.19	Very limited Slope	1.00
						Restricted permeability Depth to saturated zone	0.94 0.39
Pc: Pawnee, eroded----	88	Very limited Too clayey Restricted permeability Depth to saturated zone	1.00 0.94 0.39	Very limited Too clayey Restricted permeability Depth to saturated zone	1.00 0.94 0.19	Very limited Too clayey Slope	1.00 1.00
						Restricted permeability Depth to saturated zone	0.94 0.39
Pd: Pits-----	100	Not rated		Not rated		Not rated	
Sa: Shelby-----	91	Somewhat limited Restricted permeability Slope	0.15 0.00	Somewhat limited Restricted permeability Slope	0.15 0.00	Very limited Slope	1.00
						Restricted permeability	0.15
Sb: Steinauer-----	85	Very limited Slope Restricted permeability	1.00 0.15	Very limited Slope Restricted permeability	1.00 0.15	Very limited Slope Restricted permeability	1.00 0.15
Sc: Steinauer-----	60	Somewhat limited Slope Restricted permeability	0.63 0.15	Somewhat limited Slope Restricted permeability	0.63 0.15	Very limited Slope Restricted permeability	1.00 0.15

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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
Shelby-----	25	Somewhat limited Slope Restricted permeability	0.63 0.15	Somewhat limited Slope Restricted permeability	0.63 0.15	Very limited Slope Restricted permeability	1.00 0.15
Ta: Tully-----	88	Somewhat limited Restricted permeability	0.39	Somewhat limited Restricted permeability	0.39	Somewhat limited Slope Restricted permeability Gravel content	0.87 0.39 0.06
Tb: Tully, eroded-----	88	Somewhat limited Restricted permeability	0.39	Somewhat limited Restricted permeability	0.39	Somewhat limited Slope Restricted permeability Gravel content	0.87 0.39 0.06
W: Water-----	100	Not rated		Not rated		Not rated	
Wa: Wabash-----	85	Very limited Depth to saturated zone Flooding Restricted permeability	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Depth to saturated zone Restricted permeability Flooding	1.00 1.00 0.60
Wb: Wymore-----	88	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.39	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.19	Somewhat limited Restricted permeability Depth to saturated zone Slope	0.94 0.39 0.13
Wc: Wymore, eroded-----	85	Somewhat limited Restricted permeability Depth to saturated zone	0.94 0.39	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 0.39

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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
131BS: Burchard-----	63	Not limited		Somewhat limited Slope	0.00
Steinauer-----	27	Not limited		Somewhat limited Slope	0.16
149BF: Benfield-----	70	Not limited		Somewhat limited Depth to bedrock	0.46
				Slope	0.04
				Content of large stones	0.03
Florence-----	15	Not limited		Very limited Gravel content	1.00
				Droughty	0.07
				Slope	0.04
				Content of large stones	0.00
149CS: Clime-----	70	Not limited		Somewhat limited Slope	0.84
				Depth to bedrock	0.80
Sogn-----	15	Not limited		Very limited Depth to bedrock	1.00
				Slope	0.84
				Droughty	0.63
				Content of large stones	0.00
149PS: Paxico-----	90	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
				Depth to saturated zone	0.03
149WB: Wabash-----	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 1.00 0.60
201CR: Crete-----	99	Not limited		Not limited	
201CS: Crete-----	95	Not limited		Not limited	
201CT: Crete-----	100	Not limited		Not limited	
201CX: Crete, eroded-----	90	Not limited		Not limited	
201EU: Eudora-----	94	Not limited		Somewhat limited Flooding	0.60
201HO: Hobbs-----	85	Not limited		Somewhat limited Flooding	0.60
201KS: Kipson-----	70	Somewhat limited Slope	0.18	Very limited Depth to bedrock	1.00
				Slope	1.00
				Carbonate content	1.00
				Content of large stones	0.20
				Droughty	0.18
Sogn-----	15	Not limited		Very limited Depth to bedrock	1.00
				Droughty	0.35
				Slope	0.16
				Content of large stones	0.00
201MC: Mayberry-----	85	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
201MH: Morrill-----	90	Not limited		Not limited	
600BF: Benfield-----	45	Not limited		Somewhat limited Slope	0.84
				Depth to bedrock	0.10
				Content of large stones	0.03
Florence-----	30	Not limited		Very limited Gravel content	1.00
				Droughty	0.66

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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
				Depth to bedrock	0.46
				Slope	0.16
				Content of large stones	0.00
600CS: Cline-----	50	Not limited		Somewhat limited	
				Slope	0.84
				Depth to bedrock	0.46
Sogn-----	30	Not limited		Very limited	
				Depth to bedrock	1.00
				Droughty	1.00
				Content of large stones	0.00
600MA: Mayberry-----	85	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
AED: Arents, Earthen Dam-	100	Not rated		Not rated	
Ea: Eudora-----	90	Not limited		Not limited	
Ga: Geary-----	100	Not limited		Not limited	
Ka: Kennebec-----	95	Not limited		Somewhat limited Flooding	0.60
Kb: Kennebec-----	90	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
Kc: Kipson-----	70	Somewhat limited Slope	0.00	Very limited Depth to bedrock	1.00
				Carbonate content	1.00
				Slope	1.00
				Content of large stones	0.20
				Droughty	0.10
Sogn-----	15	Not limited		Very limited Depth to bedrock	1.00
				Droughty	0.63
				Slope	0.00
				Content of large stones	0.00
La: Ladysmith-----	100	Not limited		Not limited	
Ma: Morrill-----	85	Not limited		Not limited	
Mb: Morrill-----	85	Not limited		Not limited	
Mc: Morrill, eroded----	85	Not limited		Not limited	
Me: Muir-----	80	Not limited		Not limited	
Na: Nodaway-----	85	Not limited		Somewhat limited Flooding	0.60
Oa: Olmitz-----	88	Not limited		Not limited	
Ob: Ortello-----	91	Not limited		Not limited	
Pa: Pawnee-----	88	Not limited		Somewhat limited Depth to saturated zone	0.19
Pb: Pawnee-----	88	Not limited		Somewhat limited Depth to saturated zone	0.19
Pc: Pawnee, eroded-----	88	Very limited Too clayey	1.00	Very limited Too clayey Depth to saturated zone	1.00 0.19
Pd: Pits-----	100	Not rated		Not rated	
Sa: Shelby-----	91	Not limited		Somewhat limited	

RECREATIONAL INTERPRETATIONS--Continued
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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
Sb: Steinauer-----	85	Somewhat limited Slope	0.50	Slope	0.00
Sc: Steinauer-----	60	Not limited		Very limited Slope	1.00
Shelby-----	25	Not limited		Somewhat limited Slope	0.63
Ta: Tully-----	88	Not limited		Somewhat limited Slope	0.63
Tb: Tully, eroded-----	88	Not limited		Not limited	
W: Water-----	100	Not rated		Not limited	
Wa: Wabash-----	85	Very limited Depth to saturated zone	1.00	Not rated	
Wb: Wymore-----	88	Not limited		Very limited Depth to saturated zone Flooding	1.00
Wc: Wymore, eroded-----	85	Not limited			0.60
				Somewhat limited Depth to saturated zone	0.19
				Somewhat limited Depth to saturated zone	0.19

