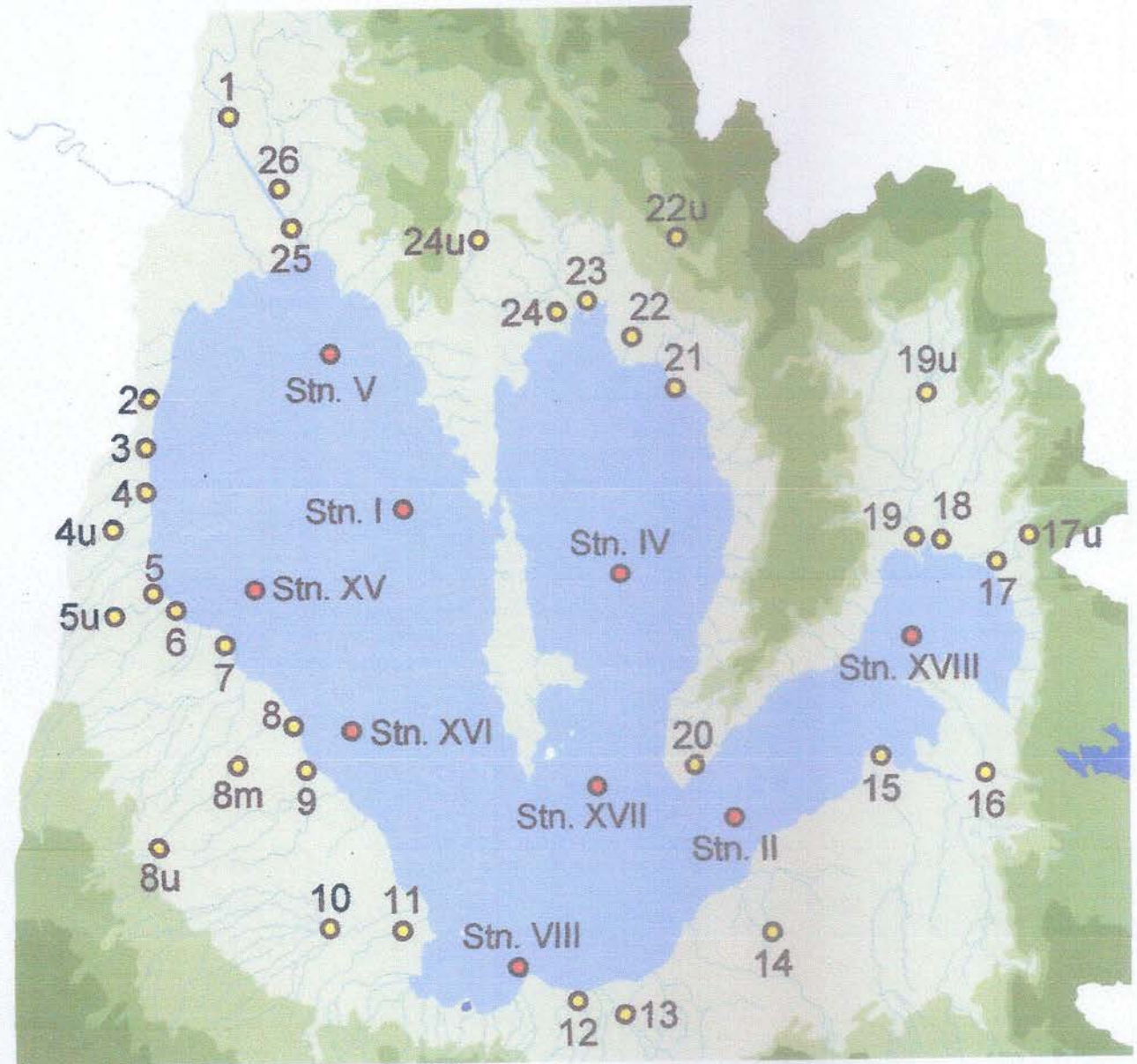


# LLDA Quarterly Water Quality Monitoring Report Laguna Lake and Tributary Rivers January to March, 2015

## I. Sampling Stations and Locations:



**LLDA Quarterly Water Quality Report**  
**Laguna Lake and Tributary Rivers**  
**January to March, 2015**

**A. Laguna Lake Stations**

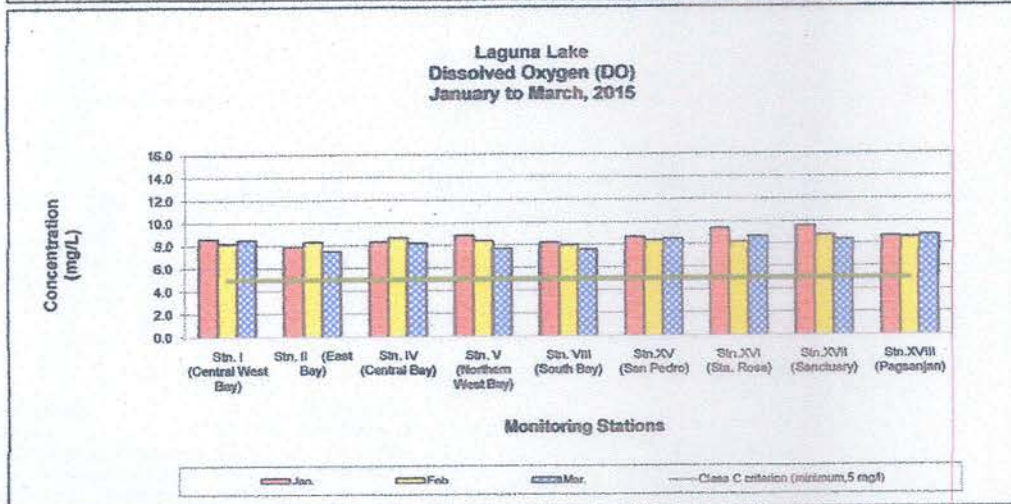
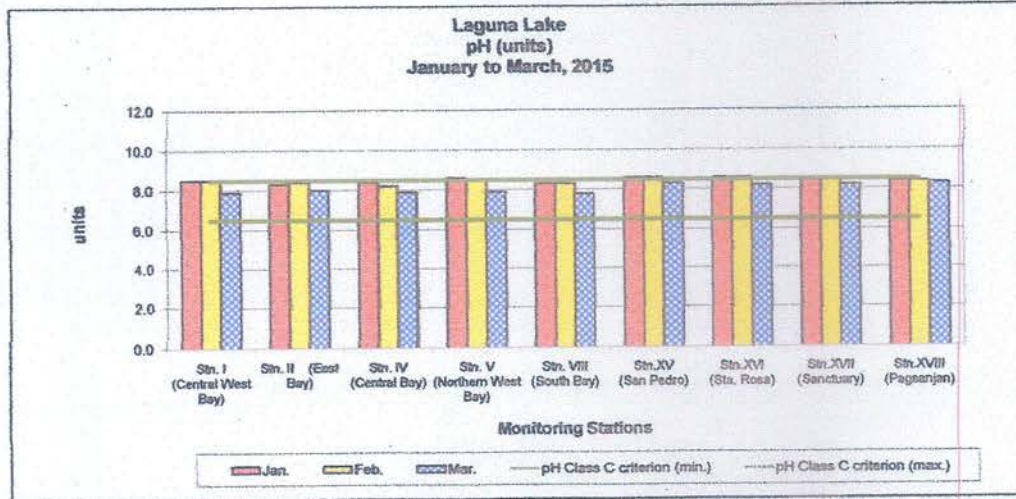
Location	Water Quality Parameters*					
	pH (units)			Dissolved Oxygen (mg/L)		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
Stn. I (Central West Bay)	8.5	8.5	7.9	8.6	8.2	8.5
Stn. II (East Bay)	8.3	8.4	8.0	7.9	8.3	7.5
Stn. IV (Central Bay)	8.4	8.2	7.9	8.3	8.7	8.2
Stn. V (Northern West Bay)	8.6	8.5	7.9	8.9	8.4	7.7
Stn. VIII (South Bay)	8.3	8.3	7.8	8.2	8.0	7.6
Stn. XV (San Pedro)	8.6	8.6	8.3	8.7	8.4	8.5
Stn. XVI (Sta. Rosa)	8.6	8.6	8.2	9.4	8.2	8.7
Stn. XVII (Sanctuary)	8.5	8.5	8.2	9.6	8.8	8.4
Stn. XVIII (Pagsanjan)	8.4	8.4	8.3	8.7	8.6	8.8

**B. Tributary River Stations**

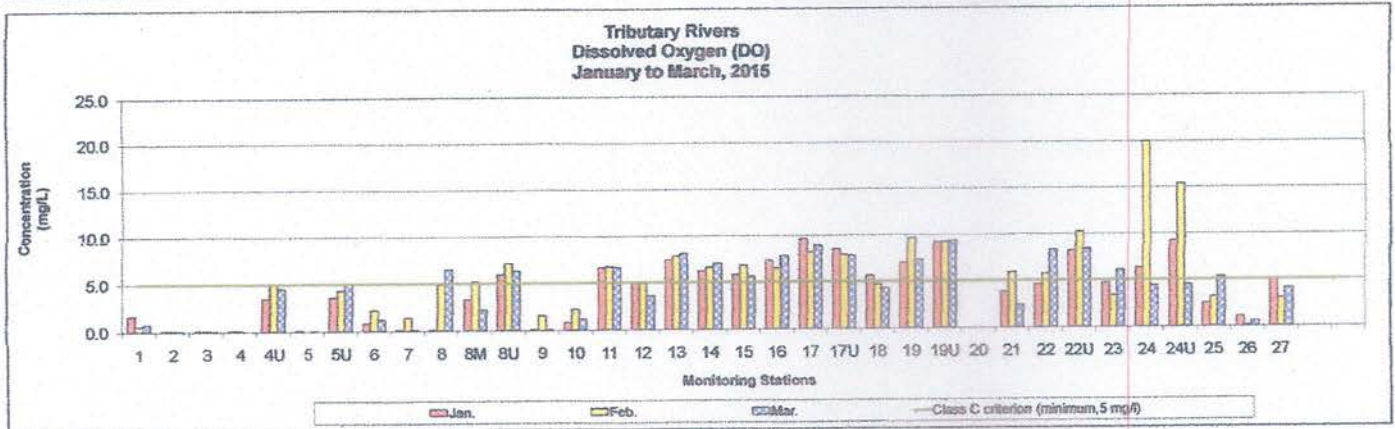
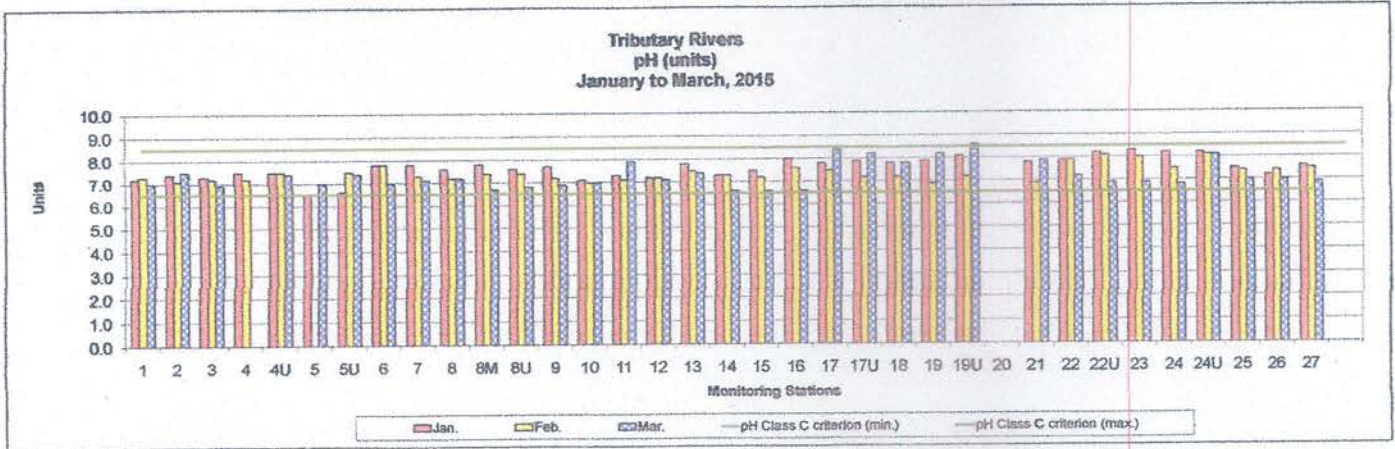
Station	Location	Water Quality Parameters*					
		pH (units)			Dissolved Oxygen (mg/L)		
		Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
1	Marikina	7.2	7.3	7.0	1.7	0.6	0.8
2	Bagumbayan (Taguig)	7.4	7.1	7.5	0.1	0.1	0.1
3	Buli Creek (Taguig)	7.3	7.2	6.9	0.1	0.1	0.1
4	Mangagate (Muntinlupa)-Downstream	7.5	7.2	-	0.1	0.1	-
4U	Mangagate (Muntinlupa)-Upstream	7.5	7.5	7.4	3.5	5.0	4.5
5	Tunasan (Muntinlupa)- Downstream	6.5	-	7.0	0.1	-	0.1
5U	Tunasan (Muntinlupa)- Upstream	6.6	7.5	7.4	3.6	4.3	5.0
6	San Pedro River (T2)	7.8	7.8	7.0	0.8	2.2	1.2
7	Birhan	7.8	7.3	7.1	0.1	1.4	0.1
8	Sta. Rosa- Downstream	7.6	7.2	7.2	0.1	4.9	6.5
8M	Sta. Rosa- Midstream	7.8	7.4	6.7	3.3	5.2	2.2
8U	Sta. Rosa- Upstream	7.6	7.4	6.8	5.9	7.1	6.3
9	Cabuyao	7.7	7.2	6.9	0.1	1.6	0.1
10	San Cristobal River (T3)	7.1	7.0	7.0	0.8	2.2	1.2
11	San Juan River (T5)	7.3	7.1	7.9	6.6	6.7	6.6
12	Los Baños	7.2	7.2	7.1	5.0	4.9	3.6
13	Bay River (T9)	7.8	7.5	7.4	7.4	7.8	8.1
14	Pila	7.3	7.3	6.6	6.2	6.6	7.0
15	Sta. Cruz River (T6)	7.5	7.2	6.6	5.8	6.8	5.6
16	Pagsanjan River (T8)	8.0	7.6	6.6	7.3	6.5	7.8
17	Pangil- Downstream	7.8	7.5	8.4	9.7	8.2	8.9
17U	Pangil- Upstream	7.9	7.2	8.2	8.5	7.9	7.8
18	Siniloan	7.8	7.2	7.8	5.6	4.7	4.3
19	Sta. Maria- Downstream	7.9	6.9	8.2	7.0	9.7	7.3
19U	Sta. Maria- Upstream	8.1	7.2	8.6	9.2	9.2	9.3
20	Jala-jala	-	-	-	-	-	-
21	Pililla	7.8	6.9	7.9	3.8	5.9	2.4
22	Tanay- Downstream	7.9	7.9	7.2	4.6	5.7	8.3
22U	Tanay- Upstream	8.2	8.1	6.9	8.2	10.3	8.4
23	Baras	8.3	8.0	6.9	4.7	3.4	6.1
24	Morong- Downstream	8.2	7.5	6.8	6.3	20.0	4.4
24U	Morong- Upstream	8.2	8.1	8.1	9.2	15.4	4.5
25	Manggahan Floodway (Taytay )	7.5	7.4	7.0	2.5	3.2	5.3
26	Sapang Baho (Cainta)	7.2	7.4	7.0	1.1	0.1	0.6
27	Angono	7.6	7.5	6.9	5.0	3.0	4.1

III Graphs

A. Laguna Lake



**B. Tributary Rivers**



**STATIONS**

- |                                     |                                 |
|-------------------------------------|---------------------------------|
| 1 Marikina                          | 14 Pila                         |
| 2 Bagumbayan (Taguig)               | 15 Sta. Cruz River (T6)         |
| 3 Buli Creek (Taguig)               | 16 Pagsanjan River (T8)         |
| 4 Mangagate (Muntinlupa)-Downstream | 17 Pangil- Downstream           |
| 4u Mangagate (Muntinlupa)-Upstream  | 17u Pangil- Upstream            |
| 5 Tunasan (Muntinlupa)- Downstream  | 18 Siniloan                     |
| 5u Tunasan (Muntinlupa)- Upstream   | 19 Sta. Maria- Downstream       |
| 6 San Pedro River (T2)              | 19u Sta. Maria- Upstream        |
| 7 Bifan                             | 20 Jala-jala                    |
| 8 Sta. Rosa- Downstream             | 21 Pili                         |
| 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. On pH :**

#### **Laguna Lake:**

- For the 1st quarter, the pH levels of the entire lake ranged 7.8 to 8.6.
- Out of the nine (9) lake stations, only six (6) stations namely; Stns. I, II, IV, VIII, XVII and XVIII consistently passed the DENR Class C criteria for pH which is set at 6.5 to 8.5.
- The pH levels exceeded the allowable range for Class C in Stn. V in January, and Stns. XV and XVI in January and February.

#### **Tributary Rivers:**

- All of the 35 tributary river stations monitored in the first quarter, constantly passed the 6.5 to 8.5 DENR Class C criteria for pH except in Stn. 19U in March which slightly exceeded the maximum pH level.
- The pH in the tributary rivers ranged from 6.5 to 8.6.

### **B. On Dissolved Oxygen (D.O.):**

#### **Laguna Lake:**

- All of the nine (9) lake stations passed the DENR Class C criterion set at a minimum concentration of 5 mg/L.
- The lowest D.O. concentration at 7.5 mg/L was recorded in Stn. II in March while the highest DO concentration at 9.6 mg/L was noted in Stn. XVII in January.

#### **Tributary Rivers:**

- Out of the 35 tributary river stations monitored, during the first quarter of 2015, only 11 tributary stations consistently conformed with the DENR Class C criterion for DO and these were Stns. 8U, 11, 13, 14, 15, 16, 17, 17u, 19, 19U and 22U.
- Recorded DO concentrations ranged from 0.1 to 20 mg/L.
- The monthly DO concentrations in 10 tributary river stations, namely; Stns. 1, 2, 3, 4, 5, 6, 7, 9, 10 and 26 always failed the Class C criterion.
- There were 13 tributary river stations whose measured DO concentrations either complying or way below the minimum allowable level of 5.0 mg/L for Class C and these were Stns. 4U, 5U, 8, 8M, 12, 18, 21, 22, 23, 24, 24U, 25 and 27.
- No sample was collected in Jala-jala River for the 1<sup>st</sup> quarter of 2015.