

Supplementary Information

Table S1 Sampling date and sample volume

WWT Ps	Sampling date (Year of 2020)	S1 sample volume (L)	S2 sample volume (L)	S3 sample volume (L)	S4 sample volume (L)
W1	Jul. 27	1.5	1.5	3	6
	Jul. 30	1.5	1.5	3	3
	Aug. 04	3	3	4.5	6
	Aug. 25	3	3	6	9
	Sep. 02	1.5	1.5	12	9
	Sep. 16	3	3	6	9
W1- 24 h	Oct. 13	3	–	–	–
W2	Sep. 05	1.5	1.5	12	15
	Sep. 16	2	2	4	5
	Oct. 05	3	3	6	9
W3	Jul. 20	3	3	3	3
	Aug. 10	1.25	1.25	4	4
	Aug. 20	3	3	3	3
	Sep. 11	1.5	1.5	8	30
	Sep. 20	3	3	6	6

Table S2 Removal rates of MPs throughout the three WWTPs

Sampling points	The removal rate of MPs (%)				
	Fibers	Granules	Fragments	Total	
W1	S2	44.2	90.8	49.5	86.6
	S3	96.0 (92.9) ^{a)}	99.7 (97.3)	82.0 (64.3)	99.0 (92.6)
	S4	97.2 (30.0)	99.9 (77.8)	91.9 (55.0)	99.5 (53.8)
W2	S2	47.7	24.5	35.6	33.6
	S3	84.3 (69.9)	97.1 (96.1)	100 (100)	93.3 (89.9)
	S4	91.1 (43.2)	97.3 (9.1)	ND ^{b)}	95.6 (35.4)
W3	S2	67.9	53.2	63.2	58.5
	S3	63.0 (ND)	90.5 (79.6)	96.6 (90.6)	86.1 (15.8)
	S4	96.3 (90.0)	99.5 (95.2)	98.9 (66.7)	98.7 (90.7)

Notes: a) The numbers in brackets represent the removal rates from the previous stage to this stage. b) ND means not detection

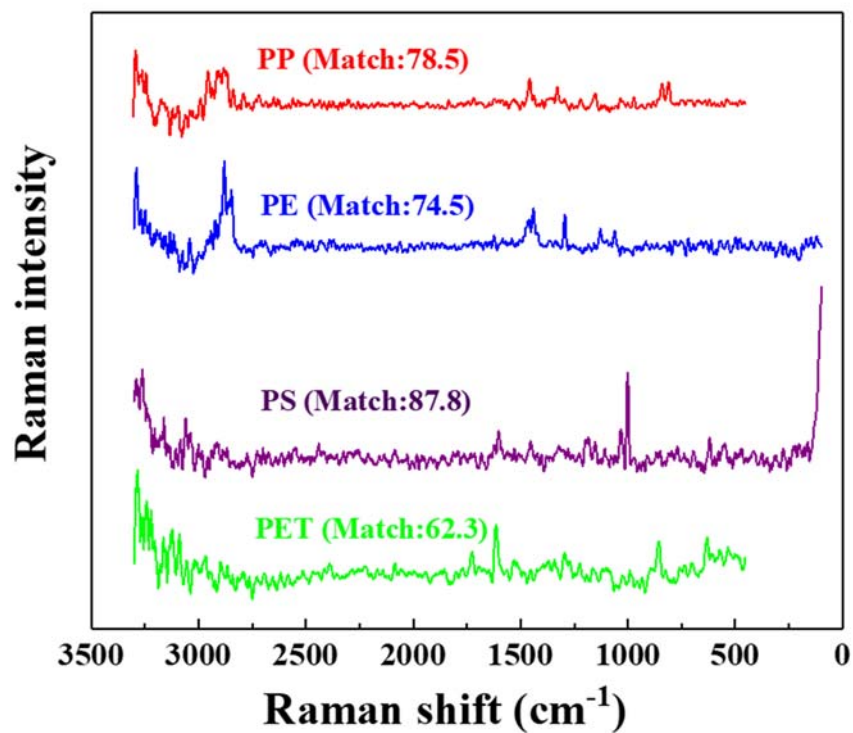


Fig. S1 Micro-Raman spectra of dominant MPs throughout the three WWTPs. PP = Polypropylene, PE = Polyethylene, PS = Polystyrene, and PET = Polyethylene terephthalate

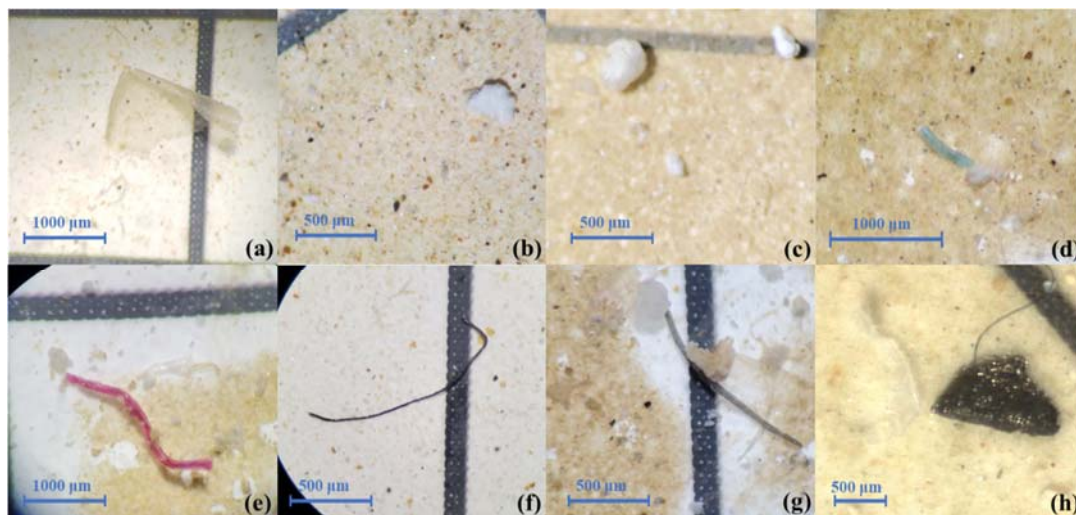


Fig. S2 MPs from visual sorting (before Micro-Raman analysis). (a) Transparent fragment or film, (b) White granules, (c) White granules, (d) Green fiber, (e) Red fiber, (f) Black fiber, (g) Brown fiber, and (h) Black fragment