

Table 3. Basic statistical error metrics evaluating the WQ models' performance in conjunction with *in-situ* WQ dataset of 2020.

(The units of ME and RMSE are $\mu\text{g/l}$, meters and mg/l for Chlorophyll-*a*, Secchi depth and Total phosphorus, respectively. NRMSE has no units while MAPE has percentage units).

No.	WQ model	ME	RMSE	NRMSE	MAPE	Sensor
1a	Chl- <i>a</i> _general	-1.01	8.02	0.1	190.8	Landsat
1b	Chl- <i>a</i> _general_cor	1.9	10.1	0.12	170.3	
2a	Chl- <i>a</i> _natural	-43.2	103.6	1.3	378.2	
2b	Chl- <i>a</i> _natural_cor	-0.14	9.5	0.12	93.1	
3a	Chl- <i>a</i> _artificial	2.3	6.14	0.21	94	
3b	Chl- <i>a</i> _artificial_cor	1.99	6	0.2	126.2	
4a	Secchi_general	1.21	2.43	0.18	44.8	
4b	Secchi_general_cor	0.54	2.23	0.17	48.2	
5a	Secchi_natural	-0.59	1.97	0.15	38.8	
5b	Secchi_natural_cor	0.34	1.99	0.15	28.3	
6a	Secchi_artificial	1.14	2.13	0.34	50.5	
6b	Secchi_artificial_cor	-0.64	1.8	0.29	76.3	
7a	TP_general	0.007	0.096	0.19	74.9	
7b	TP_general_cor	0.011	0.095	0.19	66.2	
8a	TP_natural	0.01	0.09	0.18	68.8	
8b	TP_natural_cor	0.003	0.09	0.18	80.9	
9a	Application of TP general model on artificial lakes	0.0002	0.011	0.4	45.5	
9b	Application of TP general model on artificial lakes_cor	-0.0005	0.011	0.4	44.6	
10a	Chl- <i>a</i> _general	2.6	14.4	0.12	150.8	Sentinel 2
10b	Chl- <i>a</i> _general_cor	4.2	15.2	0.13	139.3	
11a	Chl- <i>a</i> _natural	-5.9	13.4	0.12	209.6	
11b	Chl- <i>a</i> _natural_cor	9.1	22.7	0.2	83.7	

12a	Chl- <i>a</i> _artificial	2.2	6.9	0.23	107.4
12b	Chl- <i>a</i> _artificial_cor	2.3	5.7	0.19	111.8
13a	Secchi_general	0.005	2.99	0.22	59.7
13b	Secchi_general_cor	-0.38	2.8	0.21	74.1
14a	Secchi_natural	-0.48	3.4	0.25	59.01
14b	Secchi_natural_cor	0.43	3.2	0.23	45.8
15a	Secchi_artificial	0.66	2.1	0.25	50.96
15b	Secchi_artificial_cor	-0.84	2	0.25	78.1
16a	TP_general	0.007	0.09	0.18	73.3
16b	TP_general_cor	0.01	0.09	0.18	66.1
17a	TP_natural	0.018	0.07	0.14	41
17b	TP_natural_cor	0.01	0.07	0.14	50
18	Application of TP general model on artificial lakes	-0.003	0.014	0.5	59.1