

#### **United States Department of Agriculture**

Natural Resources Conservation Service

Louisville Field Office

4233 Bardstown Road Suite 100-A Louisville, KY 40291 Voice 502.499.1900 Fax 502.499.1748 August 25, 2014

Kathy Linares Mindel, Scott & Associates 5151 Jefferson Blvd., Suite 101 Louisville, KY 40219

RE: Stapleton Ridge

Dear Ms. Linares:

Enclosed you will find a copy of the requested soils report on the proposed Stapleton Ridge development project. The project site's concept plan looks at developing single family residential, multiple housing units and increasing the surface area of existing water bodies on the tract as well as the construction of additional water units. Most of the areas proposed for development are grasslands on upper floodplains and terrace positions. One of the minor soil series mapped, Robertsville silt loam, meets the criteria for hydric soils. More than 30 percent of the tract includes soils that have some type of flooding frequency, and as the watershed of the area becomes more built out in future years, this frequency can change. A clear delineation of floodplains and possible wetlands should be determined for the tract before transformation begins.

Unless the ponds and proposed ponds are designed for flood storage, their existence on the site will be mostly for their aesthetic attributes and some aquatic habitat depending on the water quality. Their ability for flood storage will only be based on the elevation of their permanent pool and the amount of freeboard within their design. The proposed water level in some of the proposed ponds, especially in the Lawrence and Otwood units, will likely have a great deal of fluctuation since their water levels will be influenced by these soils perched water tables.

The existing grass covers are the greatest aide to potentially helping to curb soil erosion during the transformation of the site. Maintaining good streamside buffers and as much undisturbed grassland as possible will help to filter and intercept some sediment produced by construction activities. Building and utilizing the ponds temporarily as sediment basins and directing runoff to these areas where possible during construction will also assist in achieving the goal of reducing the amounts of sediment being able to reach streams and watercourses. Of course where ponds are shared by adjacent properties, there will be a need to protect these water bodies or address remediation if impairment is allowed. As plans are developed to address the natural resource concerns of the site during and after its transition, please feel free to call on us if we can provide any assistance.

Sincerely,

Kurt D. Mason, CPESC District Conservationist

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### Conservation Service Natural Resources

## MAP LEGEND

Area of In	Area of Interest (AOI)	M	Spoil Area
	Area of Interest (AOI)	C)	Stony Spo
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Special	Special Point Features	•	Special Li

Very Stony Spot	Wet Spot	Other	Special Line Features
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	ıtures	Streams and Canals	tation	Rails	Interstate Highways	US Routes	Major Roads
	Water Features	}	Transportation	1	1	Č	ĝ
oint reatures	Blowout	Borrow Dit	11.0000	Clay Spot	Closed Depression	Gravel Pit	Gravelly Spot

 $\Diamond$ 

23



Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot Sandy Spot

Marsh or swamp

ava Flow

4 3 4 4

Landfill

Wine or Quarry

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Severely Eroded Spot

Slide or Slip Sodic Spot

Sinkhole

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# MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale

misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting Enlargement of maps beyond the scale of mapping can cause soils that could have been shown at a more detailed scale,

Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857)

Albers equal-area conic projection, should be used if more accurate Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 12, Dec 16, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 12, 2012—Feb

compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. The orthophoto or other base map on which the soil lines were

## Map Unit Legend

	Jefferson County, Kentucky (KY111)	(entucky (KY111)	
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
E0B	Elk silt loam, 2 to 6 percent slopes, occasionally flooded	7.5	11.2%
ErB	Elk silt loam, 2 to 6 percent slopes, rarely flooded	1,6	2.3%
FaD	Faywood sitt loam, 12 to 25 percent slopes	1.6	2.4%
FSF	Faywood-Shrouts-Beasley complex, 25 to 50 percent slopes	3.2	4.7%
LaB	Lawrence silt toam, 2 to 6 percent slopes	8.6	12,8%
LbB	Lawrence silt loam, 2 to 6 percent slopes, occasionally flooded	2.4	3.6%
Γq	Lindside silt loam, occasionally flooded	0.9	1.4%
Nac	Nicholson silt loam, 6 to 12 percent slopes	7.8	11.6%
No	Nolin sift loam, occasionally flooded	8.8	12.4%
OwA	Otwood silt loam, 0 to 2 percent slopes, occasionally flooded	0.4	7.2%
RoA	Robertsville silt Ioam, 0 to 2 percent slopes	0.6	%6:0
SaB	Sandview silt loam, 2 to 6 percent slopes	5.6	8.3%
Sac	Sandview silt loam, 6 to 12 percent slopes	0.7	1.1%
UahC	Urban land-Udorthents complex, 0 to 12 percent slopes	3.0	4.4%
Uaic	Urban land-Udorthents complex, 0 to 12 percent slopes, rarely flooded	4.6	6.8%
w	Water	6.0	8.9%
Totals for Area of Interest		67,5	100.0%

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#### Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

#### Report—Map Unit Description (Brief, Generated)

Jefferson County, Kentucky

Map Unit: EoB—Elk silt loam, 2 to 6 percent slopes, occasionally flooded

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Component: Elk, occasionally flooded (90%)

The Elk, occasionally flooded component makes up 90 percent of the map unit. Slopes are 2 to 6 percent. This component is on stream terraces on river valleys. The parent material consists of mixed fine-silty alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 52 inches during January, January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Otwood (5%)



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Web Soil Survey National Cooperative Soil Survey

8/16/2014 Page 1 of 11 Generated brief soil descriptions are created for major components. The Otwood soil is a minor component.

Component: Huntington (3%)

Generated brief soil descriptions are created for major components. The Huntington soil is a minor component.

Component: Sciotoville (2%)

Generated brief soil descriptions are created for major components. The Sciotoville soil is a minor component.

Map Unit: ErB-Elk silt loam, 2 to 6 percent slopes, rarely flooded

Component: Elk, rarely flooded (90%)

The Elk, rarely flooded component makes up 90 percent of the map unit. Slopes are 2 to 6 percent. This component is on stream terraces on river valleys. The parent material consists of mixed fine-silty alluvium over mixed loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Otwood, rarely flooded (5%)

Generated brief soil descriptions are created for major components. The Otwood soil is a minor component.

Component: Lawrence, rarely flooded (3%)

Generated brief soil descriptions are created for major components. The Lawrence soil is a minor component.

Component: Nolin, occasionally flooded (2%)

Generated brief soil descriptions are created for major components. The Nolin soil is a minor component.

Map Unit: FaD-Faywood silt loam, 12 to 25 percent slopes

Component: Faywood (80%)

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The Faywood component makes up 80 percent of the map unit. Slopes are 12 to 25 percent. This component is on hills on uplands. The parent material consists of clayey residuum weathered from limestone and shale. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Beasley (8%)

Generated brief soil descriptions are created for major components. The Beasley soil is a minor component.

Component: Caneyville (7%)

Generated brief soil descriptions are created for major components. The Caneyville soil is a minor component.

Component: Crider (3%)

Generated brief soil descriptions are created for major components. The Crider soil is a minor component.

Component: Shrouts (2%)

Generated brief soil descriptions are created for major components. The Shrouts soil is a minor component.

Map Unit: FsF--Faywood-Shrouts-Beasley complex, 25 to 50 percent slopes

Component: Faywood (40%)

The Faywood component makes up 40 percent of the map unit. Slopes are 25 to 50 percent. This component is on hills on uplands. The parent material consists of clayey residuum weathered from limestone and shale. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

Component: Shrouts (30%)

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The Shrouts component makes up 30 percent of the map unit. Slopes are 25 to 50 percent. This component is on hills on uplands. The parent material consists of clayey residuum weathered from calcareous shale and/or siltstone. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

#### Component: Beasley (25%)

The Beasley component makes up 25 percent of the map unit. Slopes are 25 to 50 percent. This component is on hills on uplands. The parent material consists of clayey residuum weathered from calcareous shale and/or calcareous siltstone. Depth to a root restrictive layer, bedrock, paralithic, is 40 to 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent.

#### Component: Caneyville (3%)

Generated brief soil descriptions are created for major components. The Caneyville soil is a minor component.

#### Component: Woolper (2%)

Generated brief soil descriptions are created for major components. The Woolper soil is a minor component.

Map Unit: LaB-Lawrence silt loam, 2 to 6 percent slopes

#### Component: Lawrence (90%)

The Lawrence component makes up 90 percent of the map unit. Slopes are 2 to 6 percent. This component is on ridges on uplands. The parent material consists of thin fine-silty loess over clayey residuum weathered from limestone and dolomite. Depth to a root restrictive layer, fragipan, is 18 to 32 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.

Component: Sandview (3%)



Generated brief soil descriptions are created for major components. The Sandview soil is a minor component.

Component: Nicholson (3%)

Generated brief soil descriptions are created for major components. The Nicholson soil is a minor component.

Component: Crider (2%)

Generated brief soil descriptions are created for major components. The Crider soil is a minor component.

Component: Robertsville (2%)

Generated brief soil descriptions are created for major components. The Robertsville soil is a minor component.

Map Unit: LbB-Lawrence silt loam, 2 to 6 percent slopes, occasionally flooded

Component: Lawrence, occasionally flooded (90%)

The Lawrence, occasionally flooded component makes up 90 percent of the map unit. Slopes are 2 to 6 percent. This component is on stream terraces on river valleys. The parent material consists of mixed fine-silty alluvium over clayey residuum weathered from limestone and dolomite. Depth to a root restrictive layer, fragipan, is 18 to 32 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.

Component: Lindside (3%)

Generated brief soil descriptions are created for major components. The Lindside soil is a minor component.

Component: Otwood (3%)

Generated brief soil descriptions are created for major components. The Otwood soil is a minor component.

Component: Elk (2%)

Generated brief soil descriptions are created for major components. The Elk soil is a minor component.

Component: Robertsville, ponded (2%)



Generated brief soil descriptions are created for major components. The Robertsville soil is a minor component.

Map Unit: Ld-Lindside silt loam, occasionally flooded

Component: Lindside, occasionally flooded (90%)

The Lindside, occasionally flooded component makes up 90 percent of the map unit. Slopes are 0 to 4 percent. This component is on flood plains on river valleys. The parent material consists of mixed fine-silty alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Nolin (4%)

Generated brief soil descriptions are created for major components. The Nolin soil is a minor component.

Component: Elk (3%)

Generated brief soil descriptions are created for major components. The Elk soil is a minor component.

Component: Newark (3%)

Generated brief soil descriptions are created for major components. The Newark soil is a minor component.

Map Unit: NnC-Nicholson silt loam, 6 to 12 percent slopes

Component: Nicholson (90%)

The Nicholson component makes up 90 percent of the map unit. Slopes are 6 to 12 percent. This component is on ridges on uplands. The parent material consists of thin fine-silty loess over clayey residuum weathered from limestone. Depth to a root restrictive layer, fragipan, is 16 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Caneyville (4%)



Generated brief soil descriptions are created for major components. The Caneyville soil is a minor component.

Component: Crider (3%)

Generated brief soil descriptions are created for major components. The Crider soil is a minor component.

Component: Sandview (3%)

Generated brief soil descriptions are created for major components. The Sandview soil is a minor component.

Map Unit: No-Nolin silt loam, occasionally flooded

Component: Nolin, occasionally flooded (90%)

The Nolin, occasionally flooded component makes up 90 percent of the map unit. Slopes are 0 to 4 percent. This component is on flood plains on river valleys. The parent material consists of mixed fine-silty alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Lindside (3%)

Generated brief soil descriptions are created for major components. The Lindside soil is a minor component.

Component: Elk (3%)

Generated brief soil descriptions are created for major components. The Elk soil is a minor component.

Component: Newark (2%)

Generated brief soil descriptions are created for major components. The Newark soil is a minor component.

Component: Boonewood (2%)

Generated brief soil descriptions are created for major components. The Boonewood soil is a minor component.

Map Unit: OwA—Otwood silt loam, 0 to 2 percent slopes, occasionally flooded



#### Component: Otwood, occasionally flooded (90%)

The Otwood, occasionally flooded component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces on river valleys. The parent material consists of mixed fine-silty alluvium over mixed loamy alluvium. Depth to a root restrictive layer, fragipan, is 20 to 36 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is moderate. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 22 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Elk (4%)

Generated brief soil descriptions are created for major components. The Elk soil is a minor component.

Component: Sciotoville (4%)

Generated brief soil descriptions are created for major components. The Sciotoville soil is a minor component.

Component: Huntington (2%)

Generated brief soil descriptions are created for major components. The Huntington soil is a minor component.

Map Unit: RoA-Robertsville silt loam, 0 to 2 percent slopes

Component: Robertsville (90%)

The Robertsville component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on ridges on uplands. The parent material consists of thin fine-silty loess over clayey residuum weathered from limestone. Depth to a root restrictive layer, fragipan, is 15 to 36 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 5 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.

Component: Nicholson (4%)

Generated brief soil descriptions are created for major components. The Nicholson soil is a minor component.

Component: Lawrence (4%)



Generated brief soil descriptions are created for major components. The Lawrence soil is a minor component.

Component: Crider (2%)

Generated brief soil descriptions are created for major components. The Crider soil is a minor component.

Map Unit: SaB-Sandview silt loam, 2 to 6 percent slopes

Component: Sandview (90%)

The Sandview component makes up 90 percent of the map unit. Slopes are 2 to 6 percent. This component is on ridges on uplands. The parent material consists of thin fine-silty loess over clayey residuum weathered from limestone and dolomite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Crider (4%)

Generated brief soil descriptions are created for major components. The Crider soil is a minor component.

Component: Faywood (3%)

Generated brief soil descriptions are created for major components. The Faywood soil is a minor component.

Component: Nicholson (3%)

Generated brief soil descriptions are created for major components. The Nicholson soil is a minor component.

Map Unit: SaC-Sandview silt loam, 6 to 12 percent slopes

Component: Sandview (90%)



The Sandview component makes up 90 percent of the map unit. Slopes are 6 to 12 percent. This component is on ridges on uplands. The parent material consists of thin fine-silty loess over clayey residuum weathered from limestone and dolomite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Crider (4%)

Generated brief soil descriptions are created for major components. The Crider soil is a minor component.

Component: Beasley (2%)

Generated brief soil descriptions are created for major components. The Beasley soil is a minor component.

Component: Faywood (2%)

Generated brief soil descriptions are created for major components. The Faywood soil is a minor component.

Component: Nicholson (2%)

Generated brief soil descriptions are created for major components. The Nicholson soil is a minor component.

Map Unit: UahC-Urban land-Udorthents complex, 0 to 12 percent slopes

Component: Urban land (60%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: Udorthents (40%)

The Udorthents component makes up 40 percent of the map unit. Slopes are 0 to 12 percent. Depth to a root restrictive layer is greater than 60 inches. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during January, February, March, April, May, November, December. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Map Unit: UaiC-Urban land-Udorthents complex, 0 to 12 percent slopes, rarely flooded



Component: Urban land, rarely flooded (60%)

Generated brief soil descriptions are created for major soil components, The Urban land is a miscellaneous area.

Component: Udorthents, rarely flooded (40%)

The Udorthents, rarely flooded component makes up 40 percent of the map unit. Slopes are 0 to 12 percent. Depth to a root restrictive layer is greater than 60 inches. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during January, February, March, April, May, November, December. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Map Unit: W-Water

Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

#### **Data Source Information**

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 12, Dec 16, 2013



### **Selected Soil Interpretations**

This report allows the customer to produce a report showing the results of the soil interpretation(s) of his or her choice. It is useful when a standard report that displays the results of the selected interpretation(s) is not available.

When customers select this report, they are presented with a list of interpretations with results for the selected map units. The customer may select up to three interpretations to be presented in table format.

For a description of the particular interpretations and their criteria, use the "Selected Survey Area Interpretation Descriptions" report.

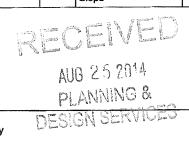
#### Report—Selected Soil Interpretations

		Selected Soil Interp	retations	-Jefferson County, Ke	ntucky			
Map symbol and soll name	Pct. of map unit	Eng - dwellings basements	w/o	Eng - dwellings v basements	vith	Eng - local roads and streets		
	unn	Rating class and ilmiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	
EoB—Elk silt loam, 2 to 6 percent slopes, occasionally flooded								
Elk, occasionally flooded	90	Very limited		Very limited		Very limited		
		Flooding	1.00	Flooding	1.00	Flooding	1.00	
				Depth to saturated zone	0.44	Low strength	1.00	
ErB—Elk silt loam, 2 to 6 percent slopes, rarely flooded								
Elk, rarely flooded	90	Very limited		Very limited		Very limited		
		Flooding	1.00	Flooding	1.00	Frost action	1.00	
						Low strength	1.00	
						Flooding	0.40	
FaD—Faywood silt loam, 12 to 25 percent slopes								
Faywood	80	Very limited		Very limited		Very limited		
		Slope	1.00	Depth to hard bedrock	1.00	Low strength	1.00	
		Depth to hard bedrock	0.54	Slope	1.00	Slope	1.00	
		Shrink-swell	0.50	Shrink-swell	0,50	Depth to hard bedrock	0.54	
						Shrink-swell	0.50	

		Selected Soil Interpre	etations	-Jefferson County, Ken	tucky		
Map symbol and soil name	Pct. of map	Eng - dwellings v basements	vio	Eng - dwellings w basements	ith	Eng - local roads and	streets
	unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
FsF—Faywood- Shrouts-Beasley complex, 25 to 50 percent slopes							
Faywood	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Depth to hard bedrock	1.00	Low strength	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Depth to hard bedrock	0.54
						Shrink-swell	0.50
Shrouts	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Low strength	1.00
				Depth to soft bedrock	0.10	Shrink-swell	0.50
Beasley	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Low strength	1.00
						Shrink-swell	0.50
LaB—Lawrence silt loam, 2 to 6 percent slopes							
Lawrence	90	Very limited		Very limited		Very limited	
4,7,444,444,444,444,444,444,444,444,444		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to thick cemented pan	1.00
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to thin cemented pan	1.00
\***		Depth to thin cemented pan	0.50	Depth to thin cemented pan	1.00	Low strength	1.00
						Depth to saturated zone	0.94



Map symbol and soll name	Pct. of map	Eng - dwellings w basements	vlo	Eng - dwellings w basements	ith	Eng - local roads and	streets
	unit	Rating class and Ilmiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LbB—Lawrence silt loam, 2 to 6 percent slopes, occasionally flooded							
Lawrence, occasionally flooded	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to thick cemented pan	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to thin cemented pan	1.00
And the second s		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Flooding	1.00
		Depth to thin cemented pan	0.50	Depth to thin cemented pan	1,00	Low strength	1.00
		N. C.				Depth to saturated zone	0.94
Ld—Lindside silt loam, occasionally flooded							
Lindside, occasionally flooded	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.10	Depth to saturated zone	1.00	Low strength	1.00
······································						Depth to saturated zone	0.05
NnC—Nicholson silt loam, 6 to 12 percent slopes							-
Nicholson	90	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to saturated zone	1.00	Depth to thick cemented pan	1.00
		Depth to thin cemented pan	0.50	Depth to thick cemented pan	1.00	Depth to thin cemented pan	1,00
		Depth to saturated zone	0.39	Depth to thin cemented pan	1.00	Low strength	1.00
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Slope	0.04	Slope	0.04	Depth to saturated zone	0.19
						Slope	0.04





### AUG 2.5 2014 PLANNING & DESIGN SERVICES

Stapleton Ridge

Map symbol and soil	Pct. of	Eng - dwellings v	v/o	Eng - dwellings v	vith	Eng - local roads and	street
name	map	basements	·	basements	_		
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Valu
No-Nolin silt loam, occasionally flooded							
Nolin, occasionally flooded	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1,00	Flooding	1.0
	a grant from the second					Low strength	1.0
OwA—Otwood silt loam, 0 to 2 percent slopes, occasionally flooded							
Otwood, occasionally flooded	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to thick cemented pan	1.00
		Depth to thick cemented pan	1.00	Depth to saturated zone	1.00	Depth to thin cemented pan	1.00
		Depth to saturated zone	0.67	Depth to thick cemented pan	1.00	Flooding	1.00
		Depth to thin cemented pan	0,50	Depth to thin cemented pan	1.00	Low strength	1,00
		Shrink-swell	0.50	Shrink-swell	0.11	Shrink-swell	0.50
RoA—Robertsville silt loam, 0 to 2 percent slopes							
Robertsville	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to thick cemented pan	1.00
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50	Depth to thin cemented pan	1.00	Depth to thin cemented pan	1.00
						Low strength	1.00
SaB—Sandview silt loam, 2 to 6 percent slopes							
Sandview	90	Not limited		Not limited		Very limited	
						Low strength	1.00
aC—Sandview silt loam, 6 to 12 percent slopes		/					
Sandview	90	Somewhat limited		Somewhat limited		Very limited	
	1.	Slope	0.04	Slope	n na l	Low strength	1,00

		Selected Soil Interpre	tations	–Jefferson County, Kei	ntucky			
Map symbol and soll name	Pct. of map	Eng - dwellings w basements	ilo	Eng - dwellings w basements	vith	Eng - local roads and streets		
	unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	
UahC—Urban land- Udorthents complex, 0 to 12 percent slopes								
Urban land	60	Not rated		Not rated		Not rated		
Udorthents	40	Not rated		Not rated	72; julis	Not rated		
UaiC—Urban land- Udorthents complex, 0 to 12 percent slopes, rarely flooded								
Urban land, rarely flooded	60	Not rated		Not rated		Not rated		
Udorthents, rarely flooded	40	Not rated		Not rated		Not rated		
W-Water								
Water	100	Not rated		Not rated		Not rated		

#### **Data Source Information**

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 12, Dec 16, 2013



#### **Water Features**

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

The *months* in the table indicate the portion of the year in which a water table, ponding, and/or flooding is most likely to be a concern.

Water table refers to a saturated zone in the soil. The water features table indicates, by month, depth to the top (upper limit) and base (lower limit) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

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Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The table indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and frequency are estimated. Duration is expressed as extremely brief if 0.1 hour to 4 hours, very brief if 4 hours to 2 days, brief if 2 to 7 days, long if 7 to 30 days, and very long if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. None means that flooding is not probable; very rare that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); rare that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); occasional that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); frequent that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in all months in any year); and very frequent that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

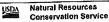
Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.



#### Report—Water Features

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

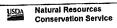
			Water	Features-Jeffer	son County, K	entucky				
Map unit symbol and soll	Hydrologic	Surface	Month	Water	r table		Ponding		Floo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Fi	Fi	Fi				
EoB—Elk siit loam, 2 to 6 percent slopes, occasionally flooded										
Elk, occasionally flooded Elk, occasionally flooded	В	Low	January	3.0-5.0 3.0-5.0	>6.0 >6.0	_		None	Brief	Occasional
Elk, occasionally flooded			February	3.0-5.0	>6.0	_		None	Brief	Occasional
			March	3.0-5.0	>6.0	_		None	Brief	Occasional
			April	3.0-5.0	>6.0	-		None	Brief	Occasional
			May	3.0-5.0	>6.0	_		None	Brief	Occasional
		<del>                                     </del>	November	3.0-5,0	>6.0	_	_	None	Brief	Occasional
			December	3.0-5.0	>6.0			None	Brief	Occasional
ErB—Elk silt loam, 2 to 6 percent slopes, rarely flooded										
Elk, rarely flooded	В	Low	January	-	_	<b> -</b>		None		Rare
	<del> </del>		February	_	_			None		Rare
	<del> </del>	<u> </u>	March		_	_	-	None		Rare
			April		_	Ī-		None		Rare
			May		_		-	None		Rare
	<del> </del>		December			_	_	None	-	Rare



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			Water F	eatures-Jeffer	rson County, K	entucky				
Map unit symbol and soll	Hydrologic	Surface	Month	Wate	r table		Ponding		Flooding	
name	group	runoff		Upper Ilmit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Ft	Fl	Fl				
FaD—Faywood silt loam, 12 to 25 percent slopes										
Faywood	D	Medium	January		<b> </b> -	_		None		None
raywood	-		February			_		None	_	None
			March	_	_	_		None		None
	<del> </del>		April	_	_	_	_	None		None
			May	ļ		_		None		None
			June	<u>                                      </u>		_	_	None	-	None
			July				_	None	_	None
		<del> </del>	August				_	None	_	None
	-		September					None	_	None
			October					None		None
		<u> </u>					<del> </del>	None		None
			November	<u> </u>		<u> </u>	<del> </del>			None
			December	E		<u> -</u>		None		None



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			Water F	eatures-Jeffer	son County, k	entucky				
Map unit symbol and soll	Hydrologic	Surface	Month	Water	r table	Ponding			Flooding	
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Ft	Fl	F1				ļ
FsF—Faywood-Shrouts- Beasley complex, 25 to 50 percent slopes										
Faywood	D	High	January	-	_		_	None		None
			February	_	<b>-</b>	<b> </b> -		None		None
			March	_		_		None		None
		-	April	<del> </del>	_	_	_	None	_	None
			May	1	_	_	<del> -</del>	None	_	None
			June	<del> -</del>	_	_	_	None	_	None
			July		_	-		None		None
			August	_	_	_		None	_	None
		<u> </u>	September	_	_	_	_	None	_	None
		<u> </u>	October	_	_			None	-	None
	<u> </u>	ļ	November			_	_	None	-	None

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			Water	Features-Jeffe	rson County, i	Kentucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Fic	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequenc
				Fl	Ft	Fl			1	1
			December	_	_	_		None	_	None
Shrouts	D	Very high	January		<b>-</b> 1545333		40000	None		None
	4945	14/4/4/20	February			4		None	-	None
ESTÉNCIA BROSE	10/40/7/52	199, 149	March	-	-		= 000	None	£36834	None
	\$25/4/65		April			2_0	-	None	45	None
			May		÷	=		None	_	None
			June		400		1-	None	_	None
	342436	80.0700	July			-	-	None		None
			August	-				None	-	None
			September	4	÷			None		None
			October	4		2	4-17	None		None
	11/2/2014		November	-		49.00		None	= 100	None
	714. Fr. 266	2255-137	December	<b>\$</b> 256555	40.00000		1-	None		None
Beasley	С	High	January		_	_	-	None	_	None
			February	_		_	_	None	_	None
			March	_	_	_	<b> -</b>	None	_	None
			April	-	_		_	None	-	None
			May		_	_		None	-	None
			June	<b> </b> -	_	_		None		None
			July	_			_	None	_	None
			August	_			_	None	••••	None
			September	_			_	None		None
			October	_			_	None		None
			November	_	_	_		None	_	None

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			Water I	eatures-Jeffer	son County, K	(entucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Water	r table		Ponding		Floo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequenc
			1	Ft	Ft	Ft				ļ
			December					None		None
aB-Lawrence sill loam, 2 to 6 percent slopes										
Lawrence	CID	Low	January	1.0-2.1	1.5-2.7		_	None		None
			February	1.0-2.1	1.5-2.7			None		None
			March	1.0-2.1	1.5-2.7	_		None		None
	<del>                                     </del>		April	1.0-2.1	1,5-2.7	_		None		None
			May	1.0-2.1	1.5-2.7	_	_	None		None
			June		_	_		None		None
			July		_		-	None		None
			August	_		T-	-	None		None
			September		_	_		None		None
****	<u> </u>	t — —	October	_	_	_		None		None
	<del> </del>		November	1.0-2.1	1.5-2.7		_	None		None
		<del>                                     </del>	December	1.0-2.1	1.5-2.7	_		None		None
bB—Lawrence silt loam, 2 to 6 percent slopes, occasionally flooded										
Lawrence, occasionally flooded	C/D	Low	January	1.0-2.1	1,5-2.7	<u> </u>	_	None	Brief	Occasiona
110000			February	1.0-2.1	1.5-2.7	_		None	Brief	Occasiona
	<u> </u>		March	1.0-2.1	1.5-2.7	-		None	Brief	Occasiona
			April	1.0-2.1	1.5-2.7			None	Brief	Occasiona
	<del> </del>		May	1.0-2.1	1.5-2.7	_	_	None	Brief	Occasiona
	<del>                                     </del>		November	1.0-2.1	1.5-2.7	1-	-	None	Brief	Occasions
	<del> </del>	<del> </del>	December	1.0-2.1	1.5-2.7	_	T	None	Brief	Occasiona

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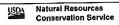


	r	Г	Month	eatures-Jeffer	rtable	T	Ponding		Floo	oding
Map unit symbol and soil name	Hydrologic group	Surface runoff	Month	Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Ft	Fl	Fl				
Ld—Lindside silt loam, occasionally flooded										
Lindside, occasionally flooded	С	Low	January	1.5-3.0	>6,0			None	Brief	Occasional
HUUUGU		<del> </del>	February	1.5-3.0	>6.0	_	_	None	Brief	Occasional
			March	1,5-3.0	>6.0	_		None	Brief	Occasional
	<del> </del>		April	1.5-3.0	>6.0	_	_	None	Brief	Occasional
	<del> </del>		May	1,5-3.0	>6.0	_		None	Brief	Occasional
		1	November	1,5-3.0	>6.0	_	_	None	Brief	Occasional
			December	1.5-3.0	>6.0			None	Brief	Occasional
NnC-Nicholson silt loam, 6 to 12 percent slopes										
Nicholson	c	Medium	January	1.5-2.5	2.0-3.0	-		None		None
Holiologi	<del>-</del>		February	1.5-2.5	2.0-3.0	_	_	None		None
		1	March	1.5-2.5	2.0-3.0	_	-	None		None
	<del> </del>		April	1.5-2.5	2.0-3.0	_		None		None
	<u> </u>		May	1.5-2.5	2.0-3.0	_	_	None		None
			June		-	_	_	None		None
	<del> </del>		July			_	_	None		None
		-	August		_	-	_	None		None
		<del> </del>	September		-	_		None	_	Nane
	<del> </del>		October		_	-	_	None		None
		<b> </b>	November	1.5-2.5	2.0-3.0			None		None
	<del> </del>		December	1.5-2.5	2.0-3.0		_	None	<b> -</b> -	None

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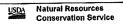
			Water	Features-Jeffer	rson County, K	lentucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Floo	oding
name	group	runoff		Upper Ilmit	Lowerlimit	Surface depth	Duration	Frequency	Duration	Frequency
				Fl	Ft	Ft				<u> </u>
No-Nolin silt loam, occasionally flooded										
Nolin, occasionally flooded	В	Low	January	_		-	_	None	Brief	Occasional
			February	_	-		T-	None	Brief	Occasional
		<del>                                     </del>	March		_	_	_	None	Brief	Occasional
			April				-	None	Brief	Occasional
			May		_			None	Brief	Occasional
		<del> </del>	November				_	None	Brief	Occasional
			December	_	_			None	Brief	Occasional
OwA—Otwood silt loam, 0 to 2 percent slopes, occasionally flooded										
Otwood, occasionally flooded	C/D	Low	January	1.2-2.5	1.7-3.0	_	_	None	Brief	Occasional
Hooes			February	1,2-2.5	1.7-3.0		_	None	Brief	Occasional
		<del>                                     </del>	March	1,2-2,5	1.7-3.0		_	None	Brief	Occasional
		<del> </del>	April	1,2-2.5	1.7-3,0	_		None	Brief	Occasional
	<u> </u>		May	1.2-2.5	1.7-3.0	_		None	Brief	Occasional
			November	1.2-2.5	1.7-3.0		<del> </del>	None	Brief	Occasional
	ļ		December	1,2-2,5	1.7-3.0			None	Brief	Occasional



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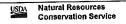
			Water	Features-Jeffer	rson County, K	Centucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Water	r table		Ponding		Flo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Fl	Fi	Ft				
RoA—Robertsville silt loam, 0 to 2 percent slopes										
Robertsville	D	Low	January	0.0-0.8	1.2-3.0	_	-	None	<u> </u>	None
			February	0.0-0.8	1.2-3.0	_	-	None	_	None
			March	0.0-0.8	1.2-3.0	_	_	None	-	None
			April	0.0-0.8	1,2-3,0	_	<b> </b> -	None	_	None
			May	0.0-0.8	1.2-3.0	_	_	None		None
			June		_	_	-	None	_	None
			July		_		_	None	_	None
			August		<u> </u>			None	_	None
			September	_	_	_	_	None	_	None
			October	_	_	_	_	None		None
			November	0.0-0.8	1.2-3.0		_	None	_	None
			December	0.0-0.8	1.2-3.0	_	_	None	_	None



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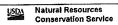
			Water F	eatures-Jeffer	rson County, K	entucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Water	r table		Ponding		Floo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequenc
				Ft	Ft	Ft				
SaB—Sandview silt loam, 2 to 6 percent slopes										
Sandview	В	Low	January	<b>[</b>	_		<b> -</b>	None		None
			February	_		_		None		None
			March		_	_	<b>I</b>	None		None
			April	_	_	<b>-</b>	_	None		None
	<del> </del>		Мау	-	_		-	None		None
			June	_		<b> </b>	_	None		None
	<b></b>		July	_		_	_	None	_	None
.,	<del>                                     </del>	1	August	_	_	_		None		None
			September	<b> -</b>		_	_	None	_	None
		<del>                                     </del>	October	_		_	_	None		None
			November		-	-		None	_	None
		-	December			_		None	-	None



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			Water F	eatures-Jeffer	rson County, K	entucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Water	r table		Ponding		Floo	ding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				FI	Fl	Fl				
SeC—Sandview silt loam, 6 to 12 percent slopes										
Sandview	В	Medium	January		_	_	_	None		None
			February				_	None		None
			March		_		_	None		None
			April	_	_	_		None		None
	<del> </del>		May			_	_	None	_	None
***	<b></b>		June		_	_		None	_	None
	<del> </del>		July	_		_	_	None	_	None
			August		_	_	_	None		None
			September	_	_	_		None	_	None
,			October	_		_	_	None	_	None
			November	_	_		_	Nane	_	None
			December		_		_	None	_	None



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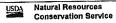


			Water F	eatures-Jeffer	son County, K	entucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Water	r table		Ponding		Floo	ding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequenc
			<del> </del>	Ft	FI	FI				
JahC—Urban land- Udorthents complex, 0 to 12 percent slopes										None
Urban land	_	Very high	January					None		
Olognana			February		_	_	_	None		None
			March		_	_	_	None		None
			April		_		_	None	<b> -</b>	None
	<u> </u>		May				_	None	_	None
			June				_	None	_	None
			_					None	_	None
			July	<u> </u>	<del> </del>			None	_	None
			August	<u> </u>	<del> </del>	<del></del>		None		None
			September		<u> -</u>			ļ <u>.                                    </u>	-	None
			October	-				None	ļ	<del> </del>
	<del>                                     </del>	<b>-</b>	November	_	T	_		None	<u> </u>	None

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			Water	Features-Jeffe	rson County, K	entucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table	1 25	Ponding		Fio	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequenc
				Fl	Ft	Fl				
			December	_	_			None		None
Udorthents	400000	Very high	January	1.0-4.0	4.0-8.0	-		None	-	None
		0.000	February	1.0-4.0	4.0-8.0	=	-	None	=	None
	Was Days	242000	March	1,0-4.0	4.0-8.0	-		None	-	None
			April	1.0-4.0	4.0-8.0	2	-	None	-	None
		777.0327	May	1.0-4.0	4.0-8.0		+	None	-	None
	7.91.7.33 to 3		June	4		_	4	None	-	None
			July	_	-	27000		None	-	None
	35 State of page 5		August	=	4.3	<b>_</b>		None	-	None
	390700000000000000000000000000000000000	200	September	_	_	_		None	-	None
		3000000000	October	- <u> </u>			-	None	-	None
	TOTAL CONTRACT		November	1.0-4.0	4.0-8,0	2000		None	-	None
	Tara at tar data da		December	1.0-4.0	4.0-8.0	_	<b>2</b>	None	-	None



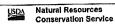
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			Water	Features-Jeffer	son County, H	Centucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	rtable		Ponding		Flo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequenc
				Ft	Ft	Ft				
JaiC—Urban land- Udorthents complex, 0 to 12 percent slopes, rarely flooded										
Urban land, rarely flooded		Very high	January					None	<u> </u>	Rare
			February	_	-	_		None		Rare
			March	_	_	_	_	None		Rare
	-		April			_	-	None	<u> </u>	Rare
			May	_			_	None	_	Rare
	· · · · · · · · · · · · · · · · · · ·		November		_	_	1-	None	-	Rare
			December	_		-	_	None	-	Rare
Udorthents, rerely flooded	- 10000	Very high	January	1.0-4.0	4.0-8.0		-	None		Rare
		100000000000000000000000000000000000000	February	1.0-4.0	4.0-8.0			None	_	Rare
		1-11-12	March	1.0-4.0	4.0-8.0	25-9-1-70-25 26-8-7-8-1-70-25	<b>#</b> 200 57	None	-	Rere
	\$5 E 0015		April	1.0-4.0	4.0-8.0			None		Rare
			May	1,0-4,0	4.0-8.0		=	None	-	Rare
			November	1,0-4.0	4.0-8.0	-1000		None	-	Rare
			December	1,0-4,0	4,0-8.0			None		Rare
VWater										
Water			Jan-Dec				Ī	<b>I</b>	I	_

#### **Data Source Information**

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 12, Dec 16, 2013



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#### **Hydric Soils**

This table lists the map unit components that are rated as hydric soils in the survey area. 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, 2002).

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 all 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, under natural conditions, 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, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time 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 are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

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

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:



- 1. All Histels except for Folistels, and Histosols except for Folists.
- Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
  - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - B. Show evidence that the soil meets the definition of a hydric soil;
- Soils that are frequently ponded for long or very long duration during the growing season.
  - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - B. Show evidence that the soil meets the definition of a hydric soil;
- 4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
  - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

#### References:

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. September 18, 2002. Hydric soils of the United States. Federal Register. July 13, 1994. Changes in hydric soils of the United States. Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries. Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

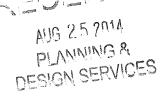
Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

#### Report—Hydric Soils

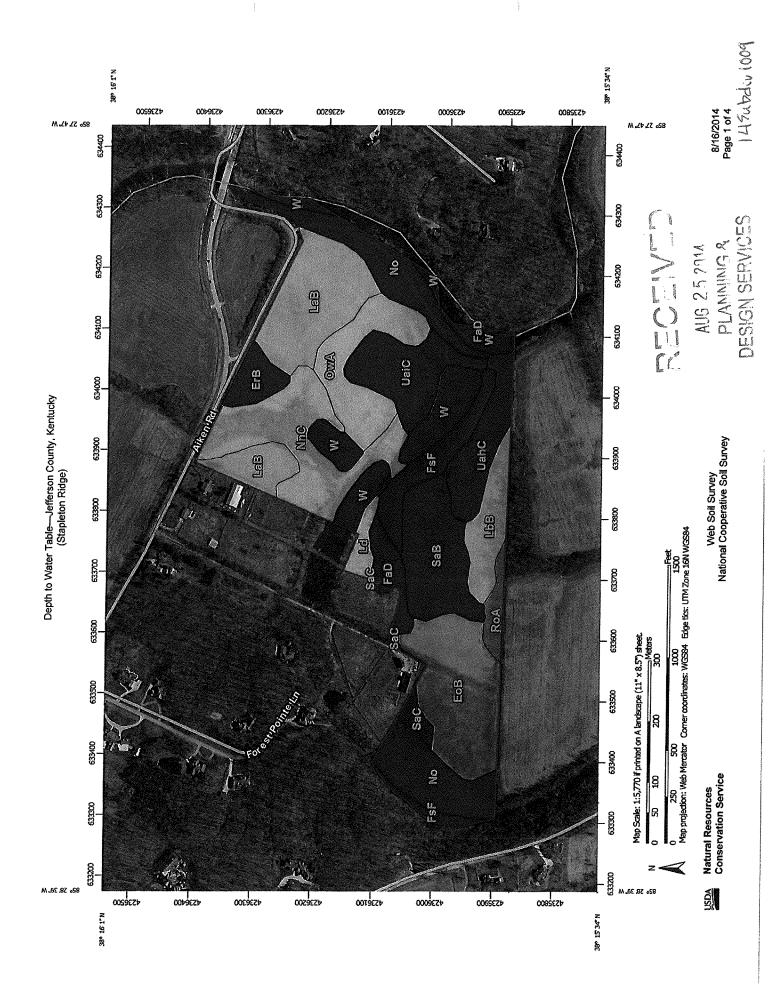


	Hydric Soils-Jefferson (	County, Kentucky	<i>(</i>	
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
LaB—Lawrence silt loam, 2 to 6 percent slopes				
	Robertsville	2	Ridges	2
LbB—Lawrence silt loam, 2 to 6 percent slopes, occasionally flooded				
	Robertsville, ponded	2	Stream terraces	2
RoA—Robertsville silt Ioam, 0 to 2 percent slopes				
Country of the Countr	Robertsville	90	Ridges	2

#### **Data Source Information**

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 12, Dec 16, 2013





## Depth to Water Table-Jefferson County, Kentucky (Stapleton Ridge)

## MAP LEGEND

#### Not rated or not available Streams and Canals Interstate Highways Aerial Photography Major Roads Local Roads US Routes Rails Water Features Transportation **Background** ‡ Not rated or not available Area of Interest (AOI) Soil Rating Polygons 100 - 150 Area of Interest (AOI) 150 - 200 50 - 100 25 - 50 > 200 0-25

Soil Rating Lines

50 - 100 25 - 50 0-25 

100 - 150

150 - 200 **^** 200 Not rated or not available ¥.

Soil Rating Points 0-25

25 - 50

50 - 100

100 - 150 额 150 - 200

> 200

DESIGN SERVICES & CINININA TO AUG 25 2014

# MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale. Enlargement of maps beyond the scale of mapping can cause Warning: Soil Map may not be valid at this scale.

Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857)

Albers equal-area conic projection, should be used if more accurate Maps from the Web Soil Survey are based on the Web Mercator distance and area. A projection that preserves area, such as the projection, which preserves direction and shape but distorts calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 12, Dec 16, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 12, 2012—Feb

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Depth to Water Table

Dept	n to Water Table— Summ	Depth to Water Table— Summary by Map Unit — Jefferson County, Kentucky (KY111)	on County, Kentucky (KY	711)
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
EoB	Eik silt loam, 2 to 6 percent slopes, occasionally flooded	132	7.7	11.2%
89	Elk silt loam, 2 to 6 percent slopes, rarely flooded	>200	1.5	2.2%
FaD	Faywood silt loam, 12 to 25 percent slopes	>200	1.6	2.4%
FS T	Faywood-Shrouts- Beasley complex, 25 to 50 percent slopes	>200	4.6 4.6	4.9%
LaB	Lawrence silt loam, 2 to 6 percent slopes	38	8.6	12.5%
F98	Lawrence silt loam, 2 to 6 percent slopes, occasionally flooded	38	2.9	4.2%
[rd	Lindside silt loam, occasionally flooded	89	0.0	1.3%
NaC	Nicholson silt loam, 6 to 12 percent slopes	61	7.7	11.2%
No	Nolin silt loam, occasionally flooded	>200	8.2	11.9%
OWA	Otwood silt loam, 0 to 2 percent slopes, occasionally flooded	36	4.9	7.1%
RoA	Robertsville silt loam, 0 to 2 percent slopes	13	1.0	1.5%
SaB	Sandview silt loam, 2 to 6 percent slopes	>200	5.6	8.1%
Sac	Sandview silt loam, 6 to 12 percent slopes	>200	0.7	1.0%
UahC	Urban land-Udorthents complex, 0 to 12 percent slopes	>200	3.4	4.9%
Uaic	Urban land-Udorthents complex, 0 to 12 percent slopes, rarely flooded	>200	8,4	6.7%
W	Water	>200	6.1	8.8%
Totals for Area of Interest	st.		9.89	100.0%



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Web Soil Survey National Cooperative Soil Survey

## Description

months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month "Water table" refers to a saturated zone in the soil. It occurs during specified is not considered a water table. This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

## Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Web Soil Survey National Cooperative Soil Survey

8/16/2014 Page 4 of 4





Charles Allen

AUG 2.5 2014 PLANNING & DESIGN SERVICES