

Kentucky River watershed above Boonesborough (051002-05-005)

Geography. The Kentucky River watershed above Boonesborough lies along the boundary between Clark County and Madison County. The land is in the Bluegrass physiographic region, characterized by hilly or undulating terrain, medium to very rapid rates of surface runoff, and slow to medium groundwater drainage. Parts of the watershed lie over easily weathered clay shales that store water but allow little groundwater flow. There are also areas of interbedded shales and limestones (these are 20% limestone; water conduction is poor because of the clay content of the shale). The rest of the watershed lies above interbedded clay shales and siltstones.

Waterways. This watershed includes the section of the Kentucky River between the Red River and Lower Howard Creek (Lisletown). Among the creeks that feed it are Twomile Creek, Indian Creek, and Bull Run. Water from the Otter Creek, Fourmile Creek, Upper Howard Creek, Red River mouth, and Kentucky River above Red River watersheds also flow into this watershed.

Land and water use. Land in the watershed is about 70% agricultural and 30% rural and wooded. The surface waters of the watershed supply the drinking water for the municipal system in Winchester. Four businesses and organizations hold permits for discharges into the creeks. See the 2000 Assessment Report for full details.

Agency data assessment. The assessed segment of the river in this watershed does not support some or all of its designated uses, based on biological and/or water-quality data. Pathogens contribute to the impairment of the segment. 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	IV

Watershed Highlights

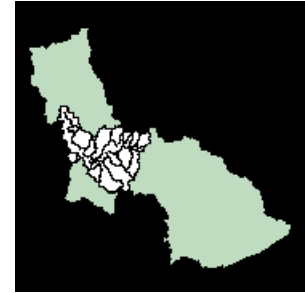
Watershed covers 35 square miles.

Provides drinking water for Winchester.

Pathogens make contact recreation unsafe in a 40-mile stretch of the Kentucky from Silver Creek to Red River (1st priority TMDL 2002).

Water supply is an issue.

Livestock density is substantially higher than the basin average.











Palisades Region



See the color map of this region on p. 133.

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 