

Elkhorn Creek Region

South Elkhorn Creek watershed (051002-05-270)

Geography. The South Elkhorn Creek watershed covers western Fayette County, and northeastern Woodford County, and the southern edges of Scott and Franklin counties and a northern section of Jessamine County. The land is in the inner subregion of the Bluegrass physiographic region, characterized by undulating terrain and moderate rates of both surface runoff and groundwater drainage. The watershed lies above thick layers of easily dissolved limestone that form carbonate aquifers. Groundwater flows through channels in the limestone, so caves and springs are common in regions with this geology.

Waterways. South Elkhorn Creek empties into Elkhorn Creek at Forks of Elkhorn. Among the creeks that feed it are Vaughns Branch, Wolf Run, Steeles Run, Town Branch, Cave Creek, Shannon Run, Lee Branch, Beals Run, Buck Run, Hickman Branch, and Slickway Branch.

Land and water use. Land in the watershed is about 80% agricultural; the rest is urban, and almost 10% is residential. The watershed includes the University of Kentucky campus and downtown Lexington. Twenty-one businesses and organizations hold permits for discharges into the creeks. See the 2000 Assessment Report for full details.

Agency data assessment. The assessed creek segments in this watershed include five that do not support some or all of their designated uses, based on biological and/or water-quality data. Three others only partially support their uses. Organic enrichment, alterations of flow and habitat, agricultural practices, municipal point sources, storm sewers, and urban runoff and pathogens all contribute to impairment of these streams. Total maximum daily load (TMDL) plans are in progress for Wolf Run and Town Branch. See the 2000 Assessment Report or 2000 305(b) list and the 2002 303(d) list of impaired streams for full details.

See the Watershed Plan for this watershed on page 24.

Kentucky River Basin Management Plan, 2002. Information is from the first basin cycle (1997-2002), including the 1998-1999 monitoring effort and the 2000 Assessment Report. See kywatersheds.org or www.uky.edu/WaterResources/Watersheds for the complete Assessment Report and Management Plan.

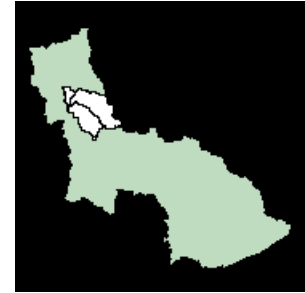
Watershed Restoration Ranking			Watershed Protection Rank	Overall Watershed Rank	Framework Mobilization Category
<i>Observed Impacts</i>	<i>Potential Impacts</i>	<i>Combined Rank</i>			
High	High	High	High	High	I

Watershed Highlights

Watershed covers 179 square miles.

Lexington (Town Br. plant) and Midway discharge sewage. Pathogens partially impaired contact recreation in Lees Br. [2000 305(b)]. Midway has built a new treatment plant there since the last DOW stream assessment of Lees Br. Pathogens make contact recreation unsafe in Town Br. and Wolf Run (TMDL under development).

Sediment impairs aquatic life in S. Elkhorn Cr. from Town Br. to Old Frankfort Pike (1st priority TMDL 2002). Aquatic life partially impaired by nutrients and alteration of habitat and flow in Wolf Run and Town Br. (TMDLs in progress for these and the S. Elkhorn Cr. downstream). Groundwater substantially more sensitive than basin average. Livestock density substantially higher than basin average. Town Br./Wolf Run and S. Elkhorn Cr. are (separately) two Watershed Watch Citizen Action Plan watersheds.



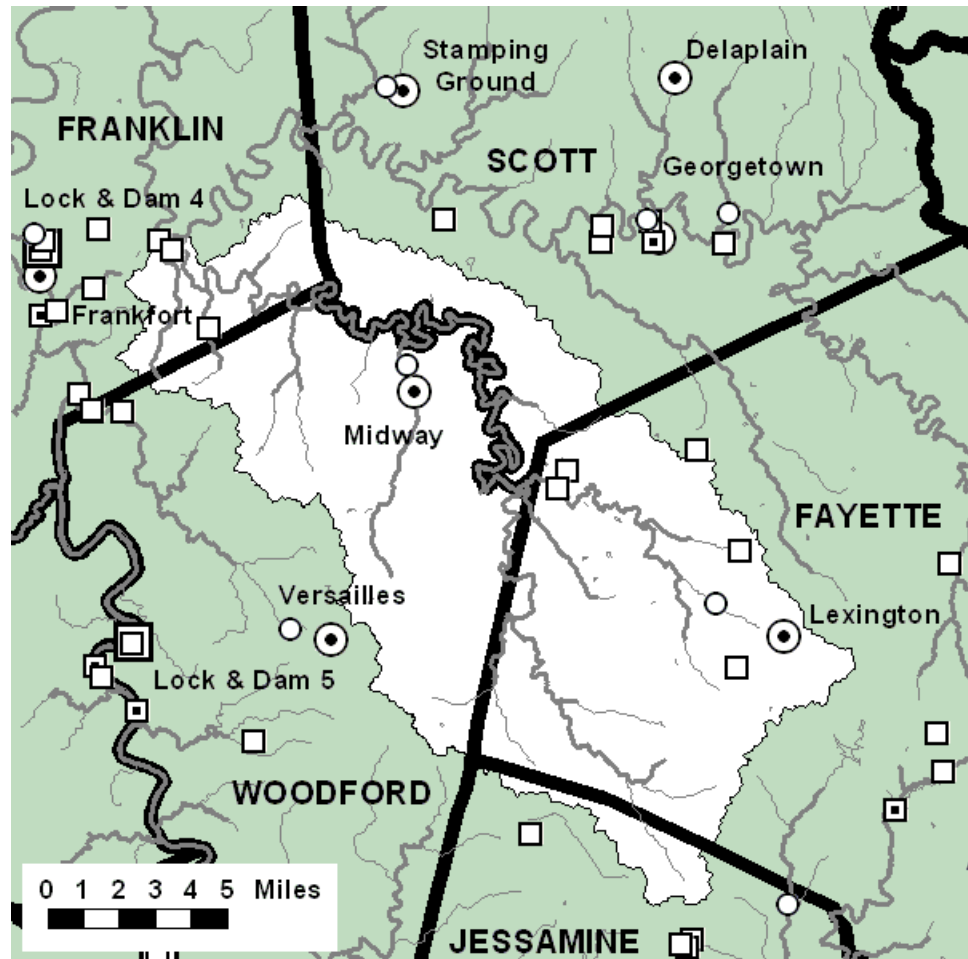
Elkhorn Creek Region



See the color map of this region on p. 135.

LEGEND

- Area of this watershed
- Sewage plants
- Public water supplies
- Other water withdrawals
- Locks & dams
- Cities and towns
- Rivers and larger streams
- Smaller streams
- County borders



North Elkhorn Creek watershed (051002-05-280)

Geography. The North Elkhorn Creek watershed occupies southern Scott County, northern Fayette County, and part of western Franklin County. The land is in the Inner Bluegrass physiographic region, characterized by an undulating terrain and moderate rates of surface runoff and groundwater drainage. Most of the watershed lies above thick layers of easily dissolved limestone that form carbonate aquifers. Groundwater flows through channels in the limestone, so caves and springs are common in regions with this geology. Some areas lie above interbedded limestones and shales (>20% limestone, allowing groundwater flow where the clay content is low enough).

Waterways. The North Elkhorn runs generally northwest from its origin at the west edge of Fayette County and empties into the Kentucky River just east of Frankfort. Among the creeks that feed it are David Fork, Goose Creek, Boyd Run, Miller Run, Lanes Run, Dry Run, McCracken Creek, Blue Spring Branch, McConnell Run, and Lecomptes Run.

Land and water use. Land in the watershed is primarily agricultural, with several densely settled areas. Residential and commercial areas make up 10%. Less than 2% is forested. The watershed includes the north side of Lexington. Surface waters of the watershed supply drinking water for the municipal systems in Georgetown and Stamping Ground. Twenty-eight businesses and organizations hold permits for discharges into creeks. See the 2000 Assessment Report for full details.

Agency data assessment. The assessed creek segments in this watershed include seven that do not support some or all of their designated uses, based on biological and/or water-quality data. Two others only partially support their uses. Agriculture, construction, and sewage from municipal systems and small package plants all contribute to the impairment of these streams via siltation, pathogens, habitat modification, and nutrient enrichment. See the 2000 Assessment Report or 2000 305(b) list and the 2002 303(d) list of impaired streams for full details.

Kentucky River Basin Management Plan, 2002. Information is from the first basin cycle (1997-2002), including the 1998-1999 monitoring effort and the 2000 Assessment Report. See kywatersheds.org or www.uky.edu/WaterResources/Watersheds for the complete Assessment Report and Management Plan.

Watershed Restoration Ranking			Watershed Protection Rank	Overall Watershed Rank	Framework Mobilization Category
<i>Observed Impacts</i>	<i>Potential Impacts</i>	<i>Combined Rank</i>			
High	High	High	High	High	II

Watershed Highlights

Watershed covers 276 square miles.

Provides drinking water for Georgetown. Supply is an issue.

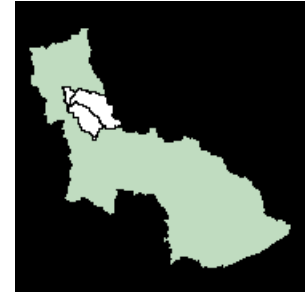
Georgetown (sewage plants 1 and 2) and Stamping Ground discharge treated sewage into the watershed.

Pathogens make contact recreation unsafe in N. Elkhorn Cr., Lanes Run, Cane Run, a tributary to Cane Run, and a tributary to Dry Run (1st priority TMDL 2002; TMDL under development for Cane Run above Ironworks Pike).

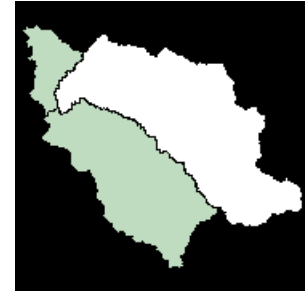
Aquatic life impaired by overenrichment in Cane Run above Ironworks Pike, by sedimentation below US 62 bridge, and by both overenrichment and sedimentation between US 62 and Ironworks Pike (1st priority TMDL 2002).

Aquatic life partially impaired by sedimentation, overenrichment in Dry and McConnell Runs. Aquatic life partially impaired by habitat alterations in N. Elkhorn Cr. between Avon Fk. and reservoir (2nd priority TMDL 2002).

Groundwater substantially more sensitive than basin average.



Elkhorn Creek Region



See the color map of this region on p. 135.

LEGEND

Area of this watershed



Sewage plants



Public water supplies



Other water withdrawals



Locks & dams



Cities and towns



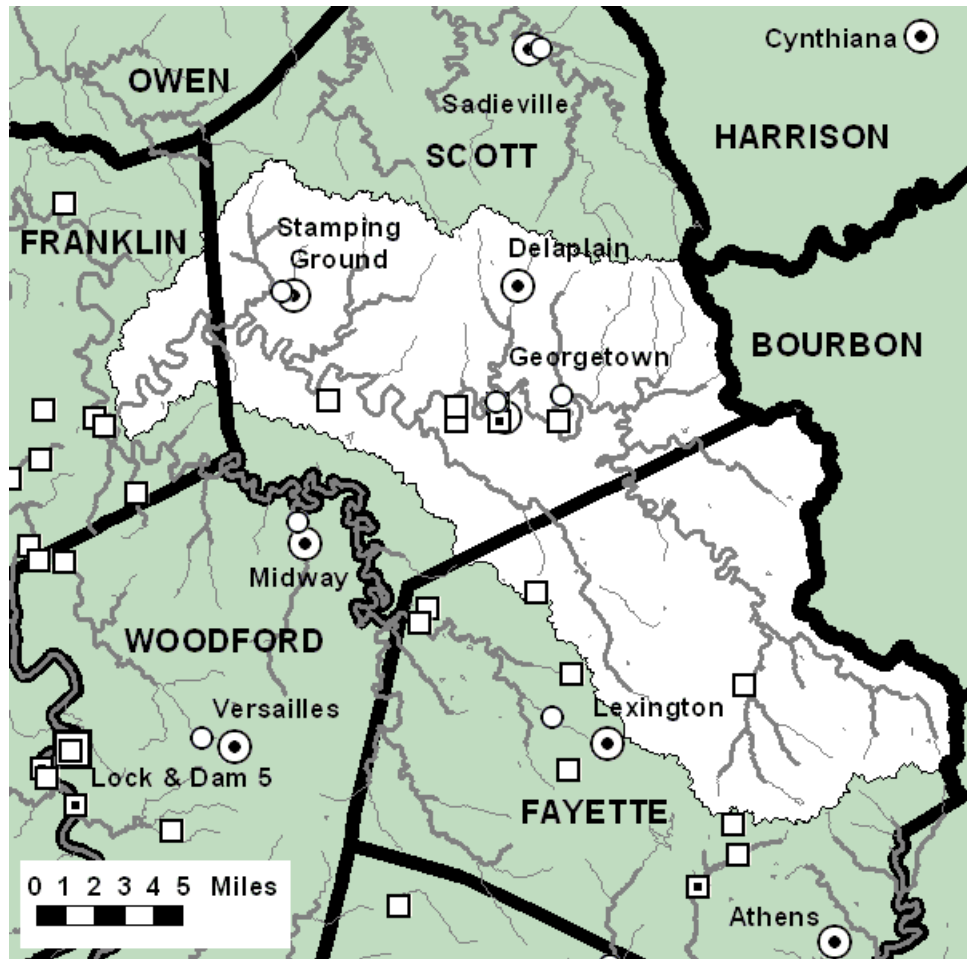
Rivers and larger streams



Smaller streams



County borders



Elkhorn Creek watershed (051002-05-290)

Geography. The Elkhorn Creek watershed covers northeast Franklin County. The land is in the inner subregion of the Bluegrass physiographic region, characterized by undulating terrain and moderate rates of both surface runoff and groundwater drainage. The watershed lies partly above thick layers of easily dissolved limestone that form carbonate aquifers. Groundwater flows through channels in the limestone, so caves and springs are common in regions with this geology. Other areas lie above interbedded limestones and shales (>20% limestone, allowing groundwater flow where the clay content is low enough). Unconsolidated silts, sands, and gravels occur along the flood plain of the creek and on adjoining upland terraces.

Waterways. Elkhorn Creek empties into the Kentucky River in northern Franklin County. Among the creeks that feed it are Sulphur Lick Creek, Camp Pleasant Branch (Pleasant Branch), Gregory Branch, and Long Branch. Water also flows into the watershed from the South and North Elkhorn watersheds.

Land and water use. Land in the watershed is about 5% residential, 45% rural and wooded, and 50% agricultural. Four businesses and organizations hold permits for discharges into the creeks. See the 2000 Assessment Report for full details.

Agency data assessment. The assessed creek segment in this watershed does not support its designated uses. Pathogens from agricultural sources contribute to the impairment of the stream. See the 2000 Assessment Report or 2000 305(b) list and the 2002 303(d) list of impaired streams for full details.

Kentucky River Basin Management Plan, 2002. Information is from the first basin cycle (1997-2002), including the 1998-1999 monitoring effort and the 2000 Assessment Report. See kywatersheds.org or www.uky.edu/WaterResources/Watersheds for the complete Assessment Report and Management Plan.

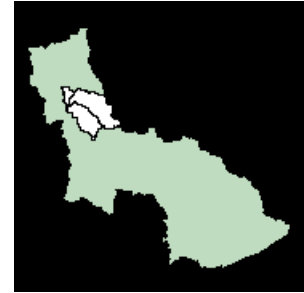
Watershed Restoration Ranking			Watershed Protection Rank	Overall Watershed Rank	Framework Mobilization Category
<i>Observed Impacts</i>	<i>Potential Impacts</i>	<i>Combined Rank</i>			
High	Medium	High	High	High	IV

Watershed Highlights

Watershed covers 38 square miles.

Pathogens make contact recreation unsafe along the entire length of Elkhorn Creek (1st priority TMDL 2002).

Groundwater is substantially more sensitive than the basin average.










Elkhorn Creek Region



See the color map of this region on p. 135.

LEGEND

- Area of this watershed 
- Sewage plants 
- Public water supplies 
- Other water withdrawals 
- Locks & dams 
- Cities and towns 
- Rivers and larger streams 
- Smaller streams 
- County borders 