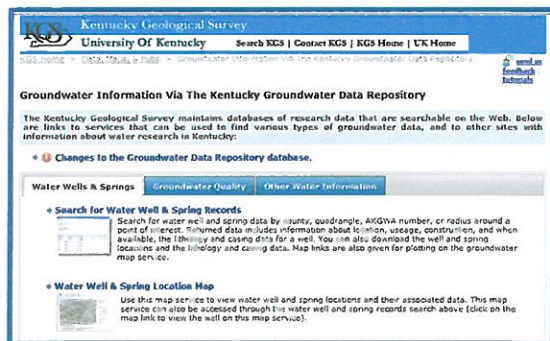


Kentucky Groundwater Data Repository

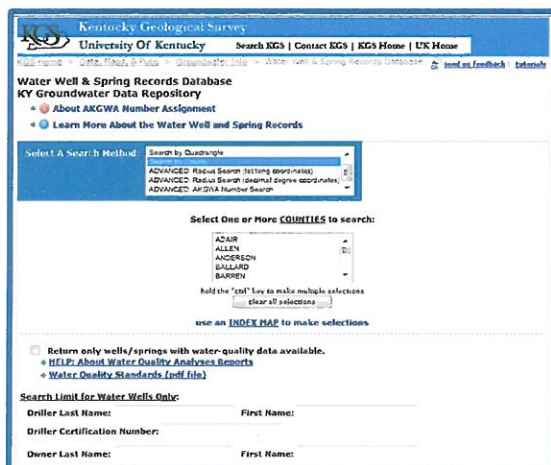
The Kentucky Groundwater Data Repository was initiated in 1990 by the Kentucky Geological Survey under mandate from the Kentucky legislature (KRS 151:035). The repository was established to archive and disseminate groundwater data collected by State agencies, other organizations, and independent researchers.

The repository database currently contains information on more than 92,000 water wells and 5,100 springs, and also 58,000 suites of water-quality analyses (millions of individual analyte results). The water-well data include information such as location, usage, total depth, static water level, casing, and lithology (not available for all wells).

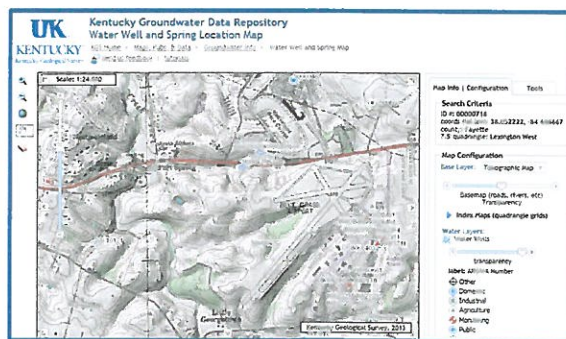
The repository website is
kgs.uky.edu/kgsweb/DataSearching/watersearch.asp.



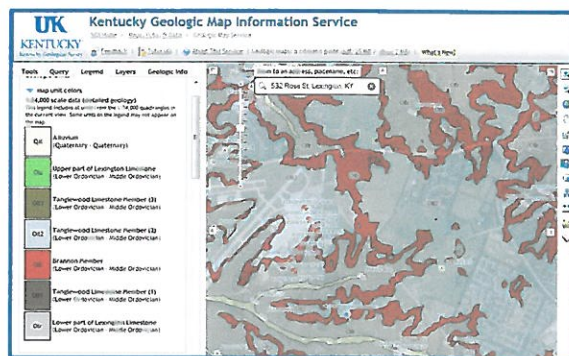
The default tab is "Water Wells & Springs," but you can also select "Groundwater Quality" to locate sampled water wells and springs or "Other Water Information" for general information, including research currently being conducted by the Water Resources Section of the Survey. The water well and spring search engine is accessed via the first link under the default tab. The front page of this search engine is shown below:



You can select several search methods: by county, 7.5-minute quadrangle, radius search from a known location (latitude/longitude), or inputting a known well identification number. The resulting table will show relevant data for the wells or springs located from the search, including scanned drillers' logs where available. In addition, by selecting the "groundwater map service" link, you can plot the wells and springs on a topographic or aerial photography base map. An example of this feature (with topo graphic base) is shown below:



From the search results table, you can also select the online geologic map service to determine the geology of the site. The same search area is displayed showing geologic contacts, which can be individually selected and additional detailed geologic information will be displayed.

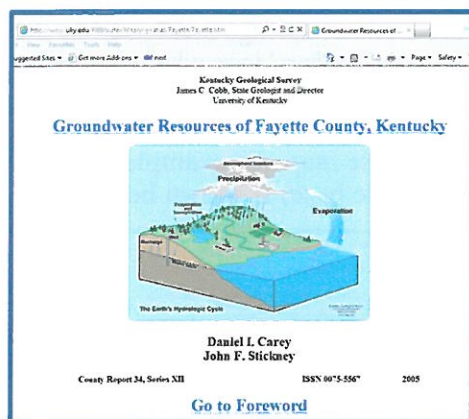


Many other layers can be turned on with the geologic map service, such as geologic faults, coal beds, karst potential, water wells and springs, sinkholes, oil and gas wells, landslide data, and quarries.

Kentucky County Groundwater Resources Reports

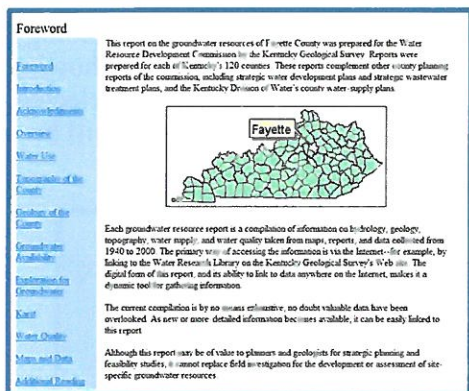
The Kentucky Geological Survey has developed a series of county groundwater resources reports that contain general information on hydrology, geology, topography, water supply and usage, and groundwater quality.

These publications are web-based and can be accessed via a county map, or from a drop-down menu, at www.uky.edu/KGS/water/library/webintro.htm.



By clicking on the "Go to Foreword" link on the front page of each county report, you will see a blue sidebar listing the contents of the report, including county overview, water

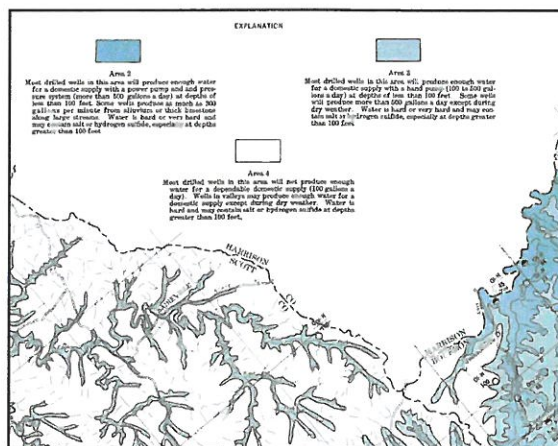
use, topography, geology, groundwater availability, exploration for groundwater, karst (where applicable), and water quality. The Fayette County version of this page is shown below:



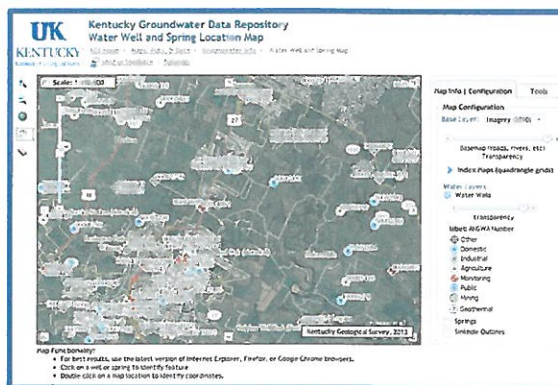
These reports allow you to quickly determine the geology of a site and the likelihood of finding groundwater there. To do this, first click on "Geology of the

County," then at the bottom of that page, click the "Geologic Map of the County" link to see a generalized geologic map. After locating the geologic unit that your site is on, go back one page to the blue sidebar and click on "Groundwater Availability." There you will find descriptions of the geologic units, which will indicate the areas where groundwater would most likely be found, including general depths to water, along with how much water you can expect to find.

At the bottom of the "Groundwater Availability" page, you can also find a link to the U.S. Geological Survey Hydrologic Atlas for the county, upon which most of the information in these reports is based. These atlases (called HA's) each include a generalized geologic map, a generalized lithologic column, and an availability of groundwater map. Part of a groundwater availability map (page 3 of each HA) is shown below:



There are links throughout these reports to other helpful sources of information. Under the "Water Use" heading in the blue sidebar, you can connect directly to the interactive Kentucky Groundwater Data Repository Water Well and Spring Location map with either topographic or aerial photography base map (photography base shown below):



For more information on the repository call Bart Davidson at 859-323-0524 or email at bdavidson@uky.edu.

Kentucky Geological Survey
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www.uky.edu/KGS