

Environmental & Engineering Geoscience journal, August 2023

Special Issue on Karst

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

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Appendix B

Table S1: Areas of different LU/LC categories for McConnell Springs basin.

Description	NLCD category	Area (km ²)	% basin area
Developed, open space	21	3.33	28%
Developed, low intensity	22	3.53	29%
Developed, medium intensity	23	2.53	21%
Developed, high intensity	24	1.73	14%
Barren land	31	0.05	0%
Deciduous forest	41	0.47	4%
Evergreen forest	42	0.01	0%
Mixed forest	43	0.36	3%
Grassland/herbaceous	71	0.00	0%
Pasture/hay	81	0.10	1%
Total		12.10	100%

Table S2: SC, T, $\delta^2\text{H}$, and $\delta^{18}\text{O}$ for each sampling round at monitoring sites.

Date	McConnell Springs Blue Hole				Campbell House				Vaughn's Branch				Wolf Run			
	SC ($\mu\text{S/cm}$)	T ($^{\circ}\text{C}$)	$\delta^2\text{H}$ (‰)	$\delta^{18}\text{O}$ (‰)	SC ($\mu\text{S/cm}$)	T ($^{\circ}\text{C}$)	$\delta^2\text{H}$ (‰)	$\delta^{18}\text{O}$ (‰)	SC ($\mu\text{S/cm}$)	T ($^{\circ}\text{C}$)	$\delta^2\text{H}$ (‰)	$\delta^{18}\text{O}$ (‰)	SC ($\mu\text{S/cm}$)	T ($^{\circ}\text{C}$)	$\delta^2\text{H}$ (‰)	$\delta^{18}\text{O}$ (‰)
2/2/2018			-41.6	-6.8			-41.2	-6.6			-40.3	-6.6			-40.6	-6.5
2/9/2018	666	12.6	-39.0	-6.3	677	7.5	-41.6	-6.9	1059	10.2	-38.1	-6.1	580	7.8	-48.9	-7.9
2/16/2018	465	12.4			311	11.9			314	11.1			203	10.5	-64.5	-9.3
2/23/2018	525	13.2	-36.8	-6.6	428	15.3	-29.1	-5.4	745	15.9			389	13.9	-30.7	-5.6
3/2/2018	611	14.1			533	10.7			979	14.1			541	10.1		
3/9/2018	669	14.0							808	8.8						
3/16/2018	745	12.7	-48.3	-7.6	613	7.4			1044	9.5	-47.4	-7.6	625	8.1	-52.5	-8.3
3/23/2018	971	12.7	-49.3	-8.0	817	7.7	-48.6	-7.8	1344	12.6	-48.0	-7.6	611	7.2	-52.4	-8.1
3/30/2018	521	12.4	-49.0	-7.6	490	11.0	-56.9	-8.5	341	11.7	-96.2	-13.2	353	10.7	-69.4	-10.1
4/6/2018	615	13.5	-41.5	-6.7	517	11.1	-41.4	-6.8	972	12.4	-42.6	-7.2	507	11.2	-41.9	-7.2
4/12/2018	666	15.4	-42.9	-6.9					795	17.6	-42.4	-6.6				
4/20/2018	599	14.5	-41.1	-6.7	524	10.6	-39.0	-6.4	854	10.7	-41.4	-6.6				
4/27/2018	598	15.0	-42.6	-6.9	533	13.3	-42.0	-6.9	908	14.5	-40.8	-6.3	543	14.1	-42.3	-6.7
5/4/2018	609	14.3	-42.1	-6.8					563	18.8	-34.8	-5.5				
5/11/2018	584	15.7	-42.2	-6.9	573	19.4	-41.7	-6.9	1161	19.4	-41.5	-6.7				
5/18/2018	471	16.4	-37.7	-6.1	522	20.1	-37.8	-6.2	752	21.0	-32.3	-3.8	539	20.2	-38.1	-6.3
5/25/2018	565	16.2	-41.8	-6.7					1107	21.6	-39.8	-6.4	496	20.2	-41.7	-6.8
5/31/2018	449	18.0	-53.4	-7.9	519	20.8	-48.6	-7.5	741	22.2	-41.7	-6.4	509	22.2	-48.3	-7.6
6/9/2018	539	16.3	-40.5	-6.4					711	22.0	-32.3	-5.1				
6/15/2018	595	17.1	-36.5	-6.1					872	21.9	-33.6	-5.5	531	20.9	-39.5	-6.3
6/23/2018	547	17.2	-42.4	-6.8	586	22.1	-39.7	-6.2	883	23.1	-41.1	-6.6	510	18.9	-41.6	-6.6
6/28/2018	525	17.7	-40.6	-6.6	566	21.4	-41.3	-6.7	965	23.7	-39.2	-6.4	556	21.4	-40.7	-6.6
7/6/2018			-37.0	-6.0												
7/12/2018	535	17.0	-34.8	-5.8					692	21.7	-28.9	-4.5				
7/20/2018	736	16.9	-35.8	-5.9	736	24.2	-23.4	-4.7	736	24.0	-24.1	-4.3	735	25.2	-24.1	-4.6
8/3/2018	498	18.6	-36.2	-5.7					714	27.2	-34.4	-5.6	501	25.0	-38.2	-6.3
8/9/2018	449	18.9	-27.6	-4.6					732	25.5	-29.7	-5.2	516	24.0	-32.9	-5.5
8/17/2018	180	22.3	-32.7	-4.3	110	22.7	-14.3	-3.7	406	22.6	-24.7	-4.3	175	22.2	-22.9	-4.2
8/23/2018	516	18.0	-31.5	-4.4					677	20.7	-31.3	-4.7	459	18.7	-31.2	-3.9
8/31/2018	530	17.6	-31.8	-4.8					635	24.2	-24.7	-3.7				
9/7/2018	540	17.9	-34.6	-5.6					619	24.9	-22.9	-3.8				
9/14/2018	523	18.1	-34.9	-5.3					743	24.2	-31.1	-4.5	530	21.3	-35.5	-5.3
9/21/2018	533	18.3	-32.3	-4.3					746	23.7	-29.3	-4.6	505	21.3	-25.0	-1.8
9/26/2022	428	19.9	-30.0	-4.9	485	20.4	-32.9	-5.0	732	22.2	-31.3	-4.7	449	21.3	-31.6	-4.6
10/5/2022	304	19.9	-28.2	-5.1	650	23.4	-12.6	-1.8	732	22.8	-29.3	-4.8	396	21.5	-33.2	-5.4
10/12/2022									718	19.1	-29.4	-4.7	423	14.6	-35.9	-5.8
10/19/2022	530	17.1	-36.2	-5.7					633	15.3	-29.8	-4.4	443	14.2	-36.4	-5.8
10/26/2022	536	15.8	-33.5	-4.9	161	12.0	-52.8	-7.2	149	12.8	-58.4	-9.1	120	12.3	-57.4	-8.1
11/2/2022	380	16.1	-38.4	-6.5	409	14.9	-34.7	-5.3	661	16.4	-35.5	-5.7	397	15.2	-31.5	-4.0
11/13/2018			-35.7	-5.4			-45.8	-7.4			-60.6	-9.2			-49.3	-6.8
11/16/2022	462	11.9	-45.4	-6.7	810	10.3	-50.7	-7.8	807	13.1	-42.4	-5.9	375	11.4	-41.0	-5.4
11/20/2022	512	13.3	-37.4	-5.4	724	9.4	-39.0	-6.1	1009	11.6	-38.7	-5.6	522	12.0	-39.8	-6.1
11/30/2022			-31.2	-5.6			-24.4	-4.9	732	11.7	-31.4	-5.7	468	11.6	-29.7	-5.8
12/7/2022	489	13.3	-36.6	-5.6					603	9.0	-39.1	-6.3	402	10.1	-38.7	-6.1
12/12/2022	494	14.1	-38.9	-6.3					493	8.5	-37.5	-6.0				