Kentucky River Palisades watershed  
(051002-05-140)

**Geography.** The Kentucky River Palisades watershed includes edges of Jessamine, Garrard, Mercer, Woodford, Anderson, and Franklin Counties. 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. 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.** This watershed includes the Kentucky River from just below Lock and Dam Number 8 to the mouth of Benson Creek in Frankfort. Among the creeks that feed it within the watershed are Canoe Creek, Little Hickman Creek, White Oak Creek, Cedar Brook, Brushy Run, Landing Run, Craig Creek, Gilbert Creek, Clay Lick Creek, Bear Branch, Cedar Brook, Bailey Run, Cedar Run, Sharps Run, Vaughn Branch, and Little Benson Creek. Water from the Kentucky River near Valley View, Hickman Creek, Jessamine Creek, Clear Creek, Griers Creek, Glenns Creek, Dix River-Herrington Lake, and Shaker Creek watersheds also flows into this watershed.

**Land and water use.** Land in the watershed is two-thirds agricultural, one-fourth rural and wooded, and the remainder urban. Surface waters of the watershed supply drinking water for municipal systems in Frankfort, Wilmore, Versailles, Harrodsburg, and Lawrenceburg. Fourteen 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 one (Cedar Run) classified as threatened, based on biological and/or water-quality data. See the 2000 Assessment Report or 2000 305(b) list and the 2002 303(d) list of impaired streams for full details.


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<th>Watershed Restoration Ranking</th>
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<td><strong>Observed Impacts</strong></td>
<td><strong>Potential Impacts</strong></td>
<td><strong>Combined Rank</strong></td>
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<td>Medium</td>
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Watershed Highlights

Watershed covers 164 square miles.
Provides drinking water for the cities of Harrodsburg, Wilmore, Versailles, Lawrenceburg, and Frankfort.
Water supply is an issue.
Cedar Run in Franklin County is classified as threatened [2000 305(b)].
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 76 straight pipes or failing septic systems in that part of the watershed.