Supplementary Information – Factors controlling the distribution of microplastic particles in benthic sediment of the Thames River, Canada

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Table S1: Number of fragments (Frag), fibers (Fib) and beads in each sample, and their calculated initial totals per kilogram of dry weight sediment (kg^{-1} dw_{in}), following blank subtraction (- blanks, kg^{-1} dw_{blank}) and FTIR normalization (kg^{-1} dw_{FTIR})

Sample	Dry weight (kg)	kg^{-1} dw_{in}	Frag	Frag kg^{-1} dw_{in}	Frag kg^{-1} dw_{FTIR}	Fib	Fib - blanks	Fib kg^{-1} dw_{in}	Fib kg^{-1} dw_{FTIR}	Beads	Beads kg^{-1} dw_{in}	Beads kg^{-1} dw_{FTIR}	Total Identified	Tot - blanks	Total kg^{-1} dw_{blank}	Total kg^{-1} dw_{FTIR}
386	0.43745059	32	3	7	5	11	3	7	2	0	0	0	14	6	14	8
388	0.00829	1930	5	603	470	11	5	603	199	0	0	0	16	10	1206	669
389	0.157412	95	3	19	15	12	7	44	15	0	0	0	15	10	64	30
406	0.3249331	117	3	9	7	35	31	95	31	0	0	0	38	34	105	39
407	0.1513788	139	6	40	31	15	7	46	15	0	0	0	21	13	86	46
408	0.1709021	111	0	0	0	18	11	64	21	1	6	0	19	12	70	21
409	0.0289672	967	8	276	215	20	12	414	137	0	0	0	28	20	690	352
411	0.0801045	487	3	37	29	35	27	337	111	1	12	0	39	31	387	140
410	0.4272508	16	2	5	4	4	3	7	2	1	2	0	7	6	14	6
427	0.0719585	611	27	375	293	17	11	153	50	0	0	0	44	38	528	343
417	0.133607	165	12	90	70	10	7	52	17	0	0	0	22	19	142	87
393	0.3739091	75	11	29	23	17	9	24	8	0	0	0	28	20	53	31
395	0.1178076	781	7	59	46	85	77	654	216	0	0	0	92	84	713	262
399	0.1848825	303	6	32	25	48	40	216	71	2	11	0	56	48	260	97
396	0.0814441	651	19	233	182	30	22	270	89	4	49	0	53	45	553	271
404	0.1815948	121	7	39	30	15	11	61	20	0	0	0	22	18	99	50
424	0.0037745	2914	2	530	413	9	4	1060	350	0	0	0	11	6	1590	763
428	0.0807158	1326	40	496	387	67	59	731	241	0	0	0	107	99	1227	628
426	0.0534626	4601	129	2413	1882	99	91	1702	562	18	337	0	246	238	4452	2444
400	0.1365196	454	3	22	17	59	51	374	123	0	0	0	62	54	396	140
401	0.1153234	217	1	9	7	24	16	139	46	0	0	0	25	17	147	53
402	0.0995871	532	6	60	47	47	39	392	129	0	0	0	53	45	452	176
425	0.0364659	740	7	192	150	20	12	329	109	0	0	0	27	19	521	258
412	0.0508505	983	12	236	184	38	24	472	156	0	0	0	50	36	708	340
413	0.1525889	216	18	118	92	14	6	39	13	1	7	0	33	25	164	105
418	0.0943636	752	11	117	91	59	51	540	178	1	11	0	71	63	668	269
419	0.0844282	201	8	95	74	9	3	36	12	0	0	0	17	11	130	86
420	0.0591216	304	4	68	53	14	8	135	45	0	0	0	18	12	203	97
421	0.1428895	224	25	175	136	7	2	14	5	0	0	0	32	27	189	141
391	0.0110857	1173	10	902	704	1	0	0	0	2	180	0	13	12	1082	704
390	0.048059	707	8	166	130	25	17	354	117	1	21	0	34	26	541	247
422	0.0297239	2120	12	404	315	49	41	1379	455	2	67	0	63	55	1850	770
423	0.112327	623	2	18	14	68	60	534	176	0	0	0	70	62	552	190
415	0.1008396	1021	53	526	410	24	16	159	52	26	258	0	103	95	942	462
Average		756		247	193			336	111	2	28	0			612	304
Sum			473			1016	783			60			1549	1316		

Table S2: Characteristics used in determining the effects of grain size (mode; f. - fine, v.f. - very fine, m. - medium), amount of organics, and river morphology on microplastic abundances.

Sample	Mode	Organics	Morphology
386	f.sand	low	creek
388	silt	high	outside of bend
389	granule	medium	straight
406	granule	medium	straight
407	f.sand	high	straight
408	granule	low	straight
409	granule	high	straight
411	silt	high	outside of bend
410	granule	low	straight
427	v.f. sand	high	inside of bend
417	f.sand	low	straight
393	f.sand	low	straight
395	m.sand	medium	inside of bend
399	granules	low	straight
396	v.f. sand	high	straight
404	m.sand	low	straight
424	granules	high	outside of bend
428	f.sand	medium	straight
426	f.sand	medium	forks
400	f.sand	medium	inside of bend
401	m.sand	medium	inside of bend
402	granules	low	straight
425	f.sand	high	straight
412	f.sand	high	outside of bend
413	v.f. sand	low	straight
418	silt	high	straight
419	f.sand	medium	straight
420	silt	medium	inside of bend
421	f. sand	medium	inside of bend
391	v.f.sand	high	outside of bend
390	v.f. sand	high	outside of bend
422	v.f sand	high	inside of bend
423	c.sand	medium	canal
415	silt	high	creek