Biomass Production and Metal Remediation by *Salix alba* L. and *Salix viminalis* L. Irrigated with Greywater Treated by Floating Wetlands

Supplementary Material

Table S2. Physiochemical characteristics of synthetic greywater (SGW).

a) Raw SGW	**Unit**	**Inflow (low concentration)**					**Inflow (high concentration)**				
Parameter		n	Mean	SD	Min	Max	n	Mean	SD	Min	Max
pH	–	81	6.9	0.48	5.3	7.9	81	8.4	1.61	5.4	11.5
Redox potential	mV	81	34.1	21.23	-18.1	111.2	81	-36.6	74.22	-182.1	97.9
Turbidity	NTU	81	22.9	7.14	9.8	41.6	81	188.9	47.22	18.3	308.0
Total suspended solids	mg/L	81	39.9	15.94	10.0	87.0	81	317.0	58.35	173.0	473.0
Electrical conductivity	µS/cm	81	164.6	63.24	98.7	452.0	81	988.5	196.09	612.0	1677.0
Dissolved oxygen	mg/L	81	10.4	1.24	7.7	12.3	81	10.5	1.39	6.9	12.6
Colour	Pa/Co	81	214.5	64.07	26.0	340.0	81	1587.8	379.89	787.0	2499.0
Temperature	°C	81	17.7	4.58	6.7	27.0	81	16.9	5.40	6.5	27.8
Biochemical oxygen demand	mg/L	81	17.6	8.00	2.0	40.0	81	34.7	12.99	10.0	60.0
Chemical oxygen demand	mg/L	81	28.9	14.47	8.2	86.7	81	129.2	34.68	63.9	221.0
Ammonia–nitrogen	mg/L	81	0.2	0.22	0.0	1.1	81	0.4	0.19	0.1	1.1
Nitrate–nitrogen	mg/L	81	1.3	1.21	0.1	7.6	81	8.9	6.38	0.2	29.8
Ortho–phosphate–phosphorus	mg/L	81	8.4	4.36	3.3	27.4	81	59.1	14.16	30.6	94.2
Element											
Aluminium	mg/L	45	0.52	0.528	0.09	1.56	45	2.13	0.869	0.76	4.77
Boron	mg/L	33	0.14	0.067	0.10	0.36	33	0.57	0.068	0.49	0.72
Calcium	mg/L	55	10.54	0.853	8.51	11.81	45	36.08	8.750	22.38	50.72
Cadmium	mg/L	42	0.09	0.056	0.04	0.23	39	7.36	2.981	3.67	11.58
Chromium	mg/L	54	0.04	0.063	0.01	0.23	54	3.20	0.918	1.67	5.70
Copper	mg/L	63	0.16	0.058	0.10	0.30	63	1.44	0.435	0.95	2.03
Iron	mg/L	48	0.21	0.102	0.11	0.43	48	6.41	2.476	2.48	10.37
Potassium	mg/L	12	4.04	0.448	3.41	4.65	12	60.16	1.684	58.31	62.53
Magnesium	mg/L	48	1.45	0.191	1.19	1.78	48	17.16	2.119	12.68	20.33
Manganese	mg/L	63	0.17	0.084	0.07	0.26	63	0.98	0.257	0.64	1.29
Sodium	mg/L	12	14.32	1.662	12.01	16.00	12	62.68	14.538	45.50	76.92
Nickel	mg/L	51	0.04	0.065	0.01	0.18	51	0.05	0.065	0.01	0.20
Zinc	mg/L	39	0.21	0.159	0.01	0.39	39	4.25	1.500	2.22	6.34

Note: n, number of tested samples; SD, standard deviation; Min, minimum; Max, maximum; and NTU, nephelometric turbidity unit.

Table S2. *Cont.*

b) HC–SGW (2–day HRT)

			2–day outflow (HC)–T1						*2–day outflow (HC)–T2*				
Parameter	***Unit***	n	Mean	SD	Min	Max	Rem (%)	n	Mean	SD	Min	Max	Rem (%)
pH	–	85	7.4	1.09	5.7	9.5	na	36	8.8	1.69	6.6	12.5	na
Redox potential	mV	85	8.1	52.68	-89.5	87.2	na	36	-54.8	83.66	-227.7	56.7	na
Turbidity	NTU	85	175.9	59.61	39.8	319.0	6.9	36	223.8	97.40	88.9	434.0	-18.5
Total suspended solids	mg/L	85	302.9	75.19	79.0	455.0	4.4	36	422.5	152.77	178.0	662.0	-33.3
Electrical conductivity	µS/cm	85	987.4	107.25	713.0	1225.0	na	36	1174.5	282.81	766.0	1924.0	na
Dissolved oxygen	mg/L	85	9.0	1.03	5.5	11.9	14.3	36	9.0	1.24	6.5	12.2	14.3
Colour	Pa/Co	85	1525.6	411.54	455.0	2361.0	3.9	36	2150.8	864.04	784.0	4175.0	-35.5
Temperature	°C	85	17.1	4.92	5.8	24.6	na	36	17.4	4.87	6.0	23.8	na
Biochemical oxygen demand	mg/L	85	17.7	6.40	0.0	30.0	49.0	36	11.1	5.89	0.0	28.0	68.0
Chemical oxygen demand	mg/L	85	96.3	32.01	33.8	172.0	25.5	36	109.2	24.38	56.9	151.0	15.5
Ammonia–nitrogen	mg/L	85	0.4	0.21	0.0	1.2	0.0	36	0.4	0.13	0.2	0.7	0.0
Nitrate–nitrogen	mg/L	85	14.1	6.40	0.2	32.0	-58.4	36	14.3	5.02	4.7	26.5	-60.7
Ortho–phosphate–phosphorus	mg/L	85	52.0	14.87	15.8	95.5	12.0	36	21.1	5.81	6.9	29.2	64.3
Element													
Aluminium	mg/L	39	1.54	1.479	0.30	5.04	27.70	39	2.02	1.624	0.48	4.94	5.16
Boron	mg/L	35	0.53	0.086	0.43	0.73	7.02	35	0.41	0.079	0.34	0.57	28.07
Calcium	mg/L	37	42.50	4.561	34.22	49.76	-17.79	37	81.39	23.641	46.90	115.66	-125.58
Cadmium	mg/L	42	4.90	2.730	1.55	8.93	33.42	42	4.10	1.839	1.79	7.25	44.36
Chromium	mg/L	58	2.48	2.060	0.59	6.69	22.50	58	2.74	2.021	0.83	5.85	14.38
Copper	mg/L	63	0.95	0.561	0.29	1.57	34.03	63	0.90	0.375	0.44	1.36	37.50
Iron	mg/L	51	4.31	2.928	1.08	9.02	32.76	51	4.71	2.744	1.37	8.10	26.52
Potassium	mg/L	14	52.79	1.322	50.41	54.90	12.25	14	54.03	11.214	44.74	71.52	10.19
Magnesium	mg/L	48	17.32	1.296	14.49	20.30	-0.93	48	11.01	2.533	7.57	14.16	35.84
Manganese	mg/L	63	0.48	0.320	0.10	0.91	51.02	63	0.51	0.255	0.29	0.97	47.96
Sodium	mg/L	14	58.54	11.080	42.44	73.63	6.60	14	56.95	9.494	42.01	67.61	6.18
Nickel	mg/L	53	0.02	0.019	0.00	0.06	60.00	53	0.02	0.019	0.00	0.08	60.00
Zinc	mg/L	44	2.86	1.680	0.70	4.70	32.71	44	2.58	1.114	1.01	4.18	39.29
			2–day outflow (HC)–T3						*2–day outflow (HC)–T4*				
pH	–	85	7.8	1.37	5.6	9.8	na	36	8.7	1.73	6.6	12.7	na
Redox potential	mV	85	-3.0	62.95	-107.6	88.6	na	36	-49.9	83.61	-232.8	42.1	na
Turbidity	NTU	85	192.1	50.87	102.0	341.0	-1.7	36	191.3	84.41	106.0	456.0	-1.3
Total suspended solids	mg/L	85	321.8	56.68	165.0	447.0	-1.5	36	337.4	109.45	161.0	661.0	-6.4
Electrical conductivity	µS/cm	85	965.2	106.68	627.0	1208.0	na	36	1178.4	264.41	806.0	1944.0	na
Dissolved oxygen	mg/L	85	10.2	0.73	8.7	12.1	2.9	36	10.0	0.52	8.9	10.9	4.8
Colour	Pa/Co	85	1527.6	326.28	677.0	2311.0	3.8	36	1935.6	702.18	702.0	3438.0	-21.9
Temperature	°C	85	17.1	4.75	6.1	23.6	na	36	17.2	4.73	6.0	23.4	na
Biochemical oxygen demand	mg/L	85	14.7	7.78	0.0	40.0	57.6	36	11.7	7.71	0.0	35.0	66.3
Chemical oxygen demand	mg/L	85	106.6	22.68	43.3	164.0	17.5	36	100.3	21.08	41.7	131.0	22.4
Ammonia–nitrogen	mg/L	85	0.4	0.16	0.0	0.9	0.0	36	0.4	0.09	0.2	0.6	0.0
Nitrate–nitrogen	mg/L	85	9.4	4.67	0.5	24.0	-5.6	36	12.9	7.03	2.4	26.9	-44.9
Ortho–phosphate–phosphorus	mg/L	85	46.2	10.74	23.7	70.1	21.8	36	19.5	4.98	9.0	30.3	67.0
Element													
Aluminium	mg/L	39	2.41	1.016	0.74	4.25	-13.15	39	2.98	2.087	0.84	7.14	-39.91
Boron	mg/L	35	0.54	0.060	0.42	0.66	5.26	35	0.50	0.078	0.40	0.68	12.28
Calcium	mg/L	37	43.02	2.411	35.94	46.28	-19.24	37	104.13	32.868	46.28	141.65	-188.61
Cadmium	mg/L	42	7.69	1.064	4.95	8.98	-4.48	42	7.14	2.429	4.23	11.75	2.99
Chromium	mg/L	58	3.76	1.203	1.34	4.98	-17.5	58	3.99	1.806	1.87	7.03	-24.69
Copper	mg/L	63	1.45	0.113	1.28	1.70	-0.69	63	1.55	0.308	1.23	2.09	-7.64
Iron	mg/L	51	6.35	2.423	1.56	9.29	0.94	51	7.11	2.934	2.60	11.55	-10.92
Potassium	mg/L	14	55.68	4.486	49.48	60.69	7.45	14	60.47	15.561	49.85	85.46	-0.52
Magnesium	mg/L	48	17.76	1.392	13.92	19.55	-0.20	48	13.33	4.526	7.53	19.80	22.32
Manganese	mg/L	63	1.19	0.063	1.06	1.29	-21.4	63	0.89	0.396	0.61	1.59	9.18
Sodium	mg/L	14	58.19	10.620	42.35	68.22	7.16	14	58.54	11.630	41.37	76.33	6.60
Nickel	mg/L	53	0.03	0.018	0.00	0.06	40.00	53	0.03	0.033	0.00	0.10	40.00
Zinc	mg/L	44	4.30	0.524	3.12	5.25	-1.42	44	4.52	0.961	2.90	6.40	-6.35

Note: HC, high pollutant concentrations; T1, treatment system with only *P. australis*; T2, treatment system with *P. australis* and ochre pellets; T3, treatment system without *P. australis* or ochre pellets; T4, treatment system with only ochre pellets; n, number of tested samples; SD, standard deviation; Min, minimum; Max, maximum; Rem, removal; NTU, nephelometric turbidity unit; na, not applicable.

Table S2. *Cont.*

c) LC–SGW (2–day HRT)

		2–day outflow (LC)–T5						*2–day outflow (LC)–T6*					
Parameter	***Unit***	n	Mean	SD	Min	Max	Rem (%)	n	Mean	SD	Min	Max	Rem (%)
pH	–	85	7.0	0.71	6.1	10.2	na	36	10.5	1.12	8.0	12.5	na
Redox potential	mV	85	27.5	32.18	-120.8	72.4	na	36	-137.4	54.91	-224.8	-15.0	na
Turbidity	NTU	85	28.2	37.09	3.4	262.0	-23.1	36	39.2	45.10	9.8	260.0	-71.2
Total suspended solids	mg/L	85	41.7	43.57	8.0	316.0	-4.5	36	62.0	49.93	13.0	262.0	-55.4
Electrical conductivity	µS/cm	85	145.9	30.41	15.5	325.0	na	36	371.5	260.12	4.1	1307.0	na
Dissolved oxygen	mg/L	85	9.3	1.08	6.9	12.5	10.6	36	8.8	0.87	6.5	10.6	15.4
Colour	Pa/Co	85	183.7	74.89	73.0	476.0	14.4	36	308.2	134.65	103.0	683.0	-43.7
Temperature	°C	85	17.0	4.84	6.0	23.0	na	36	16.6	4.55	6.2	22.9	na
Biochemical oxygen demand	mg/L	85	9.9	5.49	0.0	30.0	43.8	36	5.4	4.36	0.0	18.0	69.3
Chemical oxygen demand	mg/L	85	32.4	14.55	10.6	89.6	-13.8	36	29.6	16.67	9.6	73.4	-2.4
Ammonia–nitrogen	mg/L	85	0.1	0.07	0.0	0.3	50.0	36	0.2	0.14	0.0	0.5	0.0
Nitrate–nitrogen	mg/L	85	1.7	1.13	0.0	5.8	-30.8	36	0.4	0.33	0.0	1.6	69.2
Ortho–phosphate–phosphorus	mg/L	85	7.6	3.90	3.2	120	9.5	36	3.2	1.16	1.5	6.4	86.2
Element													
Aluminium	mg/L	39	0.08	0.054	0.01	0.19	84.62	39	1.07	0.874	0.08	2.54	-105.77
Boron	mg/L	35	0.11	0.010	0.10	0.14	21.43	35	0.09	0.011	0.08	0.11	35.71
Calcium	mg/L	46	11.51	0.926	10.01	13.18	-9.20	37	45.13	11.676	27.19	63.22	-332.07
Cadmium	mg/L	42	0.04	0.020	0.00	0.08	55.56	42	0.03	0.019	0.00	0.07	66.67
Chromium	mg/L	58	0.03	0.036	0.00	0.10	25.00	58	0.03	0.033	0.00	0.09	25.00
Copper	mg/L	63	0.04	0.029	0.01	0.09	75.00	63	0.04	0.035	0.00	0.10	75.00
Iron	mg/L	51	0.15	0.118	0.04	0.33	28.57	51	0.21	0.202	0.05	0.54	0.00
Potassium	mg/L	14	3.40	0.675	2.50	4.36	15.84	14	10.78	10.185	2.97	27.17	-166.83
Magnesium	mg/L	48	1.36	0.157	1.05	1.62	6.21	48	0.63	0.310	0.23	0.95	56.55
Manganese	mg/L	63	0.01	0.012	0.00	0.06	94.12	63	0.04	0.031	0.00	0.11	76.47
Sodium	mg/L	14	14.74	1.282	13.12	18.08	-2.93	14	15.90	1.869	13.87	18.80	-11.03
Nickel	mg/L	53	0.004	0.006	0.00	0.04	90.00	53	0.01	0.010	0.00	0.06	75.00
Zinc	mg/L	42	0.06	0.066	0.00	0.17	71.43	42	0.04	0.054	0.00	0.17	80.92
		2–day outflow (LC)–T7						*2–day outflow (LC)–T8*					
pH	–	85	7.5	0.70	6.3	10.1	na	36	10.6	0.99	8.5	12.5	na
Redox potential	mV	85	4.2	30.40	-116.1	51.0	na	36	-143.5	51.01	-238.1	-30.3	na
Turbidity	NTU	85	20.2	14.20	2.9	129.0	11.8	36	35.6	18.11	8.7	79.3	-55.5
Total suspended solids	mg/L	85	30.0	12.12	11.0	76.0	24.8	36	66.2	36.63	13.0	181.0	-65.9
Electrical conductivity	µS/cm	85	138.5	23.26	79.0	215.0	na	36	344.5	287.03	168.4	1534.0	na
Dissolved oxygen	mg/L	85	10.5	0.82	8.2	12.6	-1.0	36	10.1	0.73	6.5	10.8	2.9
Colour	Pa/Co	85	164.5	40.93	34.0	265.0	23.3	36	331.7	119.34	104.0	552.0	-54.6
Temperature	°C	85	16.0	4.59	5.3	21.8	na	36	16.3	4.24	6.3	21.3	na
Biochemical oxygen demand	mg/L	85	5.6	3.60	0.0	20.0	68.2	36	4.4	5.13	0.0	22.0	75.0
Chemical oxygen demand	mg/L	85	26.8	6.18	15.4	41.9	7.3	36	24.0	4.99	15.4	39.9	17.0
Ammonia–nitrogen	mg/L	85	0.09	0.05	0.0	0.3	55.0	36	0.1	0.04	0.1	0.2	50.0
Nitrate–nitrogen	mg/L	85	1.2	0.71	0.1	3.2	7.7	36	0.6	0.54	0.0	2.6	53.8
Ortho–phosphate–phosphorus	mg/L	85	7.0	3.89	3.0	18.8	16.7	36	3.9	1.25	2.2	7.1	53.6
Element													
Aluminium	mg/L	39	0.34	0.180	0.11	0.72	34.62	39	0.76	0.347	0.16	1.24	-46.15
Boron	mg/L	35	0.11	0.009	0.08	0.13	21.43	35	0.10	0.024	0.07	0.13	28.57
Calcium	mg/L	46	11.25	0.773	9.86	12.70	-6.74	37	70.99	33.166	21.66	109.98	-573.53
Cadmium	mg/L	42	0.05	0.031	0.00	0.11	44.44	42	0.04	0.030	0.00	0.10	55.56
Chromium	mg/L	58	0.04	0.049	0.00	0.12	0.00	58	0.05	0.039	0.00	0.12	-25.00
Copper	mg/L	63	0.06	0.049	0.02	0.15	62.50	63	0.05	0.043	0.01	0.13	68.75
Iron	mg/L	51	0.21	0.157	0.09	0.45	0.00	51	0.48	0.447	0.15	1.26	-128.57
Potassium	mg/L	14	3.87	0.364	3.35	4.50	4.21	14	12.77	15.139	2.73	36.71	-216.09
Magnesium	mg/L	48	1.35	0.133	0.99	1.58	6.90	48	0.70	0.336	0.28	1.15	51.72
Manganese	mg/L	63	0.08	0.056	0.00	0.18	52.94	63	0.08	0.069	0.00	0.20	52.94
Sodium	mg/L	14	13.82	1.175	12.14	15.57	3.49	14	15.35	3.197	12.32	20.34	-7.19
Nickel	mg/L	53	0.01	0.007	0.00	0.04	75.00	53	0.01	0.012	0.00	0.06	75.00
Zinc	mg/L	42	0.09	0.083	0.00	0.23	57.14	42	0.07	0.084	0.00	0.29	66.67

Note: LC, low pollutant concentrations; T5, treatment system with only *P. australis*; T6, treatment system with *P. australis* and ochre pellets; T7, treatment system without *P. australis* or ochre pellets; T8, treatment system with only ochre pellets; n, number of tested samples; SD, standard deviation; Min, minimum; Max, maximum; Rem, removal; NTU, nephelometric turbidity unit; na, not applicable.

Table S2. *Cont.*

d) HC–SGW (7–day HRT)

		7–day outflow (HC)–T9						*7–day outflow (HC)–T10*					
Parameter	***Unit***	n	Mean	SD	Min	Max	Rem (%)	n	Mean	SD	Min	Max	Rem (%)
pH	–	83	7.3	0.82	5.9	8.8	na	34	9.8	1.34	7.3	12.3	na
Redox potential	mV	83	12.2	40.30	-57.6	77.5	na	34	-100.1	66.45	-217.4	22.3	na
Turbidity	NTU	83	154.8	86.08	9.8	430.0	18.1	34	178.8	98.79	23.8	356.0	5.3
Total suspended solids	mg/L	83	267.8	110.05	26.0	458.0	15.5	34	342.9	125.33	48.0	581.0	-8.2
Electrical conductivity	µS/cm	83	1137.4	471.09	475.0	3010.0	na	34	1191.1	343.72	733.0	1871.0	na
Dissolved oxygen	mg/L	83	8.8	0.89	6.5	11.0	16.2	34	8.3	1.03	6.4	10.7	21.0
Colour	Pa/Co	83	1448.1	647.98	106.0	2941.0	8.8	34	1593.5	761.50	226.0	2924.0	-0.4
Temperature	°C	83	16.8	4.03	7.2	22.5	na	34	18.0	4.14	7.3	22.6	na
Biochemical oxygen demand	mg/L	83	23.1	9.35	8.0	40.0	33.4	34	12.1	7.32	2.0	32.0	65.1
Chemical oxygen demand	mg/L	83	94.0	31.13	16.2	161.5	27.2	34	90.7	29.89	47.6	177.0	30.0
Ammonia–nitrogen	mg/L	83	0.5	0.23	0.2	1.2	-25.0	34	0.3	0.14	0.1	0.8	25.0
Nitrate–nitrogen	mg/L	83	10.7	7.92	0.9	37.9	-20.2	34	16.3	4.89	6.2	34.5	-83.1
Ortho–phosphate–phosphorus	mg/L	83	48.0	13.76	23.1	76.3	18.9	34	16.3	3.00	3.0	38.1	72.4
Element													
Aluminium	mg/L	54	2.33	1.321	0.21	5.12	-9.39	39	1.56	0.880	0.35	3.71	26.76
Boron	mg/L	26	0.55	0.211	0.33	0.92	3.50	23	0.44	0.202	0.26	0.91	22.81
Calcium	mg/L	52	42.49	4.386	31.32	48.65	-17.77	37	77.22	42.765	39.17	150.14	-114.02
Cadmium	mg/L	36	5.82	2.238	2.28	9.84	20.92	30	4.61	2.126	1.73	8.90	37.36
Chromium	mg/L	46	3.22	1.736	0.93	6.78	-0.63	40	2.86	1.328	1.24	5.16	10.63
Copper	mg/L	54	1.15	0.385	0.63	1.94	20.14	45	0.98	0.308	0.62	1.74	31.94
Iron	mg/L	42	5.45	1.657	3.34	9.40	14.98	36	5.03	1.475	2.81	6.86	21.53
Potassium	mg/L	8	44.90	2.827	41.21	48.07	25.37	8	56.58	19.919	36.93	77.55	5.95
Magnesium	mg/L	54	17.77	3.477	12.22	22.55	-3.55	42	12.84	6.124	5.36	22.80	25.17
Manganese	mg/L	54	0.35	0.249	0.09	0.82	64.29	45	0.46	0.212	0.19	0.77	53.06
Sodium	mg/L	8	55.09	11.391	42.72	66.71	12.11	8	55.85	12.850	42.23	74.21	10.90
Nickel	mg/L	50	0.10	0.091	0.00	0.23	-100.0	41	0.05	0.077	0.00	0.20	0.00
Zinc	mg/L	32	3.12	0.872	1.76	4.60	26.59	29	2.78	0.859	1.62	4.27	34.59
		7–day outflow (HC)–T11						*7–day outflow (HC)–T12*					
pH	–	83	7.7	1.21	5.9	9.9	na	34	9.8	1.54	7.1	12.3	na
Redox potential	mV	83	-4.4	59.67	-108.3	78.1	na	34	-95.5	88.21	-216.7	157.8	na
Turbidity	NTU	83	185.7	49.24	65.1	281.0	1.7	34	245.8	96.29	60.0	497.0	-30.1
Total suspended solids	mg/L	83	302.6	61.44	147.0	434.0	4.5	34	423.4	114.04	120.0	692.0	-33.6
Electrical conductivity	µS/cm	83	1003.0	306.88	492.0	2460.0	na	34	1107.1	299.47	734.0	1814.0	na
Dissolved oxygen	mg/L	83	10.5	0.91	7.9	12.0	0.0	34	9.8	1.19	5.4	11.7	6.7
Colour	Pa/Co	83	1644.8	489.96	718.0	2889.0	-3.6	34	2040.5	757.57	688.0	3282.0	-28.5
Temperature	°C	83	16.6	3.87	7.6	22.1	na	34	17.7	4.20	7.4	22.3	na
Biochemical oxygen demand	mg/L	83	16.6	7.07	4.0	38.0	52.2	34	8.3	4.23	0.0	18.0	76.1
Chemical oxygen demand	mg/L	83	100.8	27.65	11.6	159.5	22.0	34	103.1	16.10	75.6	135.0	20.2
Ammonia–nitrogen	mg/L	83	0.3	0.13	0.0	0.8	25.0	34	0.3	0.11	0.1	0.5	25.0
Nitrate–nitrogen	mg/L	83	8.5	8.42	0.4	34.5	4.5	34	15.0	8.59	3.7	38.7	-68.5
Ortho–phosphate–phosphorus	mg/L	83	43.0	13.78	20.25	79.4	27.2	34	17.3	5.63	3.8	32.8	70.7
Element													
Aluminium	mg/L	54	2.98	1.218	1.61	6.14	-39.91	24	3.61	2.306	0.87	6.67	-69.48
Boron	mg/L	26	0.54	0.160	0.34	0.77	5.26	20	0.39	0.078	0.30	0.51	31.58
Calcium	mg/L	52	37.39	4.030	30.58	45.66	-3.63	22	145.67	92.506	40.36	243.66	-303.74
Cadmium	mg/L	36	6.40	1.984	3.86	9.72	13.59	24	6.87	2.628	3.33	10.27	6.66
Chromium	mg/L	46	4.76	1.215	2.83	6.68	-48.75	34	4.75	2.021	2.57	6.89	-48.44
Copper	mg/L	54	1.30	0.301	0.80	1.76	9.72	36	1.47	0.247	1.14	1.80	-2.08
Iron	mg/L	42	7.02	1.801	3.58	9.36	-9.52	30	8.69	2.012	6.48	10.99	-35.57
Potassium	mg/L	8	45.77	5.160	39.87	51.00	23.92	8	59.62	20.132	39.79	79.86	0.90
Magnesium	mg/L	54	16.24	1.971	11.76	18.35	5.36	30	12.97	3.785	7.71	17.80	24.42
Manganese	mg/L	54	1.01	0.223	0.75	1.38	-3.06	36	0.86	0.457	0.33	1.42	12.24
Sodium	mg/L	8	55.22	11.852	41.86	67.68	11.90	8	55.59	12.232	42.05	68.09	11.31
Nickel	mg/L	50	0.09	0.081	0.00	0.20	-80.00	32	0.04	0.033	0.00	0.10	20.00
Zinc	mg/L	32	3.90	0.972	1.90	5.10	8.02	26	4.32	0.787	3.01	5.69	-1.65

Note: HC, high pollutant concentrations; T9, treatment system with only *P. australis*; T10, treatment system with *P. australis* and ochre pellets; T11, treatment system without *P. australis* or ochre pellets; T12, treatment system with ochre pellets only; n, number of tested samples; SD, standard deviation; Min, minimum; Max, maximum; Rem, removal; NTU, nephelometric turbidity unit; na, not applicable.

Table S2. *Cont.*

e) LC–SGW (7–day HRT)

		7–day outflow (LC)–T13						*7–day outflow (LC)–T14*					
Parameter	***Unit***	n	Mean	SD	Min	Max	Rem (%)	n	Mean	SD	Min	Max	Rem (%)
pH	–	83	6.9	0.61	6.2	9.0	na	34	10.3	1.33	7.7	12.3	na
Redox potential	mV	83	31.0	28.12	-75.5	68.9	na	34	-130.8	63.74	-217.6	-1.8	na
Turbidity	NTU	83	18.9	11.05	2.8	52.1	17.5	34	25.1	16.21	2.9	77.8	-9.6
Total suspended solids	mg/L	83	27.7	16.48	2.8	72.0	30.6	34	37.5	15.62	4.0	74.0	6.0
Electrical conductivity	µS/cm	83	161.4	42.91	103.7	324.0	na	34	306.8	118.32	166.2	774.0	na
Dissolved oxygen	mg/L	83	9.3	1.24	4.9	12.0	10.6	34	8.7	0.94	7.0	10.7	16.3
Colour	Pa/Co	83	159.1	56.83	48.0	391.0	25.8	34	250.6	120.15	47.0	647.0	-16.8
Temperature	°C	83	15.9	4.18	7.3	22.4	na	34	17.3	4.31	7.3	22.3	na
Biochemical oxygen demand	mg/L	83	13.4	5.63	2.0	30.0	23.9	34	5.5	6.00	0.0	28.0	68.8
Chemical oxygen demand	mg/L	83	31.3	11.95	7.9	77.5	-8.3	34	29.2	10.71	20.3	63.4	-1.0
Ammonia–nitrogen	mg/L	83	0.1	0.07	0.0	0.5	50.0	34	0.1	0.07	0.0	0.3	50.0
Nitrate–nitrogen	mg/L	83	1.3	0.77	0.0	4.8	0.0	34	0.7	0.77	0.0	3.7	46.2
Ortho–phosphate–phosphorus	mg/L	83	11.9	6.36	3.3	32.0	-41.7	34	3.0	1.77	1.5	8.5	64.3
Element													
Aluminium	mg/L	44	0.12	0.094	0.00	0.24	76.92	24	0.37	0.232	0.08	0.69	28.85
Boron	mg/L	24	0.13	0.069	0.08	0.29	7.14	20	0.08	0.005	0.07	0.09	42.86
Calcium	mg/L	52	11.44	0.944	10.01	13.12	-8.54	22	60.11	13.881	38.50	75.27	-470.30
Cadmium	mg/L	32	0.08	0.097	0.00	0.27	11.11	24	0.02	0.021	0.00	0.06	77.78
Chromium	mg/L	42	0.05	0.069	0.00	0.21	-25.00	34	0.04	0.031	0.00	0.07	0.00
Copper	mg/L	48	0.07	0.081	0.00	0.22	56.25	36	0.04	0.032	0.00	0.08	75.00
Iron	mg/L	38	0.14	0.080	0.04	0.28	33.33	30	0.39	0.218	0.16	0.65	-85.71
Potassium	mg/L	8	2.99	0.216	2.72	3.29	25.99	8	17.59	16.141	2.35	33.47	-335.40
Magnesium	mg/L	46	1.55	0.195	1.18	1.91	-6.90	30	0.84	0.224	0.53	1.08	42.07
Manganese	mg/L	48	0.05	0.077	0.00	0.20	70.59	36	0.04	0.033	0.00	0.09	76.47
Sodium	mg/L	8	13.91	1.648	12.10	15.47	2.86	8	15.42	3.280	12.09	18.59	-7.68
Nickel	mg/L	44	0.05	0.081	0.00	0.18	-25.00	32	0.00	0.012	0.00	0.06	100.00
Zinc	mg/L	28	0.11	0.094	0.00	0.32	47.62	24	0.06	0.050	0.00	0.14	71.43
		7–day outflow (LC)–T15						*7–day outflow (LC)–T16*					
pH	–	83	7.5	0.72	6.4	9.3	na	34	10.5	1.05	8.0	12.2	na
Redox potential	mV	83	1.8	33.00	-87.9	53.2	na	34	-131.3	72.36	-217.6	156.0	na
Turbidity	NTU	83	16.5	7.27	5.7	34.1	27.9	34	40.9	25.03	4.0	113.0	-78.6
Total suspended solids	mg/L	83	25.0	10.96	7.0	56.0	37.3	34	55.2	24.85	4.0	104.0	-38.3
Electrical conductivity	µS/cm	83	144.0	32.28	97.7	263.0	na	34	290.2	135.74	148.0	768.0	na
Dissolved oxygen	mg/L	83	11.0	1.11	8.1	14.3	-5.8	34	10.1	0.84	8.3	11.2	2.9
Colour	Pa/Co	83	152.6	41.05	51.0	258.0	28.9	34	283.8	115.21	48.0	544.0	-32.3
Temperature	°C	83	15.3	4.23	6.7	22.2	na	34	17.0	4.15	7.9	22.1	na
Biochemical oxygen demand	mg/L	83	6.7	4.85	0.0	22.0	61.9	34	5.4	3.95	0.0	20.0	69.3
Chemical oxygen demand	mg/L	83	17.2	6.95	6.0	36.7	40.5	34	19.9	7.28	3.9	32.2	31.1
Ammonia–nitrogen	mg/L	83	0.1	0.04	0.0	0.3	50.0	34	0.1	0.15	0.0	0.8	50.0
Nitrate–nitrogen	mg/L	83	1.0	0.64	0.0	4.0	23.1	34	0.3	0.28	0.0	1.1	76.9
Ortho–phosphate–phosphorus	mg/L	83	8.5	4.03	2.6	19.6	-10.0	34	3.7	1.29	1.2	6.6	56.0
Element													
Aluminium	mg/L	44	0.36	0.189	0.09	0.75	30.77	24	0.73	0.420	0.20	1.40	-40.38
Boron	mg/L	24	0.12	0.064	0.08	0.26	14.29	20	0.08	0.006	0.07	0.09	42.86
Calcium	mg/L	52	10.74	0.739	9.44	12.12	-1.90	22	65.46	37.361	23.48	104.98	-521.06
Cadmium	mg/L	32	0.09	0.083	0.00	0.21	0.00	24	0.05	0.046	0.00	0.11	44.44
Chromium	mg/L	42	0.07	0.074	0.00	0.21	-75.00	34	0.06	0.054	0.00	0.12	-50.00
Copper	mg/L	48	0.10	0.091	0.00	0.26	37.50	36	0.06	0.057	0.00	0.13	62.50
Iron	mg/L	38	0.20	0.100	0.07	0.30	4.76	30	0.93	0.759	0.15	1.91	-342.86
Potassium	mg/L	8	3.62	0.438	3.07	4.22	10.40	8	20.16	19.003	2.26	38.75	-399.01
Magnesium	mg/L	46	1.38	0.161	1.03	1.64	4.83	30	0.78	0.330	0.36	1.16	46.21
Manganese	mg/L	48	0.06	0.074	0.00	0.21	64.71	36	0.10	0.094	0.00	0.21	41.18
Sodium	mg/L	8	13.15	1.199	11.83	14.36	8.17	8	15.69	5.272	10.55	21.03	-9.57
Nickel	mg/L	44	0.05	0.080	0.00	0.18	-25.00	32	0.01	0.010	0.00	0.05	75.00
Zinc	mg/L	28	0.13	0.068	0.01	0.25	38.10	24	0.11	0.089	0.00	0.26	47.62

Note: LC, low pollutant concentrations; T13, treatment system with only *P. australis*; T14, treatment system with *P. australis* and ochre pellets; T15, treatment system without *P. australis* or ochre pellets; T16, treatment system with only ochre pellets; n, number of tested samples; SD, standard deviation; Min, minimum; Max, maximum; Rem, removal; NTU, nephelometric turbidity unit; na, not applicable.

Table S2. *Cont.*

f) outflow of control wetlands

		2–day outflow (TW)–C1					*2–day outflow (TW)–C2*				
Parameter	***Unit***	n	Mean	SD	Min	Max	n	Mean	SD	Min	Max
pH	–	85	6.7	0.39	6.0	7.7	85	7.4	0.60	6.2	9.3
Redox potential	mV	85	42.2	16.50	-7.7	70.8	85	9.6	28.10	-72.2	78.4
Turbidity	NTU	85	9.3	6.61	2.0	39.3	85	4.2	4.37	1.2	32.5
Total suspended solids	mg/L	85	14.3	8.16	0.0	35.0	85	3.9	2.93	0.0	15.0
Electrical conductivity	µS/cm	85	84.4	12.15	57.2	117.7	85	81.5	9.94	57.2	116.2
Dissolved oxygen	mg/L	85	9.0	0.87	7.2	11.8	85	10.4	0.70	8.9	12.0
Colour	Pa/Co	85	44.3	30.56	6.0	168.0	85	8.6	7.66	0.0	34.0
Temperature	°C	85	16.5	3.76	5.9	22.4	85	16.8	4.04	6.0	22.8
Biochemical oxygen demand	mg/L	85	7.3	3.45	0.0	18.0	85	5.4	4.03	0.0	18.0
Chemical oxygen demand	mg/L	85	15.9	7.74	4.9	42.8	85	6.3	2.84	1.0	14.3
Ammonia–nitrogen	mg/L	85	0.1	0.12	0.0	0.6	85	0.1	0.14	0.0	0.6
Nitrate–nitrogen	mg/L	85	1.1	0.75	0.1	3.8	85	0.8	0.53	0.0	3.6
Ortho–phosphate–phosphorus	mg/L	85	2.8	1.82	0.9	10.6	85	2.4	0.63	0.9	4.3
Element											
Aluminium	mg/L	24	0.01	0.006	0.00	0.02	24	0.01	0.007	0.00	0.02
Boron	mg/L	20	0.02	0.018	0.00	0.05	20	0.03	0.009	0.01	0.05
Calcium	mg/L	28	9.96	0.549	9.06	10.90	28	9.78	0.552	8.90	10.67
Cadmium	mg/L	24	0.01	0.006	0.00	0.02	24	0.00	0.006	0.00	0.02
Chromium	mg/L	34	0.00	0.005	0.00	0.01	34	0.00	0.005	0.00	0.01
Copper	mg/L	36	0.01	0.006	0.00	0.02	36	0.01	0.008	0.00	0.03
Iron	mg/L	30	0.02	0.007	0.00	0.04	30	0.02	0.009	0.00	0.04
Potassium	mg/L	8	0.35	0.049	0.27	0.42	8	0.69	0.261	0.40	0.98
Magnesium	mg/L	30	1.10	0.123	0.77	1.27	30	1.10	0.138	0.78	1.30
Manganese	mg/L	36	0.01	0.010	0.00	0.04	36	0.00	0.009	0.00	0.03
Sodium	mg/L	8	6.62	0.721	5.82	7.31	8	6.69	0.869	5.78	7.58
Nickel	mg/L	32	0.01	0.023	0.00	0.09	32	0.01	0.023	0.00	0.10
Zinc	mg/L	26	0.03	0.009	0.00	0.03	26	0.02	0.010	0.00	0.04
		7–day outflow (TW)–C3					*7–day outflow (TW)–C4*				
pH	–	83	6.6	0.39	6.0	7.3	83	7.1	0.52	5.9	8.9
Redox potential	mV	83	44.1	17.06	6.1	76.4	83	25.1	24.68	-60.9	89.8
Turbidity	NTU	83	12.7	12.56	1.5	69.9	83	3.7	3.47	1.3	30.1
Total suspended solids	mg/L	83	17.8	13.69	0.0	67.0	83	4.3	5.79	0.0	38.0
Electrical conductivity	µS/cm	83	92.9	27.28	60.7	167.2	83	87.1	20.83	58.4	163.2
Dissolved oxygen	mg/L	83	8.9	1.09	5.7	11.2	83	10.8	1.07	8.4	13.2
Colour	Pa/Co	83	56.1	31.45	11.0	143.0	83	12.7	9.73	0.0	42.0
Temperature	°C	83	15.1	4.20	6.2	22.2	83	15.5	4.17	7.2	22.0
Biochemical oxygen demand	mg/L	83	9.1	5.05	0.0	22.0	83	6.7	4.65	0.0	24.0
Chemical oxygen demand	mg/L	83	17.6	6.74	6.3	35.2	83	7.0	2.48	1.6	17.3
Ammonia–nitrogen	mg/L	83	0.1	0.04	0.0	0.2	83	0.1	0.05	0.0	0.2
Nitrate–nitrogen	mg/L	83	0.9	0.42	0.0	2.8	83	0.8	0.54	0.0	3.0
Ortho–phosphate–phosphorus	mg/L	83	3.4	1.47	0.4	7.4	83	2.4	0.86	0.5	4.6
Element											
Aluminium	mg/L	39	0.08	0.092	0.00	0.20	39	0.09	0.101	0.00	0.22
Boron	mg/L	23	0.05	0.061	0.00	0.19	23	0.05	0.059	0.00	0.19
Calcium	mg/L	49	9.67	0.591	8.41	10.70	49	9.51	0.476	8.40	10.40
Cadmium	mg/L	30	0.04	0.071	0.00	0.19	30	0.05	0.071	0.00	0.20
Chromium	mg/L	40	0.03	0.063	0.00	0.19	40	0.03	0.063	0.00	0.19
Copper	mg/L	45	0.04	0.073	0.00	0.19	45	0.05	0.078	0.00	0.20
Iron	mg/L	36	0.05	0.069	0.00	0.22	36	0.05	0.066	0.00	0.20
Potassium	mg/L	8	0.50	0.492	0.03	1.01	8	0.52	0.127	0.39	0.70
Magnesium	mg/L	42	1.20	0.119	0.88	1.40	42	1.16	0.120	0.83	1.37
Manganese	mg/L	45	0.04	0.070	0.00	0.19	45	0.04	0.069	0.00	0.18
Sodium	mg/L	8	6.80	0.085	6.69	6.90	8	6.35	0.105	6.24	6.56
Nickel	mg/L	41	0.04	0.075	0.00	0.18	41	0.04	0.075	0.00	0.18
Zinc	mg/L	29	0.04	0.070	0.00	0.24	29	0.04	0.061	0.00	0.22

Note: TW, tap water; C1 and C3, treatment system with only *P. australis*; C2 and C4, treatment system with only tap water (TW); n, number of tested samples; SD, standard deviation; Min, minimum; Max, maximum; Rem, removal; NTU, nephelometric turbidity unit; na, not applicable.