

## Supplementary Materials

**Table S1.** The characteristics of SRHA (data from IHSS).

DOM	Carboxyl (meg/(gC))	H <sub>2</sub> O	Ash	Elemental composition %				
				C	H	O	N	S
HA	9.13	20.4	1.04	52.63	4.28	42.04	1.17	0.54

**Table S2 Toxicological values of TMP and its products during ozonation.**

Products	Fathead minnow LC <sub>50</sub> (96 h)		Ames mutagenicity	
	-log (mol/L)	mg/L	Predicted value	Predicted result
TMP	9.42	4.49	0.43	Negative
T1	4.17	20.56	0.45	Negative
T2	5.22*	9.16*	0.10	Negative
T3	5.22*	9.16*	0.06	Negative
T4	6.15*	0.25*	0.07	Negative
T5	6.15*	0.25*	-0.06	Negative
T6	2.59	326.24	0.49	Negative
T7	2.28	731.26	0.23	Negative
T8	/	/	0.52	Negative
T9	4.66	6.05	0.29	Negative
T10	4.43	9.84	0.71	Negative
T11	4.16	17.2	0.51	Negative
T12	4.41	11.95	0.29	Negative
T13	4.60	8.06	0.31	Negative
T16	5.06	3.23	0.17	Negative
T17	4.56	8.07	0.44	Negative
T21	4.89	4.61	0.85	Negative
T22	4.26	15.22	0.50	Negative
T26	4.44	12.43	0.83	Negative
T27	4.92	3.20	0.65	Negative
T30	5.50	0.90	0.74	Negative

\* Only value predicted by nearest neighbor method was obtained for this compound.