

# Kentucky River watershed near Valley View (051002-05-060)

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**Geography.** The Kentucky River watershed near Valley View includes parts of the following counties: Clark, Madison, Fayette, Jessamine, and Garrard. The land is in the hills of the bluegrass subregion of the Bluegrass physiographic region, characterized by hilly terrain, very rapid surface runoff, and slow groundwater drainage. The northern side 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. The southern side includes areas of interbedded shales and limestones (these are 20% limestone; water conduction is poor because of the clay content of the shale) and areas of interbedded limestones and shales (>20% limestone, allowing groundwater flow where the clay content is low enough).

**Waterways.** This watershed includes the Kentucky River from Lower Howard Creek (Lisletown) to just below Lock and Dam Number 8. Among creeks that feed it are Jouett Creek, Calloway Creek, Elk Lick Creek, Raven Run, Marble Creek, Stony Fork, and Davis Creek. This watershed also receives water flowing from the following watersheds: Kentucky River above Boonesborough, Lower Howard Creek, Otter Creek, Boone Creek, Tate Creek, Silver Creek, Paint Lick Creek, and Sugar Creek.

**Land and water use.** Land in the watershed is about two-thirds agricultural and nearly one-third rural and wooded. The surface waters of the watershed supply the drinking water for municipal systems in Lexington, Nicholasville, and Lancaster. Eight businesses and organizations hold permits for discharges into the creeks. See the 2000 Assessment Report for full details.

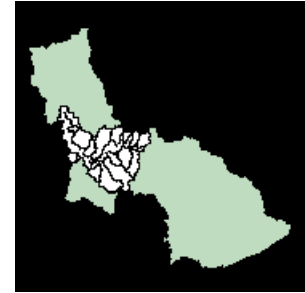
**Agency data assessment.** No assessments were made in this watershed.

**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](http://kywatersheds.org) or [www.uky.edu/WaterResources/Watersheds](http://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 82 square miles.
- Provides drinking water for Lexington (Kentucky-American), Nicholasville, and Lancaster.
- Part of source water protection zone 3 for the Harrodsburg water system.
- No assessments of fecal contamination in 2000.
- Water supply is a critical issue.
- Groundwater is substantially more sensitive than the basin average.
- Livestock density is substantially higher than the basin average.
- The Jessamine County portion of the watershed is in the PRIDE service region. PRIDE identified 85 straight pipes or failing septic systems in that part of the watershed.



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

