

Supplementary Materials

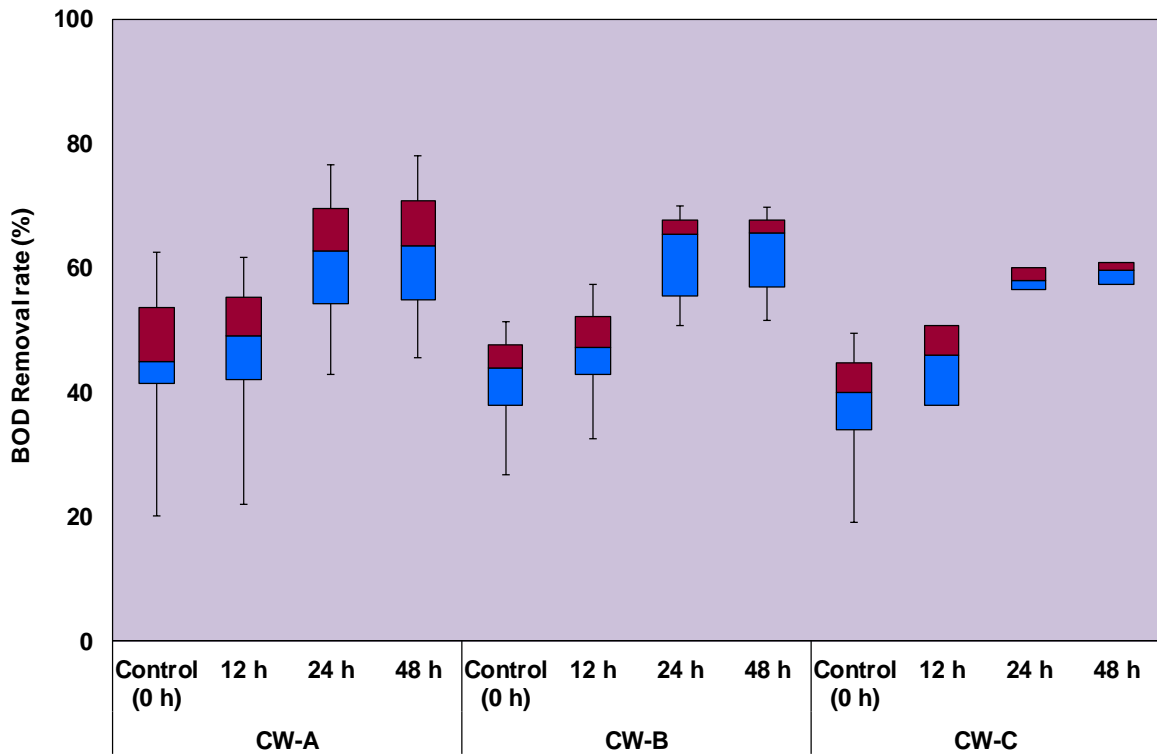


Fig. S1. BOD removal rates at different HRTs in VF CW system.

Table S1. Average Concentration of Pollutants in Influent, Control and Effluent of CW Units at Different HRTs

Parameter	Influent	CW-A (20mm gravels)				CW-B (10mm gravels)				CW-C (Sand)			
		Control	12 h	24 h	48 h	Control	12 h	24 h	48 h	Control	12 h	24 h	48 h
pH	7.2 ± 0.4	7.23 ± 0.2	7.4 ± 0.3	7.3 ± 0.2	7.5 ± 0.3	7.24 ± 0.2	7.2 ± 0.4	7.4 ± 0.3	7.5 ± 0.2	7.24 ± 0.2	7.4 ± 0.3	7.5 ± 0.3	7.7 ± 0.2
DO (mg L ⁻¹)	4.3 ± 2.0	4.42 ± 0.6	5.4 ± 0.5	5.8 ± 0.8	5.1 ± 0.5	4.3 ± 0.6	4.9 ± 0.35	5.0 ± 0.6	5.2 ± 0.2	4.25 ± 0.59	5.1 ± 0.7	5.4 ± 0.7	5.1 ± 0.6
NO ₃ -N (mg L ⁻¹)	1.5 ± 0.8	1.62 ± 0.4	2.1 ± 0.5	3.0 ± 0.3	2.8 ± 0.3	1.55 ± 0.3	2.8 ± 0.6	3.7 ± 0.4	1.8 ± 0.3	1.52 ± 0.3	1.75 ± 0.3	1.98 ± 0.5	1.7 ± 0.3
NH ₄ -N (mg L ⁻¹)	48.0 ± 3.5	33.9 ± 3.1	27.0 ± 3.5	21.0 ± 4.1	20.9 ± 3.2	38.0 ± 2.5	29.1 ± 3.7	24.3 ± 4.0	25.0 ± 2.5	41.8 ± 1.9	33.8 ± 3.2	27.3 ± 4.6	27.0 ± 4.2
PO ₄ -P (mg L ⁻¹)	41.0 ± 4.7	39.2 ± 1.7	32.6 ± 4.8	26.4 ± 3.6	22.8 ± 2.9	36.4 ± 3.5	27.3 ± 4.4	19.4 ± 3.6	17.3 ± 3.3	34.0 ± 3.6	30.4 ± 1.7	22.9 ± 2.8	22.1 ± 1.9
TSS (mg L ⁻¹)	628.0 ± 53	383.2 ± 95	225.0 ± 33	223.0 ± 24	221.0 ± 21	202.5 ± 14.8	201.6 ± 19	198.7 ± 23	194.2 ± 20	187.2 ± 17.9	169.2 ± 23	165.3 ± 24	160.3 ± 30
BOD (mg L ⁻¹)	815.0 ± 33	466.4 ± 48.8	438.0 ± 18	319.0 ± 21	310.0 ± 24	475.4 ± 34.9	423.0 ± 30	308.0 ± 12	301.0 ± 15	498.1 ± 49	446.0 ± 19	350.0 ± 24	338.0 ± 21
COD (mg L ⁻¹)	1,230 ± 48	693.4 ± 168.8	535.0 ± 34	436.0 ± 23	432.0 ± 32	601.6 ± 67.1	515.0 ± 35	412.0 ± 27	401.0 ± 23	611.2 ± 68.5	558.0 ± 33	464.0 ± 28	455.3 ± 24