Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
Regional Office No. VIII
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ENVIRONMENTAL MANAGEMENT BUREAU
RELEASED BY:
DATE: 6/29/2022
TIME: 8:24am

MEMORANDUM

FOR : **ENGR.WILLIAM P. CUÑADO**
Director
Environmental Management Bureau
DENR Compound, Visayas Avenue
Diliman, Quezon City

Attention : **Environmental Quality Division**
Water Quality Management Section

FROM : **OIC-Regional Director**
EMB Region VIII

SUBJECT : **Second Quarter Consolidated Monitoring Results for the Priority River Monitoring Program**

DATE : **June 27,2022**

Submitting herewith is the second quarter monitoring results for Canturing River, Binahaan River and Bao River under Priority Rivers Monitoring Program in Region VIII.

For his information.

Digitally signed by DENR - Environmental Management Bureau Region VIII
DN: cn=DENR - Environmental Management Bureau Region VIII c=PH
Reason: This document is officially certified by EMBR8
Location: Brgy 2, Jones St., DENR Compound, Tacloban City
Date: 2022-08-08 09:57+08:00

ENGR. REYNALDO B. BARRA

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
ENVIRONMENTAL MANAGEMENT BUREAU REGION 8
DENR Compound, Brgy. 2, Tacloban City

PRIORITY RIVER REPORT (QUARTERLY)

Department: ENVIRONMENTAL MONITORING AND ENFORCEMENT DIVISION - AMBIENT SECTION

2nd Quarter Water Quality Monitoring of Binahaan River

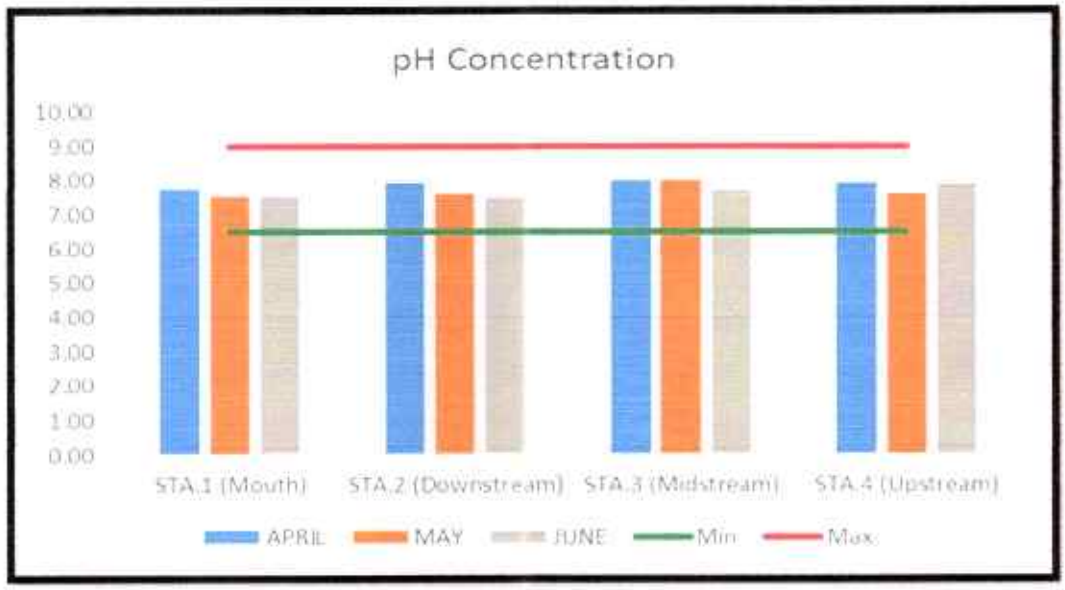
CY 2022

Region	Waterbody	Parameter	Stn. No.	Stn. ID	APRIL	MAY	JUNE	Average	Min	Max	Criterion
Priority River (Class C) 4 stations											
VIII	Binahaan River	DO mg/L	1	Mouth of Binahaan, San Joaquin, Palo, Leyte	8.00	5.20	6.00	6.40	5.20	8.00	5 mg/L (minimum)
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte	8.61	5.55	6.13	6.76	5.55	8.61	
			3	Midstream, Brgy. Benito, Dagami, Leyte	4.88	6.11	6.20	5.73	4.88	6.20	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte	5.99	5.40	5.55	5.65	5.40	5.99	
VIII	Binahaan River	TSS mg/L	1	Mouth of Binahaan, San Joaquin, Palo, Leyte	21.00	22.00	42.00	28.33	21.00	42.00	80
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte	18.00	16.00	36.00	23.33	16.00	36.00	
			3	Midstream, Brgy. Benito, Dagami, Leyte	16.00	24.00	16.00	18.67	16.00	24.00	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte	6.00	5.00	15.00	8.67	5.00	15.00	
VIII	Binahaan River	pH	1	Mouth of Binahaan, San Joaquin, Palo, Leyte	7.75	7.51	7.51	7.59	7.51	7.75	6.5-9.0
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte	7.93	7.59	7.49	7.67	7.49	7.93	
			3	Midstream, Brgy. Benito, Dagami, Leyte	8.00	8.00	7.70	7.90	7.70	8.00	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte	7.90	7.59	7.88	7.79	7.59	7.90	
VIII	Binahaan River	BOD, mg/L	1	Mouth of Binahaan, San Joaquin, Palo, Leyte							7
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte	0.90	0.60	1.20	0.90	0.60	1.20	
			3	Midstream, Brgy. Benito, Dagami, Leyte	1.90	1.00	0.70	1.20	0.70	1.90	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte	1.50	1.50	0.10	1.03	0.10	1.50	
VIII	Binahaan River	Fecal Coliform	1	Mouth of Binahaan, San Joaquin, Palo, Leyte	5400.00	7000.00	1600.00	3925.28	1600.00	7000.00	200
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte	2400.00	7000.00	2400.00	3429.05	2400.00	7000.00	
			3	Midstream, Brgy. Benito, Dagami, Leyte	790.00	24000.00	3500.00	4048.57	790.00	24000.00	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte	1600.00	24000.00	700.00	2995.55	700.00	24000.00	
VIII	Binahaan River	Temp. ^{O}C (b)	1	Mouth of Binahaan, San Joaquin, Palo, Leyte	27.30	27.40	27.89	27.53	27.30	27.89	25-31
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte	27.31	27.31	27.56	27.39	27.31	27.56	
			3	Midstream, Brgy. Benito, Dagami, Leyte	28.00	27.59	27.51	27.70	27.51	28.00	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte	28.00	27.50	27.45	27.65	27.45	28.00	
VIII	Binahaan River	Color	1	Mouth of Binahaan, San Joaquin, Palo, Leyte		5.00	15.00	10.00	5.00	15.00	25-31
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte		5.00	5.00	5.00	5.00	5.00	
			3	Midstream, Brgy. Benito, Dagami, Leyte		5.00	3.00	4.00	3.00	5.00	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte		5.00	1.00	3.00	1.00	5.00	

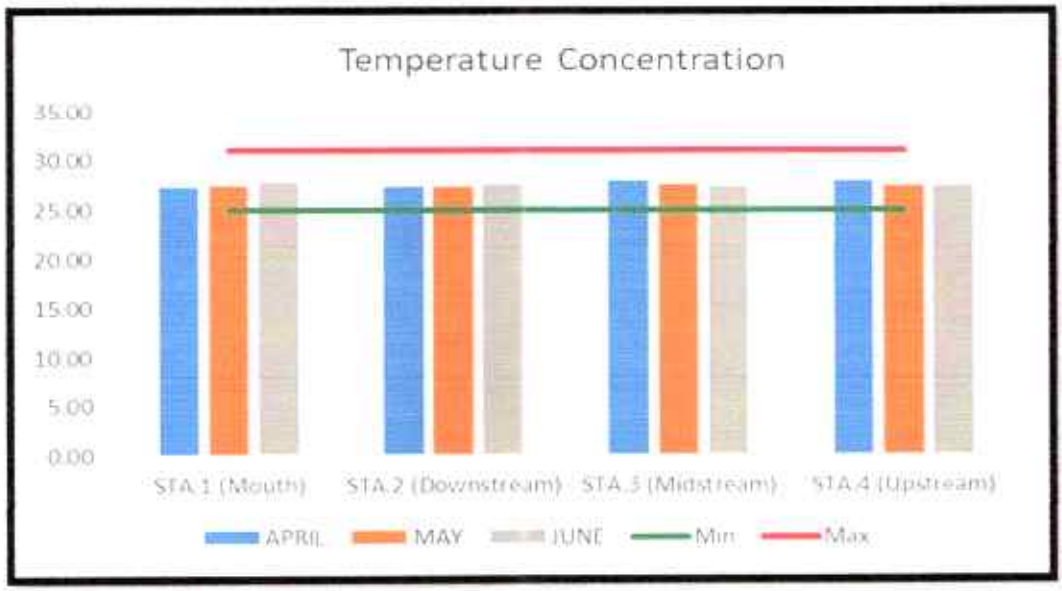
VIII	Binahaan River	Nitrate	1	Mouth of Binahaan, San Joaquin, Palo, Leyte	0.21	0.14	0.03	0.13	0.03	0.21	25-31
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte	0.18	0.07	0.19	0.15	0.07	0.19	
			3	Midstream, Brgy. Benito, Dagami, Leyte	0.23	0.08	0.08	0.13	0.08	0.23	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte	0.24	0.07	0.17	0.16	0.07	0.24	
VIII	Binahaan River	Phosphate	1	Mouth of Binahaan, San Joaquin, Palo, Leyte	0.00	0.06	0.09	0.05	0.00	0.09	25-31
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte	0.00	0.04	0.04	0.03	0.00	0.04	
			3	Midstream, Brgy. Benito, Dagami, Leyte	0.00	0.04	0.04	0.03	0.00	0.04	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte	0.00	0.04	0.04	0.02	0.00	0.04	
VIII	Binahaan River	Chloride	1	Mouth of Binahaan, San Joaquin, Palo, Leyte	ND	5.18	19.60	12.39	5.18	19.60	25-31
			2	Downstream, Brgy. Rose Martirez, Dagami, Leyte	6.63	3.81	2.57	4.34	2.57	6.63	
			3	Midstream, Brgy. Benito, Dagami, Leyte	7.40	4.01	2.76	4.72	2.76	7.40	
			4	Upstream, Brgy. Tingib, Pastrana, Leyte	8.45	4.39	4.39	5.74	4.39	8.45	

ND-Not Detectable

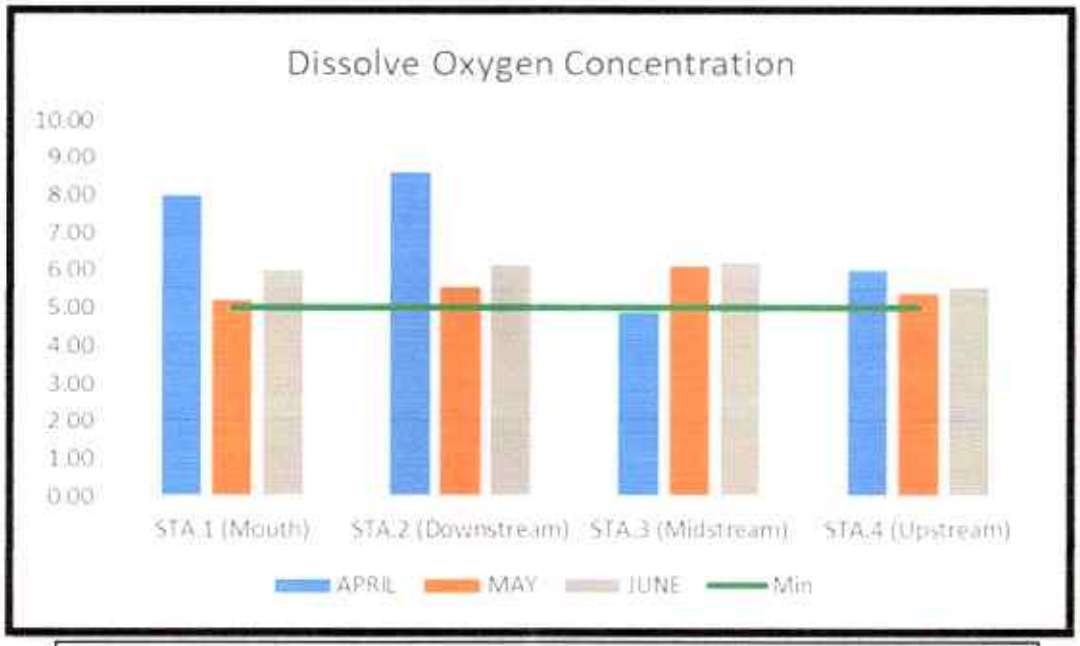
SECOND QUARTER RESULTS OF BINAHAAN RIVER IN GRAPH PRESENTATIONS



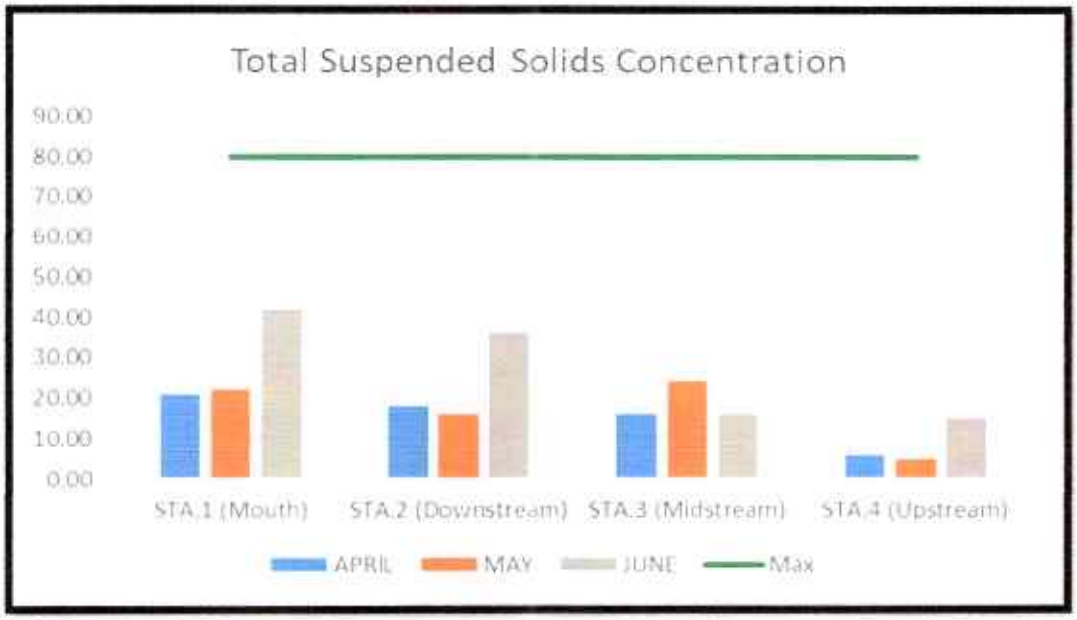
pH concentration of Binahaan River of all stations from April-June 2022 is within the minimum and maximum range of 6.5-9.0 standards of Class C waters.



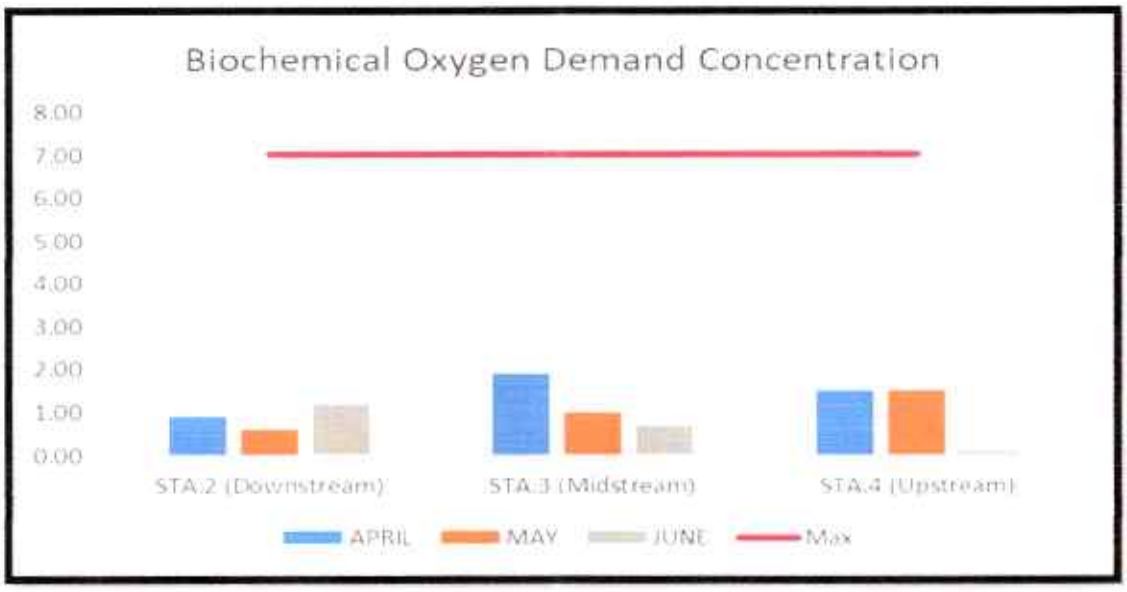
Temperature concentration of Binahaan River of all stations from April-June 2022 is within the minimum and maximum range of 25-31 standards of Class C waters.



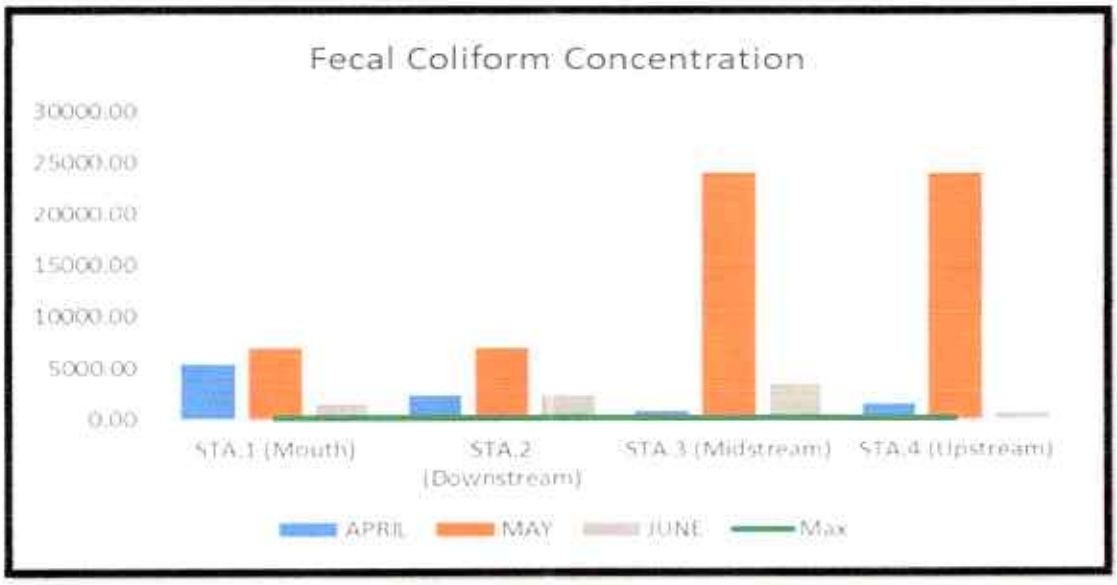
Dissolved Oxygen concentration of Binahaan River of all stations from April-June 2022 is within the minimum of 5mg/L standards of Class C waters, except for Sta.3 for the month of April which has a value of 4.88 mg/L which below the min standards.



Total Suspended Solids concentration of Binahaan River of all stations from April-June 2022 within the maximum value 80mg/L standards of Class C waters.



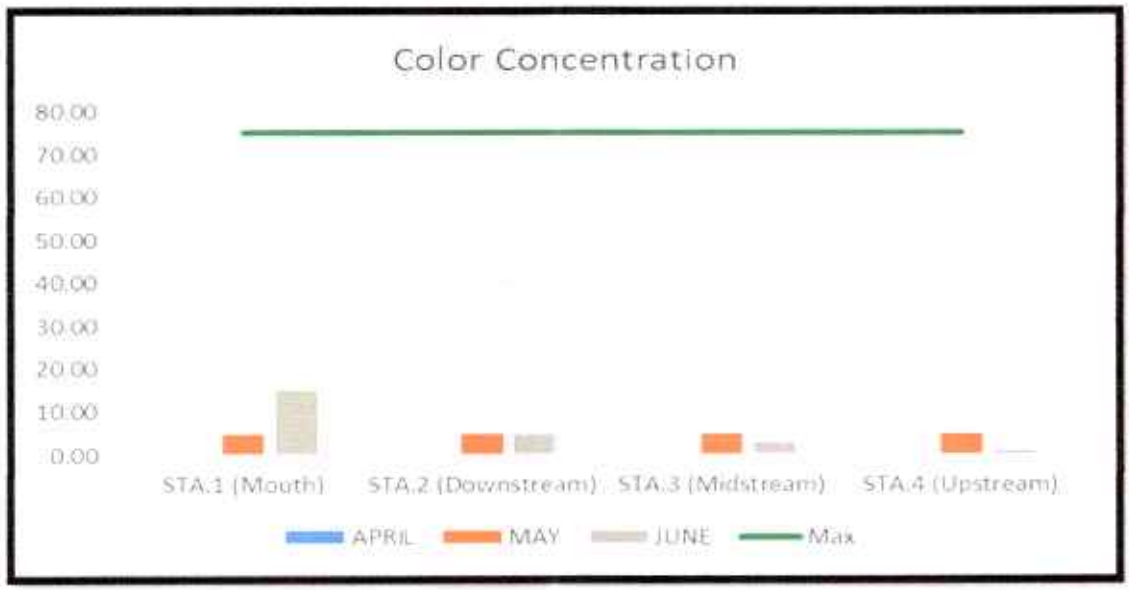
Biochemical Oxygen Demand concentration of Binahaan River of all stations from April-June 2022 is within the maximum value of 7mg/L standards of Class C waters.



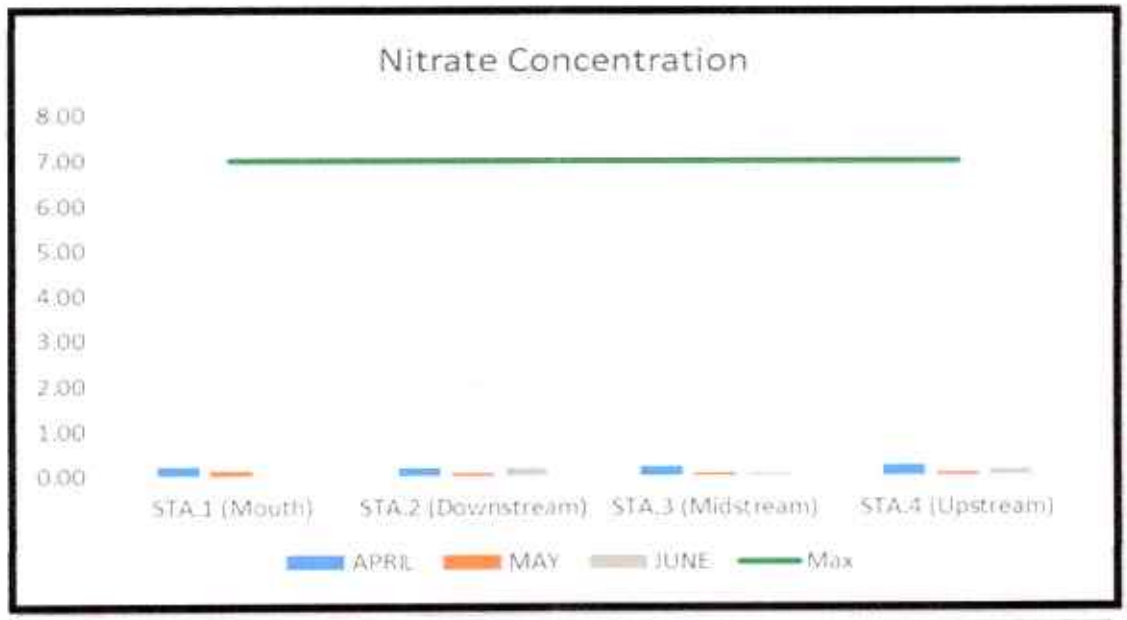
Fecal Coliform concentration of Binahaan River of all stations from April-June 2022 is above the maximum value of 200MPN/100mg/L standards of Class C waters.

The primary sources of high fecal coliform count of bacteria to freshwater probable the wastewater treatment plant discharges, failing septic tanks, and animal wastes.

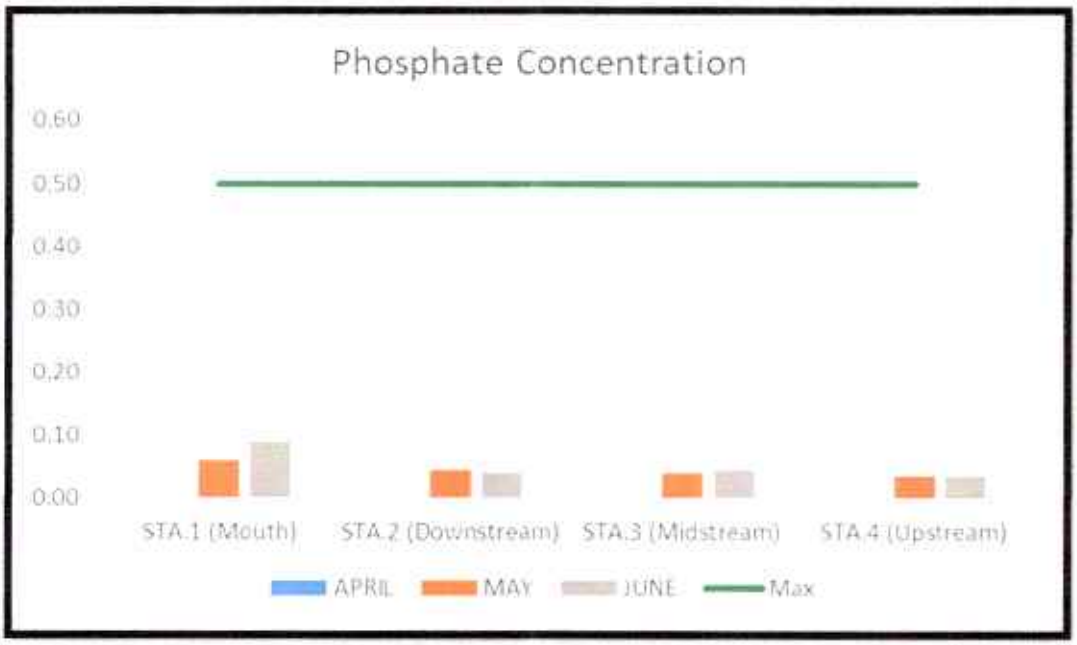
Local Government Units were informed of the laboratory results of the waterbody within their jurisdiction.



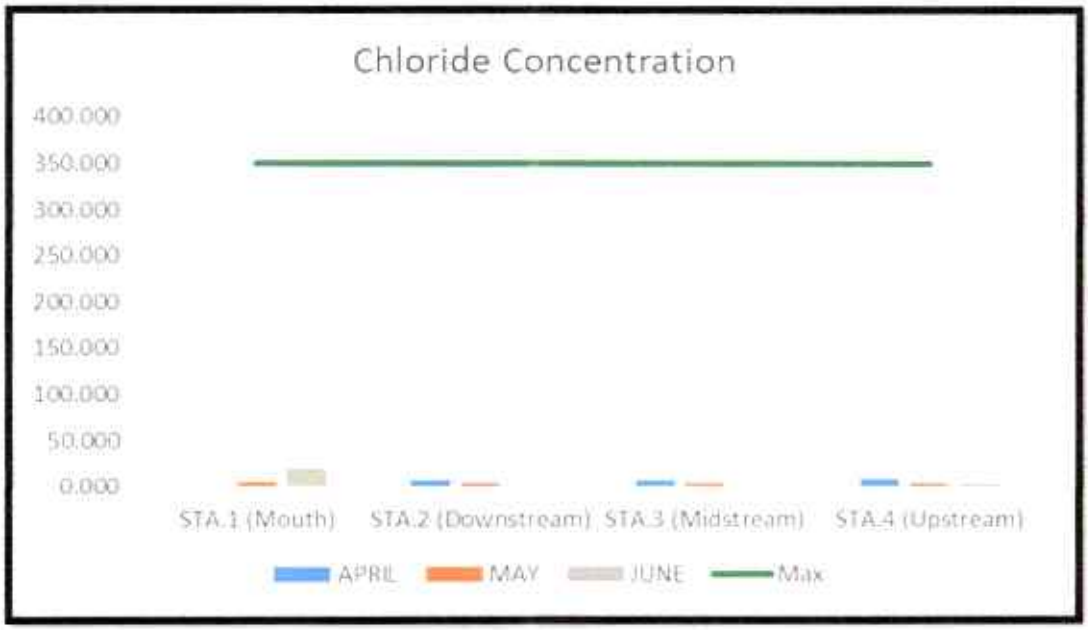
Color concentration of Binahaan River of all stations from April-June 2022 is within the maximum value of 75 TCU standards of Class C waters.



Nitrate concentration of Binahaan River of all stations from April-June 2022 is within the maximum value of 7mg/L standards of Class C waters.



Phosphate concentration of Binahaan River of all stations from April-June 2022 is within maximum value of 0.5mg/L standards of Class C waters.



Chloride concentration of Binahaan River of all stations from April-June 2022 is within the maximum value of 350mg/L standards of Class C waters.

Note: Chloride value of Sta.1 for the month from April is not detectable, for graphical presentation detection limit of Chloride is 0.089mg/L is being used.

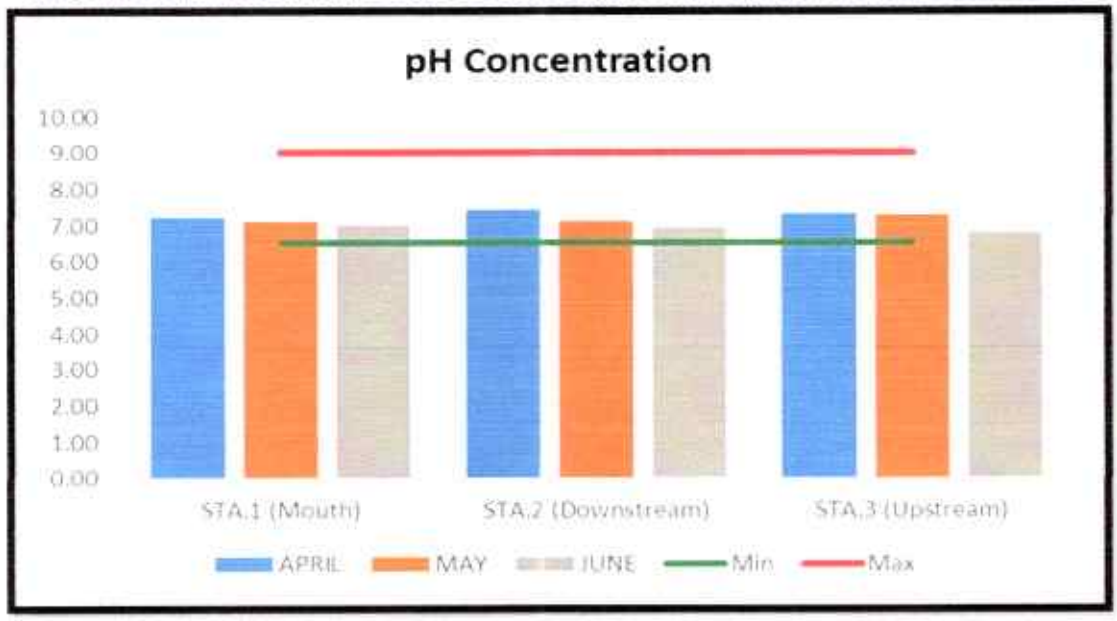
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
ENVIRONMENTAL MANAGEMENT BUREAU REGION 8
DENR Compound, Brgy. 2, Tacloban City

PRIORITY RIVER REPORT (QUARTERLY)

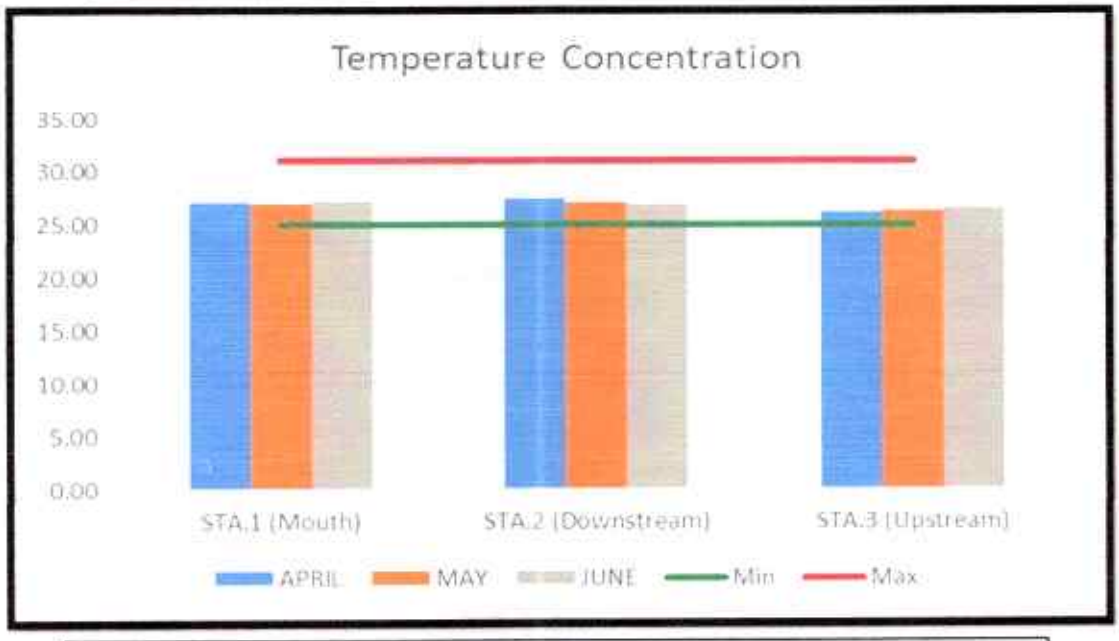
Department: ENVIRONMENTAL MONITORING AND ENFORCEMENT DIVISION - AMBIENT SECTION

2nd Quarter Water Quality Monitoring of Bao River											
CY 2022											
Region	Waterbody	Parameter	Stn. No.	Stn. ID	**APRIL**	**MAY**	**JUNE**	Average	Min	Max	Criterion
Priority River (Class C) 4 stations											
VIII	Bao River	DO mg/L	1	TGP 7A (Bao River Impact Station)	4.50	7.15	7.15	6.27	4.50	7.15	**5 mg/L (minimum)**
			2	TGP 8 Upstream of Montebello Bridge	8.96	7.35	7.35	7.89	7.35	8.96	
			3	TGP 11 Bao headwater (Aguiting)	5.23	7.00	7.00	6.41	5.23	7.00	
VIII	Bao River	TSS mg/L	1	TGP 7A (Bao River Impact Station)	55.00	14.00	14.00	27.67	14.00	55.00	**80**
			2	TGP 8 Upstream of Montebello Bridge	61.00	9.00	9.00	26.33	9.00	61.00	
			3	TGP 11 Bao headwater (Aguiting)	2.30	ND	ND	2.30	2.30	2.30	
VIII	Bao River	pH	1	TGP 7A (Bao River Impact Station)	7.20	7.00	7.00	7.07	7.00	7.20	**6.5-9.0**
			2	TGP 8 Upstream of Montebello Bridge	7.45	6.92	6.92	7.10	6.92	7.45	
			3	TGP 11 Bao headwater (Aguiting)	7.31	6.78	6.78	6.96	6.78	7.31	
VIII	Bao River	BOD, mg/L	1	TGP 7A (Bao River Impact Station)	1.40	0.50	1.80	1.23	0.50	1.80	**7**
			2	TGP 8 Upstream of Montebello Bridge	0.70	ND	0.90	0.80	0.70	0.90	
			3	TGP 11 Bao headwater (Aguiting)	0.30	ND	0.30	0.30	0.30	0.30	
VIII	Bao River	Fecal Coliform	1	TGP 7A (Bao River Impact Station)	16000.00	16000.00	16000.00	16000.00	16000.00	16000.00	**200**
			2	TGP 8 Upstream of Montebello Bridge	16000.00	16000.00	1300.00	6929.91	1300.00	16000.00	
			3	TGP 11 Bao headwater (Aguiting)	350.00	280.00	460.00	355.90	280.00	460.00	
VIII	Bao River	Temp. °C (b)	1	TGP 7A (Bao River Impact Station)	27.10	27.00	27.21	27.10	27.00	27.21	**25-31**
			2	TGP 8 Upstream of Montebello Bridge	27.50	27.11	27.00	27.20	27.00	27.50	
			3	TGP 11 Bao headwater (Aguiting)	26.15	26.30	26.55	26.33	26.15	26.55	
VIII	Bao River	Color	1	TGP 7A (Bao River Impact Station)		5.00	1.00	3.00	1.00	5.00	**75**
			2	TGP 8 Upstream of Montebello Bridge		5.00	1.00	3.00	1.00	5.00	
			3	TGP 11 Bao headwater (Aguiting)		5.00	1.00	3.00	1.00	5.00	
VIII	Bao River	Nitrate	1	TGP 7A (Bao River Impact Station)	0.16	0.06	0.08	0.10	0.06	0.16	**7**
			2	TGP 8 Upstream of Montebello Bridge	0.14	0.03	0.04	0.07	0.03	0.14	
			3	TGP 11 Bao headwater (Aguiting)	0.05	0.04	0.02	0.04	0.02	0.05	
VIII	Bao River	Phosphate	1	TGP 7A (Bao River Impact Station)	0.00	0.04	0.03	0.02	0.00	0.04	**75**
			2	TGP 8 Upstream of Montebello Bridge	0.00	0.00	0.02	0.01	0.00	0.02	
			3	TGP 11 Bao headwater (Aguiting)	0.00	0.04	0.03	0.02	0.00	0.04	
VIII	Bao River	Chloride	1	TGP 7A (Bao River Impact Station)	20.61	7.70	9.02	12.44	7.70	20.61	**75**
			2	TGP 8 Upstream of Montebello Bridge	19.70	7.90	8.50	12.03	7.90	19.70	
			3	TGP 11 Bao headwater (Aguiting)	4.48	7.91	2.27	4.89	2.27	7.91	

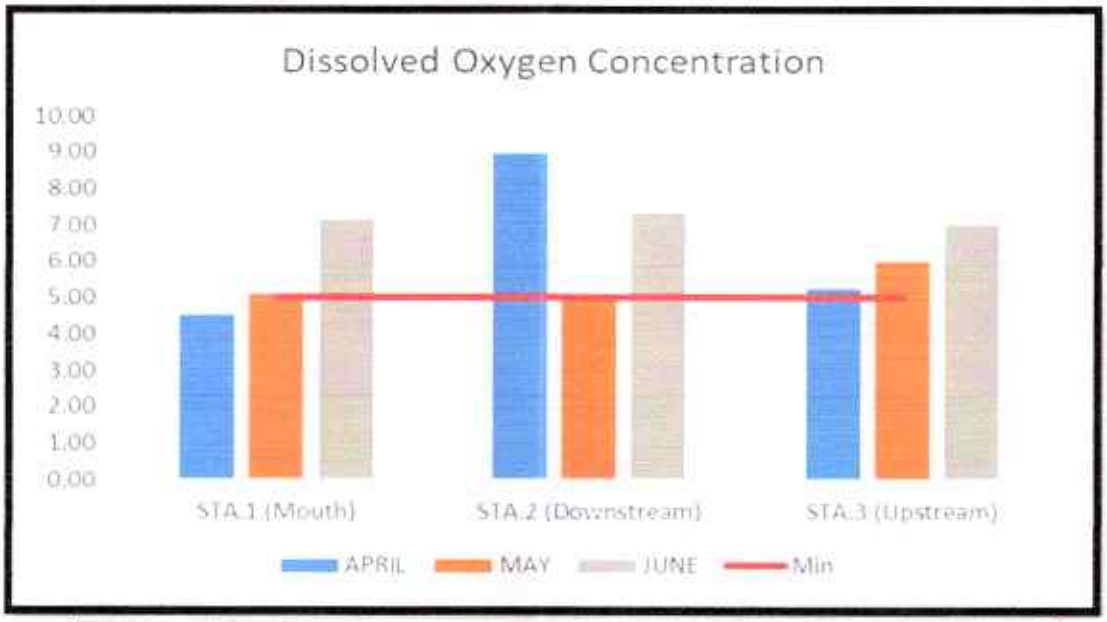
SECOND QUARTER RESULTS OF BAO RIVER IN GRAPH PRESENTATIONS



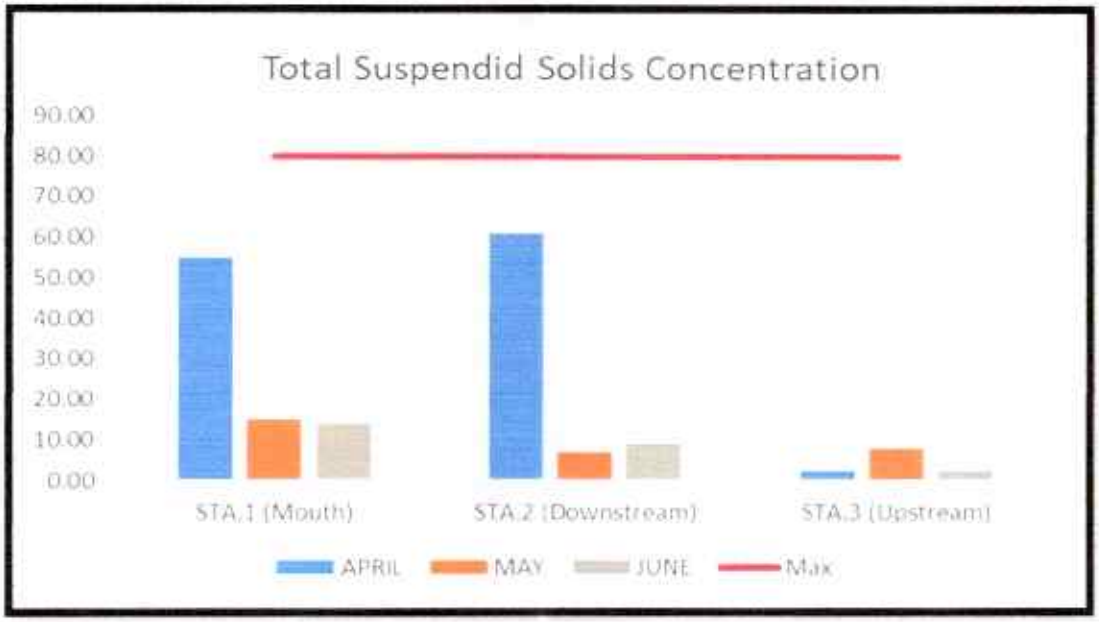
pH concentration of Bao River of all stations from April-June 2022 is within the minimum and maximum range of 6.5-9.0 standards of Class C waters.



Temperature concentration of Bao River of all stations from April-June 2022 is within the minimum and maximum range of 25-31 standards of Class C waters.

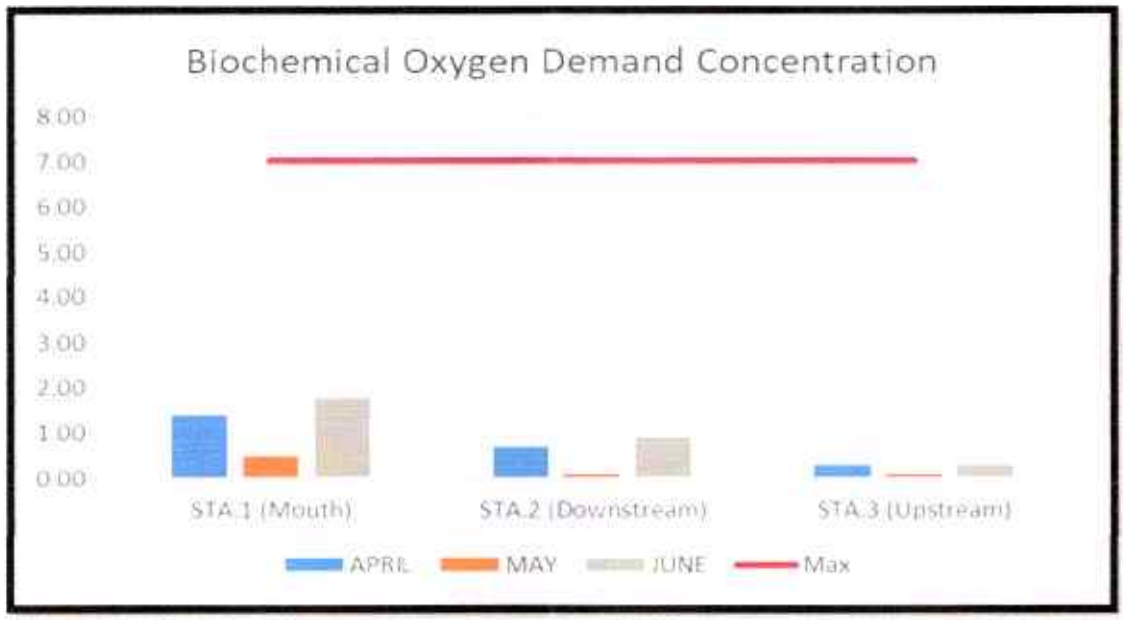


Dissolved Oxygen concentration of Bao River of all stations from April-June 2022 is within the minimum (5mg/L) standards of Class C waters except for station 1 for the month of April which has a value of 4.50mg/L



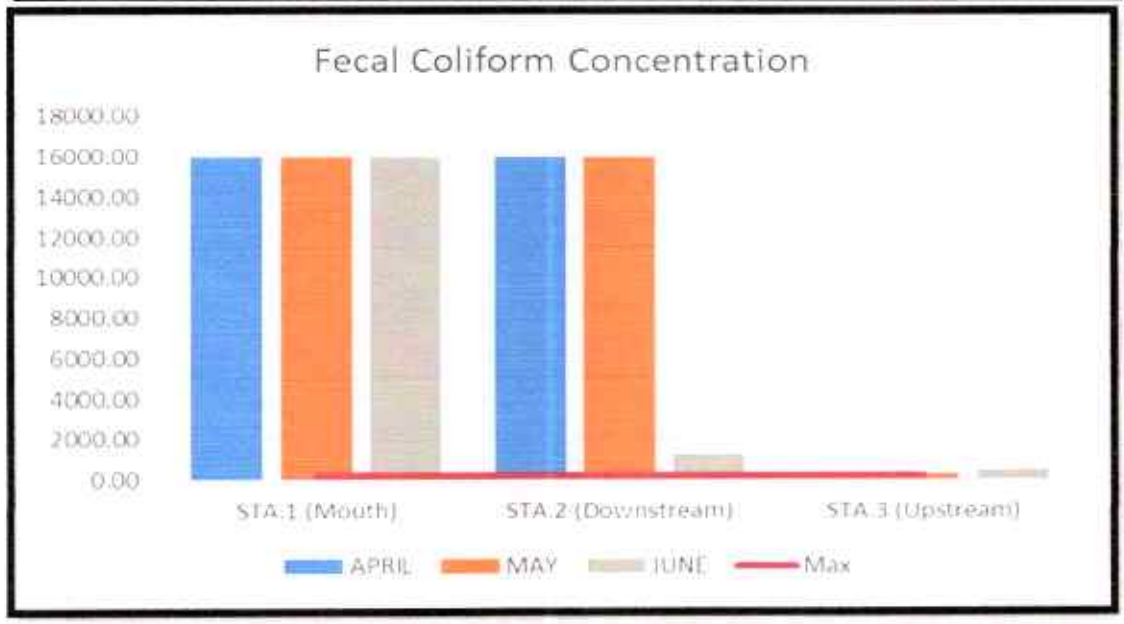
Total Suspended Solids concentration of Bao River of all stations from April-June 2022 is within the maximum value of 80mg/L standards of Class C waters.

Note: TSS value of Sta.3 for the month from April-June is not detectable, for graphical presentation detection limit of TSS is 2.3mg/L is being used.



Biochemical Oxygen Demand concentration of Bao River of all stations from April-June 2022 is within the maximum value of 7mg/L standards of Class C waters.

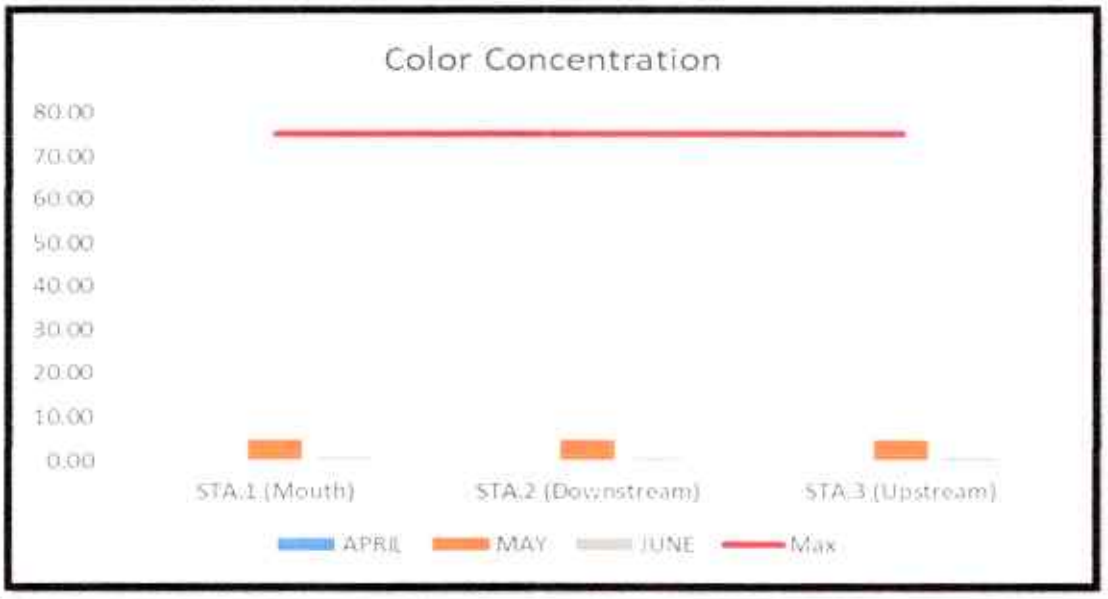
Note: BOD value of Sta.2& 3 for the month from May-June is not detectable, for graphical presentation detection limit of BOD is 0.01mg/L is being used.



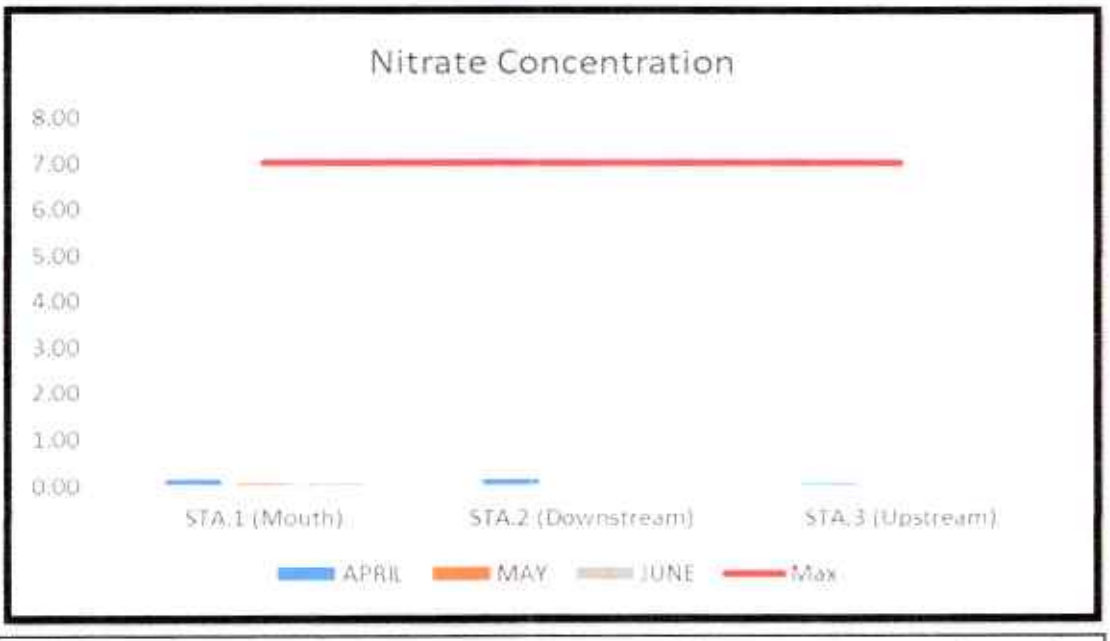
Fecal Coliform concentration of Bao River of all stations from April-June 2022 is above the maximum value of 200MPN/100mg/L standards of Class C waters.

The primary sources of high fecal coliform count of bacteria to freshwater probable the wastewater treatment plant discharges, failing septic tanks, and animal wastes.

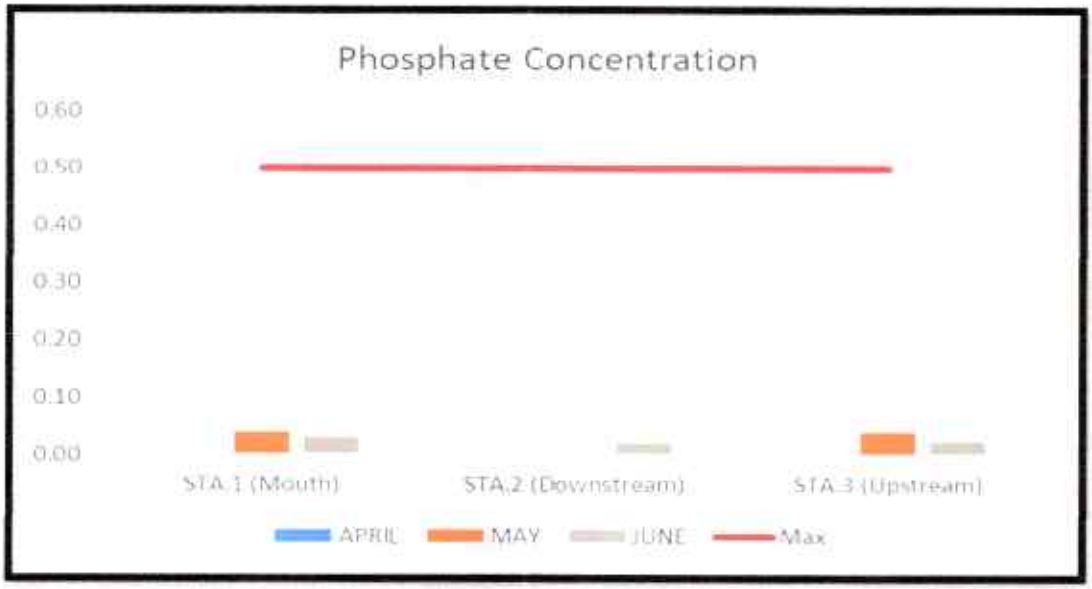
Local Government Units were informed of the laboratory results of the waterbody within their jurisdiction.



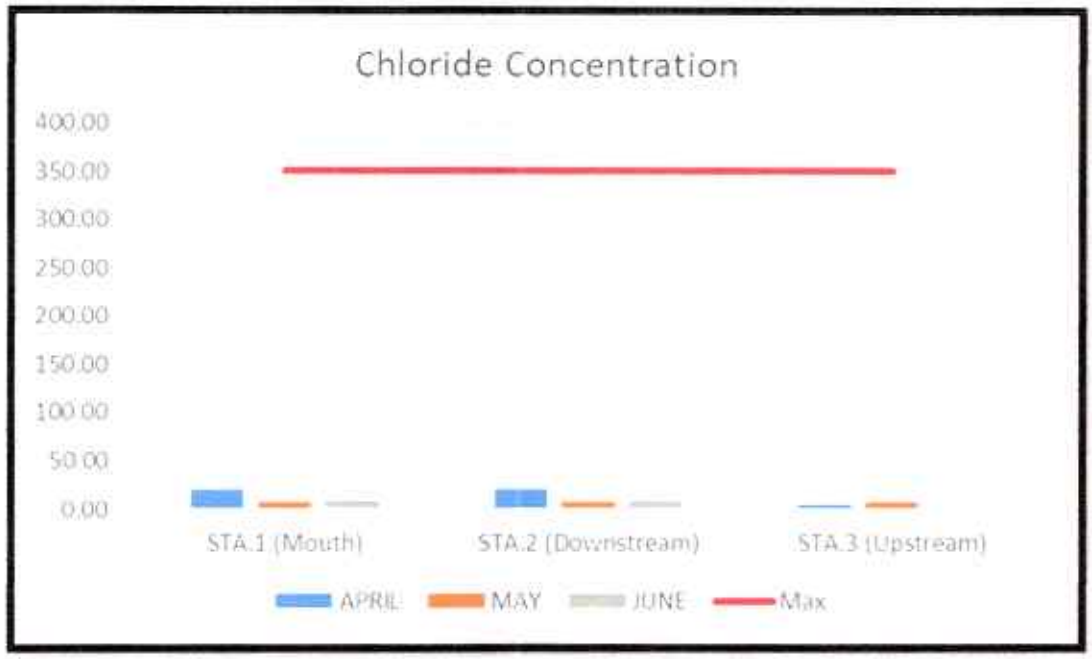
Color concentration of Bao River of all stations from April-June 2022 is within the maximum value of 75 TCU standards of Class C waters.



Nitrate concentration of Bao River of all stations from April-June 2022 is within below the maximum value of 7mg/L standards of Class C waters.



Phosphate concentration of Bao River of all stations from April-June 2022 is within below the maximum value of 0.5mg/L standards of Class C waters.



Chloride concentration of Bao River of all stations from April-June 2022 is within the maximum value of 350mg/L standards of Class C waters.

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
ENVIRONMENTAL MANAGEMENT BUREAU REGION 8
DENR Compound, Brgy. 2, Tacloban City

PRIORITY RIVER REPORT (QUARTERLY)

Department: ENVIRONMENTAL MONITORING AND ENFORCEMENT DIVISION - AMBIENT SECTION

2nd Quarter Water Quality Monitoring of Canturing River

CY 2022

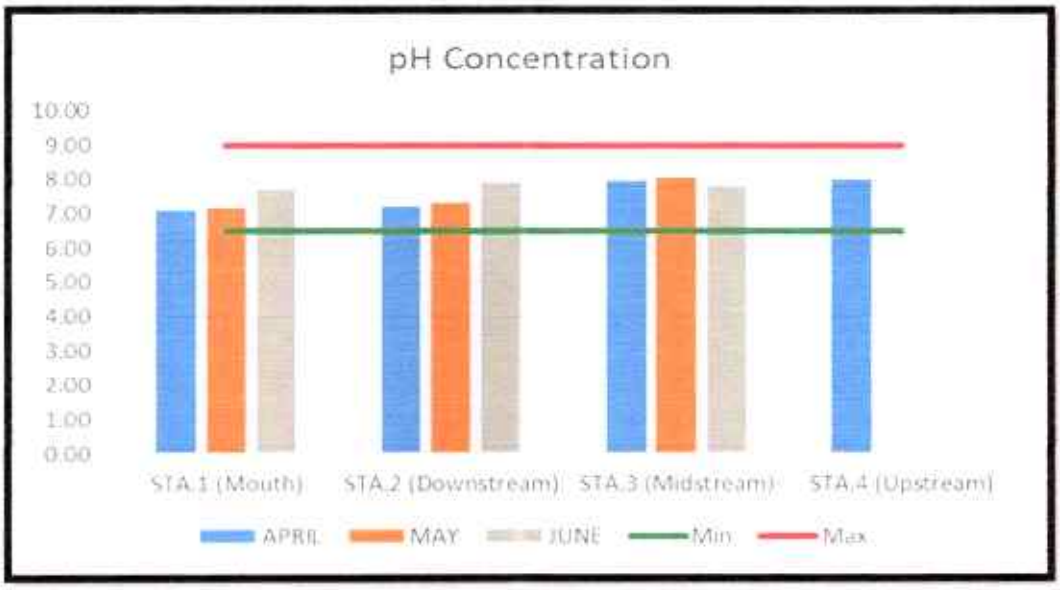
Region	Waterbody	Parameter	Stn. No.	Stn. ID	APRIL	MAY	JUNE	Average	Min	Max	Criterion
Priority River (Class C) 4 stations											
VIII	Canturing River	DO mg/L	1	Mouth of Canturing, Brgy. Mambahaw	3.94	6.14	7.00	5.69	3.94	7.00	5 mg/L (minimum)
			2	Downstream,Brgy. Canturing	4.46	5.80	7.12	5.79	4.46	7.12	
			3	Midstream, Brgy. Nasaug	7.06	5.59	6.15	6.27	5.59	7.06	
			4	Upstream, Brgy. San Jose	4.24			4.24	4.24	4.24	
VIII	Canturing River	TSS mg/L	1	Mouth of Canturing, Brgy. Mambahaw	7.00	3.00	3.00	4.33	3	7	80
			2	Downstream,Brgy. Canturing	11.00	ND	4.00	7.50	4	11	
			3	Midstream, Brgy. Nasaug	6.00	ND	3.00	4.50	3	6	
			4	Upstream, Brgy. San Jose	27.00			27.00	27	27	
VIII	Canturing River	pH	1	Mouth of Canturing, Brgy. Mambahaw	7.08	7.15	7.71	7.31	7.08	7.71	6.5-9.0
			2	Downstream,Brgy. Canturing	7.19	7.32	7.90	7.47	7.19	7.90	
			3	Midstream, Brgy. Nasaug	7.97	8.05	7.82	7.95	7.82	8.05	
			4	Upstream, Brgy. San Jose	8.00			8.00	8.00	8.00	
VIII	Canturing River	BOD, mg/L	1	Mouth of Canturing, Brgy. Mambahaw							7
			2	Downstream,Brgy. Canturing	0.80	0.70	1.00	0.83	0.70	1.00	
			3	Midstream, Brgy. Nasaug	0.60	0.40	0.70	0.57	0.40	0.70	
			4	Upstream, Brgy. San Jose	1.80			1.80	1.80	1.80	
VIII	Canturing River	Fecal Coliform	1	Mouth of Canturing, Brgy. Mambahaw	1600.00	1600.00	5400.00	2400	1600	5400	200
			2	Downstream,Brgy. Canturing	1600.00	1600.00	5400.00	2400	1600	5400	
			3	Midstream, Brgy. Nasaug	1600.00	1600.00	490.00	1078	490	1600	
			4	Upstream, Brgy. San Jose	1600.00			1600	1600	1600	
VIII	Canturing River	Temp. ^{O}C (b)	1	Mouth of Canturing, Brgy. Mambahaw	29.27	29.30	28.00	28.86	28.00	29.30	25-31
			2	Downstream,Brgy. Canturing	27.30	28.45	27.45	27.73	27.30	28.45	
			3	Midstream, Brgy. Nasaug	27.50	28.00	27.50	27.67	27.50	28.00	
			4	Upstream, Brgy. San Jose	28.00			28.00	28.00	28.00	
VIII	Canturing River	Color	1	Mouth of Canturing, Brgy. Mambahaw	5.00	5.00	1.00	3.67	1.00	5.00	75
			2	Downstream,Brgy. Canturing	5.00	5.00	1.00	3.67	1.00	5.00	
			3	Midstream, Brgy. Nasaug	5.00	5.00	1.00	3.67	1.00	5.00	
			4	Upstream, Brgy. San Jose	5.00			5.00	5.00	5.00	

VIII	Canturing River	Nitrate	1	Mouth of Canturing, Brgy. Mambahaw	0.73	0.29	0.04	0.35	0.04	0.73	7
			2	Downstream,Brgy. Canturing	0.47	0.29	0.18	0.31	0.18	0.47	
			3	Midstream, Brgy. Nasaug	0.44	0.25	0.63	0.44	0.25	0.63	
			4	Upstream, Brgy. San Jose	0.11			0.11	0.11	0.11	
VIII	Canturing River	Phosphate	1	Mouth of Canturing, Brgy. Mambahaw	0.00	0.04	0.02	0.02	0.00	0.04	0.5
			2	Downstream,Brgy. Canturing	0.01	0.04	0.02	0.02	0.01	0.04	
			3	Midstream, Brgy. Nasaug	0.00	0.04	0.02	0.02	0.00	0.04	
			4	Upstream, Brgy. San Jose	0.00			0.00	0.00	0.00	
VIII	Canturing River	Chloride	1	Mouth of Canturing, Brgy. Mambahaw	108.03	605.38	2041.66	918.36	108.03	2041.66	350
			2	Downstream,Brgy. Canturing	16.03	8.23	15.40	13.22	8.23	16.03	
			3	Midstream, Brgy. Nasaug	15.50	6.58	7.48	9.85	6.58	15.50	
			4	Upstream, Brgy. San Jose	31.49			31.49	31.49	31.49	

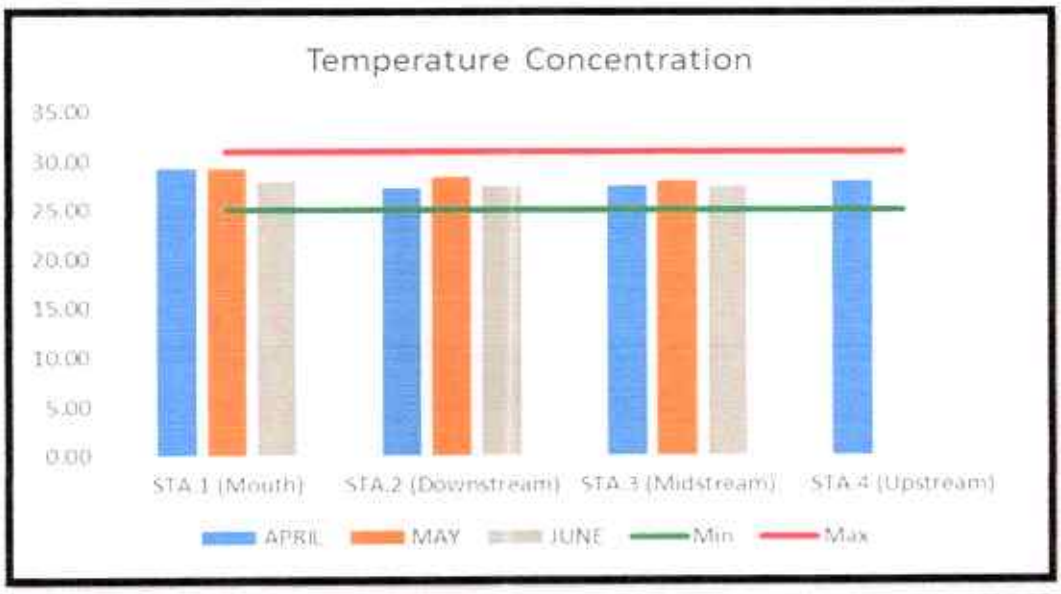
Note: May and June dry at Station 4

ND-Not Detectable

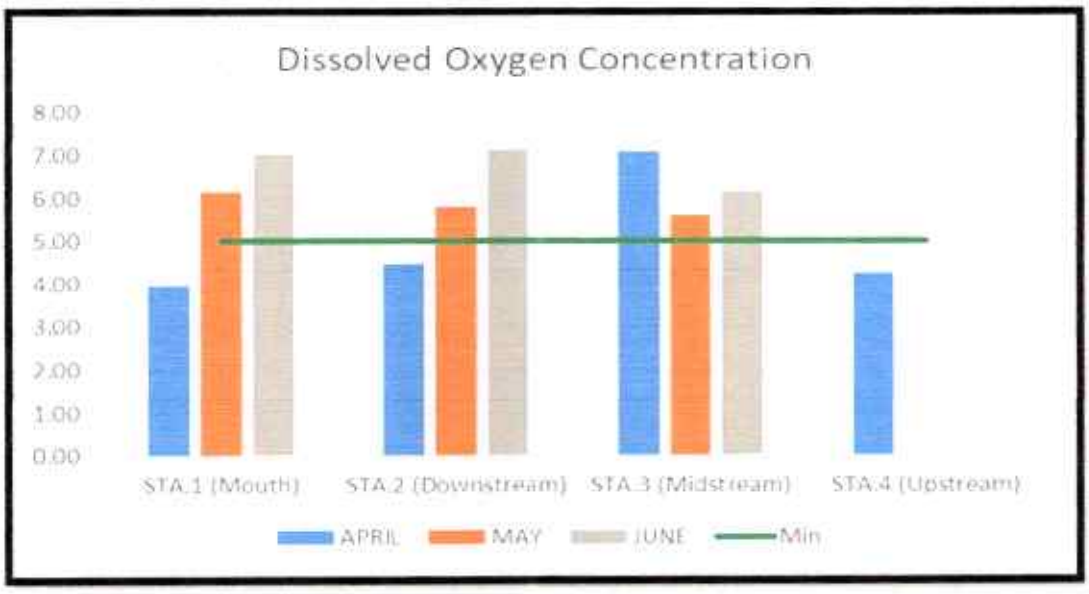
SECOND QUARTER RESULTS OF CANTURING RIVER IN GRAPH PRESENTATIONS



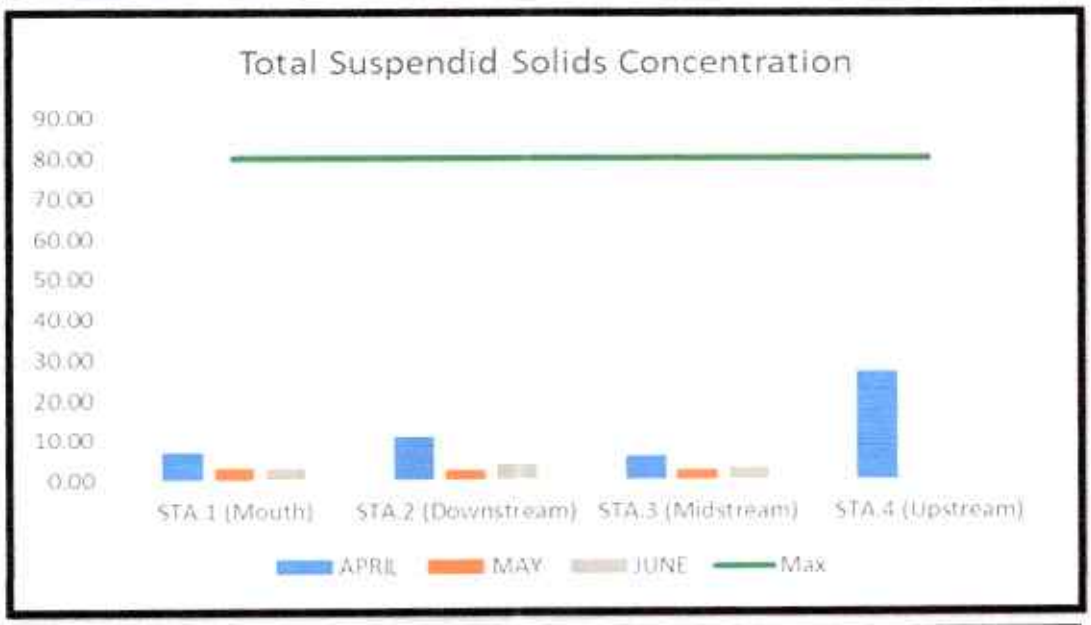
pH concentration of Canturing River of all stations from April-June 2022 is within the minimum and maximum range of 6.5-9.0 standards of Class C waters.



Temperature concentration of Canturing River of all stations from April-June 2022 is within the minimum and maximum range of 25-31 standards of Class C waters.

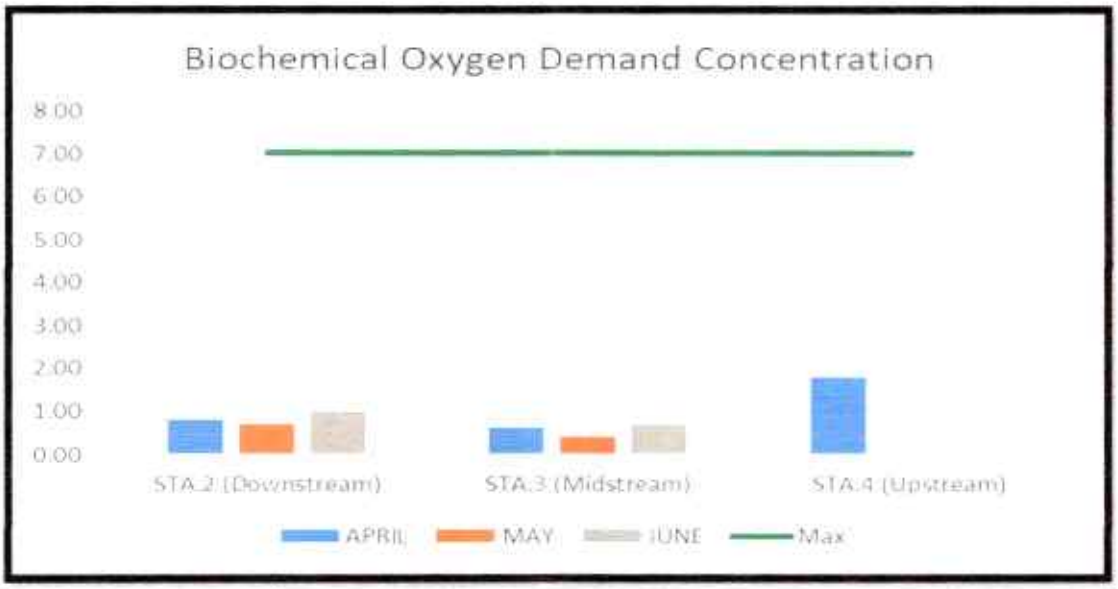


Dissolved Oxygen concentration of Canturing River of all stations from April-June 2022 is within the standards except for the stations of 1,2&3 for the month of April, is below the minimum value of 5mg/L standards of Class C waters.

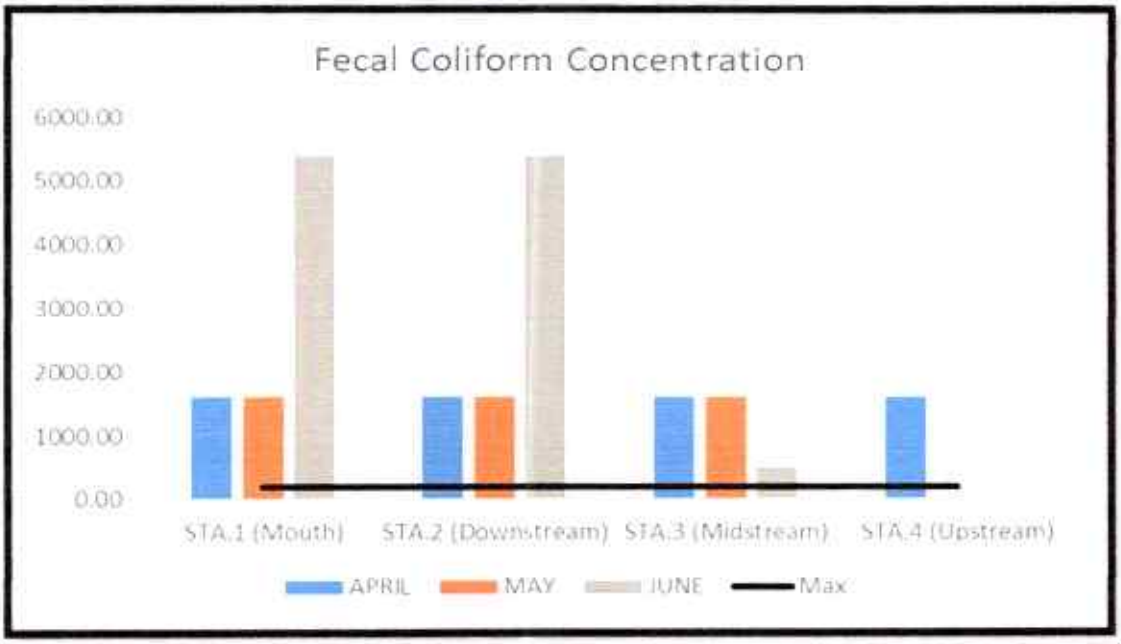


Total Suspended Solids concentration of Canturing River of all stations from April-June 2022 is within the maximum value of 80mg/L standards of Class C waters.

Note: TSS value of sta. 2-3 for the month of May is not detectable, for graph presentation detection limit of 2.3 mg/L of TSS is being used.



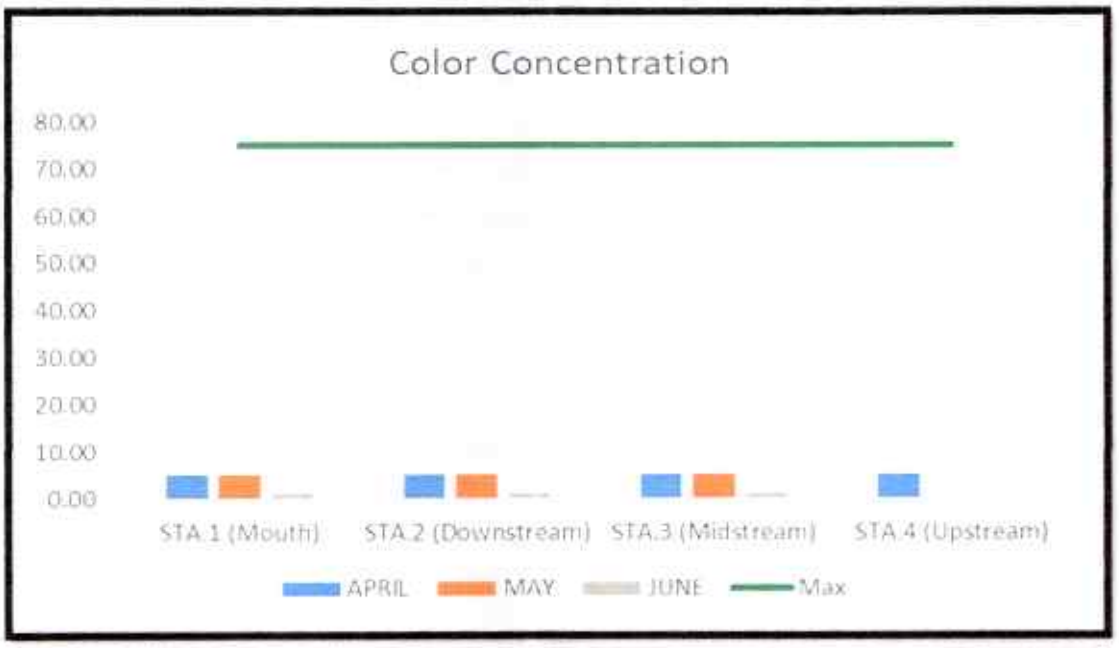
Biochemical Oxygen Demand concentration of Canturing River of all stations from April-June 2022 is within the maximum value of 7mg/L standards of Class C waters.



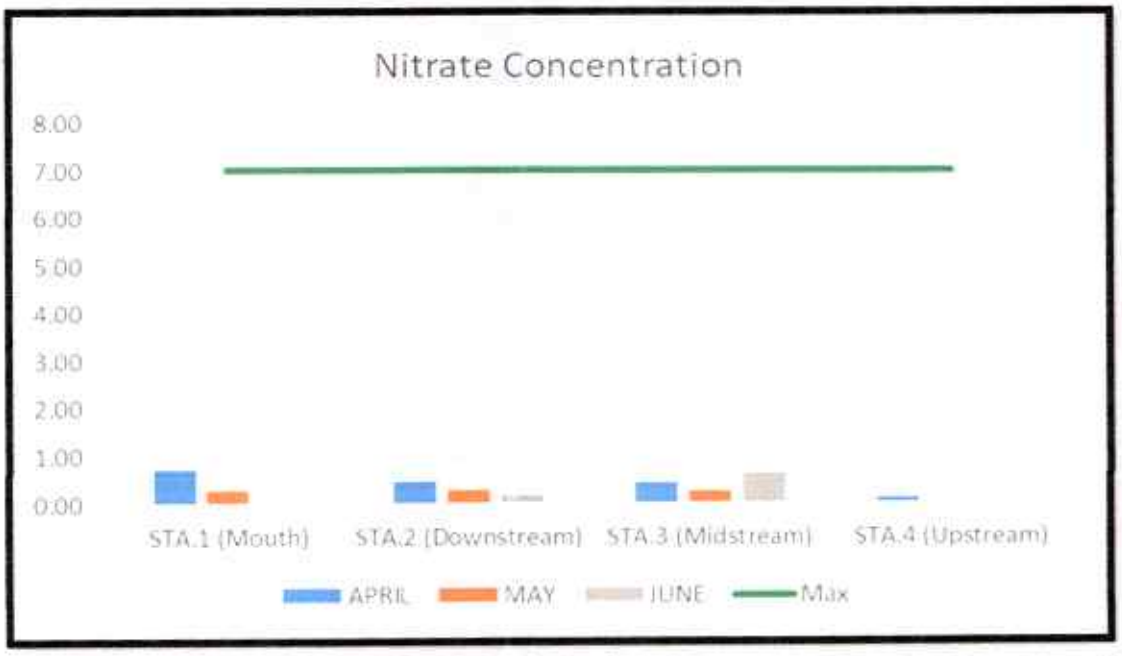
Fecal Coliform concentration of Canturing River of all stations from April-June 2022 is above the maximum value of 200MPN/100mg/L standards of Class C waters.

The primary sources of high fecal coliform count of bacteria to freshwater probable the wastewater treatment plant discharges, failing septic tanks, and animal wastes.

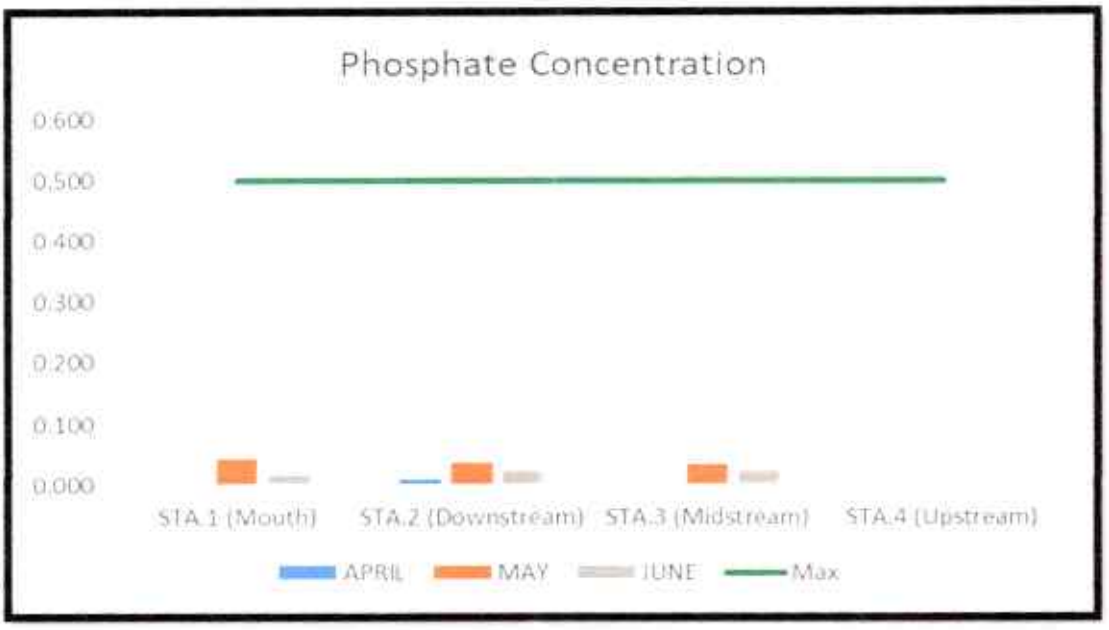
Local Government Units were informed of the laboratory results of the waterbody within their jurisdiction.



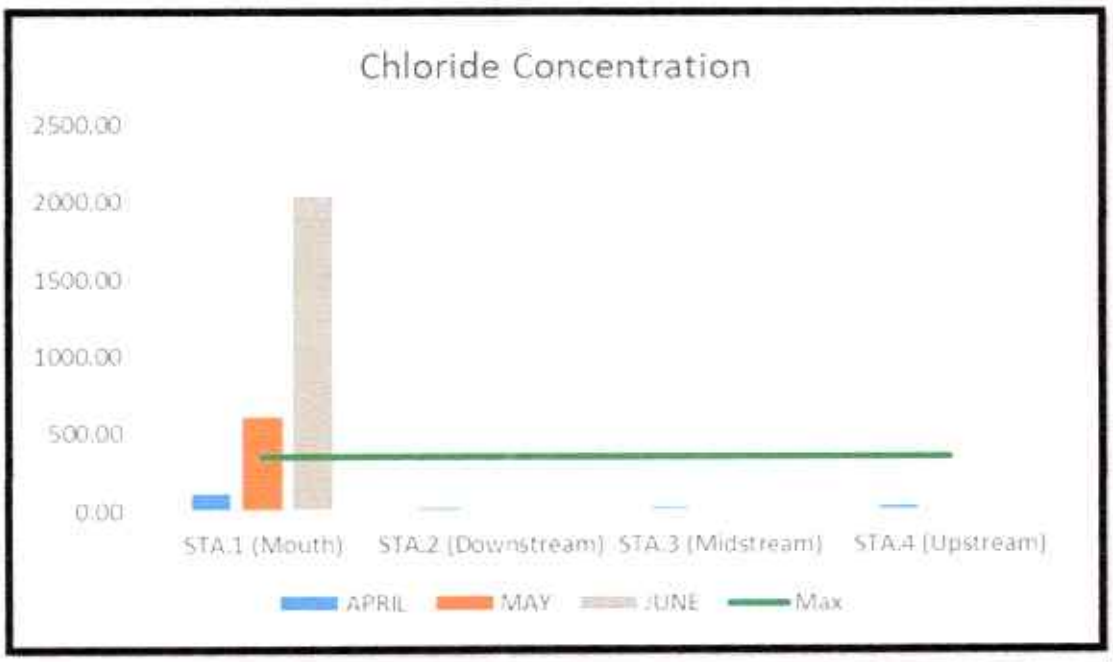
Color concentration of Canturing River of all stations from April-June 2022 is within the maximum value of 75 TCU standards of Class C waters.



Nitrate concentration of Canturing River of all stations from April-June 2022 is within the maximum value of 7mg/L standards of Class C waters.



Phosphate concentration of Canturing River of all stations from April-June 2022 is within the maximum value of 0.5mg/L standards of Class C waters.



Chloride concentration of Canturing River of station (mouth) except for the month of April is above the maximum value of 350, the rest of the stations from April-June 2022 is below the maximum value of 350mg/L standards of Class C waters.