Hydrochemical Delineation of Spring Recharge in an Urbanized Karst Basin, Central Kentucky (USA)

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Appendix A

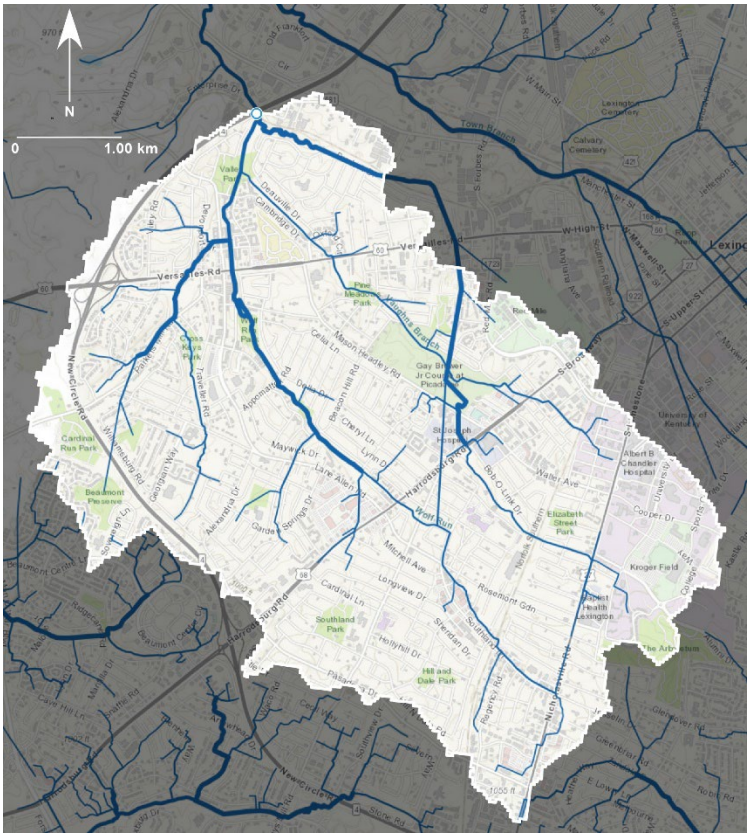

Fig. S1: Map of Wolf Run watershed showing the NHDPlus HR network (modified from Stroud Water Research Center, 2022). Note outlet of modeled watershed (blue circle) is ~2.0 km upstream of actual watershed outlet.

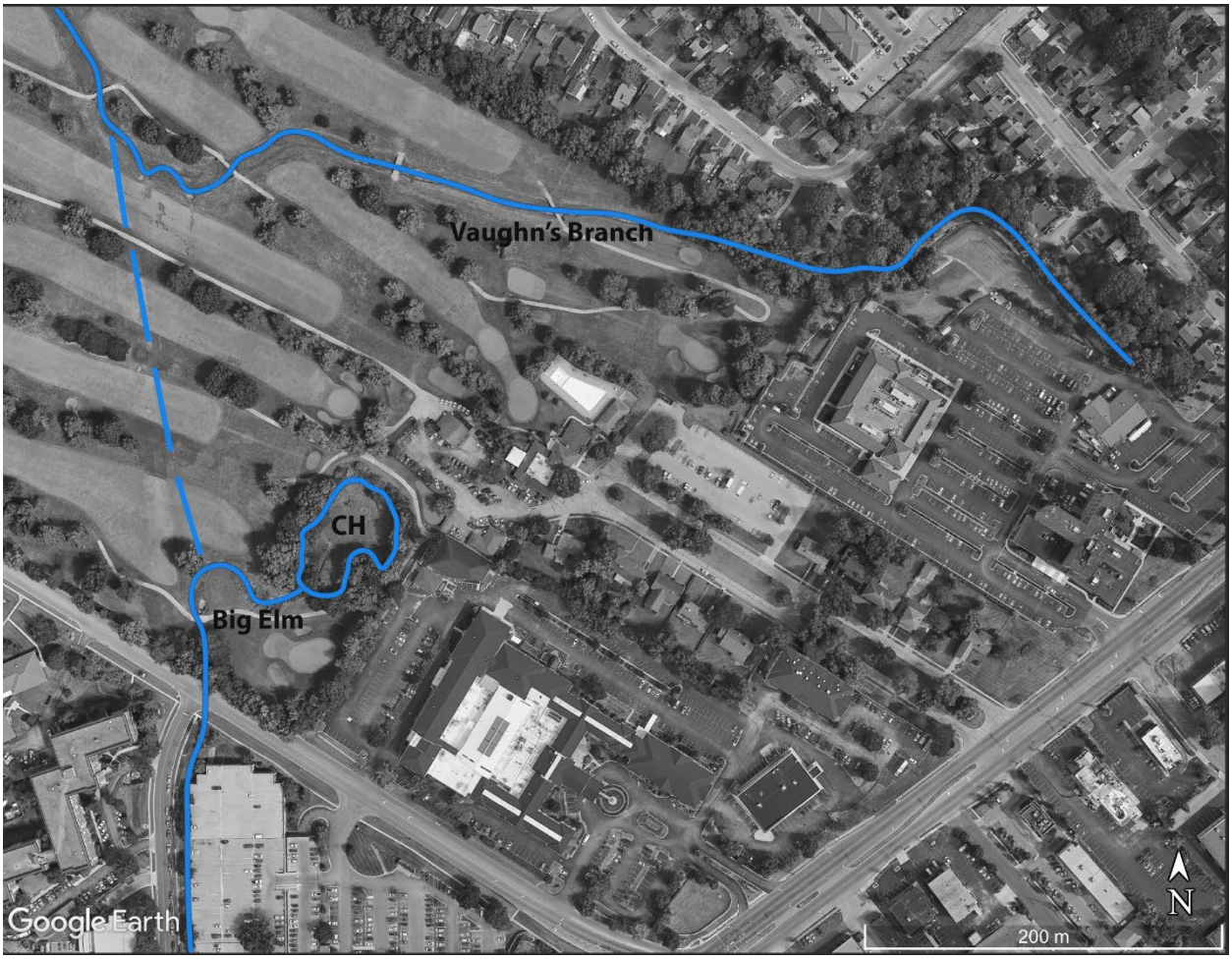

Fig. S2: Google Earth image (downloaded October 30, 2020) with the Campbell House sinkhole (CH), Big Elm tributary, and Vaughn's Branch marked. Dashed line marks overflow path from Big Elm to Vaughn's Branch when sinkhole flooding occurs. Upstream (east) end of Vaughn's Branch marks where stream daylights from a culvert.

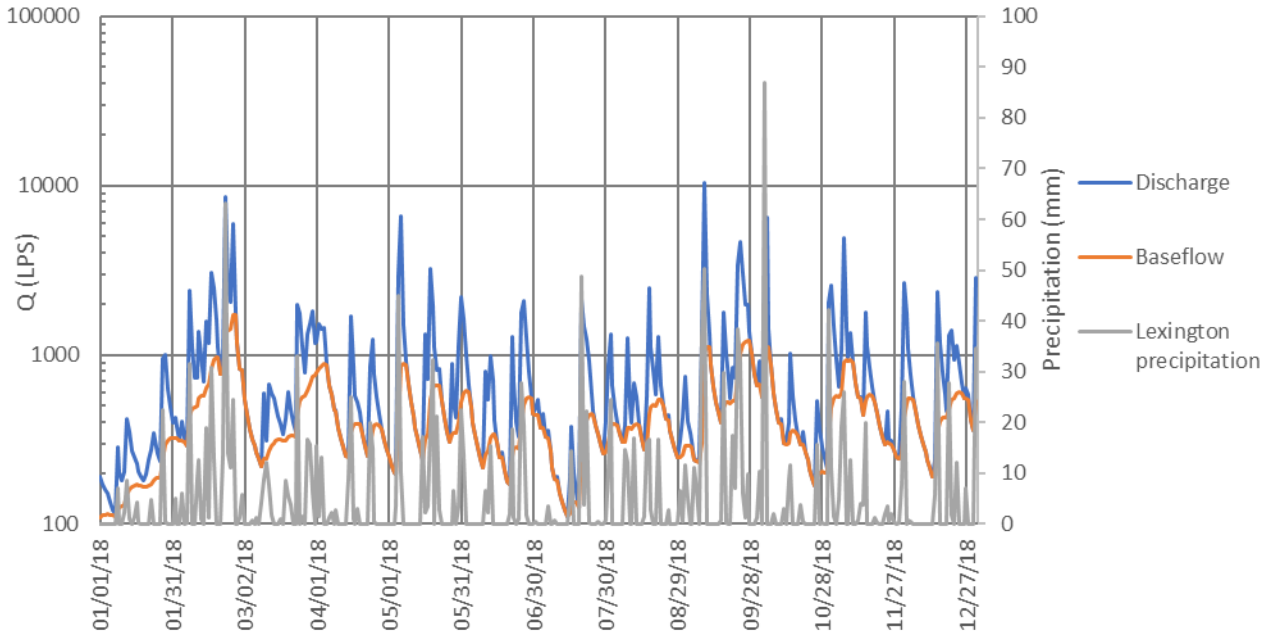

Fig. S3: 2018 daily discharge hydrograph at USGS gauge with baseflow separation using WHAT and Lexington daily rainfall. Q represents both baseflow and total discharge.

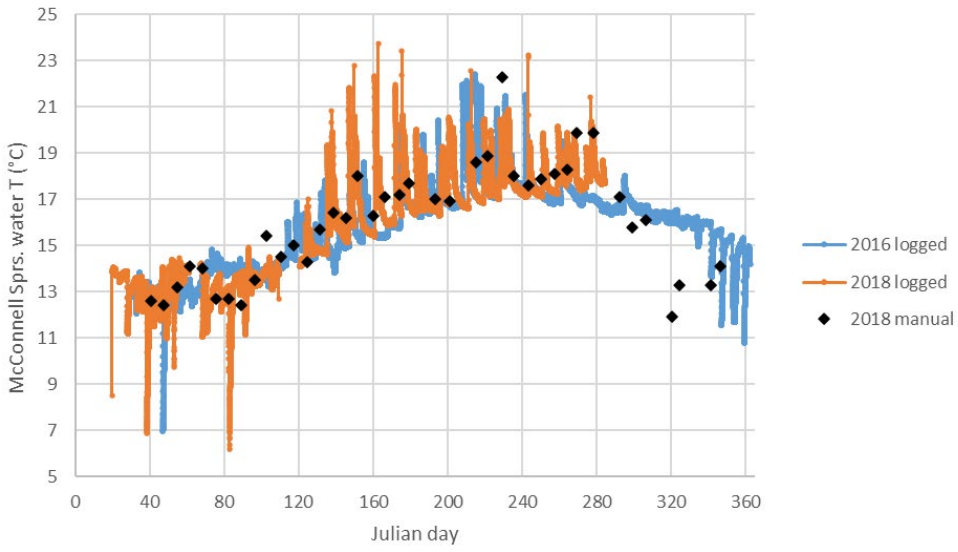

Fig. S4. Logged water temperature (January 28–December 27, 2016, and January 19–October 12, 2018) and manually measured water temperature (February 9–December 12, 2018) at McConnell Springs.