

United States Department of Agriculture

Natural Resources Conservation Service 4233 Bardstown Rd., Suite 100-A Louisville, KY 40291 October 23, 2015

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

RE- Mt. Washington Rd Conservation Subdivision (Meadow Creek)

Dear Ms Linares,

Attached please find the soil and site evaluation report on the above referenced development proposal. The 59.85 acre parcel is currently being used as residential farmsteads, grasslands and hay and unmanaged woody open space. The ridgecaps of Crider soils are closely manicured with a predominance of fescue, broomsedge and bluegrass as the vegetative cover. The proposed development seeks to transform the site to 163 single family residential lots mostly along the ridgeline. The steeper side slopes are proposed as "conservation areas", including tree canopy protection areas. The water resources on the property include a stream, Pennsylvania Run Creek, which runs along the eastern quadrant of the property. Downstream of the proposed detention basin near the southeast corner of the property (off-site) is a pond which could be directly impacted by the changes in runoff associated with the project.

A sediment and erosion control plan should be put in place that recognizes the erodibility of the soils on the site and the difficulty in successfully capturing and suspending the small clay particles associated with the subsoil of Caneyville and lower subsoil of the Crider soils. This plan should also recognize the value of phasing the amount of area disturbed, the value of maintaining existing ground covers where possible and reestablishing vegetation or covers as soon as possible. Special attention should be given to insure off-site water resources such as the adjacent pond and the waters of Pennsylvania Run Creek are not negatively impacted by discharges of sediment or runoff high in suspended sediment. As plans are developed to address the site's natural resource concerns, it is critical to be considerate of the downstream impacts to both water quality and water quantity.



The northeastern and eastern part of the development proposal is the location where most of the very sensitive soils and slopes are

OCT 27 2015
PLANNING &
DESIGN SERVIA Equal Opportunity Provider and Employer

Mt Washington Rd Conservation Subdivision (Meadow Creek) Page 2

located. It also is the area where significant linear disturbances are proposed for sewer lines. The proposed sewer lines present a divide between what is labeled as Tree Canopy Protection Areas. These linear disturbance areas will be difficult to address with vegetative cover as new cover will compete for moisture, nutrients and sunlight with the existing woody vegetation. A suggestion would be to enhance the viability of both the existing vegetation and the survivability of the planned vegetation by selectively removing the invasive woody material from the Tree Canopy Protection Areas and provide a better condition for both to succeed. Furthermore, the removal of invasives will result in a healthier woodland area and one that will perform its intended purpose better over time.

If you feel our office can be of any additional assistance to you as you move forward with the development plan and addressing the site's natural resource concerns, please feel free to call on us.

Sincerely.

Kurt D. Mason, CPESC District Conservationist

Attachment (soils report)



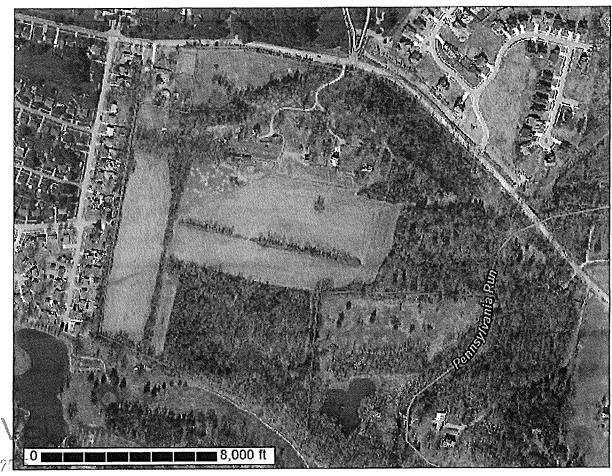
USDA United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

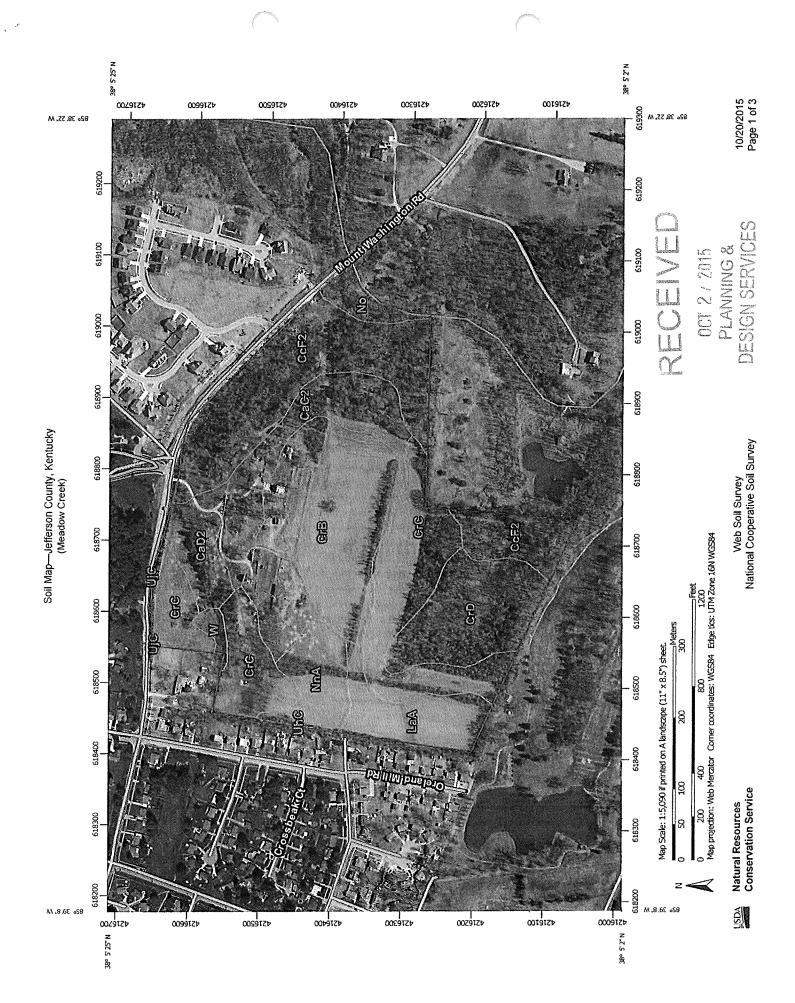
Custom Soil Resource Report for **Jefferson** County, Kentucky

Meadow Creek



PLANNING & DESIGN SERVICES

October 20, 2015



10/20/2015 Page 2 of 3

MAP LEGEND

Spoil Area	Stony Spot	1000 Vacat 2 vool		Wet Spot	Other	Special Line Features	Water Features	Streams and Canals	Transportation	Rails	Interstate Highways	US Routes	Major Roads	Local Roads	puno	Aerial Photography										
ß	463	. 6	H ·	gin-		•	Water F	-	Transpo	1	}	e de la companya de l			Background											
Area of Interest (AOI)	Area of Interest (AOI)		Soil Map Unit Polygons	Soil Map Unit Lines	Soil Map Unit Points	Special Point Egatures	Blowout	#id worton		Clay Spot	Closed Depression	Gravel Pit	Gravelly Spot	Landfill	Lava Flow	Marsh or swamp	Mine or Quarry	Miscellaneous Water	Perennial Water	Rock Outcrop	Saline Spot	Sandy Spot	Severely Eroded Spot	Sinkhole	Slide or Slip	Sodic Spot
Area of Int		Soils			3	Special	404) (Ĭ	溪	0	≯ £	¥,	(V)	~.\.	-;)		()	0	>	-}-	\$ 0 \$ 0	Ú	oj o	i (Pi	Ø

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.

Enlargement of maps beyond the scale of mapping can cause 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.

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)

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 Albers equal-area conic projection, should be used if more accurate 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 13, Sep 17, 2014

Survey Area Data: Version 13, Sep 17, 2014
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—Jul 5, 2014

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.

Web Soil Survey National Cooperative Soil Survey

USDA Natural Resources Conservation Service

Map Unit Legend

	Jefferson County, Kentucky (KY111)	Kentucky (KY111)	
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CaC2	Caneyville silt loam, 6 to 12 percent slopes, eroded, very rocky	3. 2.	9.2%
CaD2	Caneyville silt loam, 12 to 25 percent slopes, eroded, very rocky	2.6	4.4%
CcF2	Caneyville-Rock outcrop complex, 12 to 60 percent slopes, eroded	12.7	21.2%
CrB	Crider silt loam, 2 to 6 percent slopes	12.5	20.9%
CrC	Crider silt loam, 6 to 12 percent slopes	12.4	20.7%
CrD	Crider silt loam, 12 to 20 percent slopes	6.0	10.0%
LaA	Lawrence silt loam, 0 to 2 percent slopes	3.6	6.1%
NnA	Nicholson silt loam, 0 to 2 percent slopes	3.0	5.0%
No	Nofin silt loam, 0 to 2 percent slopes, occasionally flooded	1.0	1.6%
ე ყე	Urban land-Affic Udarents complex, fragipan substratum-over hard bedrock, 0 to 12 percent slopes	0.0	0.1%
oin_	Urban land-Affic Udarents complex, clayey substratum- over hard bedrock, 0 to 12 percent slopes	0'0	0.0%
M	Water	0.5	%8.0
Totals for Area of Interest		8.65	100.0%

OCT 2 / 2015 PLANNING & DESIGN SERVICES

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: CaC2—Caneyville silt loam, 6 to 12 percent slopes, eroded, very rocky

Component: Caneyville (80%)

The Caneyville component makes up 80 percent of the map unit. Slopes are 6 to 12 percent. This component is on ridges on karst uplands. The parent material consists of clayey residuum weathered from limestone. 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 (or restricted depth) 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 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Crider (7%)



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

Component: Faywood (6%)

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

Component: Beasley (4%)

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

Component: Rock outcrop (3%)

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

Map Unit: CaD2—Caneyville silt loam, 12 to 25 percent slopes, eroded, very rocky

Component: Caneyville (80%)

The Caneyville component makes up 80 percent of the map unit. Slopes are 12 to 25 percent. This component is on hills on karst uplands. The parent material consists of clayey residuum weathered from limestone. 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 (or restricted depth) 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 3 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.

Component: Beasley (7%)

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

Component: Faywood (6%)

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

Component: Rock outcrop (4%)

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

Component: Shrouts (3%)



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

Map Unit: CcF2—Caneyville-Rock outcrop complex, 12 to 60 percent slopes, eroded

Component: Caneyville (70%)

The Caneyville component makes up 70 percent of the map unit. Slopes are 12 to 60 percent. This component is on hills on karst uplands. The parent material consists of clayey residuum weathered from limestone. 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 (or restricted depth) 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 3 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

Component: Rock outcrop (20%)

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

Component: Crider (4%)

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

Component: Beasley (3%)

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

Component: Faywood (3%)

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

Map Unit: CrB-Crider silt loam, 2 to 6 percent slopes

Component: Crider (90%)

The Crider component makes up 90 percent of the map unit. Slopes are 2 to 6 percent. This component is on ridges on karst 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 (or restricted depth) is high. 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 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Caneyville (7%)

Generated brief soil descriptions are created for major components. The Caneyville 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: CrC-Crider silt loam, 6 to 12 percent slopes

Component: Crider (90%)

The Crider component makes up 90 percent of the map unit. Slopes are 6 to 12 percent. This component is on ridges on karst 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 (or restricted depth) is high. 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 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Caneyville (5%)

Generated brief soil descriptions are created for major components. The Caneyville 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: Beasley (2%)

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



Map Unit: CrD—Crider silt loam, 12 to 20 percent slopes

Component: Crider (80%)

The Crider component makes up 80 percent of the map unit. Slopes are 12 to 20 percent. This component is on hills on karst 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 (or restricted depth) is high. 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 3 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Caneyville (9%)

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

Component: Beasley (8%)

Generated brief soil descriptions are created for major components. The Beasley 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: LaA-Lawrence silt loam, 0 to 2 percent slopes

Component: Lawrence (90%)

The Lawrence 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 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 very low. Available water to a depth of 60 inches (or restricted depth) 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: Nicholson (3%)

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

Component: Sandview (3%)

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

Component: Robertsville (2%)

Generated brief soil descriptions are created for major components. The Robertsville 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: NnA-Nicholson silt loam, 0 to 2 percent slopes

Component: Nicholson (90%)

The Nicholson 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 16 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) 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 2w. This soil does not meet hydric criteria.

Component: Lawrence (4%)

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

Component: Sandview (3%)

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

Component: Crider (3%)

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

Map Unit: No-Nolin silt loam, 0 to 2 percent slopes, occasionally flooded

Component: Nolin, occasionally flooded (85%)



The Nolin, occasionally flooded component makes up 85 percent of the map unit. Slopes are 0 to 2 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 (or restricted depth) 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: Elk, rarely flooded (5%)

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

Component: Lindside, occasionally flooded (5%)

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

Component: Newark, occasionally flooded (4%)

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

Component: Dunning, occasionally flooded (1%)

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

Map Unit: UhC—Urban land-Alfic Udarents complex, fragipan substratum-over hard bedrock, 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: Alfic Udarents (40%)

The Alfic Udarents component makes up 40 percent of the map unit. Slopes are 0 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 (or restricted depth) 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 0 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Map Unit: UjC—Urban land-Alfic Udarents complex, clayey substratum-over hard bedrock, 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: Alfic Udarents (40%)

The Alfic Udarents component makes up 40 percent of the map unit. Slopes are 0 to 12 percent. This component is on ridges on karst 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 low. Available water to a depth of 60 inches (or restricted depth) is high. 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 0 percent. 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 13, Sep 17, 2014



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

Map symbol and soil name	Pct. of	Eng - dwellings v basements	vlo	Eng - dwellings w basements	ith/	Eng - lawn, landsca fairway	pe, golf
	unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CaC2—Caneyville silt loam, 6 to 12 percent slopes, eroded, very rocky							
Caneyville	80	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to hard bedrock	1.00	Depth to bedrock	0.46
		Depth to hard bedrock	0.46	Shrink-swell	0.50	Dusty	0.08
	**************************************	Slope	0.04	Slope	0.04	Slope	0.04
CaD2—Caneyville silt loam, 12 to 25 percent slopes, eroded, very rocky							
Caneyville	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Shrink-swell	0.50	Slope	1.00	Depth to bedrock	0.46
AND		Depth to hard bedrock	0.46	Shrink-swell	0.50	Dusty	0.08
CcF2—Caneyville- Rock outcrop complex, 12 to 60 percent slopes, eroded							
Caneyville	70	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Shrink-swell	0.50	Slope	1.00	Depth to bedrock	0.46
		Depth to hard bedrock	0.46	Shrink-swell	0.50	Dusty	0.08
Rock outcrop	20	Not rated	T	Not rated	T -	Not rated	

	Γ	1		–Jefferson County, Ker			
Map symbol and soil name	Pct. of map	Eng - dwellings v basements	v/o	Eng - dwellings w basements	rith	Eng - lawn, landscap fairway	e, golf
	unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CrB—Crider silt loam, 2 to 6 percent slopes							
Crider	90	Not limited		Not limited		Somewhat limited	
						Low exchange capacity	0.50
						Dusty	0.08
CrC—Crider silt loam, 6 to 12 percent slopes							
Crider	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.04	Slope	0.04	Low exchange capacity	0.50
		1 mar 19				Dusty	0.08
						Slope	0.04
CrD—Crider silt loam, 12 to 20 percent slopes							
Crider	80	Very limited		Very limited	***************************************	Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Low exchange capacity	0.50
						Dusty	0.08
LaA—Lawrence silt loam, 0 to 2 percent slopes							
Lawrence	90	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Low exchange capacity	0.75
		Depth to thin cemented pan	0.50	Depth to thin cemented pan	0.29	Dusty	0.08
NnA—Nicholson silt loam, 0 to 2 percent slopes			and the second				
Nicholson	90	Somewhat limited		Very limited		Somewhat limited	
		Depth to thin cemented pan	0.50	Depth to saturated zone	1.00	Low exchange capacity	0.50
		Depth to saturated zone	0.39	Depth to thin cemented pan	1.00	Depth to saturated zone	0.19
		Depth to thick cemented pan	0.29			Dusty	0.08

RECEIVED

		Selected Soil Interpre	etations	–Jefferson County, Ker	писку	T	
Map symbol and soil name	Pct. of map	Eng - dwellings w basements	ilo	Eng - dwellings w basements	ith	Eng - lawn, landscap fairway	e, golf
	unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
No—Nolin silt loam, 0 to 2 percent slopes, occasionally flooded							
Nolin, occasionally flooded	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Flooding	0.60
						Low exchange capacity	0.50
				. 134 (100 (100 (100 (100 (100 (100 (100 (10		Dusty	0.08
UhC—Urban land-Alfic Udarents complex, fragipan substratum- over hard bedrock, 0 to 12 percent slopes							
Urban land	60	Not rated		Not rated		Not rated	
Alfic udarents	40	Somewhat limited		Very limited		Very limited	
		Depth to thin cemented pan	0.50	Depth to saturated zone	1.00	Too dense	1.00
		Depth to saturated zone	0.39	Depth to thin cemented pan	1.00	Low exchange capacity	0.50
		Depth to thick cemented pan	0.29			Depth to saturated zone	0.19
						Dusty	0.08
UjC—Urban land-Alfic Udarents complex, clayey substratum- over hard bedrock, 0 to 12 percent slopes							
Urban land	60	Not rated		Not rated	*******	Not rated	
Alfic udarents	40	Somewhat limited		Somewhat limited		Very limited	
The second secon		Shrink-swell	0.01	Shrink-swell	0,09	Too dense	1.00
					and the second second	Low exchange capacity	0.50
						Dusty	0.08
W-Water	and an artist of the second						
Water	100	Not rated		Not rated		Not rated	

Data Source Information

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 13, Sep 17, 2014

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.

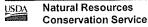
For a description of the particular interpretations and their criteria, use the "Selected Survey Area Interpretation Descriptions" report.

Report—Selected Soil Interpretations

	Τ				
Map symbol and soil name	Pct. of map unit	Eng - local roads and st	reets	Eng - shallow excavat	ons
	map dist	Rating class and limiting features	Value	Rating class and limiting features	Value
CaC2—Caneyville silt loam, 6 to 12 percent slopes, eroded, very rocky					
Caneyville	80	Very limited		Very limited	
		Low strength	1.00	Depth to hard bedrock	1.00
		Shrink-swell	0.50	Too clayey	0.50
		Depth to hard bedrock	0.46	Dusty	0.08
		Slope	0.04	Slope	0.04
				Unstable excavation walls	0.01
CaD2—Caneyville silt loam, 12 to 25 percent slopes, eroded, very rocky					
Caneyville	80	Very limited		Very limited	
The second secon	-	Low strength	1.00	Depth to hard bedrock	1.00
ger (1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		Slope	1.00	Slope	1.00
The state of the s		Shrink-swell	0.50	Too clayey	0.50
		Depth to hard bedrock	0.46	Dusty	0.08
The second secon	~~~	***		Unstable excavation walls	0.01



OCT 2 7 2015
PLANNING &
DESIGN SERVICES



	1	d Soil Interpretations-Jefferson			one
Map symbol and soil name	Pct. of map unit	Eng - local roads and st Rating class and limiting	Value	Eng - shallow excavati	Value
		features		features	
CcF2—Caneyville-Rock outcrop complex, 12 to 60 percent slopes, eroded					
Caneyville	70	Very limited		Very limited	
		Low strength	1.00	Depth to hard bedrock	1.00
		Slope	1,00	Slope	1.00
		Shrink-swell	0.50	Too clayey	0.50
		Depth to hard bedrock	0.46	Dusty	0.08
		. 1.		Unstable excavation walls	0.01
Rock outcrop	20	Not rated		Not rated	
CrB—Crider silt loam, 2 to 6 percent slopes					
Crider	90	Very limited		Somewhat limited	
		Low strength	1.00	Dusty	0.08
				Unstable excavation walls	0.01
CrC—Crider silt loam, 6 to 12 percent slopes					
Crider	90	Very limited		Somewhat limited	
		Low strength	1.00	Dusty	0.08
		Slope	0.04	Slope	0.04
A second		The second secon		Unstable excavation walls	0.01
CrD—Crider silt loam, 12 to 20 percent slopes					
Crider	80	Very limited		Very limited	
		Slope	1.00	Slope	1.00
a decided by the second		Low strength	1.00	Dusty	0.08
***				Unstable excavation walls	0.01
LaA—Lawrence silt loam, 0 to 2 percent slopes					
Lawrence	90	Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00
the second secon		Depth to thin cemented pan	1.00	Depth to saturated zone	1.00
and the self-deleter of th		Low strength	1.00	Depth to thin cemented pan	0.29
(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c		Depth to saturated zone	0.94	Dusty	0.08
	-			Unstable excavation walls	0.01

	Jelecte.	d Soil Interpretations–Jefferson		T	
Map symbol and soil name	Pct. of	Eng - local roads and st	reets	Eng - shallow excavation	ns
	map unit	Rating class and limiting features	Value	Rating class and limiting features	Value
NnA—Nicholson silt loam, 0 to 2 percent slopes					
Nicholson	90	Very limited		Very limited	
		Depth to thin cemented pan	1.00	Depth to thin cemented pan	1.00
		Low strength	1.00	Depth to saturated zone	1.00
The state of the s		Depth to thick cemented pan	0.29	Dusty	0.08
	~	Depth to saturated zone	0.19	Unstable excavation walls	0.01
No-Nolin silt loam, 0 to 2 percent slopes, occasionally flooded					
Nolin, occasionally flooded	85	Very limited		Somewhat limited	· · · · · · · · · · · · · · · · · · ·
		Frost action	1.00	Flooding	0.60
		Flooding	1.00	Dusty	0.08
		Low strength	1.00	Unstable excavation walls	0.01
UhC—Urban land-Alfic Udarents complex, fragipan substratum-over hard bedrock, 0 to 12 percent slopes					
Urban land	60	Not rated		Not rated	
Alfic udarents	40	Very limited		Very limited	
The second secon	i.	Depth to thin cemented pan	1.00	Depth to thin cemented pan	1.00
		Low strength	1.00	Depth to saturated zone	1.00
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Depth to thick cemented pan	0.29	Dusty	0.08
		Depth to saturated zone	0.19	Unstable excavation walls	0.01
UjC—Urban land-Alfic Udarents complex, clayey substratum- over hard bedrock, 0 to 12 percent slopes					
Urban land	60	Not rated	-	Not rated	
Alfic udarents	40	Very limited		Somewhat limited	
And August 1	1.1	Low strength	1,00	Too clayey	0.50
	,,,,,	Shrink-swell	0.01	Dusty	0.08
				Unstable excavation walls	0.01
WWater					
Water	100	Not rated		Not rated	



OCT 2 7 2015 PLANNING &

DESIGNISERVICES

Data Source Information

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 13, Sep 17, 2014

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.

OCT 27 2015
PLANNING &
DESIGN SFRVING &

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 any year but is less 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 I	eatures-Jeffer	rson County, K	Kentucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Flo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
CaC2—Caneyville silt loam, 6 to 12 percent slopes, eroded, very rocky										
Caneyville	D	Medium	January			-	-	None		None
			February			_	-	None	-	None
			March	_	_	_		None	_	None
			April	_	_	_		None		None
			May		_	_		None	-	None
			June	_		_		None		None
			July	_		_		None	_	None
			August		_		-	None	_	None
			September		_	_	Ī-	None	_	None
-15.			October	_				None	-	None
A STATE OF THE STA			November	-				None	-	None
			December			_	_	None	-	None

USDA Natural Resources
Conservation Service

Web Soil Survey National Cooperative Soil Survey 10/20/2015 Page 3 of 15

RECEIVED

OCT 27 2015 PLANNING & DESIGN SERVICES

			Water	Features-Jeffer	son County, K	entucky				
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
			†	Ft	Fl	FI				
CaD2—Caneyville silt loam, 12 to 25 percent slopes, eroded, very rocky										
Caneyville	D	Medium	January		_	_		None		None
			February	_	_	_	-	None	<u></u>	None
			March	-			_	None		None
Control of			April	-		_	_	None		None
COMMON CONTRACTOR			May	_	_		_	None	-	None
			June				_	None	_	None
			July			_	_	None	_	None
			August	_		_	-	None	_	None
and the second s			September	_		-	-	None	_	None
			October	_	_		-	None	_	None
			November		_		T_	None		None
			December	_			<u> </u>	None		None

			Water I	eatures-Jeffe	rson County, k	Centucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Fio	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Fl	Ft	Ft				
CcF2—Caneyville-Rock outcrop complex, 12 to 60 percent slopes, eroded		had Agamentan i muse ye erenti ya hisbi 7415a	The second control to a control contro							
Caneyville	D	High	January			_		None	-	None
			February					None	_	None
			March	_	_	_	_	None	_	None
to National Association of the Control of the Contr			April		_		_	None	_	None
			May	_	_	_		None	_	None
**************************************			June		_		 -	None	_	None
			July	_		_	_	None		None
	The first of the f		August	_			<u> </u>	None		None
			September	_			_	None		None
The second section of the section of the section of the second section of the section of t	***************************************	CONTRACTOR OF A STATE OF THE ST	October				_	None		None
			November	_	_			None	-	None
		,,	December	_			_	None		None
Rock outcrop	_		Jan-Dec				_		_	

Web Soil Survey National Cooperative Soil Survey 10/20/2015 Page 5 of 15

RECEIVED

OCT 2 7 2015
PLANNING &
DESIGN SERVICES

15 50bd: V1014

			Water	Features-Jeffei	rson County, K	Centucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Flo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Ft	Fl	Ft				
CrB—Crider silt loam, 2 to 6 percent slopes								_		
Crider	В	Low	January		_	-		None	<u> </u>	None
			February	-		_	Ī	None		None
			March		_		-	None		None
			April				_	None		None
	***************************************	,	May	_			_	None		None
the state of the s			June				_	None		None
, , , , , , , , , , , , , , , , , , , ,			July	_	_		-	None	_	None
			August	_	-			None	_	None
		-	September	_	_	_	-	None		None
			October	_		_	_	None	-	None
		THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	November	-		_	_	None	_	None
MATERIAL PROPERTY			December	1_			_	None	_	None

			Water	Features-Jeffe	rson County, F	Centucky				
Map unit symbol and soil	Hydrologic	Surface	Month Water table			Ponding		Flo	oding	
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
			 	Ft	Ft	Fl				
CrC—Crider silt loam, 6 to 12 percent slopes										
Crider	В	Medium	January		_	_		None	_	None
			February	_	_	_	_	None	_	None
			March	_		-	_	None	_	None
			April	_	_	_		None	 -	None
			May	_		_	-	None	_	None
			June	-				None		None
			July				_	None		None
			August		_	_	_	None		None
			September	_	_		-	None	_	Nane
			October					None	_	None
	,		November		_		<u> </u>	None	_	None
			December	_			_	None		None

Web Soil Survey National Cooperative Soil Survey 10/20/2015 Page 7 of 15

RECEIVED

OCT 2 / 2015 PLANNING & DESIGN SERVICES

15 5 2 6 d ; 1014

			Water	Features-Jeffer	rson County, K	Centucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Water	r table		Panding		Flo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequenc
				Ft	Ft	Ft				
OrD—Crider silt loam, 12 to 20 percent slopes										
Crider	В	Medium	January	 -	_		_	None	_	None
			February	_	_		-	None		None
			March	_	_	_		None	_	None
and the second s			April		-		_	None		None
	-		May	 		_	_	None	_	None
1,112 - 1,112			June	_	_		_	None	<u> </u>	None
			July		_	-		None		None
	 	† · · · · · · ·	August	_	_	_	_	None	-	None
		<u> </u>	September	_	_	_	_	None		None
		-	October		_	_		None	_	None
and the second s		The state of the s	November	_			_	None		Nane
	 		December	1_	_			None		None

			Water	Features-Jeffer	son County, F	Centucky				
Map unit symbol and soll	Hydrologic	Surface	Month	Water	r table		Ponding		Flo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Ft	Fl	Ft				
LaA—Lawrence silt loam, 0 to 2 percent slopes										
Lawrence	C/D	Low	January	1.0-2.1	1.5-2.7	_	-	None		None
			February	1.0-2.1	1.5-2.7		_	None	<u> </u>	None
			March	1.0-2.1	1,5-2.7	-	_	None	-	None
			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			_		None	_	None
Policy of Policy of the Policy			September		_		Ī-	None	_	None
COP OF THE STATE O			October	_		-	_	None	_	None
The state of the s			November	1.0-2.1	1,5-2.7		_	None		None
			December	1.0-2.1	1.5-2.7	_		None	_	None

Web Soil Survey National Cooperative Soil Survey 10/20/2015 Page 9 of 15

RECEIVED

OCT 27 2015

PLANNING &

DESIGN SERVICES

1550hd:11014

			Water	Features-Jeffe	rson County, K	Centucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Flo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequenc
				FI	Fŧ	Fl				
NnA—Nicholson silt loam, 0 to 2 percent slopes										
Nicholson	c	Low	January	1.5-2.5	2.0-3.0		-	None		None
The second secon			February	1.5-2.5	2.0-3.0	_		None		None
			March	1.5-2.5	2.0-3,0		-	None		None
	-		April	1.5-2.5	2.0-3.0	_	_	None	_	None
			May	1.5-2.5	2.0-3.0	<u> </u>	_	None	_	None
			June	_	_	_		None	-	None
			July		 			None	_	None
		<u> </u>	August		_	 -	_	None	-	None
			September	-	_		<u> </u>	None	_	None
and the desired section of the secti			October			_	_	None	_	None
			November	1.5-2.5	2.0-3.0	_		None	-	None
va Krause to Arra de .			December	1.5-2.5	2.0-3.0			None		None

			Water	Features-Jeffer	son County, K	Centucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Floo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
No-Nolin silt loam, 0 to 2 percent slopes, occasionally flooded										
Nolin, occasionally flooded	В	Low	January	_	_	_	_	None	Brief (2 to 7 days)	Occasional
			February		_		_	None	Brief (2 to 7 days)	Occasional
			March	_	_		_	None	Brief (2 to 7 days)	Occasional
			April	-			_	None	Brief (2 to 7 days)	Occasional
			May	_	_		_	None	Brief (2 to 7 days)	Occasional
			November			-	-	None	Brief (2 to 7 days)	Occasional
			December		-		_	None	Brief (2 to 7 days)	Occasional

Web Soil Survey National Cooperative Soil Survey 10/20/2015 Page 11 of 15

RECEIVED

OCT 2 7 2015 PLANNING & DESIGN SERVICES

15 50 bdiv 1014

			Water	Features-Jeffer	rson County, K	entucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Floo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Fl	Ft	Ft			and the second s	
UhC—Urban land-Alfic Udarents complex, fragipan substratum-over hard bedrock, 0 to 12 percent slopes	40									And the second s
Urban land		Very high	January	-		-		None		None
			February	_	_	_	-	None		None
			March	_		_	_	None	_	None
			April	_	_			None		None
			May				_	None	_	None
			June	 		_	_	None	_	None
			July	_	_	_	_	None	_	None
			August	-	_	_	_	None	_	None
			September	_	-	_	_	None		None
			October	_	_			None	_	None
the special section of			November			_		None		None

			Water F	eatures-Jeffe	rson County, K	(entucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Floo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Ft	F!	Ft				
			December	 -			_	None	_	None
Alfic udarents .	D	Very high	January	1.5-2.5	2,0-3,0	- ,, ,	_ **	None	***	None
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		February	1.5-2.5	2.0-3.0		_	None	- 1450.00	None
Marin 1800	100	2.3 % 2	March	1.5-2.5	2.0-3.0			None	- 4444	None
The first of the f	÷.	and the latest statement of the statemen	April	1.5-2.5	2.0-3.0	- 4/11/47	_	None	- 13.444	None
did a like the second and the second	\		Мау	1.5-2.5	2.0-3.0		*********	Nane		None
primit the second	V Sadish		June	- 444				None	- 836,66	None
\			July	- 35017.1		-	_	None		None
	<u> </u>		August		-	_	_ ******	None	_	None
1 N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			September	- and approxim				None	_	None
			October	***	_	1/1/4	_	None	_ 33333	None
			November	1.5-2.5	2.0-3.0	4,,100		None		None
			December	1.5-2.5	2.0-3.0	_		None		None

Web Soil Survey National Cooperative Soil Survey 10/20/2015 Page 13 of 15

RECEIVED

OCT 2 / 2015 PLANNING & DES!GN SERVICES

			Water I	Features-Jeffer	rson County, K	Centucky				
Map unit symbol and soil	Hydrologic	Surface	Month	Wate	r table		Ponding		Flo	oding
name	group	runoff		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft		.,,		
UjC—Urban land-Alfic Udarents complex, clayey substratum-over hard bedrock, 0 to 12 percent slopes										
Urban land		Very high	January	_	_			None		None
			February		_			None	_	None
			March			-	_	None	-	None
			April	_	-	_	-	None	-	None
			May		_			None	_	None
			June	_	_			None		None
annere de la companya	awar war,		July			_		None	_	None
			August					None	_	None
			September		_	_	-	None		None
			October	_	_	_		None	_	None
			November		_			None	_	None

			Water	Features-Jeffer	rson County, K	entucky				
Map unit symbol and soil name	Hydrologic group	Surface runoff	Month	Wate	r table		Ponding		Flo	oding
	group	runon		Upper limit	Lower limit	Surface depth	Duration	Frequency	Duration	Frequenc
				FI	Fl	Ft				
			December	_	_			None	_	None
Alfic udarents	D	Very high	January		- 40.8 (4)	- 48/07/01	- 4000	None	- (3/4/3/3/3	None
		Windley)	February		- Militable	- 33/4//3	_ \\	None	_	None
			March	- 1000	- jvedice)	-		None		None
			April	1 – 14 lyyesa	_ Yellowy	_	- 100000	None		None
		MANAGES.	May	- 11 12 12 12 12	_	- 1000	_ \\.	None		None
. ,46/1/6			June					None	_	None
NAME:	V.	WWW. 1.77	July	_	- 4550 500	_		None	_	None
2.7.27.28.28.28			August	- YVV	- 10	_		None		None
N. W.		1/2/1/14/15	September					None	10,474,44	None
Francis		Miles political	October	- 30,550,50	- 3.333			None	_	None
		and the second	November	_ 3749.63	- 1449/5/5/8	100000000000000	_ 383336	None		None
:: \\;	NAPATRAJER.	5 - 5 -	December	- yarakanya	1989	- 1885/1981		None	** Yest	None
VWater		***************************************							-	
Water .			Jan-Dec	 						

Data Source Information

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 13, Sep 17, 2014

USDA Nati

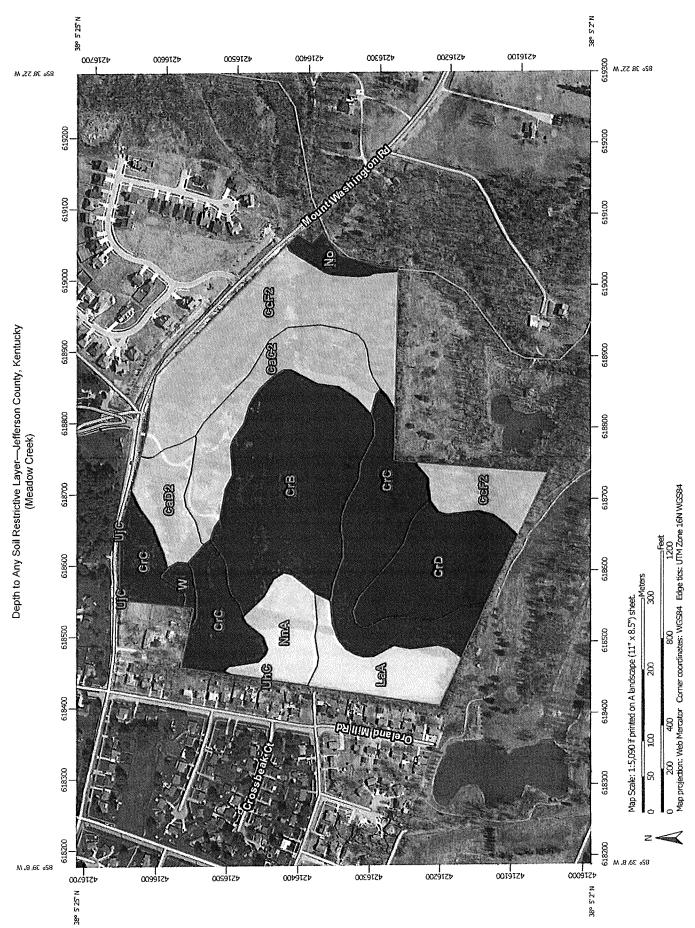
Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey

10/20/2015 Page 15 of 15



OCT 2 7 2015 PLANNING & DESIGN SERVICES

155 bd. V 1014



VOS

Natural Resources Conservation Service

Depth to Any Soil Restrictive Layer-Jefferson County, Kentucky (Meadow Creek)

MAP LEGEND

PLANNING & DESIGN SERVICES

Not rated or not available Streams and Canals Interstate Highways Aerial Photography Major Roads Local Roads US Routes Rails Water Features Transportation Background 1 1 Not rated or not available Area of Interest (AOI) Soil Rating Polygons Area of Interest (AOI) 100 - 150 150 - 200 50 - 100 25 - 50 > 200 0-25

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 13, Sep 17, 2014 Soil Survey Area:

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

Not rated or not available

Soil Rating Points

0-25

 > 200

100 - 150

1

150 - 200

> 200

50 - 100

25 - 50

Soil Rating Lines

0-25

1

Date(s) aerial images were photographed: Feb 12, 2012—Jul 5,

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

Depth to Any Soil Restrictive Layer

Depth to Any	y Soil Restrictive Layer—	Depth to Any Soil Restrictive Layer—Summary by Map Unit— Jefferson County, Kentucky (KY111)	Jefferson County, Kentud	cky (KY111)
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
CaC2	Caneyville silt loam, 6 to 12 percent slopes, eroded, very rocky	76	5,5	9.2%
CaD2	Caneyville silt loam, 12 to 25 percent slopes, eroded, very rocky	76	2.6	4.4%
CcF2	Caneyville-Rock outcrop complex, 12 to 60 percent slopes, eroded	76	12.7	21.2%
CrB	Crider silt loam, 2 to 6 percent stopes	>200	12.5	20.9%
CrC	Crider silt loam, 6 to 12 percent slopes	>200	12.4	20.7%
CrD	Crider silt foam, 12 to 20 percent slopes	>200	6.0	10.0%
LaA	Lawrence silt loam, 0 to 2 69 percent slopes	69	3.6	6.1%
NnA	Nicholson sill loam, 0 to 2 percent slopes	69	3.0	5.0%
ON.	Notin silt loam, 0 to 2 percent slopes, occasionally flooded	>200	1.0	1,6%
uhc	Urban land-Affic Udarents complex, fragipan substratum- over hard bedrock, 0 to 12 percent slopes	>200	0.0	0,1%
o'i'	Urban land-Affic Udarents complex, clayey substratum- over hard bedrock, 0 to 12 percent slopes	>200	0'0	0.0%
W	Water	>200	0.5	%8:0
Totals for Area of Interest	tsa		59.8	100.0%

OCT 2 7 2015 PLANNING & DESIGN SERVICES

1550bd: 1014

Description

and air through the soil or that restrict roots or otherwise provide an unfavorable A "restrictive layer" is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. This theme presents the depth to any type of restrictive layer that is described for each map unit. If more than one type of restrictive layer is described for an individual soil type, the depth to the shallowest one is presented. If no restrictive layer is described in a map unit, it is represented by the "> 200" depth class.

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

NSDA

38° 52'N

(Meadow Cleek)

MAP LEGEND

Somewhat poorly drained Not rated or not available Moderately well drained Somewhat excessively Excessively drained Streams and Canals Very poorly drained Interstate Highways Aerial Photography Poorly drained Subaqueous Well drained Major Roads Local Roads US Routes drained Rails Water Features Transportation Background 鱶 繼 1 Somewhat poorly drained Somewhat poorly drained Not rated or not available Not rated or not available Moderately well drained Moderately well drained Somewhat excessively Somewhat excessively Area of Interest (AOI) **Excessively drained** Excessively drained Very poorly drained Very poorly drained Poorly drained Poorly drained Well drained Subaqueous Well drained Subaqueous Soil Rating Polygons Area of Interest (AOI) Soil Rating Points Soil Rating Lines drained drained }

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.

Enlargement of maps beyond the scale of mapping can cause 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.

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)

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 Albers equal-area conic projection, should be used if more accurate 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 13, Sep 17, 2014

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—Jul 5, 2014

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.

Natural Resources Conservation Service

USDA

Drainage Class

Caneyvile sitt loam, 6 to around to a sitt loam, 12 percent slopes, a fonded, very rocky Caneyvile sitt loam, 12 to be a fonded, very rocky Well drained Acceptable sitt loam, 12 to be a fonded, very rocky CaD2 Caneyvile sitt loam, 12 to be a fonded, very rocky Caneyvile sitt loam, 12 to be a fonded, very rocky Well drained Caneyvile sitt loam, 2 to be a fonded, very rocky Caneyvile sitt loam, 2 to be a fonded, very rocky Mell drained Caneyvile sitt loam, 2 to be a fonder sitt loam, 3 to a fonder sitt loam, 4 to a fonder sitt loam, 5 to a fonder sitt loam, 6 to a	D	ainage Class-Summary	Drainage Class— Summary by Map Unit — Jefferson County, Kentucky (KY111)	County, Kentucky (KY11	1)
aneyville silt loam, 6 to 12 percent slopes, eroded, very rocky aneyville silt loam, 12 to 25 percent slopes, eroded, very rocky aneyville-Rock outcrop complex, 12 to 60 percent slopes, eroded percent slopes, eroded percent slopes inder silt loam, 2 to 60 percent slopes rider silt loam, 12 to 20 percent slopes awrence silt loam, 0 to 2 percent slopes where the slopes of the slope s	1 1	Map unit name	Rating	Acres in AOI	Percent of AOI
aneyville sitt loam, 12 to 25 percent slopes, eroded, very rocky aneyville-Rock outcrop complex, 12 to 60 percent slopes, eroded rider sitt loam, 2 to 6 percent slopes rider sitt loam, 12 to 20 percent slopes whence sitt loam, 0 to 2 percent slopes awrence sitt loam, 0 to 2 percent slopes whence sitt loam, 0 to 2 percent slopes of in sitt loam, 0 to 2 percent slopes, cholon sitt loam, 0 to 2 percent slopes, occasionally flooded than land-Alfic Udarents complex, fragipea substratum-over hard bedrock, 0 to 12 percent slopes rhan land-Alfic Udarents complex, dayes usbstratum-over hard bedrock, 0 to 12 percent slopes rhand bedrock, 0 to 12 percent slopes.	CaC2	Caneyville sitt toam, 6 to 12 percent slopes, eroded, very rocky	Well drained	5.5	9.2%
aneyville-Rock outcrop complex, 12 to 60 percent slopes, eroded fider silt loam, 2 to 6 percent slopes fider silt loam, 6 to 12 percent slopes rider silt loam, 12 to 20 percent slopes awrence silt loam, 0 to 2 percent slopes choin sit loam, 0 to 2 percent slopes oin sit loam, 0 to 2 percent slopes coin sit loam, 0 to 2 percent slopes, occasionally flooded than land-Alfic Udarents complex, flagipan substratum-over hard bedrock, 0 to 12 percent slopes from land-Alfic Udarents complex, dayey substratum-over hard bedrock, 0 to 12 percent slopes from land-Alfic Udarent slopes falter	CaD2	Caneyville sitt foam, 12 to 25 percent slopes, eroded, very rocky	Well drained	2.6	4.4%
rider sitt loam, 2 to 6 percent slopes rider sitt loam, 6 to 12 percent slopes rider sitt loam, 12 to 20 percent slopes riches sitt loam, 0 to 2 percent slopes richolson sitt loam, 0 to 2 percent slopes richolson sitt loam, 0 to 2 percent slopes on sitt loam, 0 to 2 percent slopes, occasionally flooded rban land-Alfic Uddrents complex, riagipan substratum- over hard bedrock, 0 to 12 percent slopes rban land-Alfic Uddrents complex, riagipan substratum- over hard bedrock, 0 to 12 percent slopes rban land-Alfic dayey substratum- over hard bedrock, 0 to 12 percent slopes	CcF2	Caneyville-Rock outcrop complex, 12 to 60 percent slopes, eroded	Well drained	12.7	21.2%
rider silt loam, 6 to 12 percent slopes rider silt loam, 12 to 20 percent slopes awrence silt loam, 0 to 2 percent slopes citoleon silt loam, 0 to 2 percent slopes olin sit loam, 0 to 2 percent slopes, olin sit loam, 0 to 2 percent slopes, occasionally flooded rban land-Alfic Udarents complex, fragipan substratum- over hard bedrock, 0 to 12 percent slopes rban land-Alfic dayey substratum- over hard bedrock, 0 to 12 percent slopes rban land-Alfic dayey substratum- over hard bedrock, 0 to 12 percent slopes	CrB	Crider silt loam, 2 to 6 percent slopes	Well drained	12.5	20.9%
rider silt loam, 12 to 20 percent slopes awrence silt loam, 0 to 2 percent slopes cholson silt loam, 0 to 2 percent slopes oli silt loam, 0 to 2 percent slopes, occasionally flooded rban land-Alfic Udarents complex, flagipan substratum- over hard bedrock, 0 to 12 percent slopes rban land-Alfic Udarents complex, degreent slopes rban land-Alfic Udarents complex, over hard bedrock, 0 to 12 percent slopes rban land-Alfic Udarent slopes	o.c	ſ	Well drained	12.4	20.7%
percent slopes cholson sit loam, 0 to 2 cholson sit loam, 0 to 2 2 percent slopes olio sit loam, 0 to 2 percent slopes occasionally flooded than land-Alfic Udarents complex, fragipan substratum- over hard before, 0 to 12 percent slopes than land-Alfic Udarents complex, fragipan substratum- over hard bedrock, 0 to 12 percent slopes chan land-Alfic Udarents complex, dayes ubstratum- over hard bedrock, 0 to 12 percent slopes	CrD	Crider silt loam, 12 to 20 percent slopes	Well drained	6.0	10.0%
icholson sill loam, 0 to 2 percent slopes olin silt loam, 0 to 2 percent slopes, occasionally flooded than land-Alfic Udarents complex, fragipan substratum-over hard bedrock, 0 to 12 percent slopes than land-Alfic Udarents complex, dayey substratum-over hard bedrock, 0 to 12 percent slopes substratum-over hard bedrock, 0 to 12 percent slopes salter	LaA	Lawrence silt foam, 0 to 2 percent slopes	Somewhat poorly drained	3.6	6.1%
olin sit loam, 0 to 2 percent slopes, occasionally flooded than land-Alfic Udarents complex, fragipan substratum- over hard bedrock, 0 to 12 percent slopes than land-Alfic Udarents complex, dayey substratum- over hard bedrock, 0 to 12 percent slopes	NnA	Nicholson silt loam, 0 to 2 percent slopes	Moderately well drained	3.0	9.0%
	No	Nolin sit loam, 0 to 2 percent slopes, occasionally flooded	Well drained	1.0	1.6%
4 3	UhC	Urban land-Alfic Udarents complex, fragipan substratum- over hard bedrock, 0 to 12 percent slopes		0.0	0.1%
W Water Totals for Area of Interest	ojic	Urban land-Alfic Udarents complex, clayey substratum- over hard bedrock, 0 to 12 percent slopes		0.0	0.0%
Totals for Area of Interest	W	Water		0.5	0.8%
TO SERVICE OF THE PARTY OF THE	Totals for Area of Intere	st		59.8	100.0%

10/20/2015 Page 3 of 4

Description

Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorty drained, poorty drained, and very poorty drained. These classes are defined in the "Soil Survey Manual." "Drainage class (natural)" refers to the frequency and duration of wet periods under consideration unless they have significantly changed the morphology of the soil. conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a

Rating Options

Component Percent Cutoff: None Specified Aggregation Method: Dominant Condition

Tie-break Rule: Higher

VSDA Natural Resources
Conservation Service

RECEIVED OCT 27 2015 PLANNING & DESIGN SERVICES 15 50bd: V1014

		•