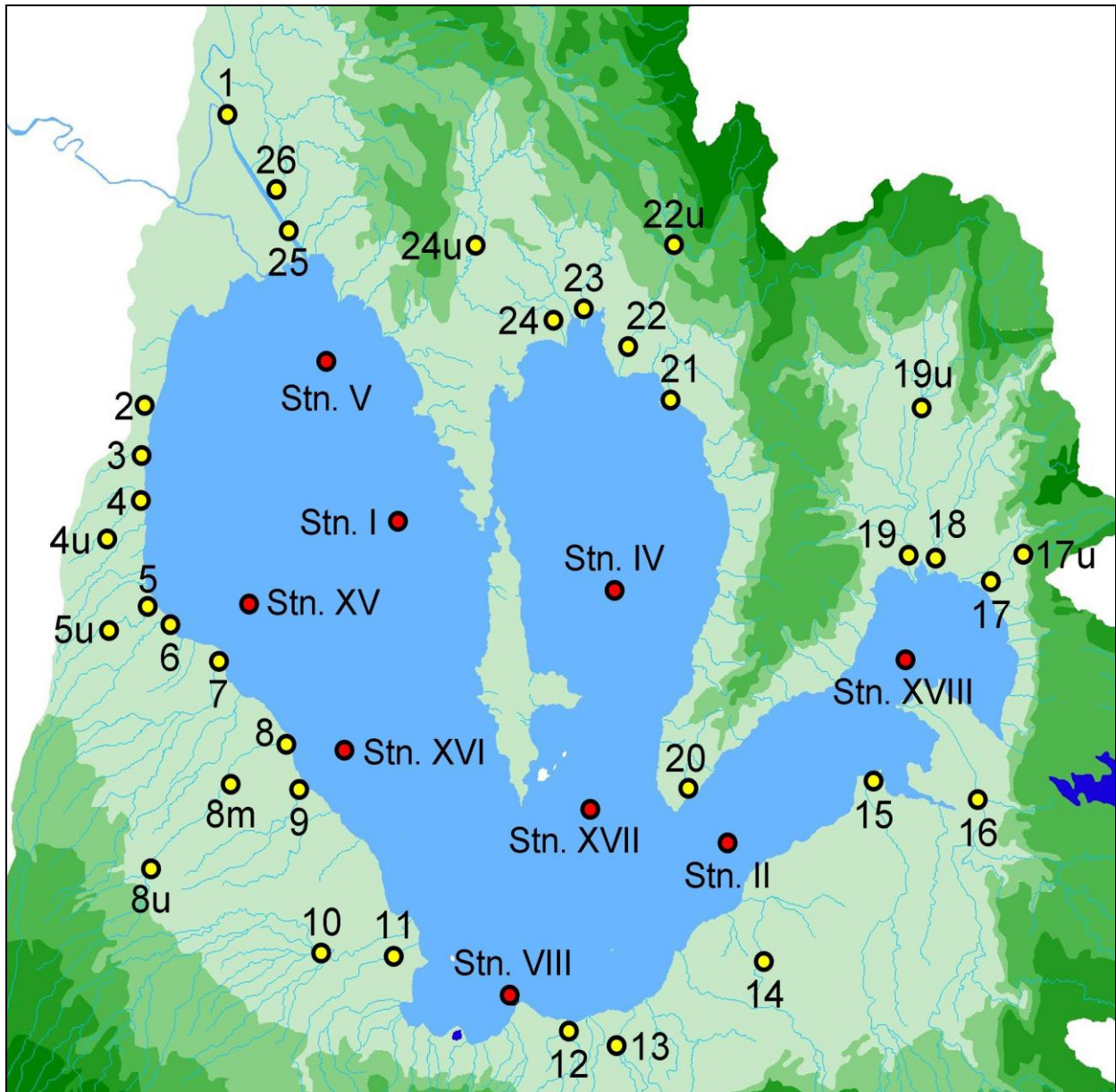




QUARTERLY WATER QUALITY MONITORING REPORT

Laguna Lake and Tributary Rivers
January to March 2013



Sampling Stations and Locations

II. Water Quality Data:

A. Laguna Lake

Location	Water Quality Parameters*								
	BOD (mg/l)			Dissolved Oxygen (mg/l)			Total coliforms (MPN/100ml)**		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
Stn. I (Central West Bay)	1	2	1	6.8	8.0	7.5	194	112	147
Stn. II (East Bay)	1	2	1	7.8	8.4	7.7	320	232	273
Stn. IV (Central Bay)	2	2	2	7.4	8.5	7.6	281	181	226
Stn. V (Nothern West Bay)	1	2	1	7.0	7.0	7.1	219	222	220
Stn. VIII (South Bay)	1	1	1	7.8	8.4	7.8	208	94	140
Stn.XV (San Pedro)	1	2	1	7.5	7.8	7.6	926	770	845
Stn.XVI (Sta. Rosa)	1	2	1	7.8	7.6	8.0	242	550	365
Stn.XVII (Sanctuary)	2	2	2	7.6	8.2	8.4	149	115	131
Stn.XVIII (Pagsanjan)	2	2	2	8.0	8.8	7.8	296	658	441

Notes: * DENR Class C Water Quality Criteria:

Biochemical Oxygen Demand (BOD) - 10 mg/l

Dissolved Oxygen (DO) - 5 mg/l

Total Coliforms - 5000 MPN/100 ml

** Based on computed geomean

B. Tributary Rivers

Station	Location	Water Quality Parameters*								
		BOD (mg/l)			Dissolved Oxygen (mg/l)			Total coliforms (MPN/100ml)**		
		Jan.	Feb.	Mar.	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
1	Marikina	16	16	34	0.4	0.7	0.1	1,665,991	-	-
2	Bagumbayan (Taguig)	-	-	-	-	-	-	1,549,516	-	-
3	Buli Creek (Taguig)	94	180	345	0.1	0.1	0.1	16,025,999	-	-
4	Mangangate (Muntinlupa)-Down	-	-	-	-	-	-	197,737	-	-
4U	Mangangate (Muntinlupa)-Up	9	10	12	4.5	2.9	2.5	2,175,485	-	-
5	Tunasan (Muntinlupa)- Down	162	3	380	0.1	0.1	0.1	14,460,854	-	-
5U	Tunasan (Muntinlupa)- Up	2	104	7	2.0	3.4	2.6	142,160	-	-
6	San Pedro River (T2)	8	10	10	1.0	0.5	2.2	6,230,993	-	-
7	Biñan	15	19	25	0.1	0.1	0.1	3,879,433	-	-
8	Sta. Rosa- Down	20	15	26	2.0	0.7	2.9	2,540,379	-	-
8M	Sta. Rosa- M	19	10	13	2.1	0.7	0.4	4,524,313	-	-
8U	Sta. Rosa- U	4	5	4	6.2	5.6	5.7	770,294	-	-
9	Cabuyao	26	14	56	0.1	0.2	0.1	1,817,373	-	-
10	San Cristobal River (T3)	16	26	52	1.1	1	0.1	3,589,268	-	-
11	San Juan River (T5)	2	6	5	4.2	3.8	2.7	290,716	-	-
12	Los Baños	2	4	2	2.0	1.6	2.4	55,331	-	-
13	Bay River (T9)	2	2	2	7.3	7.8	7.2	275,124	-	-
14	Pila	3	4	2	5.8	5.6	5.8	172,816	-	-
15	Sta. Cruz River (T6)	1	3	1	6.4	5.7	6.8	235,543	-	-
16	Pagsanjan River (T8)	1	2	2	7.5	6.8	7.5	24,796	-	-
17	Pangil- Down	2	2	2	8.2	7.6	7.6	242,474	-	-
17U	Pangil- Up	1	1	3	8.2	6.9	7.4	4,837	-	-
18	Siniloan	2	10	3	6.1	1.4	3.0	41,952	-	-
19	Sta. Maria- Down	3	2	2	6.5	6.4	7	86,981	-	-
19U	Sta. Maria- Up	1	2	2	8.6	9.7	8.7	6,034	-	-
20	Jala-jala	-	-	-	-	-	-	593,296	-	-
21	Piñilla	4	17	3	1.1	1.3	1.9	124,623	-	-
22	Tanay- Down	6	4	3	4.3	2.6	2.9	400,541	-	-
22U	Tanay- Up	2	4	1	8.4	8.9	9	9,843	-	-
23	Baras	7	4	4	1.8	3	4.6	339,836	-	-
24	Morong- Down	-	-	9	-	-	7.1	213,307	-	-

24U	Morong- Up	30	10	36	10.2	17.4	20.7	57,649	-	-
25	Manggahan Floodway (Taytay)	26	18	9	0.9	2.1	0.8	267,582	-	-
26	Sapang Baho (Cainta)	39	33	24	0.1	0.8	0.1	1,139,912	-	-

FINDINGS:

A. On Biochemical Oxygen Demand (BOD):

Laguna Lake

- For the 1st quarter of 2013, all of the nine (9) lake stations passed the 10 mg/L BOD criterion set for Class C waters by the DENR.
- The recorded BOD concentrations for the 1st quarter ranged only from 1 to 2mg/L.

Tributary Rivers

- The results of the BOD analysis showed that out of the 34 tributary river stations monitored, only 16 stations consistently conformed to the Class C criterion for BOD and these were Stns. 6, 8u, 11 to 19u, 22, 22u and 23.
- All of the monthly BOD concentrations in Stns. 1, 3, 7, 8, 9, 10 and 26 during the first quarter failed the 10 mg/L Class C criterion.
- The river stations with monthly BOD concentrations that sometimes either complying or exceeding the Class C criterion were Stns. 4u, 5, 5u, 8m, 21, 24u and 25.
- Due to thick water hyacinth, no sample was taken in Stns. 2, 4 and 20 in January to March and in Stn. 24 in January and February. However, Stn. 24 conformed to the criteria in March.
- The BOD concentrations for the 1st quarter of 2013 ranged from 1.0 to 380 mg/L wherein the highest was noted in Stn. 5 in March.

B. On Dissolved Oxygen (D.O.)

Laguna Lake

- All of the nine (9) lake stations conformed to the DENR Class C criterion set at a minimum 5 mg/L.
- The lowest D.O. concentration measured at 6.8 mg/L was noted in Stn.I in January while the highest concentration of 8.8 mg/L was noted in Stn. XVIII in February.

Tributary Rivers

- Out of the 34 tributary river stations monitored, only 11 stations namely: Stns. 8u, 13 to 17u, 19, 19u, 22u and 24u consistently passed the Class C criterion for DO.
- Those tributary river stations whose recorded monthly concentrations for DO always failed the Class C criterion were Stns. 1 to 8m, 9 to 12, 21, 22, 23, 25 and 26.
- Stn. 18, measured DO concentration failed the Class C criterion except on January.
- Stn. 24 conformed to the criteria in March.

C. On Total Coliform (T. Coli)

Laguna Lake

- For the 1st quarter of 2013, the total coliform as based on monthly geomeans all of the nine (9) lake stations conformed to the DENR Class C criterion of 5000 MPN/100ml .
- The computed monthly geomeans for T.coli in the lake ranged from 112 to 926 MPN/100ml.

Tributary Rivers

- For 2013, monitoring of total coliforms in the tributary rivers is conducted on a quarterly basis.
- For January, almost all of the T. coli concentrations in tributary stations failed the DENR Class C criterion of 5000MPN/100ml. Only Stn. 17u complied with the criterion.
- The total coliform concentrations in the tributary river stations ranged from 4,837 to 16,025,999 MPN/100ml.