

Table S1: Watershed characteristics and landscape cover information of the 22 sampled headwater streams and tributaries in the Kawartha region. Information was generated using the Ontario Watershed Information Tool from the Ministry of Natural Resources and Forestry to delineate the topographical characteristics of each watershed.

Sub-Watershed	Drainage Area (km ²)	Slope of Main Channel (%)	Area - Lakes (km ²)	Area - Wetlands (km ²)	Mean Elevation (m)	Annual Mean Temperature (°C)	Annual Precipitation (mm)	Swamp (%)	Bog (%)	Treed Upland (%)	Deciduous Treed (%)	Mixed Treed (%)	Coniferous Treed (%)	Plantations (%)	Hedge Rows (%)	Community Infrastructure (%)	Agriculture and Rural Land Use (%)
KC1	1233	2.36	116.7	86.78	371.8	5.1	1025	0.01	0.02	0.00	0.34	0.34	0.08	0.00	0.00	0.54	3.75
KC2	10.27	6.91	0.002	2.209	286.1	6.6	877	0.24	0.00	0.01	0.01	0.02	0.07	0.01	0.04	4.22	55.2
KC3	20.12	2.07	0.028	7.942	273.0	6.6	897	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	57.8
KC4	15.19	2.36	0.022	1.133	271.4	6.6	897	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.8	78.8
KC5	66.37	3.27	12.94	8.512	267.4	6.8	889	0.06	0.00	0.00	0.03	0.01	0.01	0.00	0.01	13.3	47.1
KC6	12.42	1.95	0.024	7.160	276.3	6.5	907	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.91	40.3
KC7	2.561	9.85	0.006	0.117	303.6	6.8	899	0.06	0.00	0.00	0.02	0.01	0.01	0.01	0.01	2.95	83.4
KC8	30.50	4.2	0.121	6.979	288.3	6.6	877	0.24	0.00	0.01	0.03	0.03	0.05	0.01	0.02	2.82	56.7
KC9	10.93	7.24	0.013	0.730	304.4	6.8	899	0.07	0.00	0.01	0.04	0.05	0.00	0.00	0.01	1.91	79.3
KC10	1051	1.46	75.18	186.2	274.8	6.7	887	0.16	0.00	0.00	0.03	0.02	0.02	0.01	0.01	5.71	58.6
KC11	34.05	4.12	0.148	7.001	288.7	6.6	877	0.22	0.00	0.01	0.03	0.04	0.05	0.00	0.02	2.82	58.5
KC12	50.64	3.65	0.203	8.469	288.2	6.8	870	0.17	0.00	0.00	0.03	0.04	0.04	0.01	0.02	2.53	63.9
KC13	1.58	12.41	0.001	0	302.6	6.8	899	0.03	0.00	0.00	0.03	0.06	0.00	0.00	0.01	4.25	82.5
KC14	187.7	3.43	1.032	34.85	287.4	6.9	874	0.20	0.00	0.00	0.04	0.04	0.04	0.01	0.01	3.66	60.1
KC15	1.510	10.43	0.004	0	294.3	6.8	899	0.03	0.00	0.00	0.02	0.00	0.00	0.00	0.00	34.1	61.0
KC16	35.08	5.4	0.08	3.492	298.0	6.8	899	0.12	0.00	0.01	0.03	0.07	0.04	0.01	0.01	5.00	66.0
KC17	22.20	5.74	1.511	5.384	271.7	6.9	891	0.02	0.00	0.00	0.03	0.01	0.01	0.00	0.00	6.97	54.6
KC18	37.58	1.73	0.033	12.09	267.1	6.6	897	0.30	0.00	0.00	0.01	0.00	0.01	0.00	0.00	3.18	63.7
KC19	5.671	11.04	0.005	0.051	329.2	6.6	911	0.05	0.00	0.01	0.17	0.28	0.11	0.08	0.00	2.09	29.0
KC20	114.2	4.45	6.607	21.72	283.4	6.85	890	0.07	0.00	0.01	0.05	0.04	0.05	0.02	0.01	3.10	53
KC21	5.657	2.69	0.004	1.225	274.1	6.6	897	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	76.1
KC22	991.8	1.62	73.57	182.07	275.2	6.757	886	0.17	0.00	0.00	0.03	0.02	0.03	0.01	0.01	4.56	58.3

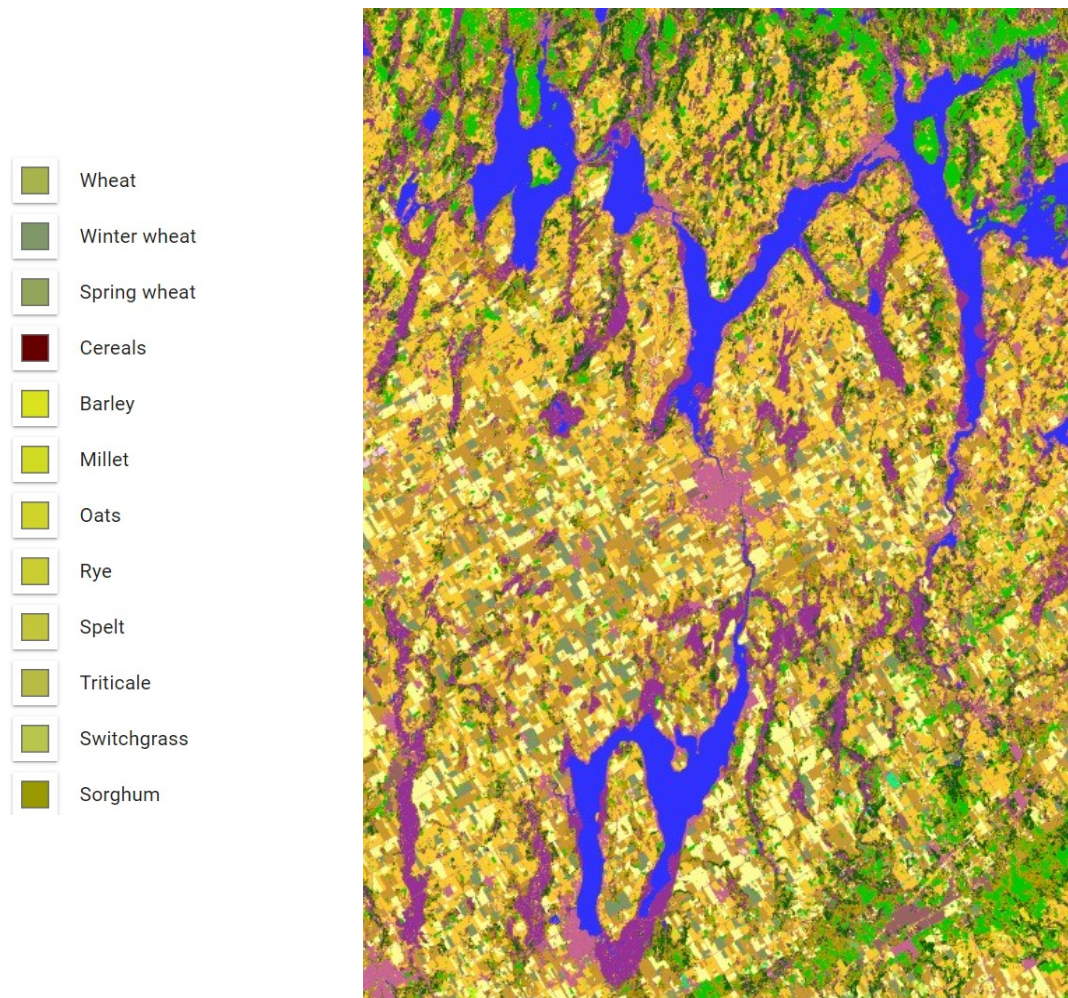


Figure S1: Land cover map delineated based on agricultural land use across the sampled watersheds. Data obtained from GovCan's 2022 Annual Crop Inventory (<https://open.canada.ca/data/en/dataset/ba2645d5-4458-414d-b196-6303ac06c1c9>).