

## Mill Creek & Big Twin Creek watershed (051002-05-350)

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**Geography.** The Mill Creek & Big Twin Creek watershed is in northwest Owen County. 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. Parts of the watershed lie over interbedded shales and limestones (these are 20% limestone; water conduction is poor because of the clay content of the shale). Other areas are underlain by interbedded limestones and shales (>20% limestone, allowing groundwater flow where the clay content is low enough).

**Waterways.** Mill Creek empties into the Kentucky River just south of Perry Park. It drains the part of the watershed south of Highway 1982 (Squiresville Road). Big Twin Creek empties into the Kentucky River just north of Perry Park. It drains the part of the watershed north of Highway 1982. Among the creeks that feed it are Puncheon Camp Branch, Priors Branch, and South Fork Creek.

**Land and water use.** Land in the watershed is a bit more than half agricultural and a bit less than half rural and wooded. No businesses or 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 include one (Big Twin) that does not support some or all of its designated uses, based on biological and/or water-quality data. Siltation and habitat modification contribute to the impairment of the stream. See the 2000 Assessment Report or 2000 305(b) list and the 2002 303(d) list of impaired streams for full details.

**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.

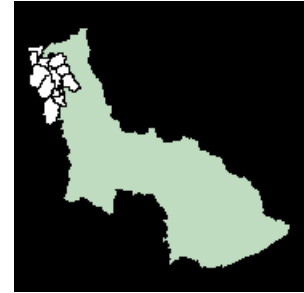
Watershed Restoration Ranking			Watershed Protection Rank	Overall Watershed Rank	Framework Mobilization Category
<i>Observed Impacts</i>	<i>Potential Impacts</i>	<i>Combined Rank</i>			
Low	Medium	Low	Low	Low	IV

## Watershed Highlights

Watershed covers 53 square miles.

Aquatic life partially impaired by sedimentation and habitat alteration in Big Twin Creek from its mouth to South Fork Creek (2nd priority TMDL 2002).

The potential for agricultural erosion is substantially higher than the basin average.











Lower Kentucky River



See the color map of this region on p. 137.

### 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 