Drowning Creek watershed
(051002-04-100)

Geography. The Drowning Creek watershed lies along the boundary between Madison and Estill Counties. The land is in the Knobs physiographic region, which is characterized by hilly terrain, very rapid surface runoff, and very slow groundwater drainage. In level parts of the Knobs, both 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. The rest of the watershed lies over interbedded shales and limestones (these are 20% limestone; water conduction is poor because of the clay content of the shale).

Waterways. Drowning Creek empties into the Kentucky River northeast of Bybee. Among the creeks that feed it are Knob Lick Branch, Oldham Branch, Butler Branch, and Black Branch.

Land and water use. Land in the watershed is about 55% agricultural and more than 40% rural and wooded. Two 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>
</table>
**Watershed Highlights**

Watershed covers 37 square miles.
Part of source water protection zones 1, 2, and 3 for the Richmond water system.
Except for the Madison County section, the watershed is in PRIDE service region. PRIDE identified 6 straight pipes or failing septic systems in the PRIDE part of the watershed.

*See the color map of this region on p. 127.*

**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