

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 least 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.

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Riley County, Kansas

PAGE 2 of 10

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

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
027CS: CRETE SILT LOAM, 1 TO 3 PERCENT SLOPES	CRETE	No	hillslope	---	---	---	---
	BENFIELD	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
	HOBBS	No	flood plain	---	---	---	---
	HOLDER	No	hillslope	---	---	---	---
	LANCASTER	No	hillslope	---	---	---	---
027CX: CRETE SILTY CLAY LOAM, 3 TO 8 PERCENT SLOPES, ERODED	CRETE	No	hillside	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
	HOLDER	No	hillslope	---	---	---	---
	BENFIELD	No	hillslope	---	---	---	---
	HOBBS	No	flood plain	---	---	---	---
	LANCASTER	No	hillslope	---	---	---	---
027HN: HOBBS SILT LOAM, CHANNELED	HOBBS	No	flood plain	---	---	---	---
	CRETE	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
	MUIR	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
027KS: KIPSON-SOBN SILTY CLAY LOAMS, 5 TO 20 PERCENT SLOPES	KIPSON	No	hillslope	---	---	---	---
	SOBN	No	hillslope	---	---	---	---
	BENFIELD	No	hillslope	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
	CRETE	No	hillslope	---	---	---	---
061BE: BENFIELD-FLORENCE COMPLEX, 5 TO 30 PERCENT SLOPES	ROCK OUTCROP	---	---	---	---	---	---
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
	BENFIELD	No	hillslope	---	---	---	---
	FLORENCE	No	hillslope	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	KONZA	No	ridge	---	---	---	---
061CF: CLIME-SOBN SILTY CLAY LOAMS, 5 TO 20 PERCENT SLOPES	LABETTE	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
	IVAN	No	flood plain	---	---	---	---
	KAHOLA	No	flood plain	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
061CR: CRETE SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	CLIME	No	hillslope	---	---	---	---
	SOBN	No	hillslope	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	TUTTLE	No	hillslope	---	---	---	---
	IVAN	No	flood plain	---	---	---	---
061CS: CRETE SILTY CLAY LOAM, 1 TO 4 PERCENT SLOPES	KAHOLA	No	flood plain	---	---	---	---
	KONZA	No	ridge	---	---	---	---
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
	CRETE	No	ridge	---	---	---	---
	HASTINGS	No	divide	---	---	---	---
	HOLDER	No	hillslope	---	---	---	---
061CS: CRETE SILTY CLAY LOAM, 1 TO 4 PERCENT SLOPES	CRETE	No	hillslope	---	---	---	---
	HASTINGS	No	divide	---	---	---	---
	HOLDER	No	hillslope	---	---	---	---
	CLIME	No	hillslope	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Riley County, Kansas

PAGE 3 of 10

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

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
061EU: EUDORA SILT LOAM, OCCASIONALLY FLOODED	EUDORA	No	flood plain	---	---	---	---
	MCCOOK	No	stream terrace	---	---	---	---
	SARPY	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
061HE: HAYNIE SILT LOAM, FREQUENTLY FLOODED	HAYNIE	No	flood plain	---	---	---	---
	UNNAMED STRATIFIED SOILS (fine- silty)	No	flood plain	---	---	---	---
	UNNAMED STRATIFIED SOILS (fine)	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
	UNNAMED STRATIFIED SOILS (sandy)	No	flood plain	---	---	---	---
061KA: KAHOLA SILT LOAM, CHANNELED	KAHOLA	No	flood plain	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
	IVAN	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
061KB: KAHOLA SILT LOAM, OCCASIONALLY FLOODED	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
	KAHOLA	No	flood plain	---	---	---	---
	IVAN	No	flood plain	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
	READING	No	flood plain	---	---	---	---
061RE: READING SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
	READING	No	flood plain	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
	KAHOLA	No	flood plain	---	---	---	---
061TO: TULLY SILTY CLAY LOAM, 3 TO 8 PERCENT SLOPES	TULLY	No	hillslope	---	---	---	---
	KAHOLA	No	flood plain	---	---	---	---
	READING	No	flood plain	---	---	---	---
	BENFIELD	No	hillslope	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	FLORENCE	No	hillslope	---	---	---	---
	IVAN	No	flood plain	---	---	---	---
117PA: PAWNEE CLAY LOAM, 1 TO 4 PERCENT SLOPES	PAWNEE	No	hillslope	---	---	---	---
	KIPSON	No	hillslope	---	---	---	---
	MORRILL	No	hillslope	---	---	---	---
	SHELBY	No	hillslope	---	---	---	---
	WYMORE	No	hillslope	---	---	---	---
117PB: PAWNEE CLAY LOAM, 4 TO 8 PERCENT SLOPES	PAWNEE	No	hillslope	---	---	---	---
	KIPSON	No	hillslope	---	---	---	---
	MORRILL	No	hillslope	---	---	---	---
	SHELBY	No	hillslope	---	---	---	---
	WYMORE	No	hillslope	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Riley County, Kansas

PAGE 4 of 10

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

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
149HS: HAYNIE-SARPY COMPLEX, OCCASIONALLY FLOODED	HAYNIE	No	flood-plain step	---	---	---	---
	SARPY	No	flood plain	---	---	---	---
	EUDORA	No	flood plain	---	---	---	---
	KIMO	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL	Yes	depression, flood plain	2B3	YES	NO	NO
149PS: PAXICO SILT LOAM, FREQUENTLY FLOODED	PAXICO	Yes	flood plain	4	NO	YES	NO
	HAYNIE	No	flood-plain step	---	---	---	---
	SARPY	No	flood plain	---	---	---	---
149SF: SARPY SAND, FREQUENTLY FLOODED	SARPY	Yes	flood plain	4	NO	YES	NO
	EUDORA	No	flood plain	---	---	---	---
	HAYNIE	No	flood-plain step	---	---	---	---
	KIMO	No	flood-plain step	---	---	---	---
197CM: CLIME SILTY CLAY LOAM, 3 TO 7 PERCENT SLOPES	CLIME	No	hillslope	---	---	---	---
	MARTIN	No	hillslope	---	---	---	---
	SOGN	No	hillslope	---	---	---	---
	WAMEGO	No	hillslope	---	---	---	---
197FL: FLORENCE-LABETTE COMPLEX, 3 TO 15 PERCENT SLOPES	FLORENCE	No	hillslope	---	---	---	---
	LABETTE	No	ridge	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	MARTIN	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	SOGN	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
197IB: IRWIN SILTY CLAY LOAM, 1 TO 3 PERCENT SLOPES	DWIGHT	No	hillslope	---	---	---	---
	LADYSMITH	No	divide	---	---	---	---
197ID: IRWIN SILTY CLAY LOAM, 3 TO 7 PERCENT SLOPES	IRWIN	No	hillslope	---	---	---	---
	KONZA	No	ridge	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	FLORENCE	No	hillslope	---	---	---	---
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
	IVAN	No	flood plain	---	---	---	---
197IV: IVAN SILT LOAM, OCCASIONALLY FLOODED	CHASE	No	stream terrace	---	---	---	---
	READING	No	stream terrace	---	---	---	---
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
	IVAN	No	flood plain	---	---	---	---
197IX: IVAN SILTY CLAY LOAM, CHANNELED	MARTIN	No	hillslope	---	---	---	---
	READING	No	stream terrace	---	---	---	---
	UNNAMED HYDRIC SOIL	Yes	flood plain, marsh	2B3	YES	NO	NO
	IVAN	No	flood plain	---	---	---	---
197PN: PAWNEE CLAY LOAM, 3 TO 7 PERCENT SLOPES	PAWNEE	No	hillslope	---	---	---	---
	MARTIN	No	hillslope	---	---	---	---
	MORRILL	No	hillslope	---	---	---	---
197WE: WAMEGO SILTY CLAY LOAM, 3 TO 7 PERCENT SLOPES	OSKA	No	hillslope	---	---	---	---
	WAMEGO	No	hillslope	---	---	---	---
	OLMITZ	No	fan terrace	---	---	---	---
201CS: CRETE SILTY CLAY LOAM, 1 TO 3 PERCENT SLOPES	PAWNEE	No	hillslope	---	---	---	---
	CRETE	No	hillslope	---	---	---	---
	HOBBS	No	flood plain	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Riley County, Kansas

PAGE 5 of 10

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

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
201CX: CRETE SILTY CLAY LOAM, 3 TO 7 PERCENT SLOPES, ERODED	CRETE	No	hillslope	---	---	---	---
	HOBBS LONGFORD	No No	flood plain hillslope	---	---	---	---
201KS: KIPSON-SOGN COMPLEX, 5 TO 30 PERCENT SLOPES	KIPSON	No	hillslope	---	---	---	---
	SOGN	No	hillslope	---	---	---	---
	CRETE	No	hillslope	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
	UNNAMED HYDRIC SOIL	Yes	drainageway, marsh	2B3	YES	NO	NO
	UNNAMED HYDRIC SOILS	Yes	hillslope, marsh	2B3	YES	NO	NO
201LC: LANCASTER LOAM, 3 TO 7 PERCENT SLOPES	LANCASTER	No	hillslope	---	---	---	---
	CRETE	No	hillslope	---	---	---	---
	WELLS	No	hillslope	---	---	---	---
	LONGFORD	No	hillslope	---	---	---	---
	EDALGO	No	hillslope	---	---	---	---
	HEDVILLE	No	hillslope	---	---	---	---
Ad: IVAN SILT LOAM, CHANNELED	IVAN	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
AED: ARENTS, EARTHEN DAM	ARENTS, EARTHEN DAM	Unranked	---	---	---	---	---
BE: BENFIELD SILTY CLAY LOAM, 3 TO 7 PERCENT SLOPES	BENFIELD	No	hillslope	---	---	---	---
	CRETE	No	hillslope	---	---	---	---
	KIPSON	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
Bf: BENFIELD-FLORENCE COMPLEX, 5 TO 20 PERCENT SLOPES	BENFIELD	No	hillslope	---	---	---	---
	FLORENCE	No	hillslope	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	SOGN	No	hillslope	---	---	---	---
	DWIGHT	No	depression, ridge	---	---	---	---
	IRWIN	No	ridge	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
Bk: WYMORE-KENNEBEC COMPLEX, 0 TO 17 PERCENT SLOPES	WYMORE	No	hillslope	---	---	---	---
	KENNEBEC	No	flood plain	---	---	---	---
	IVAN	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
BOP: BORROW PITS	BORROW PITS	Unranked	---	---	---	---	---
Ca: CARR-SARPY COMPLEX, OCCASIONALLY FLOODED	CARR	No	flood plain	---	---	---	---
	SARPY	No	flood plain	---	---	---	---
	HAYNIE	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Riley County, Kansas

PAGE 6 of 10

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

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
Ch: CHASE SILTY CLAY LOAM, RARELY FLOODED	CHASE	No	terrace	---	---	---	---
	READING	No	terrace	---	---	---	---
	SUTPHEN	No	flood plain	---	---	---	---
	UNNAMED	Yes	depression, flood plain	3	NO	NO	YES
	HYDRIC SOIL (ponding)						
Cs: CLIME-SOGN COMPLEX, 5 TO 20 PERCENT SLOPES	CLIME	No	hillslope	---	---	---	---
	SOGN	No	hillslope	---	---	---	---
	Unnamed soil	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	UNNAMED	Yes	drainageway, marsh	2B3	YES	NO	NO
	HYDRIC SOIL						
	UNNAMED	Yes	hillslope, marsh	2B3	YES	NO	NO
	HYDRIC SOILS						
CT: CRETE SILTY CLAY LOAM, 3 TO 7 PERCENT SLOPES	CRETE	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
	HOLDER	No	hillslope	---	---	---	---
	BENFIELD	No	hillslope	---	---	---	---
	HOBBS	No	flood plain	---	---	---	---
	LANCASTER	No	hillslope	---	---	---	---
Dr: DWIGHT-IRWIN COMPLEX, 1 TO 4 PERCENT SLOPES	DWIGHT	No	depression, ridge	---	---	---	---
	IRWIN	No	ridge	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
	WYMORE	No	hillslope	---	---	---	---
Dw: DWIGHT-IRWIN COMPLEX, 1 TO 4 PERCENT SLOPES, ERODED	DWIGHT	No	depression, divide	---	---	---	---
	IRWIN	No	divide	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
	WYMORE	No	hillslope	---	---	---	---
Em: ELMONT SILT LOAM, 3 TO 8 PERCENT SLOPES	ELMONT	No	hillside	---	---	---	---
	UNNAMED SOIL (moderately deep)	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
En: ELMONT-CLIME COMPLEX, 5 TO 15 PERCENT SLOPES	ELMONT	No	hillside	---	---	---	---
	CLIME	No	hillside	---	---	---	---
	UNNAMED SOIL (moderately deep)	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	SOGN	No	hillslope	---	---	---	---
Eu: EUDORA SILT LOAM, RARELY FLOODED	EUDORA	No	flood plain	---	---	---	---
	HAYNIE	No	flood plain	---	---	---	---
	MUIR	No	flood plain	---	---	---	---
	UNNAMED	Yes	depression, flood plain	3	NO	NO	YES
	HYDRIC SOIL (ponding)						
	UNNAMED	Yes	flood plain, marsh	2B3	YES	NO	NO
	HYDRIC SOIL (saturation)						
Ga: GEARY SILT LOAM, 1 TO 4 PERCENT SLOPES	GEARY	No	hillside	---	---	---	---
	SMOLAN	No	hillslope	---	---	---	---
Ge: GEARY SILT LOAM, 4 TO 8 PERCENT SLOPES	GEARY	No	hillside	---	---	---	---
	KENESAW	No	hillslope	---	---	---	---
	SMOLAN	No	hillslope	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Riley County, Kansas

PAGE 7 of 10

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

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
Ha: HAYNIE VERY FINE SANDY LOAM, OCCASIONALLY FLOODED	HAYNIE	No	flood plain	---	---	---	---
	CARR	No	flood plain	---	---	---	---
	EUDORA	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
HO: HOBBS SILT LOAM, OCCASIONALLY FLOODED	HOBBS	No	flood plain	---	---	---	---
	SUTPHEN	No	flood plain	---	---	---	---
	CRETE	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
Ic: IRWIN SILTY CLAY LOAM, 4 TO 8 PERCENT SLOPES	IRWIN	No	hillslope	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
	WYMORE	No	hillslope	---	---	---	---
Id: IRWIN SILTY CLAY LOAM, 4 TO 8 PERCENT SLOPES, ERODED	IRWIN	No	hillslope	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
	WYMORE	No	hillslope	---	---	---	---
Ie: IVAN SILTY CLAY LOAM, 1 TO 3 PERCENT SLOPES	IVAN	No	flood plain	---	---	---	---
	READING	No	terrace	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
Iv: IVAN AND KENNEBEC SILT LOAMS, OCCASIONALLY FLOODED	IVAN	No	flood plain	---	---	---	---
	KENNEBEC	No	flood plain	---	---	---	---
	MUIR	No	flood plain	---	---	---	---
	READING	No	terrace	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
Ka: KAHOLA SILT LOAM, RARELY FLOODED	KAHOLA	No	flood plain	---	---	---	---
	EUDORA	No	flood plain	---	---	---	---
	HAYNIE	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
Ke: KENESAW SILT LOAM, 2 TO 6 PERCENT SLOPES	KENESAW	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
Kf: KENESAW SILT LOAM, 6 TO 10 PERCENT SLOPES	KENESAW	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
KN: KENNEBEC SILT LOAM, OCCASIONALLY FLOODED	KENNEBEC	No	flood plain	---	---	---	---
	WABASH	Yes	flood plain	2B3	YES	NO	NO
	UNNAMED HYDRIC SOIL	Yes	flood plain, marsh	2B3	YES	NO	NO

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Riley County, Kansas

PAGE 8 of 10

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

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
M-W: MISCELLANEOUS WATER	MISCELLANEOUS WATER	Unranked	---	---	---	---	---
Ma: MAYBERRY CLAY LOAM, 2 TO 6 PERCENT SLOPES	MAYBERRY	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
Mb: MAYBERRY CLAY LOAM, 2 TO 6 PERCENT SLOPES, ERODED	MAYBERRY	No	---	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
Mu: MUIR SILT LOAM, RARELY FLOODED	MUIR	No	flood plain	---	---	---	---
	EUDORA	No	flood plain	---	---	---	---
	READING	No	terrace	---	---	---	---
	SUTPHEN	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
QUA: QUARRIES	QUARRIES	No	---	---	---	---	---
Rd: READING SILT LOAM, 0 TO 1 PERCENT SLOPES, RARELY FLOODED	READING	No	terrace	---	---	---	---
	CHASE	No	terrace	---	---	---	---
	MUIR	No	flood plain	---	---	---	---
Re: READING SILT LOAM, 1 TO 3 PERCENT SLOPES, RARELY FLOODED	READING	No	alluvial fan	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
Sa: SARPY LOAMY FINE SAND, 0 TO 4 PERCENT SLOPES, OCCASIONALLY FLOODED	SARPY	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL (ponding)	Yes	depression, flood plain	3	NO	NO	YES
	UNNAMED HYDRIC SOIL (saturation)	Yes	flood plain, marsh	2B3	YES	NO	NO
Sm: SMOLAN SILT LOAM, 1 TO 4 PERCENT SLOPES	SMOLAN	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
	WYMORE	No	hillslope	---	---	---	---
Sn: SMOLAN SILT LOAM, 4 TO 8 PERCENT SLOPES	SMOLAN	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
So: SMOLAN SILTY CLAY LOAM, 4 TO 8 PERCENT SLOPES, ERODED	SMOLAN	No	hillslope	---	---	---	---
	GEARY	No	hillslope	---	---	---	---
St: CLIME SILTY CLAY LOAM, 20 TO 40 PERCENT SLOPES, STONY	CLIME	No	hillslope	---	---	---	---
	TUTTLE	No	hillslope	---	---	---	---
	TULLY	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
	IVAN	No	flood plain	---	---	---	---
	KAHOLA	No	flood plain	---	---	---	---
	SOGN	No	hillslope	---	---	---	---
Su: SUTPHEN SILTY CLAY, OCCASIONALLY FLOODED	SUTPHEN	No	flood plain	---	---	---	---
	UNNAMED HYDRIC SOIL	Yes	depression, flood plain	2B3	YES	NO	NO
	UNNAMED HYDRIC SOILS	Yes	ephemeral oxbow lake	3	NO	NO	YES
Ts: TULLY SILTY CLAY LOAM, 1 TO 4 PERCENT SLOPES	TULLY	No	hillslope	---	---	---	---
	KAHOLA	No	flood plain	---	---	---	---
	READING	No	flood plain	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	FLORENCE	No	hillslope	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Riley County, Kansas

PAGE 9 of 10

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

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
Tt: TULLY SILTY CLAY LOAM, 1 TO 4 PERCENT SLOPES, ERODED	TULLY	No	hillslope	---	---	---	---
	IRWIN	No	ridge	---	---	---	---
	READING	No	terrace	---	---	---	---
	WYMORE	No	hillslope	---	---	---	---
Tu: TULLY SILTY CLAY LOAM, 4 TO 8 PERCENT SLOPES	TULLY	No	hillslope	---	---	---	---
	IRWIN	No	ridge	---	---	---	---
	WYMORE	No	hillslope	---	---	---	---
	UNNAMED HYDRIC SOIL	Yes	hillslope, marsh	2B3	YES	NO	NO
Tv: TULLY SILTY CLAY LOAM, 4 TO 8 PERCENT SLOPES, ERODED	TULLY	No	hillslope	---	---	---	---
	CLIME	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
W: WATER	WATER	Yes	---	4,3	NO	YES	YES
Wm: WYMORE SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	WYMORE	No	hillslope	---	---	---	---
Wn: WYMORE SILTY CLAY LOAM, 1 TO 4 PERCENT SLOPES	WYMORE	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
Wo: WYMORE SILTY CLAY LOAM, 1 TO 4 PERCENT SLOPES, ERODED	WYMORE	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
Wr: WYMORE SILTY CLAY LOAM, 4 TO 8 PERCENT SLOPES	WYMORE	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---
Ws: WYMORE SILTY CLAY LOAM, 4 TO 8 PERCENT SLOPES, ERODED	WYMORE	No	hillslope	---	---	---	---
	IRWIN	No	hillslope	---	---	---	---
	ROCK OUTCROP	---	---	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Riley County, Kansas

PAGE 10 of 10

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

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

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.

