

# Dix River headwaters watershed (051002-05-150)

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**Geography.** The Dix River headwaters watershed covers southern Garrard County, western Rockcastle County, and northeastern Lincoln County. The land is in the outer subregion of the Bluegrass physiographic region, which is characterized by undulating terrain, moderate to rapid surface runoff, and moderate rates of ground-water drainage. 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. There are also areas of interbedded shales and limestones (these are 20% limestone; water conduction is poor because of the clay content of the shale) and areas of interbedded limestones and shales (>20% limestone, allowing groundwater flow where the clay content is low enough). Interbedded clay shales and siltstones underlie the rest of the area.

**Waterways.** The headwaters watershed of the Dix River includes the drainage of the river from its headwaters down to the mouth of Gilberts Creek just west of Gilbert (at US 27 between Lancaster and Stanford). Among the creeks that feed it are Negro Creek, Turkey Creek, Copper Creek, Fall Lick, Drakes Creek, Harmons Lick, Walnut Flat Creek, Cedar Creek, Stingy Creek, Turkey Creek, and Gilberts Creek.

**Land and water use.** Land in the watershed is 60% agricultural and almost 40% rural and wooded. 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 include one segment that only partially supports its designated uses, based on biological and/or water-quality data. Siltation contributes 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	High	Low	Medium	Low	III

## Watershed Highlights

Watershed covers 175 square miles.

Brodhead and Crab Orchard discharge treated sewage into the watershed.

Aquatic life partially impaired by sedimentation in Copper Creek from its mouth to 1.5 miles upstream (2nd priority TMDL 2002).

Livestock density is substantially higher than the basin average.

Watershed is in PRIDE service region. PRIDE identified 144 straight pipes or failing septic systems in the watershed.











Dix River Region



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

### 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 