HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Cherokee County, Kansas

In this section, hydric soils are defined and described and the hydric soils in the survey area are listed. The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for each of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 1995). These criteria are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (USDA, 1999) and "Keys to Soil Taxonomy"’ (USDA, 1998) and in the "Soil Survey Manual" (USDA, 1993).

If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 1996).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units in the Hydric Soil Interpretations table meet the definition of hydric soils and, in addition, have at east one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 1996).

Map units that are made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

These map units, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
037ZA:							
ZAAR SILTY CLAY, 1 TO 3 PERCENT SLOPES	ZAAR	No	hillslope	---	---	---	---
	DENNIS	No	hillslope	---	---	---	---
	LULA	No	hillslope	---	---	---	---
	PARSONS	No	hillslope	---	---	---	---
	RINGO	No	hillslope	---	---	---	---
Be:							
BATES LOAM, 1 TO 3 PERCENT SLOPES	BATES	No	hillslope	---	---	---	---
	COLLINSVILLE	No	hillslope	---	---	---	---
	DENNIS	No	hillslope	---	---	---	---
Bf:							
BATES LOAM, 3 TO 6 PERCENT SLOPES	BATES	No	hillslope	---	---	---	---
	COLLINSVILLE	No	hillslope	---	---	---	---
	DENNIS	No	hillslope	---	---	---	---
Bh:							
BATES-COLLINSVILLE COMPLEX, 4 TO 15 PERCENT SLOPES	BATES	No	hillslope	---	---	---	---
	COLLINSVILLE	No	hillslope	---	---	---	---
	DENNIS	No	hillslope	---	---	---	---
	ERAM	No	hillslope	---	---	---	---
Bo:							
BOLIVAR-HECTOR FINE SANDY LOAMS, 4 TO 15 PERCENT SLOPES	BOLIVAR	No	ridge	---	---	---	---
	HECTOR	No	ridge	---	---	---	---
	DENNIS	No	hillslope	---	---	---	---
Br:							
BRAZILTON SILTY CLAY LOAM, 1 TO 3 PERCENT SLOPES	BRAZILTON	No	ridge, terrace	---	---	---	---
Cd:							
CATOOSA SILT LOAM, 0 TO 2 PERCENT SLOPES	CATOOSA	No	ridge	---	---	---	---
	SHIDLER	No	ridge	---	---	---	---
	ZAAR	No	hillslope	---	---	---	---
Ce:							
CHEROKEE SILT LOAM, 0 TO 1 PERCENT SLOPES	CHEROKEE	No	paleoterrace	---	---	---	---
Ck:							
CLARKSVILLE VERY CHERTY SILT LOAM, 10 TO 30 PERCENT SLOPES	CLARKSVILLE	No	hillslope	---	---	---	---
Db:							
DENNIS SILT LOAM, 1 TO 3 PERCENT SLOPES	DENNIS	No	hillslope	---	---	---	---
	BATES	No	hillslope	---	---	---	---
Du:							
DUMPS, MINE	DUMPS	Unranked	---	---	---	---	---
En:							
ERAM SILTY CLAY LOAM, 3 TO 7 PERCENT SLOPES	ERAM	No	hillslope	---	---	---	---
	ZAAR	No	hillslope	---	---	---	---
Es:							
ERAM-SHIDLER SILTY CLAY LOAMS, 4 TO 12 PERCENT SLOPES	ERAM	No	ridge	---	---	---	---
	SHIDLER	No	hillslope	---	---	---	---
	DENNIS	No	hillslope	---	---	---	---
	ZAAR	No	hillslope	---	---	---	---
Ge:							
GERALD SILT LOAM, 0 TO 2 PERCENT SLOPES	GERALD	No	ridge	---	---	---	---
	NIXA	No	hillslope	---	---	---	---
He:							
HEPLER SILT LOAM, OCCASIONALLY FLOODED	HEPLER	No	flood plain	---	---	---	---
	OSAGE	Yes	flood plain	2B3	YES	NO	NO
Hf:							
HEPLER SILT LOAM, FREQUENTLY FLOODED	HEPLER	No	flood plain	---	---	---	---
	OSAGE	Yes	flood plain	2B3	YES	NO	NO
Ka:							
KANIMA SILTY CLAY LOAM, 3 TO 10 PERCENT SLOPES	KANIMA	No	hillslope	---	---	---	---
Kn:							
KANIMA SILTY CLAY LOAM, 15 TO 50 PERCENT SLOPES	KANIMA	No	hillslope	---	---	---	---
	WATER	Yes	---	4,3	NO	YES	YES

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
Ln:							
LANTON SILT LOAM, OCCASIONALLY FLOODED	LANTON	No	flood plain	---	---	---	---
	OSAGE	Yes	flood plain	2B3	YES	NO	NO
M-W:							
MISCELLANEOUS WATER	MISCELLANEOUS WATER	---	---	---	---	---	---
Ns:							
NIXA CHERTY SILT LOAM, 2 TO 9 PERCENT SLOPES	NIXA	No	hillslope	---	---	---	---
	TONTI	No	ridge	---	---	---	---
Os:							
OSAGE SILTY CLAY, OCCASIONALLY FLOODED	OSAGE	Yes	flood plain	2B3	YES	NO	NO
	LANTON	No	flood plain	---	---	---	---
	VERDIGRIS	No	flood plain	---	---	---	---
Pr:							
PARSONS SILT LOAM, 0 TO 2 PERCENT SLOPES	PARSONS	No	paleoterrace	---	---	---	---
	DENNIS	No	hillslope	---	---	---	---
	ZAAR	No	hillslope	---	---	---	---
Qu:							
PITS, QUARRIES	QUARRIES	Unranked	---	---	---	---	---
Se:							
SECESH SILT LOAM, RARELY FLOODED	SECESH	No	flood plain	---	---	---	---
	HEPLER	No	flood plain	---	---	---	---
Sf:							
SECESH SILT LOAM, CHANNELED	SECESH	No	flood plain	---	---	---	---
	CLARKSVILLE	No	hillslope	---	---	---	---
	NIXA	No	hillslope	---	---	---	---
	VERDIGRIS	No	flood plain	---	---	---	---
To:							
TALOKA SILT LOAM, 0 TO 1 PERCENT SLOPES	TALOKA	No	paleoterrace	---	---	---	---
	DENNIS	No	hillslope	---	---	---	---
Tt:							
TONTI SILT LOAM, 2 TO 5 PERCENT SLOPES	TONTI	No	ridge	---	---	---	---
	NIXA	No	hillslope	---	---	---	---
Vb:							
VERDIGRIS SILT LOAM, OCCASIONALLY FLOODED	VERDIGRIS	No	flood plain	---	---	---	---
	OSAGE	Yes	flood plain	2B3	YES	NO	NO
W:							
WATER	WATER	Yes	---	4,3	NO	YES	YES
Wa:							
WABEN CHERTY SILT LOAM, 2 TO 5 PERCENT SLOPES	WABEN	No	terrace	---	---	---	---
	CLARKSVILLE	No	hillslope	---	---	---	---
	NIXA	No	hillslope	---	---	---	---
Za:							
ZAAR SILTY CLAY, 0 TO 2 PERCENT SLOPES	ZAAR	No	hillslope	---	---	---	---
	HEPLER	No	flood plain	---	---	---	---
	PARSONS	No	paleoterrace	---	---	---	---

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				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria

FOOTNOTE: There may be small areas of included soils or miscellaneous areas that are significant to use and management of the soil; yet are too small to delineate on the soil map at the map's original scale. These may be designated as spot symbols and are defined in the published Soil Survey Report or the USDA-NRCS Technical Guide, Part II.
Areas mapped as water or any map unit that contains one of the following conventional symbols is considered a hydric soil map unit: marshes or swamps; wet spots; depressions; streams, lakes and ponds.

1. All Histosols except Folists, or

2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Aquisalids, Pachic subgroups, or Cumulic subgroups that are:

   a. Somewhat poorly drained with a water table equal to 0.0 foot (ft) from the surface during the growing season, or

   b. poorly drained or very poorly drained and have either:

      (1) water table equal to 0.0 ft during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in),

      or for other soils

      (2) water table at less than or equal to 0.5 ft from the surface during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or

      (3) water table at less than or equal to 1.0 ft from the surface during the growing season if permeability is less than 6.0 in/h in any layer within 20 in, or

3. Soils that are frequently ponded for long duration or very long duration during the growing season, or

4. Soils that are frequently flooded for long duration or very long duration during the growing season.