

## Severn Creek watershed (051002-05-320)

**Geography.** The Severn Creek watershed is in central Owen County. The land is in the hills of the bluegrass subregion of the Bluegrass physiographic region, which is 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.** Severn Creek empties into the Kentucky River between Locks 2 and 3, northeast of Lockport. Among the creeks that feed it are Slippery Rock Creek, Greenup Creek, North Severn Creek, and Mint Spring Branch. Elmer Davis Lake is located on North Severn Creek.

**Land and water use.** Land in the watershed is 4% residential, and the rest is about evenly divided between agricultural uses and rural and wooded area. The surface waters of the watershed supply the drinking water for the municipal system in Owenton. Two organizations hold permits for discharges into the creeks. See the 2000 Assessment Report for full details.

**Agency data assessment.** Elmer Davis Lake only partially supports its designated uses, based on biological and/or water-quality data. Organic enrichment from agriculture contributes to the impairment of the lake. One segment of Severn Creek is classified as threatened. 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>			
Medium	Medium	Medium	Low	Low	IV

## Watershed Highlights

Watershed covers 35 square miles.

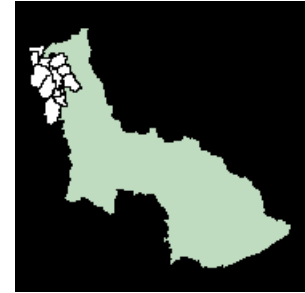
Provides drinking water for Owenton.

Water supply is an issue.

One section of Severn Creek is classified as threatened by sedimentation [2000 305(b)].

Aquatic life in Elmer Davis Lake is partially impaired by overenrichment and low levels of dissolved oxygen.

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 

