



MAPPED KARST GROUNDWATER BASINS IN THE HARRODSBURG 30 x 60 MINUTE QUADRANGLE

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LEGEND

- Area of potential karst groundwater basin development
- Area of limited karst groundwater basin development
- Inferred perennial groundwater flow route
- Subsurface overflow (high-flow) route
- Surface overflow (high-flow) route
- Groundwater basin catchment boundary
- Groundwater sub-basin catchment boundary
- Intermittent lake
- Stream sink or swallet
- Underflow spring (perennial)
- Overflow spring (high flow)
- Karst window or sinking spring
- Cave stream
- Other tracer-injection point
- Water well
- Kentucky Division of Water AKGWA spring identification number
- Spring name

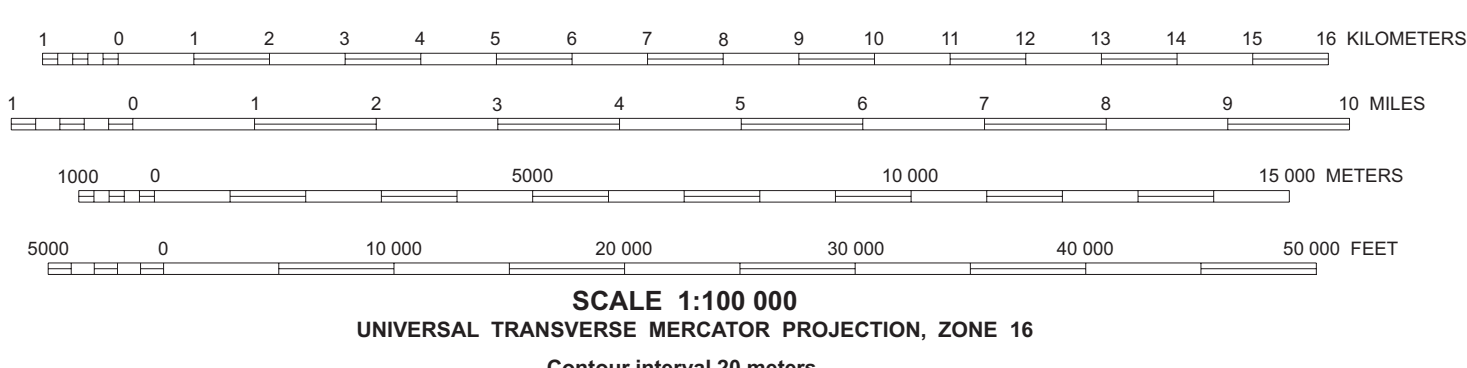
EXPLANATION

This map shows karst groundwater basins in the Harrodsburg quadrangle, determined primarily by groundwater tracer studies. It can be used to quickly identify the groundwater basins and springs to which a site may drain. Major springs and the relative size of their basin or catchment areas can be evaluated for potential as water supplies. The map also serves as a geographic index to literature on karst groundwater in the area.

This map is designed for regional and preliminary hydrologic investigations. Features such as springs and swallets are much too small to precisely locate on this map with a scale small enough to show regional relationships. The user is referred to the literature for detailed site descriptions. The data used to compile this map were obtained by numerous investigators over the last 25 years. The underflow spring draining a groundwater basin is assigned a unique identification number, referred to as the AKGWA number (Assembled Kentucky Groundwater database). Individual basins are identified by the underflow spring name and AKGWA number. The authors of tracer data are identified by number in the "Data Source" column of the key, and are listed in "References Cited" in order of publication or research date. Arrows show the direction of groundwater flow and tracer recovery locations. Although groundwater flow shown here has been established by tracer studies, with the exception of mapped cave streams, the precise flow paths are unknown and are inferred or interpreted using water-level data, geologic structure, or surface features. Conduit flow is illustrated as either thick trunk-flow lines or thin tributary-flow lines. The locations of some groundwater basins are inferred, based on the existence of a significant perennial spring and the delineation of adjacent basins. The position of groundwater basin boundaries should be considered approximate because of the map's scale, the finite number of groundwater traces, and because boundaries can shift during high-water conditions. In addition to any subsurface overflow routes illustrated on this map, undiscovered routes probably exist. Excess flow may also exit or enter a basin via surface overflow routes. The groundwater-tracing results shown on this map were obtained during a range of flow conditions. The groundwater basins are illustrated in base flow because base flow is the most common flow condition. The main spring draining the basin is assumed to be a perennial underflow spring that preferentially drains base flow. Overflow springs begin to discharge during moderate and higher flow. Generally, names of groundwater basins are derived from the main springs. Because of the small scale of the map, most karst features are not shown.

DISCLAIMER: This map is subject to revision upon receipt of new hydrologic data. Karst features are only shown in those areas where tracer tests have been conducted. The unshaded area (shown in white on the map) is karst. The shaded area (shown in light brown) is largely underlain by noncarbonate rocks and has minimal development of karst. The user should consult the "References Cited" for additional information.

Worthington, S.R.H., 1991. Karst hydrogeology of the Canadian Rocky Mountains: Hamilton, Ontario, McMaster University, doctoral dissertation, 380 p.



AKGWA No.	Spring Name	Data Source	AKGWA No.	Spring Name	Data Source
0118	Buffalo	(3)	2886	Savannee	(21)
0215	Mount Pleasant	(7)	2887	Shawnee	(21)
0217	Garrets	(7)	2888	Howard Creek	(17)
0306	Polley	(7)	2891	Ferryville	(21)
0427	Spears	(21)	2892	Hickman Island	(21)
0428	Cryptic	(19)	2903	Leach	(21)
0527	Humane	(28)	3174	Upper Thore	(20)
0548	Matthews	(7)	3176	Shady Run	(20)
0549	Drive-In	(7)	3204	Cross	(21)
0591	Cove	(25)	3205	Handley	(20)
0592	Baker	(12)	3206	Criss	(21)
0696	Spring House	(16)	3207	Shady Lane	(21)
1139	McCall's	(21)	3211	Millers	(18)
1201	Lays	(1)	3213	Easy Acres	(21)
1202	Big	(1)	3214	Trapps	(21)
1203	Voah	(21)	3221	Cassell	(21)
1204	Big	(21)	3222	Carroll	(21)
1205	Franka	(2)	3223	Tapps Cliff	(21)
1206	Railroad	(2)	3224	Hammond	(21)
1207	Faulconer	(2)	3229	Albena	(21)
1208	Distillery	(2)	3231	Paula Mill	(21)
1209	Shawnee Run	(2)	3232	Halley	(21)
1210	Hart	(2)	3233	Sims	(21)
1211	Shawnee-Copperhead	(2)	3235	Nolan	(18)
1212	Little Caesars	(4)	3236	Hammond	(21)
1213	Whitchell	(2)	3237	Gilbert	(21)
1219	Jackman Cave	(9)	3238	Boone Cutoff	(21)
1220	Crowded	(21)	3239	Boone Cave	(21)
1269	Mayer	(21)	3241	Boone 189 Blue Hole	(17)
2196	Dix Oil Seep	(15)	3242	Fairview Farm	(18)
2215	Shaper Point	(14)	3246	Boone	(18)
2351	Cle	(17)	3247	Camp Nelson	(22)
2409	Gibson #1	(17)	3264	Chickadee	(22)
2412	Gibson #2	(17)	3265	Oregon	(22)
2423	Manly Landing	(20)	3267	Inter	(21)
2434	Cava	(13)	3274	Trappers Branch	(22)
2438	Jackman	(19)	3278	Cassell	(22)
2444	Ball	(19)			
2518	Jackman Wetland	(19)			
2574	Haines	(17)			
2576	Haines	(18)			
2579	Milkers	(18)			
2583	Milkers	(18)			
2578	Sulphur Well	(18)			
2580	Pauls Mill	(18)			
2583	Sulphur Well	(18)			
2589	Henry Lane	(17)			
2604	Henry Lane	(17)			
2606	Cole Road	(17)			
2608	Water Gap	(17)			
2614	Howard Blue Hole	(17)			
2621	Roark	(17)			
2622	Seneca	(17)			
2626	Perkins	(17)			
2628	Perkins	(17)			
2631	Adams	(17)			
2632	Dwain	(17)			
2633	Adams	(17)			
2634	Dwain	(17)			
2635	Dry Fork	(21)			

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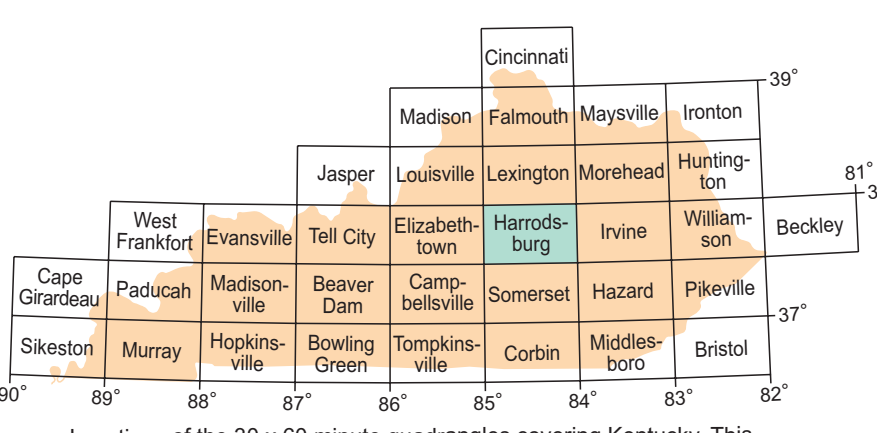
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Locations of the 30 x 60 minute quadrangles covering Kentucky. This quadrangle, the Harrodsburg quadrangle, is highlighted in green.

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For information on obtaining copies of this map and other Kentucky Geological Survey maps and publications call:
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Cartography by Terry Houshall