

## SUPPLEMENTARY MATERIAL

**Table S1.** GLM results for bacterial density, chlorophyll-a, ETS activity and O<sub>2</sub> consumption in relation with the physical-chemical variables measured in the water. Significant results (\*) and near-significant (.) are highlighted.

	Bacterial density		chlorophyll-a		ETS activity		O <sub>2</sub> consumption	
	t	p-value	T	p-value	t	p-value	t	p-value
<b>(Intercept)</b>	-0.97	0.38	1.66	0.16	-1.18	0.29	-1.15	0.30
<b>DIN</b>	-1.62	0.17	0.60	0.58	0.23	0.83	-1.98	0.10
<b>SRP</b>	3.58	<b>0.02*</b>	2.97	0.03	2.21	<b>0.08.</b>	-0.67	0.53
<b>BOD<sub>5</sub></b>	1.15	0.30	1.31	<b>0.03*</b>	1.63	0.16	1.44	0.21
<b>COD</b>	-0.69	0.52	-0.68	0.53	1.26	0.26	-1.15	0.30
<b>Temperature</b>	1.73	0.14	0.15	0.89	-0.74	0.50	1.28	0.26
<b>pH</b>	0.01	0.99	-2.33	<b>0.07.</b>	2.45	<b>0.06.</b>	0.44	0.68
<b>Turbidity</b>	2.42	<b>0.06.</b>	2.38	<b>0.06.</b>	-1.73	0.14	2.02	0.10
<b>Conductivity</b>	-0.91	0.40	1.07	0.33	-0.74	0.49	-0.10	0.93
<b>DO</b>	2.25	<b>0.07.</b>	-0.82	0.45	-1.27	0.26	2.38	<b>0.06.</b>
<b>NO<sub>3</sub><sup>-</sup></b>	1.63	0.16	-0.59	0.58	-0.24	0.82	1.98	0.10
<b>NO<sub>2</sub><sup>-</sup></b>	1.61	0.17	-0.60	0.57	-0.30	0.78	1.91	0.11
<b>NH<sub>4</sub><sup>+</sup></b>	1.62	0.17	-0.59	0.58	-0.24	0.82	1.99	0.10

**Table SII.** Post-hoc analysis (SNK) for the biological variables per Stream, Treatment and Time. Significant results (p<0.05) are marked (\*).

TIME	TREATMENT		Bacterial density			chlorophyll-a		
			Stream			Stream		
			1	2	3	1	2	3
0hs	Upstream	Downstream	<0.01*	<0.01*	<0.01*	<0.01*	0.12	<0.01*
		Treatment	0.48	1.00	1.00	1.00	0.89	0.12
	Downstream	Treatment	0.04*	0.03*	<0.01*	0.02*	0.01*	<0.01*
24hs	Upstream	Downstream	<0.01*	0.04*	<0.01*	1.00	0.22	<0.01*
		Treatment	<0.01*	1.00	1.00	1.00	1.00	1.00
	Downstream	Treatment	<0.01*	0.02*	<0.01*	1.00	0.83	<0.01*
48hs	Upstream	Downstream	<0.01*	0.07	<0.01*	1.00	0.67	<0.01*
		Treatment	<0.01*	1.00	0.94	1.00	0.12	<0.01*
	Downstream	Treatment	<0.01*	0.08	<0.01*	1.00	<0.01*	<0.01*
72hs	Upstream	Downstream	<0.01*	0.04*	<0.01*	0.04*	1.00	<0.01*
		Treatment	<0.01*	1.00	0.48	1.00	1.00	<0.01*
	Downstream	Treatment	0.23	0.10	<0.01*	0.05	1.00	<0.01*
TIME	TREATMENT		ETS Activity			O <sub>2</sub> Consumption		
			Stream			Stream		
			1	2	3	1	2	3
			1	2	3	1	2	3
0hs	Upstream	Downstream	0.14	1.00	0.89	1.00	0.71	<0.01*
		Treatment	1.00	0.22	1.00	1.00	1.00	1.00
	Downstream	Treatment	0.06	0.11	0.65	1.00	0.56	<0.01*
24hs	Upstream	Downstream	0.05	1.00	0.38	<0.01*	<0.01*	<0.01*
		Treatment	1.00	1.00	0.72	0.96	0.30	0.58
	Downstream	Treatment	0.04*	1.00	1.00	<0.01*	<0.01*	<0.01*
48hs	Upstream	Downstream	0.26	1.00	0.46	0.84	1.00	<0.01*
		Treatment	1.00	1.00	1.00	<0.01*	1.00	<0.01*
	Downstream	Treatment	0.47	1.00	0.72	<0.01*	1.00	<0.01*
72hs	Upstream	Downstream	1.00	1.00	0.56	<0.01*	<0.01*	<0.01*
		Treatment	0.04*	1.00	0.77	<0.01*	0.48	0.38
	Downstream	Treatment	0.01*	1.00	1.00	<0.01*	0.30	0.001*

