White Oak Creek watershed
(051002-04-090)

**Geography.** The White Oak Creek watershed is in north-central Estill County. The land is in the Knobs physiographic region, characterized by hilly terrain, very rapid surface runoff, and very slow groundwater drainage. In level parts of the Knobs, runoff and groundwater drainage are slow. The watershed lies partly above fractured shales through which groundwater can easily move but which stores very little water. Other sections of the watershed lie over easily weathered clay shales that store water but allow little groundwater flow. Interbedded clay shales and siltstones make up the remainder of the area.

**Waterways.** White Oak Creek empties into the Kentucky River northwest of Irvine. Among the creeks that feed it are Sweet Lick Branch, Masters Creek, and Dry Branch.

**Land and water use.** Land in the watershed is about 70% rural and wooded and about 25% agricultural. Three 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 fully support their designated uses, 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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<table>
<thead>
<tr>
<th>Watershed Restoration Ranking</th>
<th>Watershed Protection Rank</th>
<th>Overall Watershed Rank</th>
<th>Framework Mobilization Category</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Observed Impacts</strong></td>
<td><strong>Potential Impacts</strong></td>
<td><strong>Combined Rank</strong></td>
<td>Low</td>
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</tbody>
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Watershed Highlights

Watershed covers 11 square miles.
Part of source water protection zone 3 for the Irvine water system.
Watershed is in PRIDE service region.

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