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Inventory of Karst Springs of Fayette County, Kentucky

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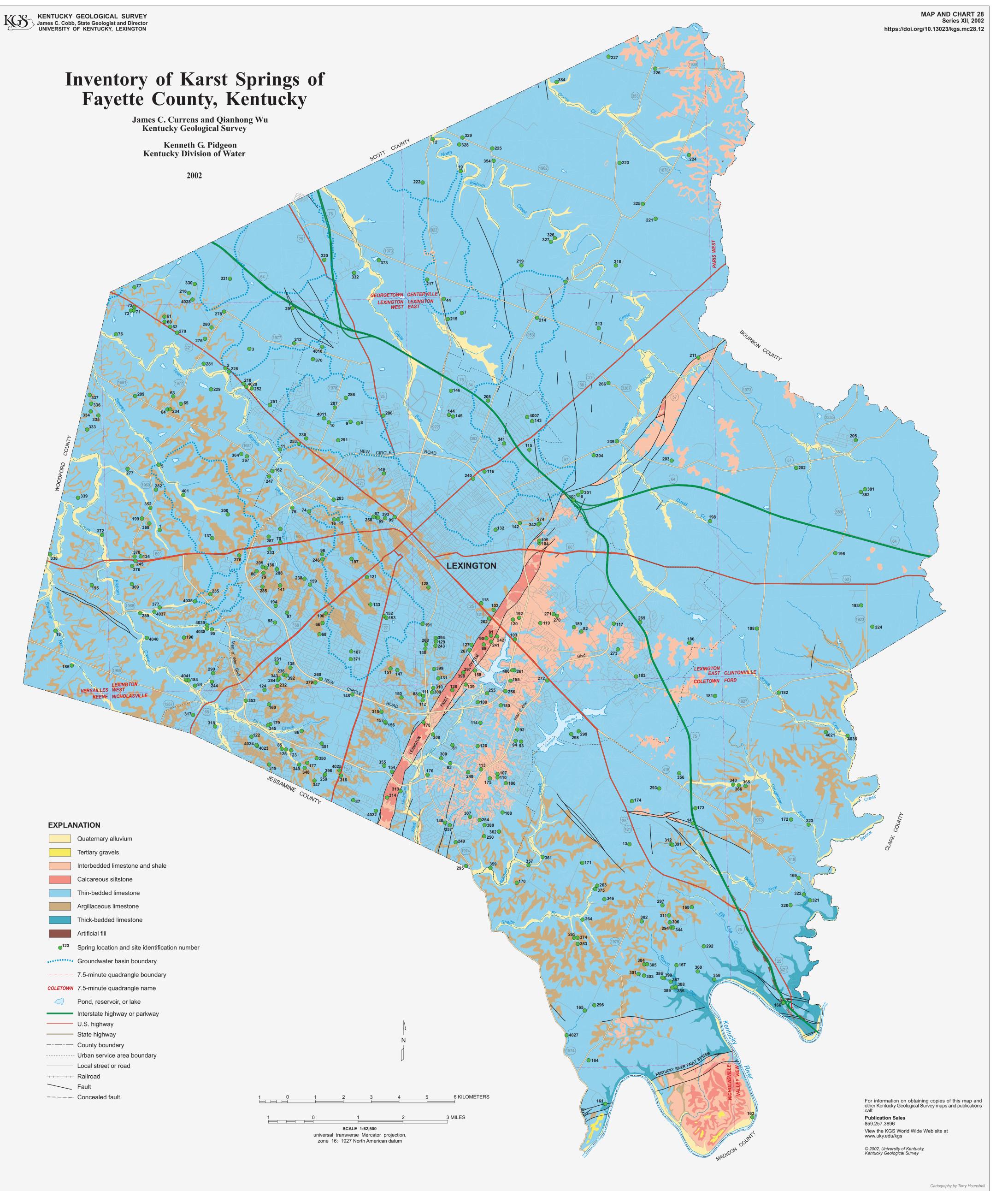


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he purpose of this publication is to document karst springs in Fayette County and provide a resource to help the county's citizens avoid the geologic hazards associated with building near springs during future urban development. It may be used as an aid in locating potential groundwater discharge points in case of hazardous material spills, and to provide a foundation for future studies of the drogeology and karst geology of the Inner Bluegrass Region. It is also a basic historical record of the springs of Fayette County. Although over 350 springs are reported here, this inventory is not exhaustive. At the time of publication, about one-third of Fayette County had not yet been systematically inventoried. Fortunately, many springs in the unvisited areas were already known and recorded in the Kentucky Geological Survey (KGS) database and are The spring locations shown are mostly those discharging from karst conduits, but also included are a significant number of soil seeps or wet-weather springs (epikarstic), and some springs apparently discharging from fractures created by faults. The springs vary in size from seasonal seeps to perennial springs with base flows approaching 0.5 cubic foot per second. As the rapid pace of urban development continues in Fayette County, some natural springs reported here will become buried, and the records used to compile this publication will be an important resource in the future for separating natural from man-made groundwater In an urban setting such as Fayette County, many springs have been routed into culverts to control drainage and maximize the area of buildable land. Therefore, discharge from some storm sewers originates from natural springs that have been covered. All sites reported here as springs are thought to originate as natural groundwater discharges. This inventory was compiled from work by a variety of investigators and agencies with differing reporting standards and professional backgrounds, and many of the sites reported here have not been verified in the field by KGS staff. Users are cautioned to verify the suitability and accessibility of springs for their intended purpose before making irrevocable decisions. Many of the data reported here were compiled into the groundwater database of the Kentucky Geological Survey from sources covering a period of several years. Some of these data were reported or published by John Thrailkill of the University of Kentucky Department of Geological Sciences (Thrailkill and others, 1982). Some data are from field investigations by the Kentucky Geological Survey staff. Among the data in the KGS database that are derived from other government agencies are data for sites reported as springs through the National Uranium Resource Evaluation (NURE) (Hoffman and Buttleman, 1994), conducted by the U.S. Department of Energy. The single most important source of spring lòcations for this publication was original field work conducted by co-author Ken lgeon from 1989 through 1998. The sites reported here are a small subset of numerous seeps, springs, culverts, and other discharge points inventoried by Pidgeon in Fayette County. Kentucky Geological Survey staff determined which reported sites are natural seeps or springs. The origin of flow from all discharge points was assessed using the information in the KGS database, supplemented with hard-copy records when available, and by field vestigation for some locations. The criterion used to determine if a site was a natural spring included the occurrence of rock outcroppings, he persistence and volume of flow (seasonal, intermittent, etc.), characteristics of the stream bed or drainage way (such as channelization into which the spring discharges, and the presence or absence of aquatic organisms. The documented topographic and cultural settin of the discharge point, the history of the site, and the presence of man-made structures such as culverts or spring houses were also taken into consideration. Water conductivity and temperature of the discharge were measured at those sites visited in the field. If there was any ambiguity about the nature of the site, the above observations were used to further differentiate groundwater from runoff discharged The database records for the NURE sites did not provide descriptive information. Although the accuracy of these data is largely unknown, a few of the sites were checked in the field by KGS staff and, in all cases where the sites could be found, they were determined The geologic map of Fayette County used as the base to plot the spring locations was compiled from digitized representations of the 7.5-minute geologic quadrangle maps for Kentucky (Sparks and others, 2001a, b). The geologic members of the Clays Ferry Formation, Garrard Siltstone, Lexington Limestone, and High Bridge Group have been simplified into gross lithologies based on the relative abundance of carbonate (limestone) in each stratigraphic interval. Faults, as mapped on the 7.5-minute maps, are also illustrated. Where the Springs Are Located The general hydrogeology of the Inner Bluegrass Region and Fayette County has been well understood for 50 years, although the details remain mostly unknown. Springs discharge precipitation that has seeped or flowed into the subsurface within a catchment area called a karst groundwater basin. The boundaries of many of the karst groundwater basins in Fayette County have been mapped, but a significant amount of the county remains unmapped. Research on how to choose the best location for drilling water wells into the hallow karst aquifers has yielded some promising results. Data have also been collected on wells drilled into a deep carbonate aquifer underlying the Inner Bluegrass. Drilling a well in the Inner Bluegrass remains a gamble, however, with only a 50 percent chance of A groundwater basin is a deep groundwater zone discharging to springs along base-level streams (Thrailkill and others, 1982). Apparent relationships between the geologic location of springs and, by inference, their topographic position can be observed from the map. All springs are located where geologic and hydrologic conditions result in groundwater flow being directed to the surface. Most n Fayette County are located in one of three topographic or geologic settings: along the banks of the larger streams, on the outcrop of an argillaceous (shaly) unit, or at the intersection of a valley and a fault zone. Springs occur along the banks of the larger local streams in the county because the fractures and bedding planes in the limestone are completely filled with water, and groundwater flow is forced to the surface at the stream. In some cases a less-permeable argillaceous unit may underlie the water-saturated zone at some depth, acting as a barrier to groundwater flow. Although argillaceous zones are common in the Lexington Limestone, the presence of one is not absolutely necessary for the groundwater to flow to the surface. In contrast, some major local streams, specifically Cane Run, have few springs along their stream channel because the groundwater is flowing deep below the channel to a larger, regional, base-level stream (for example, Elkhorn Creek or the Kentucky River). This circumstance can be the result of a prominent fracture system along which the channel of the local stream formed. Such a fracture system also enhances groundwater flow toward the regional base-level stream and thereby lowers the water table along the reach of the local tributary. The channels of streams like Cane Run are dry most of the year and carry significant discharge only during floods. The shallow, perched groundwater zones occurring in the upper elevations of ridges, which are commonly drainage divides between the deeper groundwater basins, are called interbasins (Thrailkill and others, 1982). Many seasonal springs, and some perennial springs, discharge from the interbasin areas at midslope along ridges in the Inner Bluegrass. In southwestern Fayette County, an argillaceous limestone unit in the Lexington Limestone, the Brannon Member is locally thick. Perched interbasins are a result of the annon and other thin or unmapped argillaceous units acting as barriers to deeper migration of water. The springs along the Brannor Member's outcrop typically occur near its base. The Brannon is described as being more argillaceous near its base and also as having thin bentonite (swelling clay) layers near its base (Black, 1967; Miller, 1967). This suggests that groundwater in the overlying fractures conduits, and epikarst flows along the top of the more argillaceous beds of the Brannon to the weathered zone on the hillside, where it discharges near the base of the Brannon. The flow from midslope interbasin springs often diminishes and may stop during long lrought periods. Water discharging from the interbasin springs may sink underground again as it flows downslope to become part of a deeper groundwater basin. Where the Brannon Member is topographically low in the exposed section, the perched aquifers can produce usable quantities of water to wells or springs. Springs sometimes cause problems for property owners. Houses on the outcrop of the Brannon Member, for example, frequently have wet basements or crawl spaces. When a development or building is planned, it should not be located near a spring, if possible, Springs also occur in fault zones where the bedrock has been crushed by the movement of the fault in the geologic past. In some e gouge in the fault zone may have enhanced porosity and permeability relative to the unbroken bedrock. A hydrologic gradient is produced along the trace of the fault where the fault crosses a hill and is intersected by the adjacent valley. Fault zones may also act as barriers to groundwater flow where the voids in the gouge have been filled by mineralization. Because groundwater in a fault zone can be very deep, and because mineralization may occur along the zone, the water from springs discharging from fault zones may be located low on fault zones may have ck, D.F.B., 1964, Geologic map of the Versailles quadrangle, Kentucky: U.S. Geological Survey Geologic Quadrangle Map GQ-325, scale Black, D.F.B., 1967, Geologic map of the Coletown quadrangle, east-central Kentucky: U.S. Geological Survey Geologic Quadrangle Map GQ-Black, D.F.B., 1968, Geologic map of the Ford quadrangle, central Kentucky: U.S. Geological Survey Geologic Quadrangle Map GQ-764, scale Couch, A.W., 1988, A DRASTIC evaluation for part of the Inner Bluegrass karst region, Kentucky: The Centerville, Georgetown, Lexington East, and Lexington West quadrangles: Lexington, University of Kentucky, master's thesis, 95 p. 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Quadrangle Name: Centerville AKGWA Number Field Number Latitude Longitude Elevation gsfay030 38° 07' 44" 84° 26' 04" 890 unnamed Comment: Russell Cave Spring
17

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1840

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1840 North Elkhorn Creek unknown JT82ec 38° 09' 56" 84° 28' 34" 840 Elkhorn Creek 38° 07' 51" 38° 08' 01" 38° 08' 05" 38° 08' 54" 38° 09' 44" 38° 12' 04" 84° 24' 51" 38° 09' 12" 84° 24' 07" 920 unnamed tributary, North Elkhorn Creek perennial Comment: 5401 Greenwich Rd. Old rock spring house in pasture next to residence. Observed at high flow and possibly not perennial. unnamed tributary, North Elkhorn Creek perennial 38° 08' 35" 84° 26' 18" 860 Comment: 4340 Huffman Mill Rd. Spring house in pasture next to stream has pumps, tanks, considerable storage. Good flow during wet periods. 38° 08' 31" 84° 26' 24" 865 unnamed tributary, North Elkhorn Creek perennial Comment: 4340 Huffman Mill Rd. Discharges from ground in natural drainage in pasture, several outlets. Substantial flow during wet periods. 328 90002356 616 38° 10' 27" 84° 28' 35" 860 unnamed tributary, North Elkhorn Cree omment: Lemons Mill Rd., fire gate-45. Stream bed behind barn in pasture at fire gate 42. Discharges near stream from Lemons Mill Rd. 38° 10' 35" 84° 28' 30" 875 unnamed tributary, North Elkhorn Creek seasonal Comment: Lemons Mill Rd., fire gate-45. Spring house in field next to house. Not perennial according to owner and does not look perennial. Other outlets farther 38° 10' 07" 84° 27' 45" 860 North Elkhorn Creek perennial 90002385 661 Comment: Lemons Mill Rd. Discharges from bedrock at water level along east bank of pond behind house 384 90001576 38° 11' 36" 84° 26' 09" 865 ur Comment: Abandoned domestic supply. Discharges from 1.5-ft-tall, mortared stone spring box. Quadrangle Name: Clintonville AKGWA Number Field Number Latitude Longitude Elevation Receiving Water Body Flow Type 38° 00' 53" 84° 18' 47" 970 unnamed tributary, Boone Creek mment: 3346 Combs Ferry Rd. Discharges from rocky area along ravine, behind house. Flows into pond. Comment: Palmer Spring. 4400 Haley Rd. At end of willow lane, through two gates, on the left. 382 90001055 38° 03' 30" 84° 18' 58" 975 Comment: Caise Spring. 4173 Willow Ln. Large stage changes within spring box in response to rain Quadrangle Name: Coletown and Map
ID No. AKGWA Number Field Number Latitude Longitude Eleva
13 JT82005 37° 56' 48" 84° 24' 53" 945 Receiving Water Body Flow Type JT82020 omment: Interstate 75 pond spring. unnamed tributary, West Hickman Creek intermittent Comment: 816 Raven Dr. Spring discharges from bank and flows into UT West Hickman Creek. Located behind "Charlie's" at the Lansdowne Club. unnamed tributary, East Hickman Creek seasonal unnamed tributary. East Hickman Creek seasona unnamed tributary, East Hickman Creek perennial omment: 3550 Kenasaw Dr. Behind apartment 26. Small spring discharges from bank next to storm sewer, but not from the storm sewer. 37° 58¹14" 84° 28' 04" 1100 37° 57' 29" 84° 27' 58" 980 37° 59' 38" 84° 28' 30" 940 unnamed tributary, East Hickman unnamed tributary, West Hickman Creek perennial omment: 2372 The Woods Ln. Small spring in backyard of residence 37° 58' 10" 84° 28' 04" 1000 37° 59' 47" 84° 29' 50" 940 unnamed tributary, West Hickman Creek perennial Comment: North Spring, Lansdowne Shopping Center,. 3317 Tates Creek Rd. Spring discharges from stream bank and flows into UT West Hickman Creek. Behind Lansdowne Shopping Center, just upstream of north bridge to parking area behind stores.

112 90000171 085 37° 59' 42" 84° 29' 51" 940 unnamed tributary, West Hickman Creek perennial omment: South Spring, Lansdowne Shopping Center. 3317 Tates Creek Rd. Spring discharges from stream bank just upstream of south bridge behind Lansdowne Shopping Center. Note: North bridge also has a spring next to it.

113 90000172 37° 58' 20" 84° 28' 28" 995
114 90000173 087 37° 59' 14" 84° 28' 27" 960 unnamed tributary, West Hickman Creek perennial Comment: Tates Creek Golf Course. Gainesway Dr. Spring submerged in the pond. No visible surface flow into pond. Stream draining pond has good flow. 126 90000185 039 37° 58' 47" 84° 28' 32" 980 unnamed tributary, West Hickman Creek peren unnamed tributary, West Hickman Creek perennial Comment: 3552 Honey Jay Ct. Small spring in back of house, which empties into ditch.
138 90000210 37° 59' 53" 84° 29' 07" 1010
139 90000211 157 37° 59' 59" 84° 28' 47" 980 unnamed tributary, West Hickman Creek perennial Comment: 3509 Coltneck Ln. Spring in sinkhole in back of house. 140 90000214 37° 57' 19" unnamed tributary, West Hickman Creek perennial omment: 2108 Woodley Cir. Comes out of pipe beneath driveway bridge. Water temperature is 19°C, conductivity is 600μS, flow is 1 to 2 L/s. 37° 56' 01" 84° 25' 42" 940 Shelby Branch, West Hickman Creek perennial omment: 3552 Walnut Hill Rd. Discharges from rock outcrop in east valley behind farm buildings. Almost a cave.
64 90001309 648 37° 55' 22" 84° 26' 05" 920 Shelby Branch, East Hickman Creek perennial omment: 4342 Shelby Ln. Exposed rock outcrop in lower valley west of house. Former water supply "really gushes during rain." 265 90001310 649 37° 55' 01" 84° 26' 18" 940 Shelby Branch, West Hickman Creek perennial Comment: 4342 Shelby Ln. Discharges from a hole in bedrock located on side of second main valley, downhill from house, and about half way up slope from where the valley splits. Another older, abandoned spring exit in hillside slightly above active exit 292 90002317 513 37° 54′ 47" 84° 23′ 08" 850 unnamed tributary, Kentucky River perennial Comment: 5892 Kentucky-American Rd. From under rock layer at base of cliff, south of cemetery. Downstream from residence. Spring used to be supply for area farms. 90002318 512 37° 57' 52" 84° 24' 07" 1000 unnamed tributary, Boone Creek perennial unnamed tributary, Boone Creek perennial omment: Discharges from stream bed about 20 ft downhill from old spring house in field.
94 90002319 486 37° 55' 10" 84° 23' 55" 950 unnamed tributary, Kentucky River perennial nment: 2000 Hillgate Dr. Discharges from rock outcrop beside house. 37° 56' 28" 84° 28' 54" 930 unnamed tributary, West Hickman Creek perennial Comment: 5447 Tates Creek Rd., from pasture in front of house, several holes in hillside on both sides of pasture, water then sinks at end of pasture. 96 90002322 478 37° 53' 42" 84° 25' 51" 920 unnamed tributary, West Hickman Creek unnamed tributary, West Hickman Creek perennial Comment: 4154 Crawley Ln. In field beside and behind house. Pump house used to provide drinking water from nearby well. 297 90002323 475 37° 55' 36" 84° 24' 07" 980 unnamed tributary, Eas Comment: 5199 Whites Ln., from abandoned well in pasture beside house. The well filled in but still flowing. Another spring in next pasture downhill 98 90002324 396 37° 58' 58" 84° 26' 14" 1010 unnamed tributary, East Hickman–res #4 page 10002324 1000 unnamed tributary. Comment: 3900 Richmond Rd. Small spring house in trees at edge of farm pasture. Water does not make it all the way down hill but does have flow.

99 90002325 395 37° 59' 01" 84° 26' 03" 980 unnamed tributary, East Hickman–res #4 unnamed tributary, East Hickman–res #4 perennial omment: 3900 Richmond Rd. Spring discharges into a ravine in farm pasture; over hill behind house, small pond nearby upstream.
00 90002326 529 37° 58' 34" 84° 29' 26" 920 unnamed tributary, West Hickman Creek perennial nment: Appian Way at bridge. Located in woods on north side of stream, west of Appian Way about 100 ft from road. Seeps from grassy area in woods into natural 525 37° 54' 17" 84° 24' 45" 950 unnamed tributary, Raven Run nment: 3251 Raven Creek Rd. Discharges from numerous outlets in ravine behind house. Spring outlets on both sides of ravine and some are on adjacent property 90002327 522 37° 55' 18" 84° 24' 38" 930 unnamed tributary, Rayen Run Comment: 5200 Raven Creek Ct. Upper spring discharges from outlet in ravine beside house, another spring is in the same ravine below this one.

903 90002329 523 37° 54' 15" 84° 24' 37" 910 unnamed tributary, Raven Run Comment: 5200 Raven Creek Ct. Lower spring, discharges from outlet in ravine beside house. Located where the ravine flattens out and comes out of left side of ravine.

304 90002330 520 37° 54' 28" 84° 24' 36" 950 unnamed tributary, Raven Run perennial

comment: 5201 Raven Creek Ct. Outlet located in ravine beside driveway behind to Comment: 5201 Raven Creek Ct. Outlet located in ravine beside driveway, behind house. 305 90002331 521 37° 54' 28" 84° 24' 32" 930 unnamed tributary, Raven Run 5 90002551 321
comment: Discharges into natural drainage just above pond.
206 90002332 514 37° 55' 16" 84° 23' 57" 890 unnamed tributary, Kentucky River perennial Comment: 2033 Hillgate Dr. Discharges from rock next to stream at end of natural drainage. 307 90002333 507 37° 57' 25" 84° 28' 46" 990 unnamed tributary, West Hickman Creek perennial omment: Seepage from yards of 2117, 2121, and 2125 Shelton Rd. to street. Not much flow but verified perennial. Area observed by K. Pidgeon for over 2 years and persistence of flow also reported by residents.

308 90002334 498 37° 59' 02" 84° 29' 37" 930 unnamed tributary, West Hickman Creek perennial omment: 1008 Winding Ct. Discharge from multiple outlets in ground at bottom of natural drainage behind Chapel Hill Presbyterian Church.

9 90002335 481 37° 59' 51" 84° 29' 37" 1000 unnamed tributary, West Hickman Creek perennial Comment: 3308 Montavesta Rd., Lansdowne East Apartments, building C. Discharge from east bank behind building C.

310 00002326 479 37° 59' 56" 84° 29' 35" 950 unnamed tributary, West Hickman Creek perennial

Comment: 3277 Pepperhill Dr., Julius Marks Elementary School. Discharges from east bank of stream behind school near telephone pole, multiple outlets.

311 90002337 473 37° 55' 24" 84° 23' 58" 960 unnamed tributary, Kentucky River perennial omment: 5189 Whites Ln., spring is located in pasture at confluence of two ravines. Discharges from bank where stream from north joins stream, draining ponds. North stream is the first major natural drainage below the second pond.
312 90002339 615 37° 56' 47" 84° 23' 52" 940 unnamed tributary, Boone Creek perennial Comment: 5180 Athens Ct. Discharges from cave at base of hill near house. Historical marker on road gives name as Cave Spring.

344 90002320 487 37° 55' 10" 84° 23' 52" 925 unnamed tributary, Kentucky River perennial Comment: 2000 Hillgate Rd. Multiple outlets discharge from east stream bank just downstream from house.

46 90002372 650 37° 55' 45" 84° 25' 32" 940 Shelby Branch, East Hickman Creek perennial Comment: 4347 Shelby Ln. Spring located in pasture, in natural drainage, upstream from residence. Discharges from rock in stream bed. 90002387 674 37° 58' 09" 84° 23' 37" 980 unnamed tributary, Boone Creek omment: Athens-Boonesboro Rd. Spring located in pasture in an old cement spring house with pump house and tank. Water flows into pasture and sinks into large 90002388 655 37° 56' 27" 84° 27' 22" 910 East Hickman Creek perennial Comment: 2835 Delong Rd. Located next to East Hickman Creek in a small, contemporary spring house in front of small 200-year-old historic building.

158 90002390 659 37° 54' 08" 84° 22' 54" 750 unnamed tributary, Kentucky River peres omment: 2525 Evans Mill Rd. Spring located in steep ravine, underneath power lines going to and west of Kentucky-American Water treatment plant. Discharges from 37° 56' 25" 84° 28' 18" 910 East Hickman Creek perennial omment: 2835 Delong Rd. Discharges from rock layers underlying storm sewer pipe under road. Water is not leakage from the storm sewer. Comment: 2525 Evans Mill Rd. Discharges from cracks in exposed rock layers in stream bed. Only visible if no flow from upstream, otherwise will be submerged.

361 90002392 657 37° 56′ 36″ 84° 27′ 01″ 910 East Hickman Creek nerennial Comment: 2835 Delong Rd. Large hole in rock under road in east creek bank. Farm manager says has large flow during rain. 662 90002393 654 37° 57' 07" 84° 28' 04" 970 unnamed tributary, East nment: 2835 Delong Rd. Spring located inside long concrete block wall, in side of large depression next to old slave house on historic farm. Water flows into drain, mment: 4342 Shelby Lane. Spring is located near big barn in upstream reach of the second tributary to Shelby Branch downstream from residence. Discharges from exposed rock in west bank of tributary. Not much flow but fish present.

374 90002408 649 37° 55' 01" 84° 26' 13" 940 Shelby Branch, West Hickman Creek perennial mment: 4342 Shelby Lane. Spring is located in downstream reach of the second tributary to Shelby Branch, downstream from the residence. Discharges from hole 37° 55' 57" 84° 25' 45" 940 Shelby Branch, West Hickman Creek perennial mment: 4347 Shelby Lane. Spring is located northwest of house and west of big barn on top of hill, along fence line. Discharges from big hole in east bank of stream. 37° 57' 15" 84° 28' 25" 960 unnamed tributary, East Hickman Creek perennia Comment: 4893 Wyndhurst Rd. Discharges from cracks in concrete ditch liner.
383 90001226 37° 58' 11" 84° 23' 37" 1000
385 90001949 37° 54' 00" 84° 23' 51" 730 To tributary, Boggs Fork Raven Run Creek mment: Laura Spring. Domestic supply. Discharges from spring box, 6 x 4 x 3 ft high, constructed of mortared stone. Multiple adjacent springs. 386 90002456 37° 54' 12" 84° 24' 10" 830 unnamed tributary, Raven Run Comment: Martin Cave Spring. Discharges from talus a few feet downhill of cave. Overflow for AKGWA 9000-2455.
387 90002457 37° 54' 07" 84° 23' 58" 820 unnamed tributary, Raven Run Comment: Deadfall Spring. Discharges from talus on hillside.
388 90002458 37° 54' 01" 84° 23' 51" 745 Comment: Undercut Spring. Discharges from undercut ledge at base of cliff in Raven Run gorge. Located about 150 ft downstream of Laura Spring.

150 points of the spring o omment: Powerline Spring. Discharges from talus on hillside.
90002455 37° 54' 11" 84° 24' 08" 830 unnamed tributary, Raven Run Comment: Discharges from bedding plane at stream level. About 50 ft downsteam of Martin Cave.

91 90001201 37° 56' 46" 84° 23' 50" 940

9027 37° 53' 08" 84° 26' 33" 930 Comment: Discharges from bedrock exposed on hillside in pasture. Owner says flow never dries up. Quadrangle Name: Ford and Map
ID No. AKGWA Number Field Number Latitude Longitude Elevation Receiving Water Body Flow Type
37° 53' 39" 84° 21' 14" 182
320 90002348 620, 621 37° 55' 32" 84° 21' 07"
320 90002348 620, 621 37° 55' 32" 84° 20' 59" 820 unnamed tributary, Boone Creek perennial Comment: 755 McCalls Mill Rd. No. 620 discharges from rock in natural drainage in pasture, variable flow. No. 621 discharges from rock cliff by fence line.
321 90002349 511 37° 55' 37" 84° 20' 30" 750 unnamed tributary, Boone Creek perennial Comment: 510 McCalls Mill Rd. Discharges from rock layers along east side of stream, opposite house.

322 90002350 510 37° 55' 44" 84° 20' 39" 760 unnamed tributary, Boone Creek perennial

Comment: Located on west side of stream, upstream from bridge near first curve in road. Discharges from rock along stream.

323 90002351 485 37° 57' 05" 84° 20' 29" 830 Baughman Fork seasonal

Comment: 791 Gentry Rd. Located upstream of Gentry Rd. Bridge over Baughman Fork. Discharges from three concrete pipes near stream. Shallow well with pump located uphill from pipes and supplies water to barns,
340 90002368 567 37° 57' 54" 84° 22' 18" 900 unnamed tributary, Boone Creek perennial Comment: 340 Cutters Hill Ct. Located in the north bank of stream. Discharges from holes and seepage at multiple outlets distributed along the length of property. Flow comes from rock bed, but temperature was 11°C and conductivity 550 S.
365 90002397 671 37° 57' 52" 84° 21' 60" 930 unnamed tributary, Boone Creek perennial Comment: Cleveland Rd. Located on south bank of stream in wooded area of Blue Sky Industrial Park. Discharges from hillside.

366 90002398 670 37° 57' 53" 84° 22' 10" 900 unnamed tributary, Boone Creek perennial Comment: Blue Sky Industrial Park. Located on hillside along stream. Discharges from depression in hillside with several outlets along the stream.

37° 58' 52" 84° 20' 00" 930 unnamed tributary, Boone Creek perennial

Comment: Flows from spring house located in field in front of residence. Owner says the spring flows all the time. 37° 58' 47" 84° 19' 28" 895 Comment: Emerges on hillside at a spring box. Traced from a large sink \(^3\)4 mile north on Todds Rd.

Elevation Receiving Water Body Flow Type unnamed tributary, to South Elkhorn Creek perennial 38° 07' 53" 84° 35' 10" 900 unnamed tributary, Town Branch comment: 4628 Bethel Ln. Located in pasture behind Bethel Presbyterian Church. Discharges 31 90002359 417 38° 07' 58" 84° 34' 18" 900 unnamed tributary, Town Branch Comment: 1261 Yarnallton Rd. Located in field on horse farm. Discharges from two spring houses. 332 90002360 583 38° 08' 01" 84° 31' 15" 890 Comment: 1700 Berea Rd. Located in field next to road. Discharges from rock outcrop and flows into stone- lined "pond" then to stream.

373 90002406 505 38° 08' 15" 84° 30' 38" 870 unnamed tributary, Cane Run Comment: Asphalt Institute, 3896 Research Park Dr. Located at edge of pond next to building. Discharges from hole in rock. 38° 07' 35" 84° 35' 14" 875 Comment: Discharges from swamp area in pasture downstream from Bethel Church. Rock wall built around the spring. Quadrangle Name: Lexington East AKGWA Number Field Number 013 Field Number 28° S3° S3' S4° 25' 50" S50 Field Number 1013 Field Number Comment: Bailey Spring. Small spring house on upstream side of pond. Never been known to go dry. Also see KWRRI report 136, JT8200 JT82025 38° 07' 11" 84° 28' 38" 915 Comment: Paxton Spring JT82d16 38° 07' 02" 84° 28' 25" 925 omment: Snyder Spring JT82d49 38° 07' 28" 84° 29' 04" 899 Comment: Series 10 of 15. Positive traces at McGee Sink (JT82ms) and Vaughns Spring (JT82046 82 90000128 041 38° 00' 57" 84° 25' 55" 1010 unnamed tributary, North Elkhorn Creek perennial Comment: 2644 Liberty Rd. Spring discharges from pipe and empties into small pond. 89 9000140 052 38° 00' 45" 84° 28' 19" 1000 unnamed tributary, West Hickman Creek seasonal unnamed tributary, West Hickman Creek perennial unnamed tributary, West Hickman Creek perennial Comment: Idle Hour Country Club. Spring discharges from small opening in exposed horizontal rock layers in southeast corner of property.

38° 00' 50" 84° 27' 33" 990 unnamed tributary, West Hickman Co omment: Richmond Rd. Small spring bubbling out of bank into drainage ditch running around edge of Lexington Mall parking lot. Flows into Lexington Reservoir 1 unnamed tributary, North Elkhorn Creek perennial unnamed tributary, Cane Run unnamed tributary, Cane Run Comment: 1700 N. Broadway. Small spring house in yard in front of Congress Inn.

117 90000176 096 38° 01' 05" 84° 25' 07" 995 Comment: Man o' War Blvd. at Bryant Rd. Spring originating in farm pasture feeds small pond formed by rock wall dam.

118 90000177 38° 01' 33" 84° 28' 21" 1010 unnamed tributary, unnamed tributary, East Hickman Creek perennial unnamed tributary, West Hickman Creek perennial omment: 1598 Lakewood Ct. E. Original location of spring unknown. Now covered up by subdivision. Spring discharge combined with storm sewer that discharges d residence. Water temperature was 16°C and conductivity 300 S. unnamed tributary, West Hickman Creek perennial 38° 00' 42" 84° 29' 45" 1000 unnamed tributary, West Hickman Creek perennial unnamed tributary, North Elkhorn Creek unnamed tributary, North Elkhorn Creek
perennial
perennial omment: 617 New Circle Rd. Spring discharges from rock wall in ravine next to New Circle Rd. Remains of old spring box nearby. Appears to have been part of farm at one time. Difficult to find and to get to; hidden in brush and trees.

143 90000236 237 38° 05' 03" 84° 26' 59" 960 Comment: 1441 Sugar Maple Ct. Spring house next to residence 38° 05' 11" 84° 28' 55" 950 unnamed tributary, Cane Run Comment: 1441 Sugar Maple Ct. Rock wall over spring discharging to small pond on golf course behind residence.

146 90000239 240 38° 05' 41" 84° 28' 57" 930 unnamed tributary, Cane Run nment: Griffin Gate Blvd. N. Old spring house with small spring discharges to pond on Griffin Gate Golf Course. unnamed tributary, West Hickman Creek Reservoir 3 perennial perennial 38° 04' 35" 84° 24' 50" 890 unnamed tributary, to North Elkhorn Creek perennial omment: Bryan Station Spring, Bryan Station Rd. Spring is marked with a historic monument. 40 90001290 253 38° 03' 58" 84° 28' 28" 970 omment: N. Broadway/Broadview Dr. Spring discharges from rock wall next to N. Broadway.-Water drains into concrete tank in ditch next to road. 38° 00' 48" 84° 28' 08" 1000 Comment: Kentucky-American Water Co., Richmond Rd. Located in ravine draining into Reservoir 2. Flows through wooded area, then to Reservoir 2. 242 90001292 054 38° 00' 54" 84° 27' 59" 990 West Hickman creek (reservoir #1) perennial nment: Kentucky-American Water Co., Richmond Rd. Small spring flows downhill beside Kentucky-American Water Co. Maintenance people say it's always wet, 158 38° 00' 45" 84° 29' 30" 990 unnamed tributary, West Hickman Creek perennial Comment: 928 The Curtilage. Spring/spring house used for heating/cooling of house. Spring house built in 1800's.
261 90001305 099 38° 00' 14" 84° 27' 35" 980 unnamed tributary, East Hickman Creek perennial omment: 405 Plainview Dr. Spring discharges from the fracture between concrete ditch and storm drain. The water temperature is 18°C (air temperature 16°C conductivity is 640 S. 262 90001306 647 38° 01' 15" 84° 28' 10" 990 unnamed tributary, West Hickman Creek perennial Comment: Mansfield Spring, 1920 Richmond Rd. Spring box and multiple outlets from ground near corner of historic house.

266 90001266 570 38° 05' 45" 84° 25' 05" 920 unnamed tributary, North Elkhorn Creek perennial

Comment: 3380 Paris Pk. Old spring house along Johnson Road. Discharge points vary depending on water table. Additional outlets in roadside ditch and under bridge 90001267 408 38° 00' 39" 84° 28' 40" 980 West Hickman Creek perennial Comment: 1582 Lakewood Ct. Temperature 14°C, conductivity 346 μS. 268 90001268 429 38° 00' 47" 84° 29' 44" 1000 West Hickman Creek perennial omment: 2645 Tates Creek Rd. Discharges from bank of pond behind house. Following rain the flow from the spring remains clear when adjacent drainage ditch is y. Temperature is 15°C, conductivity 350 S.
90001269 397 38° 01' 06" 84° 24' 28" 990 North Elkhorn Creek perennial 269 90001269 397 38 01 00 64 24 26 370 Grown Street Comment: 2370 Bryant Rd. Located in pasture next to I-75. Flows into swamp then to stream crossing under I-75.
270 90001270 402 38° 01' 16" 84° 26' 30" 1020 North Elkhorn Creek perennial
Comment: 680 Woodward Ln. Discharges from yard or field beside house.
271 90001271 399 38° 01' 18" 84° 26' 35" 1010 North Elkhorn Creek perennial omment: Liberty Rd. Discharges from rock outcrop in pasture behind house.
72 90001272 393 38° 00' 01" 84° 26' 47" 990 East Hickman Creek perennial
73 omment: 3270 Richmond Rd. At Man o' War Blvd. Discharges from south bank of stream 5 to 6 ft downstream from storm sewer. Not actually on veterinary clinic 90001273 389 38° 00' 35" 84° 25' 02" 1010 East Hickman Creek intermittent Comment: 1200 Sheffield Pl. Located in natural drainage in backyard.

274 90002370 554 38° 03' 04" 84° 26' 52" 950 unnamed tributary, North Elkhorn Creek perennial mment: 1852-B Chatsworth. Discharges from west bank of ditch behind garage, behind house. Water temperature is 13.5°C, conductivity 405μS. 90002369 442 38° 04' 38" 84° 27' 41" 995 unnamed tributary, Cane Run ment: Flows from natural drainage ditch in trees to pipe, then to small concrete tank in bank of drainage ditch between Red Roof Inn and WDKY studio.

90001274 553 38° 03' 03" 84° 26' 54" 950 unnamed tributary, North Elkhorn Creek perennia unnamed tributary, North Elkhorn Creek perennial omment: 1532 Cantrill Dr. Flows from rock ledge on stream bank behind house. 38° 00' 54" 84° 29' 29" 1 38° 00' 13" 84° 28' 50" 1 38° 00' 13" 84° 28' 50" 1 ID No. AKGWA Number Field Number Latitude Longitude Elevation Receiving Water Body Flow Type

1 38° 03' 08" 84° 36' 11" 900 unnamed tributary, South Elkhorn Creek omment: Keeneland: discharges at rock outcrop near paint shop. Former drinking-water supply now used only for watering track. Good size spring. K.P. field number 90000077 JT82035 38° 06' 11" 84° 34' 20" 850 Town Branch perennial omment: Silver Spring. Always has good output and after rainy periods it becomes a stream about 10 ft across. Spring house visible from U.S. 421. USGS field number gsfay024. K.P. field number 035.

GSFAY025

38° 06' 36"

84° 33' 50"

880 Comment: Piatt Spring, 3880 Spurr Rd. Spring house with small cave inside. K.P. field number 669. JT82041 38° 04' 24" 84° 36' 10" 859 Steeles Run JT82039;QW 38° 05' 06" 84° 31' 15" 918 unnamed tributary, Town Branch omment: Spring Lake Country Club, Sandersville Rd. Spring is located next to driveway for country club. Spring feeds pond. Spring lake spring. First positive trace JT82ss1 38° 05' 08" 84° 31' 26" 909 Comment: Spring Lake Station 1. Second positive trace in series JT82d1.

10 JT82ss2 38° 05' 08" 84° 31' 58" 909 Comment: Spring Lake Station 2. Third positive trace in series JT82d1. JT82022 38° 04' 38" 84° 33' 11" 859 Town Branch Comment: Lindsay Spring. K.P. field number 32. Fourth positive trace in series JT82d1. Spring discharges out of rocky area in field and flows into pond and over dam.

15 900011611 1SS1 38° 03' 15" 84° 31' 48" 920 none perennial Comment: Spring is one of three including McConnell Spring, ISS2 and ISS3.

16 90000066 ISS2 38° 03' 15" 84° 31' 54" 915 omment: McConnell Spring rise pool (karst window). Second of three springs in trace. 38° 07' 22" 84° 32' 47" 918 38° 07' 10" 84° 35' 56" 860 omment: Field has other springs and seeps. 38° 07' 16" 84° 35' 56" 880 omment: Field has other springs and seeps. 90000078 034 38° 07' 04" 84° 35' 48" 850 Comment: 4435 Leestown Rd. During periods of rain, output becomes a small stream, sometimes partially flooding U.S. 421.

90000084 005 38° 05' 43" 84° 35' 46" 910 tributary to Town Branch Comment: Old Frankfort Pk. Sheffield Farm No. 1 main spring. Used as drinking water and livestock water supply. Farm manager said in all the years spring has been 006 38° 05' 28" 84° 35' 55" 900 tributary to Steeles Run omment: Old Frankfort Pk. Sheffield Farm No. 2 pond spring. Spring is in middle of pasture. Pond and dam shown on topographic map are no longer there. 90000086 Comment: Old Frankfort Pk. Sheffield farm No. 3 spring. 38° 01' 15" 84° 32' 15" 980 38° 03' 16" 84° 30' 51" 900 omment: Mystery Spring: karst conduit intersected by channelization of Town Branch. Spring discharges from under south bank (cut) at stream level.

90000095 38° 01' 02" 84° 32' 20" 980 un pond (UT Town Branch) unnamed tributary, to Wolf Run unnamed tributary, to Wolf Run unnamed tributary, to Town Branch nent: Kenton blue hole, 1843 Parkers Mill Rd. Along side of small stream and is a deep circular pit filled with water. Owner says when it rains, water starts gushing 38° 02' 10" 84° 33' 45" 940 omment: Wilhite Spring, 1899 Parkers Mill Rd. Small spring in pasture, in front of farm house, discharges from rock ledge next to drainage ditch.
90000132 043 38° 00' 06" 84° 35' 25" 430 unnamed tributary, South Elkhorn Creek perennial unnamed tributary, Town Branch 38° 01' 26" 84° 32' 10" 950 omment: Kay Spring, 599 Springhurst Dr. Spring discharges into concrete pond in back of house. This is the spring for which the Springs Motel is named, but is not 38° 02' 38" 84° 36' 40" 890 unnamed tributary, South Elkhorn Creek perennial 38° 00' 24" 84° 33' 04" 960 38° 02' 21" 84° 33' 36" 940 unnamed tributary, Wolf Run 84° 34' 54" 950 unnamed tributary, Cave Creek 38° 00' 18" 84° 30' 27" 970 38° 04' 07" 84° 30' 39" 960 unnamed tributary, Town Branch Comment: 210 Fairdale Dr., Suburban Mobile Home Park. Spring box behind trailer in trailer park. A pond is uphill of the spring. 38° 00' 20" 84° 30' 37" 980 38° 01' 21" 84° 30' 44" 980 38° 01' 19" 84° 30' 41" 980 unnamed tributary, Vaughns Branch 90000274 90001008 38° 02' 29" 84° 31' 30" 38° 03' 22" 84° 36' 37" 38° 03' 24" 84° 34' 30"

Quadrangle Name: Georgetown

38° 00' 03" 84° 33' 24" 960 unnamed tributary, South Elkhorn Creek perennial omment: 3224 Roxburg Dr. Spring discharges from ground in wooded area in back of residence. 33 90001282 273 38° 02' 43" 84° 33' 30" 910 Comment: 1208 Colonial Dr. Spring discharges from rocks in stream bed. Stream bed upstream normally dry. 38° 05' 28" 84° 35' 51" 38° 01' 52" 84° 34' 59" 950 Cave Creek (South Elkhorn Creek) perennial omment: 2851 Parkers Mill Rd. Spring with multiple outlets located on farm near Man o' War Blvd. and Parkers Mill Rd. Also has spring house and abandoned well 00001286 110 38° 00' 16" 84° 33' 14" 950 mment: 3160 Chelsea Dr. Spring discharging from hole in hillside. Flows directly into stream. The temperature of the spring is 14.5°C and conductivity is 420µS 90000157 069 38° 02' 07" 84° 32' 35" 930 Wolf Run perennial Comment: 949 Holly Springs. Located downstream of small concrete and stone wall behind house. 38° 00' 10" 84° 34' 60" 910 unnamed tributary, South Elkhorn Creek perennial Comment: 4137 Palmetto Dr. Spring discharges from rock behind house into small pond. 245 90001296 247 38° 02' 33" 84° 36' 48" 930 omment: Versailles Rd. west of airport. Spring emerges from gravel in ditch beside Versailles Rd. Part or all of flow may be coming from spring across the road from 38° 02' 29" 84° 32' 13" 920 omment: 1525 Pine Meadow Ct. Large soggy area between 1521 and 1525 heads a little stream.

90001297 QW#1 38° 04' 07" 84° 33' 28" 890 omment: Viley Rd. Inspected spring from roadway due to location in thoroughbred horse pasture. 38° 05' 51" 84° 33' 56" 859 Comment: U.S. Dept. of Justice, Bureau of Prisons, Federal Correctional Facility, Leestown Rd. Spring is upstream from main entrance. 253 90000079 001 38° 04' 44" 84° 32' 28" 920 Comment: 2413 Leestown Rd. 258 90001301 018 38° 03' 17" 84° 30' 56" 900 Town Branch omment: Manchester St./RR-W, on the west side of overpass. Artesian spring bubbling up from a fracture alongside of Town Branch. Source is below water level of 38° 00' 10" 84° 32' 20" 970 unnamed tributary, to South Elkhorn Creek perennial ment: 440 Coventry Ct. Small spring discharges from conduit and covered up by housing development. Resident says spring always flowing. The temperature is 7°C and conductivity is 500µS. The stream's temperature is 22°C.
75 90001275 632 38° 06' 49" 84° 34' 57" 870 Comment: Leestown Rd. at Yarnallton Rd. Spring box in pasture by road. May not be true perennial. 276 90001276 618 38° 02' 36" 84° 34' 15" 940 South Elkhorn Creek perennial Comment: 2701 Parkers Mill Rd. Karst window. Discharges from rock layer and soil around edge of sinkhole in pasture 90001278 598 38° 04' 20" 84° 36' 56" 860 Manchester Bra Comment: Van Meter Rd., fire gate 15. Small spring house in pasture behind house. 278 90001279 465 38° 07' 20" 84° 34' 28" 870 Comment: 851 Yarnallton Rd. Discharges from spring house and surrounding ground behind house. Spring house has running pump. Comment: 4435 Leestown Rd. W. Small spring house next to rock wall along road. 280 90002304 416 38° 07' 02" 84° 34' 47" 875

 Comment: Bethel Rd. at Yarnallton Rd. Spring in pasture flows into small pond.

 281
 90002305
 410
 38° 06' 20"
 84° 34' 60"
 870

 Comment: 3888 Leestown Rd. or Yarnallton Rd. fire gate 9. Spring discharges from base of old spring house and flows through yard to pond.

82 90002306 517 38° 03' 55" 84° 36' 15" 900 unnamed tributary, Manchester Brancl unnamed tributary, Manchester Branch perennial 282 90002506 317 Comment: 3675 Van Meter Rd. Discharges from rock outcrop in pasture next to house. 283 90002307 489 38° 03' 38" 84° 31' 54" 890 Comment: 1405 Old Frankfort Pk. Discharges from rock layer in south bank of Town Branch, opposite Town Branch Sewage Treatment Plant. 284 90002308 447 38° 00' 10" 84° 33' 23" 940 unnamed tributary, South Elkhorn Cre residence. Not much flow but appears perennial. 38° 01' 59" 84° 33' 42" 950 Comment: 2038 Williamsburg Rd. Located in Beaumont Park and is under small concrete wall set back from gully that discharges to sinkhole. 38° 05' 36" 84° 31' 32" 930 unnamed tributary, Town Branch perennial Comment: 1010 Greendale Rd., fire gate 10. Discharges from exposed rock layer in field next to house 90002312 557 38° 02' 57" 84° 33' 31" 930 unnamed tributary, South Elkhorn Creek perennial Comment: 1316 Viley Rd. Discharges from ground near fence line behind house. There is also a well nearby. The water temperature is 14 °C and conductivity is 495µS 90002313 558 38° 02' 19" 84° 33' 20" 920 unnamed tributary, South Elkhorn Creek perennial Comment: 1656 Linstead Dr. Small spring behind house discharges from a rock layer that is under a concrete pipe. Water temperature is 14°C and conductivity is 270µ. 38° 01' 32" 84° 36' 43" 870 unnamed tributary, South Elkhorn Creek perennial Comment: 4710 Parkers Mill Rd. Located behind Bethany Baptist Church and discharges from hillside on south bank of Cave Creek 290 90002315 608 38° 00' 20" 84° 34' 58" 900 unnamed tributary, South Elk Comment: 2575 Bowmans Mill Rd., Helm Place. Located at base of trees bordering pasture behind Amberwood Dr. Discharges from rock outcrop. 38° 04' 47" 84° 31' 45" 895 unnamed tributary, Town Branch Comment: 1240 Lisle Rd. Located on stream behind Winn-Dixie and upstream from Town Branch Sewage Treatment Plant. Discharges from rock layers on west bank, 0 ft upstream from big rock outcrop across entire stream bed. Opposite old dump. 13 90002309 446 38° 00' 12" 84° 33' 21" 950 Comment: 809 Blenheim Way. Discharges from exposed rock layer in backyard. Flows across yard through ditcl 52 90001277 614 38° 03' 34" 84° 36' 24" 614 Manches Comment: 2675 Rice Rd. Spring house is located in pasture in front of residence.
364 90002396 664 38° 04' 34" 84° 34' 08" 895 Comment: 3000 Old Frankfort Pk. Spring house and concrete pond near scenic roadside stop on Old Frankfort Pk. 38° 04' 31" 84° 33' 60" 880 unnamed tributary, Town Branch Comment: 3000 Old Frankfort Pk. Swampy area in pasture, east of roadside stop. 368 90002400 667 38° 03' 16" 84° 36' 26" 910 Comment: Keeneland North Spring, Versailles Rd. Small spring house located in trees in pasture north of water tanks on hill.

369 90002402 660 38° 02' 06" 84° 36' 54" 880 South Elkhorn Creek perennial Comment: Blue Grass Field, Versailles Rd. Located west of airport terminal in big ravine parallel to and north of runway 04/22 370 90002403 673 38° 06' 22" 84° 32' 19" 910 unnamed tributary, Tov 38° 00' 32" 84° 31' 35" 1020 Comment: Eastway Dr. Swampy area located downhill from base of trees in wooded area in field at end of Eastway Dr. 376 90002410 126 38° 02' 27" 84° 36' 53" 900 unnamed tributary 376 90002410 126 38° 02' 27" 84° 36' 53" 900 unnamed tributary, South Elkhorn Creek perennial Comment: Versailles Rd. at Rice Rd. Located in a ravine on the farm west of airport and opposite Rice Rd./Versailles Rd. intersection. Discharges from small rock outcrop 90002411 120 38° 01' 38" 84° 36' 14" 885 unnamed tributary, South Elkhorn Creek perennial omment: Parkers Mill Rd. Spring near intersection of Parkers Mill Rd. and access road to Lexington airport. Spring discharges into ditch and flows underneath Parkers 90002413 124 38° 02' 38" 84° 36' 49" 880 omment: Parkers Mill Rd. at Blue Grass Field. Spring is located at end of runway 04, just inside access gate.
9 90002414 646 38° 00' 06" 84° 32' 28" 920 South Elkhorn Creek perennial mment: Clays Mill Rd. at New Circle Rd. Discharge from exposed rock layer in pasture beside New Circle Rd. on farm southeast of Clays Mill/New Circle Rds. 38° 02' 22" 84° 33' 41" 38° 03' 48" 84° 35' 35" unnamed tributary Town Branch Comment: Discharges from soil of north bank of stream. Located upstream of main entrance to Federal Correctional Institution Medical Facility. 4039 90002421 38° 01' 16" 84° 35' 05" 910 Cave Creek mment: Cave Hill Spring discharges from the base of a steep bluff, 500 ft south of Mint Lane Spring. Base flow discharge is 1.0 ft³/s. Dye traces by L.E. Spangler 38° 01' 44" 84° 35' 22" 905 Twin Brook tributary to Cave Creek omment: Patterson Spring is the headwaters of Twin Brook, which discharges from four closely spaced rises, one of which is larger than the other three combined. 200 Comment: Hall Spring is the resurgence of Twin Brook and rises 50 ft from sping house, and 500 ft east of confluence with Cave Creek. Base flow is 0.33 ft³/s, and peak flow is 2.25 ft³/s. Dye traces by L.E. Spangler.

38° 01' 33"

84° 36' 22"

870

South Elkhorn Creek perennial Comment: Bell Spring rises 200 ft from and flows directly into South Elkhorn Creek. Peak flow is 2.25 ft³/s. Dye traces by L.E. Spangler. 4041 90002419 38° 00' 13" 84° 35' 38" 890 South Elkhorn Creek perennial Comment: Bowmans Mill Spring discharges from the north side of South Elkhorn Creek from two rise pools, one on the bank and the other 20 ft from the bank. Dye Quadrangle Name: Nicholasville mment: 513 Retrac Rd. Spring discharges from conduit in rock ledge behind resider unnamed tributary, West Hickman Creek perennial 37° 57' 48" 84° 31' 37" 37° 59' 05" 84° 34' 04" Comment: 1309 Copperfield Ct. Small spring in back of residence in new subdivision (December 1989). Farm pond previously at location of spring is now drained. Obscured by construction as of summer 2000.
23 90000182
24 90000183 37° 58' 48" 84° 33' 06" 37° 59' 59" 84° 33' 43" unnamed tributary, West Hickman Creek perennial 37° 58' 20" 84° 30' 39" 920 unnamed tributary. West Hickman Creek perennial unnamed tributary, West Hickman Creek perennial 37° 59' 19" 84° 33' 36" 940 unnamed tributary, South Elkhorn Creek perennial mment: 3564 Clays Mill Rd., Unitarian Universalist Church. Discharges from rock approximately 15 ft east of stream bed in wooded area. Small square concrete ructure just uphill from spring may be the remains of an old spring house.
59 90001302 255 37° 58' 18" 84° 32' 18" 990 unnamed tributary, South Elkhorn Creek perennial omment: 225 Higbee Mill Rd.., Waveland State Shrine. Small spring located downstream from bridge and below a pond. Water temperature of spring is 15.5 °C and nductivity is 320μS. The temperature of the creek is 19.5°C.

3 90002340 427 37° 57' 57" 84° 30' 27" 930 unnamed tributary, West Hickman Creek perennial Comment: 749 Rainwater Dr. Spring located at base of hill next to stream behind house. Owner enlarged spring opening and built circular rock wall around it in 199. 314 90002341 333 37° 57' 50" 84° 30' 47" 960 unnamed tributary, West Hickman Creek perennial unnamed tributary, West Hickman Creek perennial Comment: 4332 Waterstone Ln. Natural spring located in a ravine on farm property just beyond fence behind house. 315 90002343 444 37° 59' 30" 84° 30' 52" 970 unnamed tribr Comment: 3477 Lansdowne Rd. Discharges from holes in stream bank and in yard on west side of stream (not house side). 316 90002344 433 37° 58' 17" 84° 31' 54" 990 unnamed tributary, West Hickman Creek Comment: Discharges from south bank of pond in front of 4438 Nicholasville Rd. Flows into pond, then down beside narrow farm lane.
317 90002345 426 37° 59' 32" 84° 35' 29" 910 unnamed tributary, South Elkhorn Creek perennial Comment: Harrodsburg Rd. at Firebrook Estates. Discharges from hillside below dam, forming pond. Spring is far enough below dam that it is not likely to be seepage 90002346 379 37° 59' 18" 84° 34' 57" 910 Comment: 4705 Scenic View Rd. Discharges from small walled outlet in backyard next to stream. 19 90002347 372 37° 58' 32" 84° 33' 39" 990 Comment: Wyndam Hills Dr. at Weber Dr. Spring located at corner lot flows to swampy area. Resident says is perennial.

345 90002371 375 37° 59' 18" 84° 33' 39" 930 unnamed tributary, South Elkhorn Creek intermittent Comment: 3570 Clays Mill Rd. From small rock layer at head of short ditch to side of stream bed.
347 90002373 295 37° 58' 12" 84° 32' 33" 990 unnamed tributary, South Elkhorn Creek perennial Comment: Fire gate 28, Higbee Mill Rd.. Located in spring box in pasture. Discharges from rock and seeps from soil, then flows around spring box. 348 90002374 294 37° 58' 27" 84° 32' 47" 970 unnamed tributary, South Elkhorn Creek unnamed tributary, South Elkhorn Creek perennial nment: House Spring, Higbee Mill Rd.., fire gate 28. Spring box in pasture across from farm house.

90002375 044 37° 58' 31" 84° 32' 55" 950 unnamed tributary, South Elkhorn Creek perennial nment: 494 Higbee Mill Rd.. Spring discharges from beneath small rock ledge. Located on farm next to Willow Oak subdivision, behind shopping center at Boston Rd./Man o' War Blvd.
350 90002376 296 37° 58' 38" 84° 32' 29" 1000 unnamed tributary, South Elkhorn Creek perennial Comment: 4615 Nicholasville Rd., fire gate 28 on Higbee Mill Rd. Located spring in trees at edge of farm field. Several spring boxes in area, but spring itself is not in 90002377 254 37° 58' 55" 84° 32' 21" 1010 unnamed tributary, South Elkhorn Creek perennial Comment: 225 Higbee Mill Rd., Waveland State Shrine. Small spring discharging into pond.
353 90002384 304 37° 59' 47" 84° 34' 11" 910 unnamed tributary, South Elkhorn Creek perennial Comment: 4197 Forsythe Dr. Discharges from a concrete pipe in the east bank of the stream coming from under Man o' Ear Blvd. The temperature and conductivity of the spring are 14°C and 405µS and of the stream are 11°C and 380µS.

355 90002386 662 37° 58' 27" 84° 30' 50" 930 unnamed tributary, West Hickman Creek perennial Comment: 468 Fox Harbor Dr. Discharges from holes in west bank of stream behind house. Spring is upstream from storm sewer. 396 90002377 37° 58' 19" 84° 32' 17" 1010 4022 37° 57' 35" 84° 31' 04" 935 West Hickman Creek pere West Hickman Creek perennial Comment: 640 Rolling Creek Rd. Discharges from holes in bank of stream behind house. May be submerged during high flow.
4023 84° 33′ 56″ 930 South Elkhorn Creek perennial Comment: 3864 Grassy Creek Rd. Discharges from small hole in hillside behind house. Found during drought.

37° 58' 55" 84° 33' 57" 930 South Elkhorn Creek perennial Comment: 3844 Grassy Creek Rd. Discharges from stream bank under and around tree. Found during drought.

4025 90002422 37° 58' 23" 84° 31' 56" 1000 tributary, Hickman Creek Comment: Discharges from semicircular, dry-laid spring box about 4 ft in diameter. Flow reported perennial by UK faculty. Quadrangle Name: Richmond North ngitude Elevation Receiving Water Body Flow Type 84° 22' 04" **Quadrangle Name: Valley View** Quadrangle Name: Versailles Elevation Receiving Water Body Flow Type Comment: Manley Spring. ment: Located in pasture by two mobile homes. Discharges from hillside in natural drainage. Had flow during very dry period.

90002362 611 38° 05' 28" 84° 37' 48" 870 unnamed tributary, South Elkhorn Creek perennial omment: 1515 Redd Rd., fire gate 8. Discharges from under pipe under driveway to house. Drainage ditch uphill of this location is dry. Another spring is located m on next property.
90002363 597 38° 05' 23" 84° 37' 37" 880 unnamed tributary, South Elkhorn Creek seasonal Comment: 1601 Redd Rd. Spring house in field in front of residence. Not much of a spring and may actually be a well. Water is visible in the bottom of the spring house. 336 90002364 596 38° 05' 37" 84° 37' 47" 850 unnamed tributary, South Elkhorn Creek perennial Comment: 1338 Redd Rd. Spring house in pasture beside house.
337 90002365 595 38° 05' 47" 84° 37' 49" 850 unnamed tributary, South Elkhorn Creek perennial Comment: Redd Rd., fire gate 3. Spring house in pasture next to house. Water sometimes pumped to eistern and used for irrigation.

338 90002366 488 38° 02' 43" 84° 38' 53" 860 Shannon Run

Comment: 4460 Versailles Rd. Spring house in pasture in front of house. Another small outlet discharges from hillside east of spring house.

339 90002367 609 38° 03' 48" 84° 38' 10" 850 South Elkhorn Creek perennial Comment: 1800 Bosworth Ln. Located in deep ravine in pasture beside house. Discharges from rock outcrop. Another possible small spring along side South Elkhorn
 Creek just before bend.
 372
 90002405
 672
 38° 03' 4"
 84° 37' 36"
 840
 South Elkhorn Creek
 perennial
 Comment: 3585 Jenny Kate Lane. Remains of old spring house behind residence.