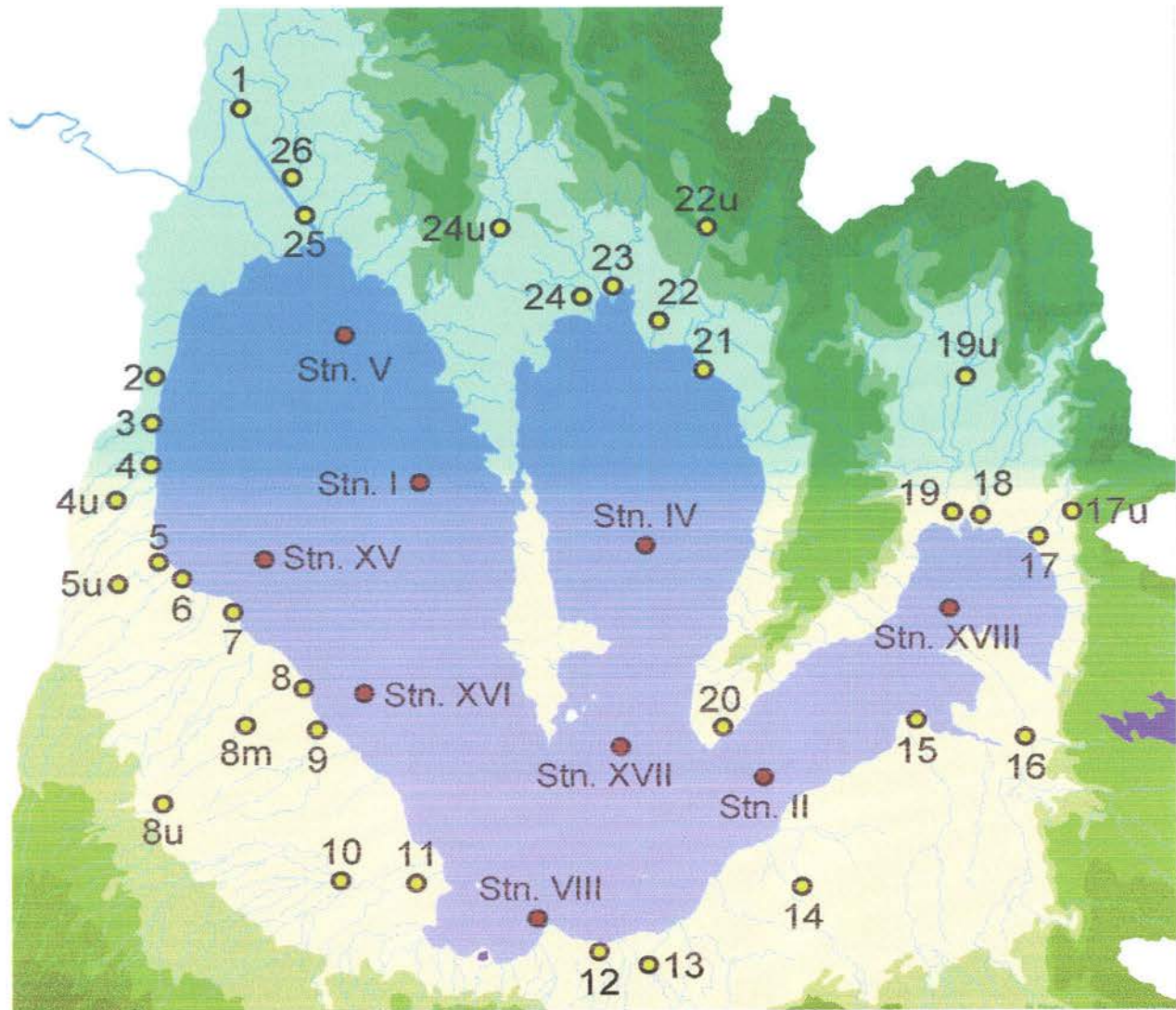


LLDA Quarterly Water Quality Monitoring Report Laguna Lake and Tributary Rivers October to December, 2015

Sampling Stations and Locations:



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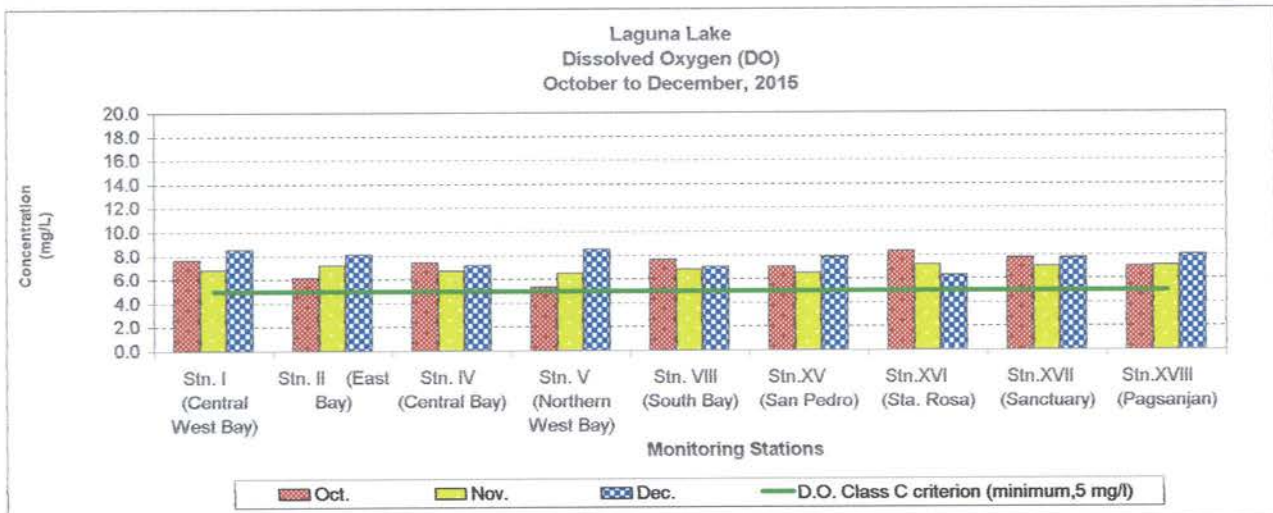
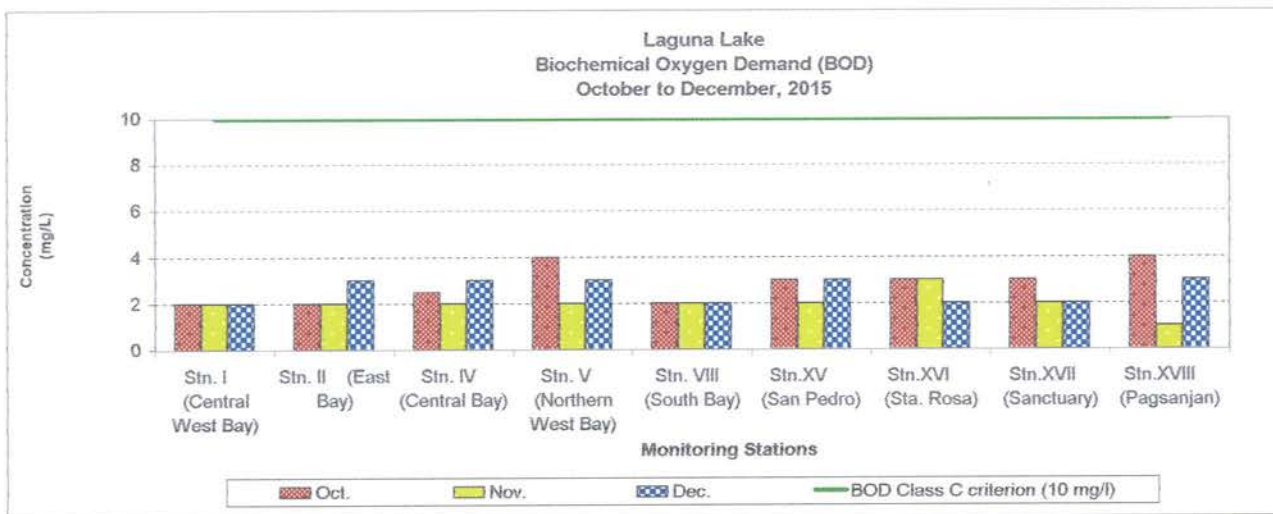
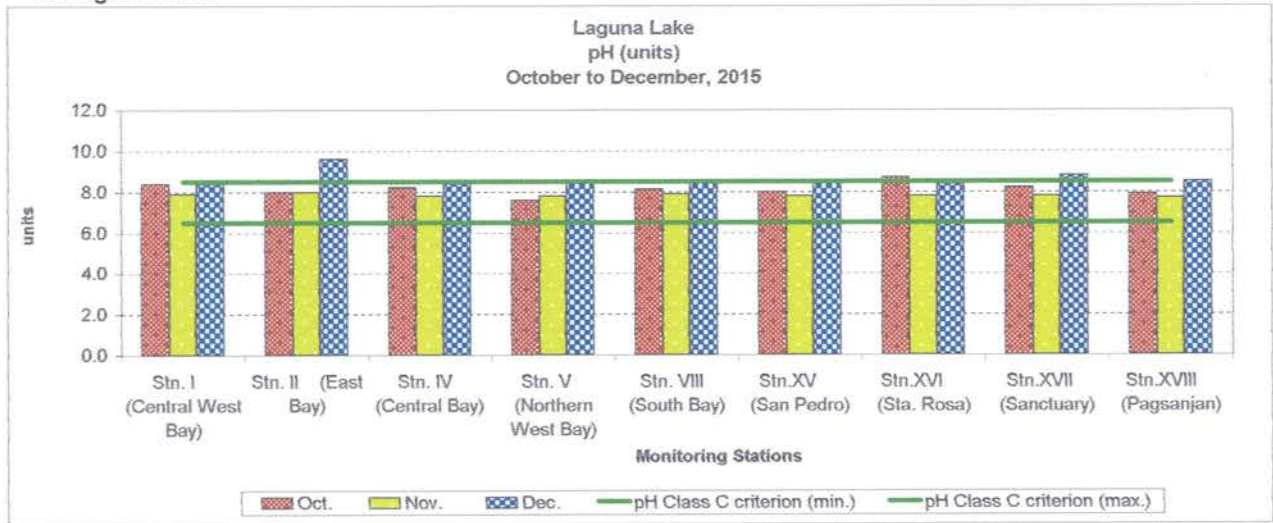
A. Laguna Lake Stations

Location	Water Quality Parameters*								
	pH (units)			BOD (mg/L)			Dissolved Oxygen (mg/L)		
	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.
Stn. I (Central West Bay)	8.4	7.9	8.4	2	2	2	7.6	6.8	8.5
Stn. II (East Bay)	8.0	8.0	9.6	2	2	3	6.1	7.2	8.1
Stn. IV (Central Bay)	8.2	7.8	8.4	3	2	3	7.4	6.7	7.2
Stn. V (Northern West Bay)	7.6	7.8	8.5	4	2	3	5.3	6.5	8.5
Stn. VIII (South Bay)	8.1	7.9	8.5	2	2	2	7.6	6.8	7.0
Stn. XV (San Pedro)	8.0	7.8	8.5	3	2	3	7.0	6.5	7.8
Stn. XVI (Sta. Rosa)	8.7	7.8	8.4	3	3	2	8.3	7.2	6.3
Stn. XVII (Sanctuary)	8.2	7.8	8.8	3	2	2	7.7	7.0	7.7
Stn. XVIII (Pagsanjan)	7.9	7.7	8.5	4	1	3	7.0	7.1	8.0

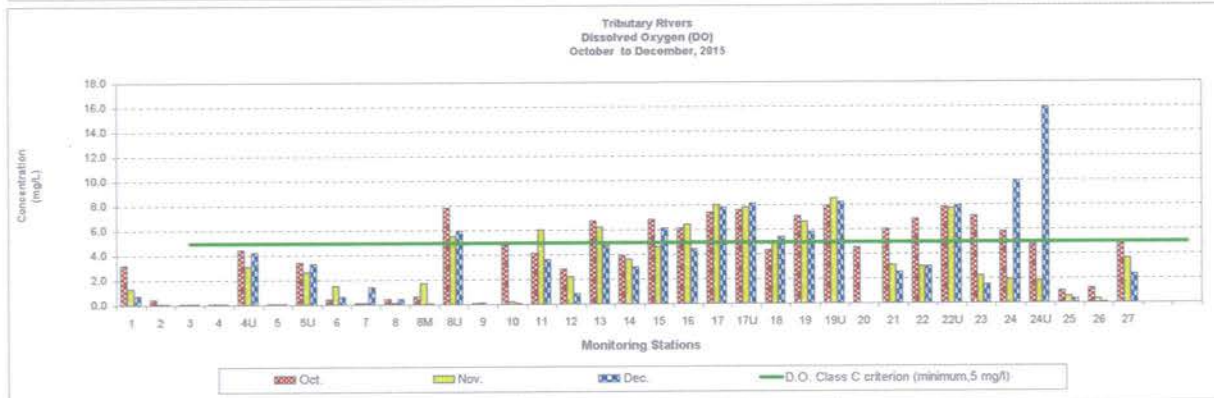
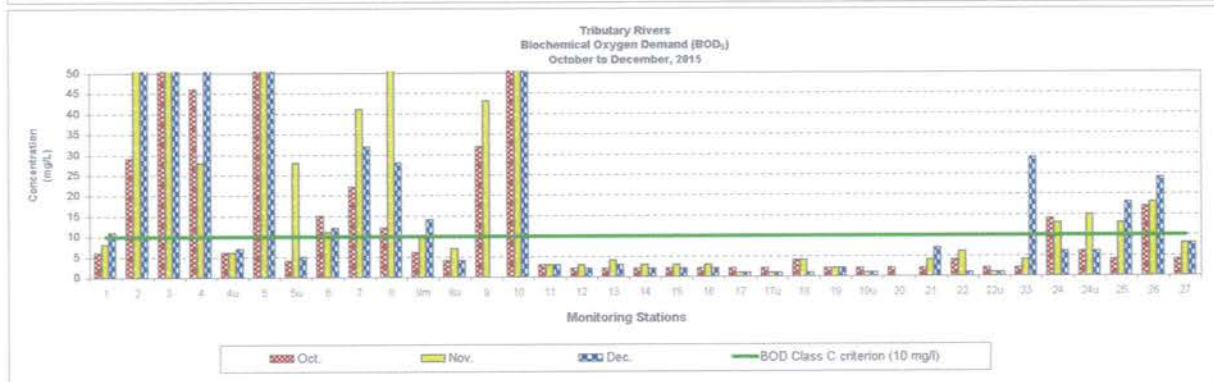
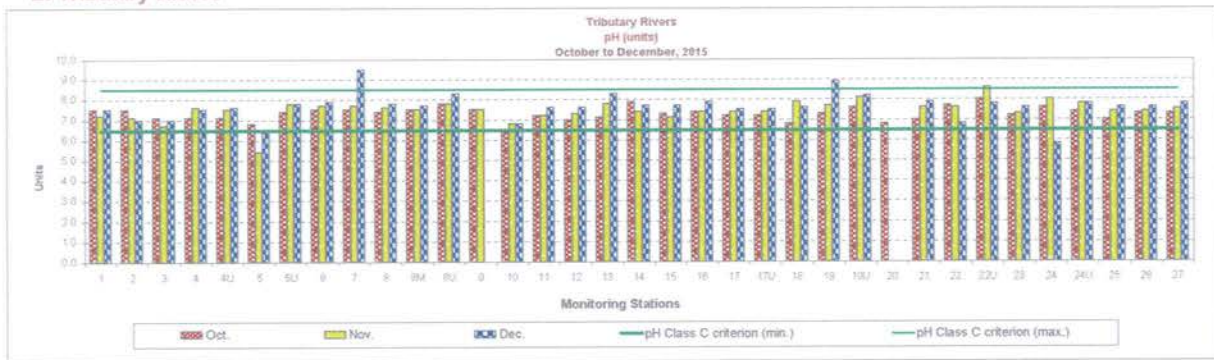
B. Tributary River Stations

Station	Location	Water Quality Parameters*								
		pH (units)			BOD (mg/L)			D.O. (mg/L)		
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.
1	Marikina	7.5	7.2	7.5	6	8	11	3.20	1.30	0.70
2	Bagumbayan (Taguig)	7.5	7.1	7.0	29	234	196	0.40	0.05	0.05
3	Buli Creek (Taguig)	7.1	6.7	7.0	52	327	318	0.05	0.05	0.05
4	Mangagate (Muntinlupa)-Downstream	7.1	7.6	7.5	46	28	60	0.05	0.05	0.05
4U	Mangagate (Muntinlupa)-Upstream	7.1	7.5	7.6	6	6	7	4.40	3.10	4.20
5	Tunasan (Muntinlupa)- Downstream	6.8	5.4	6.5	192	653	1242	0.05	0.05	0.05
5U	Tunasan (Muntinlupa)- Upstream	7.4	7.8	7.8	4	28	5	3.40	2.60	3.30
6	San Pedro River (T2)	7.5	7.7	7.9	15	11	12	0.40	1.50	0.60
7	Bifian	7.5	7.7	9.5	22	41	32	0.10	0.10	1.40
8	Sta. Rosa- Downstream	7.4	7.6	7.8	12	58	28	0.40	0.10	0.40
8M	Sta. Rosa- Midstream	7.5	7.5	7.7	6	10	14	0.60	1.70	0.05
8U	Sta. Rosa- Upstream	7.8	7.8	8.3	4	7	4	7.80	5.50	5.90
9	Cabuyao	7.5	7.5	-	32	43	-	0.05	0.10	-
10	San Cristobal River (T3)	6.4	6.8	6.8	77	64	110	4.80	0.20	0.05
11	San Juan River (T5)	7.2	7.2	7.6	3	3	3	4.10	6.00	3.60
12	Los Baños	7.0	7.3	7.6	2	3	2	2.80	2.20	0.80
13	Bay River (T9)	7.1	7.8	8.3	2	4	3	6.70	6.20	4.70
14	Pila	7.9	7.4	7.7	2	3	2	3.90	3.60	3.00
15	Sta. Cruz River (T6)	7.3	7.1	7.7	2	3	2	6.80	4.60	6.10
16	Pagsanjan River (T8)	7.4	7.4	7.9	2	3	2	6.10	6.40	4.40
17	Pangil- Downstream	7.2	7.4	7.5	2	1	1	7.40	8.00	7.80
17U	Pangil- Upstream	7.2	7.4	7.5	2	1	1	7.60	7.80	8.10
18	Siniloan	6.8	7.9	7.6	4	4	1	4.30	4.90	5.40
19	Sta. Maria- Downstream	7.3	7.7	8.9	2	2	2	7.10	6.60	5.80
19U	Sta. Maria- Upstream	7.6	8.1	8.2	2	1	1	7.90	8.50	8.20
20	Jala-jala	6.8	-	-	2	-	-	4.50	-	-
21	Piililla	7.0	7.6	7.9	2	4	7	6.00	3.10	2.50
22	Tanay- Downstream	7.7	7.6	6.8	4	6	1	6.80	3.00	3.00
22U	Tanay- Upstream	8.0	8.6	7.8	2	1	1	7.80	7.70	7.90
23	Baras	7.2	7.3	7.6	2	4	29	7.10	2.20	1.50
24	Morong- Downstream	7.6	8.0	5.8	14	13	6	5.80	1.90	9.90
24U	Morong- Upstream	7.4	7.8	7.8	6	15	6	4.70	1.80	15.90
25	Manggahan Floodway (Taytay)	7.0	7.4	7.6	4	13	18	1.00	0.50	0.30
26	Sapang Baho (Cainta)	7.3	7.4	7.6	17	18	24	1.20	0.30	0.05
27	Angono	7.3	7.5	7.8	4	8	8	4.80	3.60	2.30

A. Laguna Lake



B. Tributary Rivers



STATIONS

1	Manikina	14	Pila
2	Bagumbayan (Taguig)	15	Sta. Cruz River (T6)
3	Buli Creek (Taguig)	16	Pagsanjan River (T8)
4	Mangagate (Muntinlupa)-E	17	Pangil- Downstream
4u	Mangagate (Muntinlupa)-L	17u	Pangil- Upstream
5	Tunasan (Muntinlupa)- Dow	18	Siniloan
5u	Tunasan (Muntinlupa)- Ups	19	Sta. Maria- Downstream
6	San Pedro River (T2)	19u	Sta. Maria- Upstream
7	Biñan	20	Jala-jala
8	Sta. Rosa- Downstream	21	Pililla
8m	Sta. Rosa- Midstream	22	Tanay- Downstream
8u	Sta. Rosa- Upstream	22u	Tanay- Upstream
9	Cabuyao	23	Baras
10	San Cristobal River (T3)	24	Morong- Downstream
11	San Juan River (T5)	24u	Morong- Upstream
12	Los Baños	25	Manggahan Floodway (Taytay)
13	Bay River (T9)	26	Sapang Baho (Cainta)
		27	Angono

FINDINGS:

A. pH:

Laguna Lake:

- For the 4th quarter of 2015, measured pH in all of the nine (9) lake stations consistently conformed to the DENR Class C criteria set at 6.5 to 8.5 for this parameter except Stn.XVI (Sta. Rosa) in October at 8.7, in Stn. II (East Bay) in December at 9.6 and Stn. XVII (Sanctuary) in December at 8.8.
- The pH levels of the entire lake ranged from 7.6 to 9.6.

Tributary Rivers:

- The pH values recorded in 29 out of the 35 tributary stations consistently passed the DENR Class C criteria. Recorded pH failed the Class C criteria in Stn. 10 in October, Stns. 5 and 22U in November and Stns. 7, 19 and 24 in December.
- The pH levels in the tributaries ranged from 5.4 to 9.5 with the lowest and highest observed in December in Stn. 24 and 7 respectively.

B. Biochemical Oxygen Demand (BOD₅):

Laguna Lake:

- The BOD concentrations in all of the nine (9) lake stations consistently passed the DENR Class C criterion for BOD set at 10mg/L in October to December, 2015
- The BOD concentrations in the entire ranged from 1 to 4 mg/L.

Tributary Rivers:

- Out of the 35 tributary stations, 18 stations consistently conformed to the 10 mg/L DENR Class C criterion for BOD and these were Stations 4U, 8U, 11 to 22U, and 27.
- The ten (10) tributary stations always failed the Class C criterion for BOD and these were Stations 2, 3, 4, 5, 6, 7, 8, 9, 10 and 26.

- The lowest D.O. concentration at 5.3mg/L was measured in Stn. V in October while the highest D.O. concentration at 8.5 mg/L was observed in Stns. I and V in December.

Tributary Rivers:

- Out of the 35 tributary stations monitored, only 6 tributary stations showed D.O. levels that consistently conformed with the DENR Class C criterion for DO and these were Stns. 8U, 17, 17u, 19, 19U, and 22U.
- The D.O. concentrations in nineteen (19) tributary stations consistently failed DENR criterion for DO and these were Stns. 1 to 8M, 9, 10, 12, 14, 20, 25, 26 and 27.
- Ten (10) tributary river stations measured DO concentrations either complying or way below the minimum allowable level of 5.0 mg/L for Class C and these were Stns. 11, 13, 15, 16, 18, 21, 22, 23, 24, and 24U.
- The DO concentrations from October to December, 2015 ranged from 0.05 to 15.90 mg/L.