

WATER MANAGEMENT  
Jefferson County, Kansas

The soils of the survey area are rated in the Water Management table according to limitations that affect their suitability for water management. Soils are rated for pond reservoir areas, drainage, irrigation, terraces and diversions, and grassed waterways. Restrictive features that affect each soil for the specified use is also provided in the table.

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 generally require special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate to 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.

Limitation class terms, such as very limited or limited, etc., limitation ratings, and numerical ratings are shown for each soil feature listed. As many as three soil features may be listed for each soil component if applicable. The overall limitation rating for the soil 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. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects traffic ability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

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, to a cemented pan, or to other layers that affect the rate of water movement; permeability; depth to a high water table or depth of standing water if the soil is subject to ponding; slope; susceptibility to flooding; subsidence of organic layers; and the potential for frost action. Excavating and grading and the stability of ditch banks are affected by depth to bedrock or to a cemented pan, large stones, slope, and the hazard of cutbanks caving. 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. 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 the water table, the need for drainage, flooding, available water capacity, intake rate, permeability, erosion hazard, and slope. The construction of a system is affected by large stones and depth to bedrock or to a cemented pan. The performance of a system is affected by the depth of the root zone, the amount of salts or sodium, and soil reaction.

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, wetness, large stones, and depth to bedrock or to a cemented pan affect the construction of terraces and diversions. A restricted rooting depth, a very limited hazard of wind erosion or water erosion, an excessively coarse texture, and restricted permeability adversely affect maintenance.

Grassed waterways are natural or constructed channels, generally broad and shallow, which conduct surface water to outlets at a non-erosive velocity. Large stones, wetness, slope, and depth to bedrock or to a cemented pan affect the construction of grassed waterways. A hazard of wind erosion, low available water capacity, restricted rooting depth, toxic substances such as salts and sodium, and restricted permeability adversely affect the growth and maintenance of the grass after construction.

WATER MANAGEMENT--Continued  
Jefferson County, Kansas

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
005SH: Shelby-----	Limitation: deep to water	Limitation: slope	Favorable	Favorable
005SM: Shelby, eroded--	Limitation: deep to water	Limitation: slope	Limitation: slope	Limitation: slope
005VS: Vinland-----	Limitation: slope deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock	Limitation: slope depth to rock
013WN: Wymore-----	Limitation: frost action percs slowly	Limitation: percs slowly wetness	Limitation: erodes easily wetness	Limitation: erodes easily wetness
045VM: Vinland-----	Limitation: slope deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock	Limitation: slope depth to rock
Martin-----	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily slope wetness	Limitation: erodes easily slope wetness
085MC: Martin-----	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
Vinland-----	Limitation: slope deep to water	Limitation: slope depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily depth to rock
085WB: Wymore-----	Limitation: frost action percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily wetness	Limitation: erodes easily percs slowly wetness
177SM: Shelby-----	Limitation: slope deep to water	Limitation: slope	Favorable	Favorable
601GT: Grundy-----	Limitation: frost action percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
601SH: Shelby-----	Limitation: slope deep to water	Limitation: slope	Favorable	Favorable
601SM: Shelby-----	Limitation: slope deep to water	Limitation: slope	Limitation: slope	Limitation: slope
AED: Arents, Earthen Dam-----	---	---	---	---
Be: Bismarckgrove---	Limitation: frost action	Limitation: wetness	Limitation: erodes easily wetness	Limitation: erodes easily
Kimo-----	Limitation: frost action percs slowly	Limitation: percs slowly wetness	Limitation: erodes easily wetness	Limitation: erodes easily percs slowly
Bp: Belvue-----	Limitation: slope deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
Bx: Bourbonais-----	Limitation: slope deep to water	Limitation: erodes easily	Limitation: erodes easily	Limitation: erodes easily
Bismarckgrove---	Limitation: frost action	Limitation: wetness	Limitation: erodes easily wetness	Limitation: erodes easily
By: Bourbonais-----	Limitation: slope deep to water	Limitation: erodes easily	Limitation: erodes easily too sandy	Limitation: erodes easily
Bismarckgrove---	Limitation: flooding frost action	Limitation: flooding percs slowly wetness	Limitation: erodes easily wetness	Limitation: erodes easily
Eb: Eudora-----	Limitation: slope deep to water	Limitation: flooding	Limitation: erodes easily	Limitation: erodes easily
Bismarckgrove---	Limitation: flooding frost action	Limitation: flooding percs slowly wetness	Limitation: erodes easily wetness	Limitation: erodes easily

WATER MANAGEMENT--Continued  
Jefferson County, Kansas

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Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Ec: Eudora----- Bismarckgrove---	Limitation: deep to water Limitation: flooding frost action	Limitation: flooding Limitation: flooding percs slowly wetness	Limitation: erodes easily Limitation: erodes easily wetness	Limitation: erodes easily Limitation: erodes easily
Ed: Eudora-----	Limitation: deep to water	Limitation: flooding	Limitation: erodes easily	Limitation: erodes easily
Eg: Eudora-----	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
Fu: Fluvaquents----	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness	Limitation: erodes easily
Gb: Grundy-----	Limitation: frost action percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
Gc: Grundy-----	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
GRP: Pits-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy	Limitation: rooting depth slope droughty
Gy: Gymer-----	Limitation: deep to water	Limitation: slope	Limitation: erodes easily	Limitation: erodes easily
Hc: Haig-----	Limitation: frost action percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily wetness	Limitation: erodes easily percs slowly wetness
Kb: Kennebec-----	Limitation: deep to water	Limitation: flooding	Favorable	Favorable
Kc: Kennebec-----	Limitation: deep to water	Limitation: flooding	Favorable	Favorable
Ki: Kimo-----	Limitation: flooding frost action percs slowly	Limitation: flooding percs slowly wetness	Limitation: erodes easily wetness	Limitation: erodes easily percs slowly
Km: Kimo-----	Limitation: frost action percs slowly	Limitation: percs slowly wetness	Limitation: erodes easily wetness	Limitation: erodes easily percs slowly
Kv: Konawa-----	Limitation: deep to water	Limitation: slope soil blowing	Limitation: too sandy soil blowing	Favorable
M-W: Miscellaneous Water-----	---	---	---	---
Mb: Martin-----	Limitation: frost action percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
Mc: Martin-----	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
Mh: Martin, eroded--	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
Mo: Martin-----	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness

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Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Oska-----	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: erodes easily percs slowly depth to rock	Limitation: erodes easily percs slowly depth to rock
MR: Morrill-----	Limitation: deep to water	Limitation: slope	Favorable	Favorable
Mu: Muscotah-----	Limitation: flooding percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly
Mv: Morrill-----	Limitation: deep to water	Limitation: slope	Favorable	Favorable
Oc: Oska-----	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: erodes easily percs slowly depth to rock	Limitation: erodes easily percs slowly depth to rock
Pb: Pawnee-----	Limitation: frost action percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
Pc: Pawnee-----	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
PE: Pawnee, eroded--	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
Ph: Pawnee, eroded--	Limitation: frost action percs slowly slope	Limitation: slope wetness droughty	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily wetness droughty
Pt: Pits, Quarries--	---	---	---	---
QUA: Quarries-----	---	---	---	---
Re: Reading-----	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
Rs: Rossville-----	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
Sa: Stonehouse-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: droughty
Eudora-----	Limitation: deep to water	Limitation: flooding	Limitation: erodes easily	Limitation: erodes easily
Sc: Shelby-----	Limitation: deep to water	Limitation: slope	Favorable	Favorable
Pawnee-----	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
So: Shelby-----	Limitation: deep to water	Limitation: slope	Limitation: slope	Limitation: slope
Pawnee-----	Limitation: frost action percs slowly slope	Limitation: percs slowly slope wetness	Limitation: erodes easily slope wetness	Limitation: erodes easily slope wetness
Ss: Sibleyville-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: depth to rock	Limitation: depth to rock
Sv: Sibleyville-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock	Limitation: slope depth to rock
Sw: Sogn-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock	Limitation: slope depth to rock
Vinland-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope depth to rock

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Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Vc: Vinland-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily depth to rock
Vo: Vinland-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope depth to rock
Vx: Rock Outcrop----	Limitation: slope deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock	Limitation: slope depth to rock
Vinland-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock	Limitation: slope depth to rock
W: Water-----	---	---	---	---
Wc: Wabash-----	Limitation: flooding percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
Wh: Wabash-----	Limitation: percs slowly	Limitation: slow intake wetness droughty	Limitation: percs slowly wetness	Limitation: percs slowly wetness droughty

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
005SH: Shelby-----	85	Somewhat limited Seepage	0.05	Not limited		Very limited Deep to water	1.00
005SM: Shelby, eroded-----	88	Somewhat limited Seepage Slope	0.05 0.00	Not limited		Very limited Deep to water	1.00
005VS: Vinland-----	85	Very limited Seepage Depth to bedrock	1.00 0.50	Very limited Thin layer Piping	1.00 0.50	Very limited Deep to water	1.00
013WN: Wymore-----	82	Somewhat limited Seepage	0.05	Very limited Depth to saturated zone Hard to pack	1.00 0.64	Very limited Deep to water	1.00
045VM: Vinland-----	40	Very limited Seepage Depth to bedrock Slope	1.00 0.58 0.00	Very limited Thin layer Piping	1.00 0.50	Very limited Deep to water	1.00
Martin-----	25	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.63	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.00
085MC: Martin-----	48	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.57	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.00
Vinland-----	40	Very limited Seepage Depth to bedrock	1.00 0.58	Very limited Thin layer Piping	1.00 0.42	Very limited Deep to water	1.00
085WB: Wymore-----	85	Somewhat limited Seepage	0.05	Very limited Depth to saturated zone Hard to pack	1.00 0.62	Somewhat limited Slow refill Cutbanks cave	0.95 0.10
177SM: Shelby-----	88	Somewhat limited Seepage	0.05	Not limited		Very limited Deep to water	1.00
601GT: Grundy-----	90	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.80	Very limited Deep to water	1.00
601SH: Shelby-----	80	Somewhat limited Seepage	0.05	Not limited		Very limited Deep to water	1.00
601SM: Shelby-----	90	Somewhat limited Seepage	0.05	Somewhat limited Piping	0.08	Very limited Deep to water	1.00
AED: Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Be: Bismarckgrove-----	60	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.22	Very limited Deep to water	1.00
Kimo-----	20	Somewhat limited Seepage	0.70	Very limited Piping	1.00	Somewhat limited Deep to water Slow refill	0.81 0.30

WATER MANAGEMENT--Continued  
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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
						Cutbanks cave	0.10
Bp: Belvue-----	75	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.50	Very limited Deep to water	1.00
Bx: Bourbonais-----	60	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.76	Somewhat limited Deep to water Cutbanks cave	0.81 0.10
Bismarckgrove-----	20	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.22	Very limited Deep to water	1.00
By: Bourbonais-----	45	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.76	Somewhat limited Deep to water Cutbanks cave	0.81 0.10
Bismarckgrove-----	30	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.22	Very limited Deep to water	1.00
Eb: Eudora-----	55	Somewhat limited Seepage	0.70	Very limited Piping Seepage	1.00 0.01	Very limited Deep to water	1.00
Bismarckgrove-----	25	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.22	Very limited Deep to water	1.00
Ec: Eudora-----	65	Somewhat limited Seepage	0.70	Very limited Piping	1.00	Very limited Deep to water	1.00
Bismarckgrove-----	20	Somewhat limited Seepage	0.70	Very limited Piping Seepage	1.00 0.22	Very limited Deep to water	1.00
Ed: Eudora-----	90	Somewhat limited Seepage	0.70	Very limited Piping Seepage	1.00 0.02	Very limited Deep to water	1.00
Eg: Eudora-----	85	Somewhat limited Seepage	0.70	Very limited Piping Seepage	1.00 0.04	Very limited Deep to water	1.00
Fu: Fluvaquents-----	95	Very limited Seepage	1.00	Very limited Hard to pack Depth to saturated zone	1.00 0.93	Somewhat limited Cutbanks cave Deep to water	0.10 0.03
Gb: Grundy-----	85	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.82	Somewhat limited Slow refill Cutbanks cave	0.95 0.10
Gc: Grundy-----	85	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.82	Somewhat limited Slow refill Cutbanks cave	0.95 0.10
GRP: Pits-----	100	Not rated		Not rated		Not rated	
Gy: Gymer-----	85	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.01	Very limited Deep to water	1.00

WATER MANAGEMENT--Continued  
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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Hc: Haig-----	85	Somewhat limited Seepage	0.05	Very limited Depth to saturated zone	1.00	Very limited Deep to water	1.00
Kb: Kennebec-----	85	Somewhat limited Seepage	0.70	Somewhat limited Piping Depth to saturated zone	0.90 0.09	Somewhat limited Deep to water Slow refill Cutbanks cave	0.54 0.30 0.10
Kc: Kennebec-----	85	Somewhat limited Seepage	0.70	Somewhat limited Piping Depth to saturated zone	0.90 0.09	Somewhat limited Deep to water Slow refill Cutbanks cave	0.54 0.30 0.10
Ki: Kimo-----	85	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.94	Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.30 0.10
Km: Kimo-----	90	Somewhat limited Seepage	0.70	Very limited Piping	1.00	Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.30 0.10
Kv: Konawa-----	91	Very limited Seepage	1.00	Somewhat limited Seepage	0.08	Very limited Deep to water	1.00
M-W: Miscellaneous Water-	100	Not rated		Not rated		Not rated	
Mb: Martin-----	90	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.63	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.00
Mc: Martin-----	85	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.69	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.00
Mh: Martin, eroded-----	85	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.69	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.00
Mo: Martin-----	40	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.69	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.00
Oska-----	30	Somewhat limited Depth to bedrock	0.56	Somewhat limited Thin layer Hard to pack	0.56 0.25	Very limited Deep to water	1.00
MR: Morrill-----	90	Somewhat limited Seepage	0.57	Somewhat limited Piping	0.13	Very limited Deep to water	1.00
Mu: Muscotah-----	85	Not limited		Somewhat limited Depth to saturated zone	0.95	Very limited Slow refill	1.00



WATER MANAGEMENT--Continued  
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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
				Hard to pack	0.88	Cutbanks cave Deep to water	0.10 0.02
Mv: Morrill-----	90	Somewhat limited Seepage	0.57	Somewhat limited Piping	0.75	Very limited Deep to water	1.00
Oc: Oska-----	90	Somewhat limited Depth to bedrock	0.56	Somewhat limited Thin layer Hard to pack	0.56 0.25	Very limited Deep to water	1.00
Pb: Pawnee-----	90	Not limited		Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave	0.95 0.10
Pc: Pawnee-----	85	Not limited		Very limited Depth to saturated zone	1.00	Very limited Deep to water	1.00
PE: Pawnee, eroded-----	90	Not limited		Very limited Depth to saturated zone	1.00	Very limited Deep to water	1.00
Ph: Pawnee, eroded-----	85	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.88	Very limited Slow refill Cutbanks cave	1.00 0.10
Pt: Pits, Quarries-----	100	Not rated		Not rated		Not rated	
QUA: Quarries-----	100	Not rated		Not rated		Not rated	
Re: Reading-----	85	Somewhat limited Seepage	0.57	Not limited		Very limited Deep to water	1.00
Rs: Rossville-----	85	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.40	Very limited Deep to water	1.00
Sa: Stonehouse-----	40	Very limited Seepage	1.00	Somewhat limited Seepage	0.50	Very limited Deep to water	1.00
Eudora-----	25	Somewhat limited Seepage	0.70	Very limited Piping Seepage	1.00 0.06	Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.30 0.10
Sc: Shelby-----	55	Somewhat limited Seepage	0.05	Somewhat limited Piping	0.00	Very limited Deep to water	1.00
Pawnee-----	30	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.77	Somewhat limited Slow refill Cutbanks cave	0.95 0.10
So: Shelby-----	65	Somewhat limited Seepage	0.05	Somewhat limited Piping	0.00	Very limited Deep to water	1.00
Pawnee-----	25	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.77	Very limited Deep to water	1.00

WATER MANAGEMENT--Continued  
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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ss: Sibleyville-----	60	Somewhat limited Seepage Depth to bedrock	0.70 0.13	Somewhat limited Thin layer Seepage	0.88 0.04	Very limited Deep to water	1.00
Sv: Sibleyville-----	50	Somewhat limited Seepage Depth to bedrock	0.70 0.13	Somewhat limited Thin layer Seepage	0.88 0.04	Very limited Deep to water	1.00
Sw: Sogn-----	55	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Thin layer Piping	1.00 0.12	Very limited Deep to water	1.00
Vinland-----	30	Very limited Seepage Depth to bedrock Slope	1.00 0.61 0.01	Very limited Thin layer Piping	1.00 0.36	Very limited Deep to water	1.00
Vc: Vinland-----	50	Very limited Seepage Depth to bedrock	1.00 0.61	Very limited Thin layer Piping	1.00 0.36	Very limited Deep to water	1.00
Vo: Vinland-----	55	Very limited Seepage Depth to bedrock Slope	1.00 0.61 0.00	Very limited Thin layer Piping	1.00 0.36	Very limited Deep to water	1.00
Vx: Rock Outcrop-----	60	Not rated		Not rated		Not rated	
Vinland-----	26	Very limited Seepage Depth to bedrock Slope	1.00 0.58 0.28	Very limited Thin layer Piping	1.00 0.50	Very limited Deep to water	1.00
W: Water-----	100	Not rated		Not rated		Not rated	
Wc: Wabash-----	94	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 1.00	Very limited Slow refill Cutbanks cave	1.00 0.10
Wh: Wabash-----	85	Not limited		Very limited Ponding Depth to saturated zone Hard to pack	1.00 1.00 1.00	Very limited Slow refill Cutbanks cave	1.00 0.10

