Spears Creek & Mocks Branch watershed
(051002-05-200)

Geography. The Spears Creek & Mocks Branch watershed occupies northeastern Boyle County and part of southern Mercer County. The land is in the inner sub-region 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 inter-bedded limestones and shales (>20% limestone, allowing groundwater flow where the clay content is low enough).

Waterways. Both Spears Creek and Mocks Branch flow into Herrington Lake (the Dix River) at Gwinn Island, northeast of Danville.

Land and water use. Land in the watershed is 92% agricultural, and most of the rest is residential or commercial (Spears Creek drains the northern half of Danville). Three businesses and organizations hold permits for discharges into the creeks. See the 2000 Assessment Report for full details.

Agency data assessment. No creeks were assessed in this watershed.

<table>
<thead>
<tr>
<th>Watershed Restoration Ranking</th>
<th>Watershed Protection Rank</th>
<th>Overall Watershed Rank</th>
<th>Framework Mobilization Category</th>
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</thead>
<tbody>
<tr>
<td><strong>Observed Impacts</strong></td>
<td><strong>Potential Impacts</strong></td>
<td><strong>Combined Rank</strong></td>
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<tr>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
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Watershed Highlights

Watershed covers 26 square miles.
Mocks Branch watershed is part of source water protection zone 3 for the Harrodsburg water system.
Groundwater is substantially more sensitive than the basin average.
Livestock density is substantially higher than the basin average.
NRCS has conducted a special project to address nonpoint source pollution concerns in the watershed for the past five years, implementing a wide variety of best management practices.
The Agriculture Watershed Awareness Program (AWAP) trained volunteers and tested 12 sites in the watershed on four dates during 2001.

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

See the color map of this region on p. 131.