

Figure 5.3.1 : Map of Goa showing the Water Quality Monitoring locations under the National Water Monitoring Programme; MINARS



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ANNEXURE III

NWMP DATA FOR THE YEAR 2013 - 2014

Table 3 a -RIVER CHAPORA NEAR ALORNA FORT, PERNEM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.77	7.28	6.9	6.49	6.75	7.06	6.93	7.07	6.46	7.45	6.76	7.06
2	Temperature °C	31	34	31	27	27	29	28	30	23	27	30	29
3	Conductivity µs/cm	10.74	3000	3360	79.4	44.5	62.57	59.44	62.88	57.79	71.39	1801	12.15
4	Dissolved Oxygen mg/l	6	5.9	6.3	6.9	7	7.5	7.7	7.1	7.5	7.6	6.9	6.77
5	Turbidity (NTU)	3.88	4.67	3.4	35.7	26.6	4.91	9.58	2.92	4.52	3.79	3.81	1.51
6	Nitrite Nitrogen mg/l	0.01	0.007	0.005	0.005	0.011	0.002	0.004	0.003	0.002	0.001	0.003	0.004
7	Nitrogen(Nitrate) mg/l	0.066	0.06	0.45	0.22	0.119	0.14	0.13	0.1	0.08	0.05	0.050	0.07
8	Phosphate mg/l	0.001	0.001	0.002	0.06	0.005	0.01	0.01	0.01	0.01	0.001	0.20	0.02
9	BOD mg/l	1.5	1.5	0.8	0.5	0.5	1.8	0.7	0.6	1.5	0.5	0.7	1.79
10	COD mg/l	5	15	7	8	13	2	2	6	1	2	5	29
11	Chloride mg/l	997.56	285	718.36	11.09	2.94	5	3.4	2.85	1.9	3.42	366.91	4.4
12	Fecal Coliform MPN/100 ml	1700	1100	200	1300	1300	1300	2300	1700	4900	2300	3300	3300
13	Total Coliform MPN/100 ml	3300	2100	450	2400	1700	2300	4900	3300	7000	3300	7000	7900
14	Ammonia mg/l	0.036	0.042	0.07	0.05	0.034	0.11	0.02	0.2	0.03	0.08	0.06	0.24

Table 3 b - RIVER KALNA AT CHANDEL, PERNEM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.73	7.18	6.95	6.25	6.76	7.12	6.7	7.06	6.44	7.29	7.03	7.34
2	Temperature °C	32	30	28	26	27	30	27	29	22	27	28	27
3	Conductivity µs/cm	42.23	58.9	66.28	47.6	42.9	62.3	55.61	70.77	71.9	57.19	60.4	64.9
4	Dissolved Oxygen mg/l	6.5	6.1	6.9	7.4	7.4	7.3	7.4	7.5	6.8	7.3	6.8	6.74
5	Turbidity (NTU)	2.26	3.68	5.51	19.5	24.5	3.63	14.68	2.6	4.23	3.24	3.88	2.52
6	Nitrite Nitrogen mg/l	0.006	0.002	0.002	0.003	0.01	0.002	0.004	0.002	0.002	0.001	0.002	0.002
7	Nitrogen(Nitrate) mg/l	0.061	0.047	0.28	0.11	0.073	0.05	0.08	0.04	0.04	0.04	0.026	0.06
8	Phosphate mg/l	0.016	0.001	0.006	0.19	0.007	0.01	0.01	0.01	0.01	0.003	0.015	0.02
9	BOD mg/l	1.1	1.1	0.6	0.8	1.1	1.8	0.8	0.5	1.5	0.7	0.7	1.09
10	COD mg/l	10	2	3	8	6	8.4	5	8	2	1.0	4.0	10
11	Chloride mg/l	2.85	3.33	9.16	7.23	2.45	3	2.5	1.9	1.9	1.47	3.42	4109.36
12	Fecal Coliform MPN/100 ml	780	920	200	45	450	4600	4900	3300	3300	2300	780	1300
13	Total Coliform MPN/100 ml	1300	1400	450	45	450	7000	7900	4900	4900	3300	1300	2300
14	Ammonia mg/l	0.022	0.244	0.076	0.03	0.047	0.13	0.02	0.08	0.03	0.01	0.02	0.02

Table 3 c - RIVER MAPUSA ON CULVERT ON HIGHWAY MAPUSA-PANAJI 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.63	7.07	6.87	6.33	6.53	6.92	6.56	6.77	6.71	6.66	6.80	7.00
2	Temperature °C	33	34	31	26	28.5	31	29	32	22	26	30	29
3	Conductivity µs/cm	9270	24720	10360	115.5	155.5	465300	167.7	928.74	4149	8.42	11.41	12.71
4	Dissolved Oxygen mg/l	6	4.9	3.4	5	4	2.9	4.1	3.5	3.4	4	6.7	7.33
5	Turbidity (NTU)	3.52	5.11	4.5	69.1	19.9	7.19	9.75	3.05	2.22	1.33	2.34	1.28
6	Nitrite Nitrogen mg/l	0.007	0.01	0.005	0.021	0.025	0.01	0.01	0.01	0.007	0.005	0.03	0.003
7	Nitrogen(Nitrate) mg/l	0.08	0.113	0.12	0.18	0.316	0.33	0.28	0.15	0.09	0.11	0.04	0.07
8	Phosphate mg/l	0.019	0.086	0.034	0.14	0.075	0.06	0.03	0.08	0.02	0.004	0.001	0.03
9	BOD mg/l	1.6	2.4	3	1.5	2	1.9	0.5	1.8	-	1.4	1.8	2.09
10	COD mg/l	31	40	36	13	7	8	7	3	18	15	14	2
11	Chloride mg/l	8740.55	7505.47	2073.12	22.65	26.91	300	30.4	185.26	1140.07	5870.5	4647.50	4402.89
12	Fecal Coliform MPN/100 ml	200	1100	3300	230	2300	7900	17000	13000	13000	13000	4900	3300
13	Total Coliform MPN/100	1300	1700	4600	230	7900	13000	35000	2400	17000	22000	7900	7000

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
	ml								0				
14	Ammonia mg/l	0.09	0.042	1.12	0.16	0.161	0.12	0.07	0.04	0.14	0.13	0.03	0.15

Table 3 d - RIVER ASSANORA AT ASSANORA 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.15	5.73	5.7	6.25	6.21	6.67	6.19	6.15	6.46	6.06	5.45	6.00
2	Temperature °C	28	29	28	27	28	29	28	26	23	26	30	27
3	Conductivity µs/cm	61.5	58.74	59	77.4	45.86	54.23	48.73	57.14	57.79	51.7	55.3	62.3
4	Dissolved Oxygen mg/l	6.4	5.8	6.7	6.9	6.8	6.5	6.8	7.2	7.5	7	7.1	6.2
5	Turbidity (NTU)	4.58	5.03	5.29	33.8	4.58	5.16	5.73	3.67	4.52	5.92	3.33	3.75
6	Nitrite Nitrogen mg/l	0.003	0.004	0.003	0.014	0.004	0.002	0.003	0.002	0.002	0.004	0.003	0.002
7	Nitrogen(Nitrate) mg/l	0.089	0.055	0.63	0.64	0.075	0.11	0.1	0.1	0.03	0.05	0.05	0.106
8	Phosphate mg/l	0.004	0.006	0.003	0.01	0.079	0.01	0.002	0.01	0.01	0.005	0.008	0.012
9	BOD mg/l	1.5	1.1	0.4	0.7	0.8	0.9	1.1	0.3	1.5	2.7	1.4	1.6
10	COD mg/l	2	2	1	11	6	24	-	6.8	1	6	6.0	2.0
11	Chloride mg/l	8.74	3.4	2.91	3.33	4.89	6.3	3.4	2.91	1.9	4.89	4.89	6.36
12	Fecal Coliform MPN/100 ml	3400	200	200	200	11000	13000	7900	2300	4900	780	780	2300
13	Total Coliform MPN/100 ml	13000	780	200	200	17000	22000	13000	3300	7000	1400	1100	4900
14	Ammonia mg/l	0.098	0.068	0.002	0.03	0.022	0.1	0.02	0.004	0.03	0.04	0.01	0.04

Table 3 e - RIVER VALVANTI AT SANQUELIM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.74	6.08	6.7	6.61	6.88	7.04	6.22	5.89	6.95	5.88	5.58	6.53
2	Temperature °C	31	34	28	27	29	29	28	30	27	29	30	31
3	Conductivity µs/cm	66.7	71.49	50.6	85.3	48.76	54.9	49.1	70.53	65.89	57.6	62.2	68.2
4	Dissolved Oxygen mg/l	6.6	6.4	7.2	7.7	7.5	7.3	7.1	7.1	7.8	8.3	7.3	7.3
5	Turbidity (NTU)	3.42	3.54	4.36	26.6	3.67	2.55	7.51	3.11	2.81	3.39	1.93	2.94
6	Nitrite Nitrogen mg/l	0.003	0.007	0.003	0.007	0.004	0.002	0.002	0.001	0.002	0.004	0.003	0.004
7	Nitrogen(Nitrate) mg/l	0.155	0.089	0.22	0.18	0.073	0.08	0.09	0.02	0.3	0.06	0.07	0.022
8	Phosphate mg/l	0.003	0.009	0.008	0.008	0.087	0.01	0.004	0.002	0.006	0.006	0.007	0.022
9	BOD mg/l	1.7	2.2	0	1	0.9	1	0.4	1.1	1.2	2.8	1.9	2.4
10	COD mg/l	5	7	2	12	6	20	9	BDL	3	7.0	9	15.0
11	Chloride mg/l	8.74	8.74	1.46	3.33	1.96	5.4	3.9	2.43	4.37	5.38	5.87	5.38
12	Fecal Coliform MPN/100 ml	3300	680	2700	2200	3300	7900	13000	4900	7900	4600	3300	13000
13	Total Coliform MPN/100 ml	11000	3300	3900	2700	7000	11000	17000	13000	13000	7000	4900	24000
14	Ammonia mg/l	0.101	0.067	0.02	0.027	0.035	0.05	0.02	0.01	BDL	0.04	0.02	0.05

Table 3 f - RIVER MADEI AT DABOSE, VALPOI 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.37	6.77	5.82	6.98	6.89	7.04	6.42	6.03	6.96	6.17	5.96	6.85
2	Temperature °C	34	33	26	26	28	28	27	28	26	28	30	31
3	Conductivity µs/cm	125.1	142.9	54	151.8	56.41	63.3	57.6	73.63	86.59	84.4	98	116.9
4	Dissolved Oxygen mg/l	6.6	6.3	7.3	8	7.4	7.4	8	7.1	7.5	7.1	7.3	6.8
5	Turbidity (NTU)	3.46	4	6.26	17.5	4.36	2.78	10.2	3.15	2.25	1.55	0.96	2.53
6	Nitrite Nitrogen mg/l	0.002	0.004	0.003	0.008	0.003	0.002	0.003	0.002	0.002	0.002	0.002	0.002
7	Nitrogen(Nitrate) mg/l	0.003	0.01	0.14	0.12	0.024	0.042	0.03	0.05	0.01	0.03	0.01	0.009
8	Phosphate mg/l	0.003	0.006	0.01	0.006	0.061	0.01	0.01	0.01	0.005	0.003	0.008	0.008
9	BOD mg/l	1.2	1	0.1	0.6	0.5	0.6	0.8	1.1	1.4	2	1.8	2.1
10	COD mg/l	6	2	3	13	6	12	7	BDL	8	8	11	3.0
11	Chloride mg/l	8.26	5.83	1.94	7.6	1.96	4.9	2.9	2.91	0.49	5.38	5.87	5.87
12	Fecal Coliform MPN/100 ml	NIL	680	930	450	780	1100	2300	450	4900	780	780	330
13	Total Coliform MPN/100 ml	180	1700	1500	1500	1100	1400	3300	680	7900	1300	1700	490
14	Ammonia mg/l	0.01	0.04	0.01	0.06	0.021	0.07	0.03	0.01	0.05	0.08	0.02	0.04

Table 3 g - RIVER KHANDEPAR, OPA, PONDA 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.11	7.4	6.82	5.9	6.58	6.62	5.04	7.79	7.34	6.70	7.11	7.08
2	Temperature °C	33	34	31	26	28	28	28	29	28	29	29	31
3	Conductivity µs/cm	103.43	108.25	98.99	80.7	50500	50.42	109.43	71.13	83.21	77.30	81.6	90.8
4	Dissolved Oxygen mg/l	6.3	7.2	5.6	6.8	6.3	7.3	6.7	6.7	6.8	7.03	6.8	7.9
5	Turbidity (NTU)	3.81	2.63	3.31	38.5	6.7	20	4.99	2.96	3.26	1.89	1.54	2.62
6	Nitrite Nitrogen mg/l	0.003	0.002	0.005	0.007	0.002	0.01	0.002	0.002	0.001	0.003	0.001	0.002
7	Nitrogen(Nitrate) mg/l	0.005	0.015	0.17	0.15	0.15	0.11	0.23	0.06	0.06	0.06	0.091	0.003
8	Phosphate mg/l	0.003	BDL	0.01	0.01	0.001	0.03	0.01	0.01	0.003	0.003	BDL	0.003
9	BOD mg/l	1.3	2.4	3.1	0.7	1.1	0.8	0.2	1.1	1.5	0.27	0.50	1.2
10	COD mg/l	10	6	7	3	4	1	4	1	2	8	4.00	2.00
11	Chloride mg/l	4.75	8.74	4.37	3.8	3.77	5.9	3.4	3.23	7.28	13.21	4.37	2.94
12	Fecal Coliform MPN/100 ml	200	450	110	2400	2400	7900	2300	3300		1300	400	200
13	Total Coliform MPN/100 ml	450	930	920	5400	5400	17000	3300	4900		2300	400	400
14	Ammonia mg/l	0.046	0.148	0.06	0.08	0.002	0.07	0.03	0.05	0.05	0.07	BDL	0.042

Table 3 h - RIVER KHANDEPAR AT CODLI 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	5.56	7.18	6.84	6.2	6.47	6.69	5.37	7.28	7.59	7.59	7.20	7.25
2	Temperature °C	32	35	32	26	28	29	28	29	28	28	30	32
3	Conductivity µs/cm	88.26	84.96	89.02	78.3	47700	49.16	100.63	63.51	73.4	63.3	73.3	78.6
4	Dissolved Oxygen mg/l	7.1	6.6	6.6	7.4	6.4	7.4	7.2	7.3	7.4	7.74	6.8	7.7
5	Turbidity (NTU)	2.21	2.06	6.29	32.2	5.8	19.7	3.76	2.29	2.44	130	7.48	1.71
6	Nitrite Nitrogen mg/l	0.002	0.002	0.004	0.005	0.002	0.01	0.001	0.002	0.002	0.001	0.000	0.002
7	Nitrogen(Nitrate) mg/l	0.037	0.093	0.13	0.13	0.17	0.11	0.06	0.05	0.03	0.09	0.118	0.128
8	Phosphate mg/l	0.001	BDL	0.001	0.01	0.001	0.03	0.03	0.02	0.004	0.003	BDL	0.012
9	BOD mg/l	1.1	0.7	1.4	1.2	0.4	0.7	0.3	1.9	0.4	0.78	0.6	
10	COD mg/l	2	3	3	4	4	4	3	5	11	BDL	3.0	2.00
11	Chloride mg/l	6.18	9.71	3.4	3.2	1.88	4.9	4.24	2.3	11.66	5.38	3.89	0.98
12	Fecal Coliform MPN/100 ml	780	1300	450	1300	780	13000	780	2200	-	1300	450	200
13	Total Coliform MPN/100 ml	1300	2300	1200	1700	1100	22000	1300	2700	-	1700	680	450
14	Ammonia mg/l	0.063	0.218	0.095	0.04	0.002	0.07	0.04	0.04	0.05	0.03	BDL	0.057

Table 3 i - RIVER KUSHAWATI NEAR BUND AT KEVONA, RIVONA, SANGUEM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	5.94	7.06	6.96	5.96	6.65	7.14	6.89	6.55	6.64	6.61	6.60	7.3
2	Temperature °C	30	36	31	26	28	27	28	28	26	28	27	32
3	Conductivity µs/cm	17.44	181.51	157.5	129.04	60800	55.9	55.11	76.97	106.86	111.5	127.2	154.2
4	Dissolved Oxygen mg/l	6.3	5.5	6.5	6.9	6.3	7.3	7.6	7.3	7.3	6.6	7.3	7.5
5	Turbidity (NTU)	1.44	1.22	2.1	8.6	5.26	2.02	2.16	2.3	3.24	1.73	2.40	1.52
6	Nitrite Nitrogen mg/l	0.003	0.003	0.002	0.003	0.02	0.002	0.003	0.004	0.002	0.003	0.003	0.0004
7	Nitrogen(Nitrate) mg/l	0.201	0.264	0.15	0.398	0.17	0.13	0.17	0.08	0.006	0.20	0.09	0.14
8	Phosphate mg/l	0.002	BDL	0.002	0.006	0.001	0.01	0.005	0.002	0.005	0.002	0.003	0.04
9	BOD mg/l	1.9	0.4	0.8	1.7	1.4	0.8	0.2	1.3	1.6	0.9	1.88	1.5
10	COD mg/l	3	1	8	2	5	2	3	2	8	54.0	BDL	12
11	Chloride mg/l	5.7	10.2	5.34	5.14	4.24	3.5	2.4	0.91	2.45	2.45	3.00	6.45
12	Fecal Coliform MPN/100 ml	450	200	450	2400	780	3300	1700	2200	13000	3300	780	780
13	Total Coliform MPN/100 ml	780	780	920	3500	1300	4900	2200	2600	17000	4900	1300	1100
14	Ammonia mg/l	0.051	0.125	0.08	0.03	0.04	0.05	0.04	0.02	0.033	0.10	0.01	0.07

Table 3 j - RIVER TALPONA AT CANACONA 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.89	6.93	6.34	5.44	8.02	6.49	6.91	6.03	6.38	6.63	6.55	6.50
2	Temperature °C	35	36	29	27	27	28	30	30	22	28	29	32
3	Conductivity µs/cm	67.57	65.17	55.1	51.56	51.71	49.68	60.26	52.3	113.86	58.46	57.2	74.2
4	Dissolved Oxygen mg/l	7.1	7.1	7.3	7.2	7.3	7.2	7.3	7.2	7.6	6.9	6.4	6.1
5	Turbidity (NTU)	2.35	2.24	3.07	25.1	1.19	6.58	1.9	2.51	1.63	1.57	2.14	4.70
6	Nitrite Nitrogen mg/l	0.003	0.001	0.004	0.004	0.006	0.002	0.002	BDL	0.003	0.002	0.002	0.003
7	Nitrogen(Nitrate) mg/l	0.022	0.003	0.49	0.182	0.11	0.78	0.07	0.02	BDL	0.002	0.01	0.015
8	Phosphate mg/l	0.005	0.029	0.02	0.017	0.001	0.004	0.001	0.01	0.02	BDL	0.007	0.006
9	BOD mg/l	0.8	1.4	1.1	0.4	0.5	0.4	1.5	1	0.9	1.00	1.6	1.4
10	COD mg/l	7	9	4	1	4	5	5	5	3	15.00	12.0	13.0
11	Chloride mg/l	2.85	8.26	7.34	1.41	3.3	10.2	1.9	8.32	7.34	2.43	5.38	4.89
12	Fecal Coliform MPN/100 ml	200	200	NIL	20	450	1100	2300	1300	-	1300	1300	1700
13	Total Coliform MPN/100 ml	200	680	400	78	780	2100	4600	2300	-	2100	2200	2100
14	Ammonia mg/l	0.15	0.107	0.07	0.08	0.005	0.07	0.004	0.06	0.01	0.063	0.01	0.05

Table 3 k - RIVER SAL AT PAZORCONI, CUNCOLIM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.39	6.83	6.05	5.2	7.71	6.44	6.72	6.09	6.33	6.38	6.50	6.20
2	Temperature °C	31	33	28	27	28	29	30	28	25	28	28	29
3	Conductivity µs/cm	70.42	78.29	96.1	69.55	71.64	84.48	87.62	69.65	76.58	82.92	68.1	68.9
4	Dissolved Oxygen mg/l	5	6.1	6.4	6.2	6.5	6.8	7	7.1	6.3	4.0	5.6	7.2
5	Turbidity (NTU)	9.57	10.68	17.6	24.8	6.5	8.86	9.67	8.93	10.04	12.78	6.89	7.26
6	Nitrite Nitrogen mg/l	0.005	0.004	0.01	0.009	0.008	0.01	0.01	0.003	0.008	0.002	0.009	0.004
7	Nitrogen(Nitrate) mg/l	0.08	0.152	0.68	0.452	0.32	0.23	0.14	0.19	0.08	0.123	0.23	0.016
8	Phosphate mg/l	0.007	0.004	0.008	0.009	0.001	0.01	0.01	0.02	0.04	0.013	0.02	0.012
9	BOD mg/l	1	1.5	1	0.6	1.5	0.8	1	2.4	2.7	2.1	1.5	0.9
10	COD mg/l	17	12	5	5	6	4	3	8	8	25.00	13.0	16.0
11	Chloride mg/l	1662.61	2792.57	11.74	2.83	99.01	18.94	4.3	12.72	10.27	1.46	6.36	4.89
12	Fecal Coliform MPN/100 ml	2200	1700	200	45	4900	4900	4900	7000	-	7900	4900	4900
13	Total Coliform MPN/100 ml	4900	3400	450	45	13000	7900	13000	11000	-	24000	13000	7900
14	Ammonia mg/l	0.46	0.087	0.04	0.06	0.02	0.04	0.03	0.11	0.04	0.064	0.06	0.03

Table 3 l - RIVER SAL AT MOBOR 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.45	8.39	7.63	6.81	7.55	8.01	7.7	7.7	7.78	8.01	7.60	7.81
2	Temperature °C	34	33	29	23	28	30	31	29	28	28	31	31
3	Conductivity µs/cm	47260	50800	52600	1159	40910	49770	58350	50600	54420	53.1	36.0	52.3
4	Dissolved Oxygen mg/l	5.5	6.1	6.2	5.4	6.5	5.6	5.3	5.3	5.7	5.8	5.4	6.1
5	Turbidity (NTU)	295	5	30.3	36.8	15.7	2.26	9.26	2.33	1.56	1.62	6.79	2.44
6	Nitrite Nitrogen mg/l	0.005	0.003	0.014	0.015	0.002	0.003	0.004	0.01	0.005	0.006	0.011	0.007
7	Nitrogen(Nitrate) mg/l	0.055	0.008	0.07	0.383	0.09	0.02	0.35	0.41	0.042	0.359	0.039	0.01
8	Phosphate mg/l	0.06	0.012	0.06	0.053	0.11	0.02	0.04	0.03	0.024	0.019	0.009	0.029
9	BOD mg/l	3.5	1.7	1	1.5	0.7	1.6	0.9	1.3	0.9	1.1	3.5	0.5
10	COD mg/l	26	47	27	16	9	32.8	47	44	43	9.0	31.0	33.0
11	Chloride mg/l	16269.78	20883.6	20057.61	1296.58	15087.52	17958.97	18212.44	19305.18	19912.3	2.276.51	15905.53	22259.06
12	Fecal Coliform MPN/100 ml	1300	200	20	2300	2300	1300	450	1300	1300	450	450	1300
13	Total Coliform MPN/100 ml	3300	450	93	4600	4900	2300	780	2300	3300	780	780	1700
14	Ammonia mg/l	0.114	0.46	0.12	0.07	0.05	0.1	0.12	0.022	0.114	0.010	0.002	0.02

Table 3 m - HARWALE WATERFALL 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	5.99	7.53	6.48	6.77	7	6.96	6.98	7.3	7.0	7.40	7.67	6.8
2	Temperature °C	31	33	29	27	28	27	29	30	25	28	29	31
3	Conductivity µs/cm	88.56	95.6	64.5	38.23	40.08	54.25	68.4	77.54	77.17	78.1	97.3	109.9
4	Dissolved Oxygen mg/l	7.2	7.2	7.5	8.1	7.8	7.7	7.6	8.2	7.9	7.9	7.6	6.95
5	Turbidity (NTU)	5.22	6.9	11.45	94.2	6.88	5.66	7.6	6.12	4.11	3.56	4.36	3.26
6	Nitrite Nitrogen mg/l	0.006	0.004	0.006	0.008	0.003	0.003	0.002	0.003	0.002	0.003	0.003	0.003
7	Nitrogen(Nitrate) mg/l	0.186	0.087	0.69	0.24	0.34	0.29	0.31	0.13	0.08	0.16	0.16	0.21
8	Phosphate mg/l	0.005	0.002	0.008	0.014	0.002	0.004	0.01	0.01	0.003	0.004	0.02	1.013
9	BOD mg/l	1.8	2.1	1.1	0.9	1.9	1.4	0.9	0.9	1.5	0.9	2.5	2.77
10	COD mg/l	9	3	2	6	3	7	10	3	13	10.0	BDL	10.0
11	Chloride mg/l	6.65	8.74	5.38	2.83	5.7	10.68	12.14	7.83	0.98	6.36	63.60	7.34
12	Fecal Coliform MPN/100 ml	7000	7000	7900	230	13000	22000	13000	3300	54000	7900	13000	13000
13	Total Coliform MPN/100 ml	11000	14000	13000	490	24000	54000	35000	4900	24000	13000	35000	17000
14	Ammonia mg/l	0.024	0.144	0.04	0.07	0.015	0.04	0.05	0.04	0.05	0.02	0.02	0.007

Table 3 n - RIVER BICHOLIM, BARAZAN NAGAR, BICHOLIM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.9	7.06	6.33	6.54	6.55	6.67	6.48	7.08	6.77	7.15	7.45	7.2
2	Temperature °C	31	35	29	26	29	29	31	30	27	28.5	30	33
3	Conductivity µs/cm	2288	203.23	116.85	33.71	62.9	103.2	121.38	108.92	126.61	130.4	144.7	181.5
4	Dissolved Oxygen mg/l	5.2	7.6	6.3	7.3	6.6	6.9	7.1	8.1	7.9	8.7	11.1	9.03
5	Turbidity (NTU)	6.17	2.78	31.2	8.74	7.62	4.71	5.22	3.6	9.35	9.25	4.28	3.62
6	Nitrite Nitrogen mg/l	0.008	0.006	0.02	0.006	0.004	0.01	0.003	0.003	0.006	0.008		0.008
7	Nitrogen(Nitrate) mg/l	0.298	0.318	1.04	0.156	0.517	0.33	0.35	0.14	0.007	0.24		0.30
8	Phosphate mg/l	0.008	BDL	0.01	0.027	0.009	0.01	0.04	0.01	0.011	0.008		0.040
9	BOD mg/l	2.9	2.5	7.82	0.9	1.1	0.5	1	1.6	1.7	1.7	2.4	2.46
10	COD mg/l	11	2	17	2	4	4	11	3	4	2.0	1.0	4.0
11	Chloride mg/l	665.04	23.8	11.74	1.41	7.6	18.46	20.88	11.25	4.86	8.81	12.23	17.12
12	Fecal Coliform MPN/100 ml	24000	4900	35000	780	14000	13000	24000	7900	7900	13000		13000
13	Total Coliform MPN/100 ml	35000	13000	54000	1400	28000	24000	54000	13000	17000	35000		22000
14	Ammonia mg/l	0.05	0.079	BDL	0.06	0.023	0.06	0.06	0.01	0.049	0.06		0.03

Table 3 o - MAYEM LAKE AT MAYEM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.12	7.17	6.38	6.14	6.11	6.42	6.53	6.86	6.9	7.12	7.47	6.9
2	Temperature °C	33	36	29	28	30	31	31	33	27	29	31	32
3	Conductivity µs/cm	49.28	57.42	47.84	36.15	30.8	39.33	55.4	44.23	39.6	36.9	51	44.0
4	Dissolved Oxygen mg/l	7.1	6.2	6.8	7.1	7.6	7.2	6.6	7.4	8.2	7.2	7.9	7.49
5	Turbidity (NTU)	5.26	7.4	8.09	50.4	3.24	1.89	2.15	9.27	3.05	5.04	7.64	5.12
6	Nitrite Nitrogen mg/l	0.003	0.004	0.004	0.003	0.002	0.003	0.004	0.004	0.002	0.003	0.009	0.004
7	Nitrogen(Nitrate) mg/l	0.026	0.02	0.11	0.1	0.104	0.07	0.09	0.03	0.01	0.02		0.04
8	Phosphate mg/l	0.006	0.002	0.005	BDL	0.003	0.002	0.01	0.02	0.006	0.008	0.022	0.012
9	BOD mg/l	1.4	2.1	2.6	1	0.7	0.4	1.1	2.7	1.1	1.8	5.6	2.49
10	COD mg/l	22	15	10	3	1	2	5	11	8	9.0	10.0	11.0
11	Chloride mg/l	7.6	10.2	6.85	2.36	6.2	14.57	16.51	8.81	3.4	4.89	6.85	6.85
12	Fecal Coliform MPN/100 ml	1100	3300	780	2300	4900	17000	17000	13000	13000	3300	7900	7900
13	Total Coliform MPN/100 ml	1700	7900	1700	4900	7900	35000	35000	17000	22000	4900	13000	17000
14	Ammonia mg/l	0.025	0.104	0.013	0.02	0.014	0.07	0.07	0.06	BDL	0.04	0.02	0.02

Table 3 p - CUMBHARJUA CANAL, CORLIM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.69	7.5	5.63	6.42	6.3	7.1	6.45	7.8	7.3	6.80	7.20	7.42
2	Temperature °C	32	35	30	26	29	30	32	33	30	28	29	30
3	Conductivity µs/cm	49950	50620	3290	2027	1457	1.768	3737	23020	26740	39.97	35.6	43.9
4	Dissolved Oxygen mg/l	4.2	4.7	5.9	5.8	5.8	6.2	3.7	4.6	5.3	4.9	6.04	6.3
5	Turbidity (NTU)	14.41	16.1	9.14	18.6	7.63	16.3	12.6	8.4	11.51	14.1	4.42	18.0
6	Nitrite Nitrogen mg/l	0.011	0.045	0.004	0.003	0.006	0.01	0.01	0.01	0.006	0.009	0.036	0.006
7	Nitrogen(Nitrate) mg/l	0.188	0.034	0.234	0.249	0.068	0.01	0.04	0.05	0.64	0.030	0.04	0.03
8	Phosphate mg/l	0.053	0.017	0.004	0.004	0.014	0.01	0.01	0.01	0.006	0.011	0.015	0.014
9	BOD mg/l	2.4	2.4	0.6	1.9	1.8	2.4	1.8	1.2	1.8	1.7	2.93	2.6
10	COD mg/l	28	28	14	2	6	11.6	15	16	19	59.0	42.0	9
11	Chloride mg/l	18763.69	24768.92	1834.54	4.24	394.3	13.24	1087.8	2185.49	3156.82	15419.86	17119.69	16391.19
12	Fecal Coliform MPN/100 ml	NIL	NIL	200	2300	780	3300	4900	3300	-	4900	2300	450
13	Total Coliform MPN/100 ml	180	200	450	7900	1300	7900	7900	4900	-	7900	4900	450
14	Ammonia mg/l	0.091	0.169	0.356	0.07	0.044	0.09	0.08	0.07	0.12	0.152	0.10	0.06

Table 3 q - RIVER ZUARI AT PANCHAWADI 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.72	7.18	5.98	6.41	5.89	6.97	6.07	7.31	6.86	7.10	6.77	6.72
2	Temperature °C	33	33	29	28	28	31	31	31	28	29	30	32
3	Conductivity µs/cm	92.75	28760	246	103.86	37.72	887.37	178	665.25	7510	5.92	8.28	20.32
4	Dissolved Oxygen mg/l	5.7	4	5.3	6.4	7.3	6.6	6.8	6.5	5	5.86	6.9	5.5
5	Turbidity (NTU)	6.33	55.8	21.9	41.7	8.44	4.65	10.2	15.91	3.4	4.41	3.55	5.43
6	Nitrite Nitrogen mg/l	0.014	0.1	0.019	0.013	0.005	0.003	0.01	0.01	0.003	0.002	0.012	0.029
7	Nitrogen(Nitrate) mg/l	0.03	0.061	1.02	0.148	0.068	0.06	0.05	0.01	0.05	0.04	0.040	0.035
8	Phosphate mg/l	0.005	0.021	0.03	0.028	0.017	0.01	0.01	0.04	0.004	0.006	0.001	0.007
9	BOD mg/l	1.3	0.9	0.2	0.1	1	1	1.3	0.9	0.5	0.92	1.8	1.8
10	COD mg/l	6	38	7	3	14	4	5	10	14	BDL	15.00	16.0
11	Chloride mg/l	3562.73	13720.04	49.68	2375.15	9.8	249.5	5099.48	165.91	2792.57	4109.36	12768	6262.0
12	Fecal Coliform MPN/100 ml	NIL	200	1100	2400	3300	7900	1300	1700	-	1300	780	450
13	Total Coliform MPN/100 ml	200	780	1400	5400	4900	13000	2300	2200	-	2300	780	780
14	Ammonia mg/l	0.036	0.083	0.055	0.031	0.012	0.03	0.09	0.1	0.05	0.01	BDL	0.058

Table 3 r - RIVER ZUARI AT CORTALIM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.08	7.91	7.18	6.83	7.91	7.58	7.43	7.21	7.6	7.46	7.34	7.25
2	Temperature °C	31	32	28	28	31	30.0	32	29	27	28	32	33
3	Conductivity µs/cm	50920	52530	24930	11510	8724	37010	41280	44340	49100	46.3	3.59	46.6
4	Dissolved Oxygen mg/l	5.1	5.1	5.1	6	7.6	5.2	5.8	4.7	5.6	4.9	5.5	5.3
5	Turbidity (NTU)	9.27	13.62	34.1	19.45	28.3	37.3	8.25	9.05	5.78	18.26	50.3	13.1
6	Nitrite Nitrogen mg/l	0.01	0.01	0.104	0.009	0.009	0.04	0.03	0.03	0.013	0.023	0.045	0.019
7	Nitrogen(Nitrate) mg/l	0.046	1.105	0.446	0.353	0.05	0.13	0.1	0.15	0.1	0.187	0.192	0.03
8	Phosphate mg/l	0.023	0.012	0.029	0.029	0.04	0.24	0.02	0.02	0.02	0.043	0.014	0.036
9	BOD mg/l	1.4	3.2	2	0.6	4.4	2.3	0.4	2.3	2.6	1.3	1.8	2.4
10	COD mg/l	49	60	28	10	14	44.8	31	30	52	16.0	13.0	20.0
11	Chloride mg/l	18091.02	18051.14	8928.08	15.2	2003.8	12583.33	12384	15298.45	16998.3	17726.77	2792.57	25438.92
12	Fecal Coliform MPN/100 ml	680	4700	7900	130	13000	22000	22000	4900	1300	7000	3300	780
13	Total Coliform MPN/100 ml	1700	24000	11000	230	24000	35000	35000	13000	1700	11000	4900	1100

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
14	Ammonia mg/l	0.012	0.215	BDL	0.005	0.02	0.28	0.18	0.2	0.05	0.136	0.150	0.05

Table 3 s - CREEK AT DANDO MOLLO, VELSAO, MORMUGAO 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	8.88	7.9	7.03	6.58	7.15	7.3	6.72	6.87	6.66	8.53	6.92	7.75
2	Temperature °C	32	34	29	29	30	29	30	34	31	28	28	30
3	Conductivity µs/cm	15200	22160	699.2	821.3	814.61	15240	4220	10700	6210	9.71	6.91	40.1
4	Dissolved Oxygen mg/l		3.8	6.2	5.3	6.2	4.6	5.5	4.1	3.2	12.2	5.6	7.9
5	Turbidity (NTU)	1.98	1.08	7.76	8.34	2.5	7.76	6.68	22.3	9.2	3.84	1.68	3.35
6	Nitrite Nitrogen mg/l	0.574	0.017	0.132	0.025	0.024	0.01	0.02	0.01	0.008	0.041	0.056	0.010
7	Nitrogen(Nitrate) mg/l	5.58	0.362	40.43	1.935	2.106	0.6	2.71	1	0.02	0.14	0.245	0.31
8	Phosphate mg/l	0.024	0.084	0.096	0.04	0.065	0.05	0.04	0.1	0.05	0.036	0.047	0.127
9	BOD mg/l		2.7	2	1	0.7	1.2	2.6	1.9	1.6	3.4	3.1	3.1
10	COD mg/l	30	28	14	11	8	18	28	20	28	14	12.0	21.0
11	Chloride mg/l	6412.91	8013.47	2185.49	80.76	18.1	5900	3120.5	3179.87	180.52	4298.7	2306.91	15287.81
12	Fecal Coliform MPN/100 ml	NIL	450	4900	24000	7900	13000	4900	3300	-	1300	2300	2300
13	Total Coliform MPN/100 ml	400	780	7900	35000	24000	24000	7900	4900	-	3300	4900	3300
14	Ammonia mg/l	0.568	0.401	1.334	0.169	0.292	0.05	0.36	0.83	0.14	0.32	0.523	1.40

Table 3 t - RIVER MANDOVI AT PANAJI 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.8	8.13	7.98	6.64	7.27	7.45	7.42	7.59	7.79	7.30	7.22	7.80
2	Temperature °C	32	33	30	27	28	31	31	31	31	28	29	30
3	Conductivity µs/cm	54340	52800	42350	674.28	4250	11570	37070	46580	48510	44.03	46.9	48.5
4	Dissolved Oxygen mg/l	5.5	5.3	6.4	7.1	7	6.3	4.9	5.8	5.6	4.9	4.9	6.4
5	Turbidity (NTU)	11.19	7.92	12.37	30.9	16.4	15.6	7.42	6.95	15.79	2.83	4.23	9.38
6	Nitrite Nitrogen mg/l	0.01	0.05	0.006	0.009	0.008	0.01	0.004	0.01	0.004	0.01	0.024	0.009
7	Nitrogen(Nitrate) mg/l	0.03	1.1	1.86	0.201	0.13	0.07	0.06	0.04	0.02	0.049	0.025	0.04
8	Phosphate mg/l	0.051	0.028	0.032	0.014	0.03	0.004	0.04	0.05	0.01	0.022	0.019	0.02
9	BOD mg/l	1.3	1.5	1	0.9	0.9	0.3	1.1	1.3	1.4	0.6	2.0	1.7
10	COD mg/l	30	56	25	4	16	12	14	12	23	49.0	76.0	34
11	Chloride mg/l	21138.84	18288.66	13981.48	353.61	11079.9	4400	12730.8	9349.05	21369.26	17483.94	26225.91	19912.27
12	Fecal Coliform MPN/100 ml	NIL	NIL	200	13000	4900	13000	2300	2300	-	7900	1300	2300
13	Total Coliform MPN/100 ml	370	200	200	24000	11000	24000	3300	3300	-	11000	2200	4600
14	Ammonia mg/l	0.044	0.09	0.058	0.04	0.02	0.09	0.06	0.04	0.08	0.105	0.025	0.05

Table 3 u - RIVER MANDOVI AT TONCA MARCELA 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.34	7.34	5.79	6.58	6.85	6.7	7.14	6.82	6.71	6.90	7.34	7.1
2	Temperature °C	34	33	29	26	30	28	31	31	26	29	29	31
3	Conductivity µs/cm	39.1	47020	248	115.8	150.49	160.39	424.05	11470	22500	26.53	29.18	35.5
4	Dissolved Oxygen mg/l	4.2	4.6	6.5	7.3	6.9	7.1	6.7	6.3	5.6	5.4	6.0	4.99
5	Turbidity (NTU)	6.68	9.14	18.08	40.7	7.06	6.13	6.76	5.83	4.44	4.25	3.61	3.53
6	Nitrite Nitrogen mg/l	0.042	0.051	0.006	0.011	0.004	0.003	0.004	0.003	0.005	0.073	0.011	0.018
7	Nitrogen(Nitrate) mg/l	0.058	0.077	0.246	0.132	0.057	0.24	0.25	0.04	0.07	0.050		0.51
8	Phosphate mg/l	0.005	0.018	0.014	0.026	0.078	0.004	0.02	0.01	0.03	0.007	0.805	0.006
9	BOD mg/l	1.3	1.8	0.1	0.3	0.2	0.9	1.6	0.9	1.3	2.2	2.8	2.92
10	COD mg/l	32	18	10	8	8	9	5	11	6	12.0	9.0	12.0
11	Chloride mg/l	15419.86	16269.78	728.5	7.13	28.86	3278.24	3642.49	5479.15	7338.15	9637.44	12230.25	12572.69

12	Fecal Coliform MPN/100 ml	200	450	1300	1300	2300	2200	450	780	13000	780	2300	780
13	Total Coliform MPN/100 ml	450	1300	2300	2300	4900	2600	1300	1300	17000	1300	4900	1300
14	Ammonia mg/l	0.029	0.058	0.015	0.066	0.054	0.04	0.05	0.07	0.04	0.03	0.03	0.03

Table 3 v - RIVER SELAULIM LAKE AT SELAULIM, SANGUEM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.71	7.51	6.99	6.88	6.9	7.7	7.2	6.76	6.53	6.93	6.95	7.6
2	Temperature °C	34	35	31	30	28	31	29	33	30	32	31	33
3	Conductivity µs/cm	49.45	52.52	53.69	51.81	44.7	38	39.5	40.22	47.28	41.3	42.5	47.6
4	Dissolved Oxygen mg/l	7.5	6.8	7.3	7.2	6.4	7.8	7.6	7.3	7	7.4	7.7	7.7
5	Turbidity (NTU)	2.18	3.07	3.31	2.94	3.36	3.6	1.31	0.96	1.37	0.9	0.89	1.7
6	Nitrite Nitrogen mg/l	BDL	BDL	0.002	0.003	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.00096
7	Nitrogen(Nitrate) mg/l	0.01	0.01	0.015	0.129	0.1	0.02	0.04	0.06	0.01	0.01	0.002	0.0008
8	Phosphate mg/l	0.02	BDL	0.001	0.01	0.005	0.003	0.01	0.001	0.005	0.001	0.004	0.005
9	BOD mg/l	2.7	1.6	0.9	0.7	0.5	0.3	0.2	0.5	1.9	0.6	1.02	1.7
10	COD mg/l	13	10	3	11	7	2	5	9	4	1.0	7.0	8
11	Chloride mg/l	4.37	6.8	3.4	5.23	4.71	2	3.9	0.91	0.5	10.27	0.5	3.97
12	Fecal Coliform MPN/100 ml	NIL	20	2	490	78	20	23	33	790	790	200	230
13	Total Coliform MPN/100 ml	<1.8	45	17	1300	110	40	49	46	1300	2400	200	490
14	Ammonia mg/l	0.021	0.359	0.036	0.021	0.01	0.03	0.05	0.03	0.036	0.03	0.04	0.11

Table 3 w - RIVER SAL AT RUMDER, NUVEM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.08	6.64	6.19	5.64	6.55	6.76	6.9	6.51	6.88	6.66	7.33	6.71
2	Temperature °C	32	31	29	29	30	29	31	29	25	27	29.5	32
3	Conductivity µs/cm	143.65	169.14	81.86	82.08	82.8	87.8	197.23	192.56	241.4	11.93	131.3	226.5
4	Dissolved Oxygen mg/l	4.3	3.4	5.7	5.3	6.6	5.4	5.8	1.4	0	7.5	11.8	3.9
5	Turbidity (NTU)	8.37	16.97	63.9	25.7	15.6	38.9	56.9	9.48	8.49	6.64	38.2	11.1
6	Nitrite Nitrogen mg/l	0.006	0.016	0.033	0.037	0.018	0.01	0.012	0.03	0.004	0.009	0.004	0.011
7	Nitrogen(Nitrate) mg/l	0.017	1.133	0.74	0.628	0.45	0.22	0.2	0.34	0.113	0.209	0.393	0.28
8	Phosphate mg/l	0.348	0.019	0.044	0.083	0.04	0.04	0.055	0.05	0.028	0.145	0.112	0.050
9	BOD mg/l	2.6	3.4	1.9	1.1	1.5	1.8	0.6	0.9	3.64	2.1		23.6
10	COD mg/l	44	22	12	8	35	9.2	8	10	14	13.0	9.0	44.0
11	Chloride mg/l	26.71	27.55	11.25	3.33	9.43	13.02	19.91	28.17	39.82	2064.08	21369.26	122.30
12	Fecal Coliform MPN/100 ml	780	2300	1300	20	7900	11000	11000	3300	13000	7900	7900	4900
13	Total Coliform MPN/100 ml	1100	4900	1700	78	14000	22000	17000	7900	22000	13000	13000	13000
14	Ammonia mg/l	0.032	0.385	0.02	0.108	0.06	0.12	0.11	0.25	0.03	0.142	0.156	0.08

Table 3 x - RIVER SAL AT ORLIM BRIDGE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.14	7.99	6.29	5.86	6.79	7.4	6.95	6.9	7.64	7.56	7.36	7.05
2	Temperature °C	33	34	28	29	30	31	31	30	29	29	31	33
3	Conductivity µs/cm	41710	40670	556.94	182.05	594.79	10380	2062	27910	36540	30.4	20.33	29.80
4	Dissolved Oxygen mg/l	5.5	7	3.9	4.1	5.9	4.6	5.8	5.1	5.7	5.7	6.4	5.3
5	Turbidity (NTU)	4.8	17.16	43.5	15.79	9.25	5.71	7.37	6.47	5.43	4.15	10.6	6.58
6	Nitrite Nitrogen mg/l	0.004	0.007	0.032	0.027	0.007	0.01	0.01	0.02	0.009	0.013	0.047	0.014
7	Nitrogen(Nitrate) mg/l	0.013	1.122	0.633	0.674	0.48	0.17	0.19	0.23	0.09	0.186	0.017	0.06
8	Phosphate mg/l	0.012	0.044	0.027	0.052	0.03	0.02	0.02	0.03	0.011	0.013	0.019	0.025
9	BOD mg/l	2	5.1	2.9	1.2	4.2	1.6	0.4	3.7	2.9	2.3	3.2	2.5
10	COD mg/l	48	43	27	18	18	31.2	10	16	52	21.0	49.0	27.0
11	Chloride mg/l	14448.53	13538.36	135.51	10.45	33	3181.99	1214.16	1554.13	12238.8	11291.71	16148.36	10762.6

12	Fecal Coliform MPN/100 ml	NIL	NIL	1300	20	4900	1700	2300	780	1300	2300	3300	780
13	Total Coliform MPN/100 ml	<1.8	780	1300	20	13000	3300	3300	2300	2300	3300	4600	1300
14	Ammonia mg/l	0.016	0.321	0.321	0.075	0.24	0.13	0.02	0.024	0.025	0.073	0.287	0.11

Table 3 y - RIVER SAL AT KHAREBAND, MARGAO 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH			6.15	5.73	6.66	6.69	6.81	5.57	6.93	6.83	6.70	6.06
2	Temperature °C			28	29	30	29	31	29	25	26	28	32
3	Conductivity µs/cm			115.82	91.31	123.18	144.9	244.88	348.44	417.21	3.48	383	343
4	Dissolved Oxygen mg/l			3.2	3	4.4	3.2	3.8	1.8	0.5	0.7	0.4	0
5	Turbidity (NTU)			39.1	15.89	11.7	17.1	19.73	18.43	13.06	12.42	28.5	22.0
6	Nitrite Nitrogen mg/l			0.037	0.024	0.023	0.02	0.025	0.02	0.006	0.007	0.051	0.017
7	Nitrogen(Nitrate) mg/l			0.83	0.74	0.51	0.29	0.312	0.24	0.123	0.270	0.165	0.21
8	Phosphate mg/l			0.052	0.137	0.05	0.06	0.05	0.05	0.339	0.164	0.232	0.304
9	BOD mg/l			2.2	1	2.1	3.1	0.6	0.8	3.1	4.1		17.9
10	COD mg/l			17	9	18	11.6	5	14	29	12.0	21.0	24.0
11	Chloride mg/l			16.14	11.4	353.61	19.28	23.8	23.8	4.86	1699.83	13234.37	244.60
12	Fecal Coliform MPN/100 ml			2300	20	7900	24000	24000	13000	24000	24000	13000	13000
13	Total Coliform MPN/100 ml			3300	20	13000	35000	35000	24000	35000	54000	24000	35000
14	Ammonia mg/l			0.253	0.086	0.18	0.52	0.24	0.13	7.46	0.516	0.583	2.20

Table 3 z - RIVER TIRACOL AT KERI, PERNEM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.73	8	6.92	7.17	6.8	7.62	7.96	7.9	7.84	7.84	7.73	8.01
2	Temperature °C	30	31	28	29	28	28	31	31	29	29	30	31
3	Conductivity µs/cm	55720	56060	70.56	1272	974.8	14300	50.59	25040	47450	50.25	49.7	53.2
4	Dissolved Oxygen mg/l	6.4	6	6.9	7.4	6.9	6.7	5.6	5.7	6.2	6.14	7.10	
5	Turbidity (NTU)	8.31	14.95	14.99	12.5	22.9	11.31	2.84	4.02	2.14	3.38	1.95	5.45
6	Nitrite Nitrogen mg/l	0.003	0.01	0.016	0.001	0.01	0.003	0.003	0.002	0.004	0.005	0.002	0.002
7	Nitrogen(Nitrate) mg/l	0.02	0.025	0.319	0.199	0.09	0.05	1.125	BDL	0.02	0.02	0.039	0.014
8	Phosphate mg/l	0.015	0.011	0.017	0.005	0.02	0.03	0.06	0.02	0.01	0.004	0.024	0.017
9	BOD mg/l	1.5	2.1	1	1.7	0.8	0.6		2.7	1.8	1.3	2.2	1.3
10	COD mg/l	26	30	13	4	2	17	31	18.4	61	40.0		-
11	Chloride mg/l	21574.8 7	32418 .14	3302.1 7	1068.82	1530.8 3	4435.5	2154	17678.2 1	15620.1 6	18212	18212	17366
12	Fecal Coliform MPN/100 ml	NIL	NIL	780	2400	4900	13000	200	450		2300	450	450
13	Total Coliform MPN/100 ml	200	200	780	3500	9400	17000	450	780		4600	780	450
14	Ammonia mg/l	0.055	0.13	0.095	0.003	0.03	0.12	0.04	0.01	0.08	0.003	0.012	0.011

Table 3 aa - RIVER CHAPORA NEAR SIOLIM BRIDGE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.83	7.79	6.88	7.22	6.92	7.72	7.98	7.91	7.72	7.91	7.35	7.85
2	Temperature °C	30	32	28	28	28	27	32	31	28	30	30	30
3	Conductivity µs/cm	48470	38440	843.66	201.33		16420	40160	16050	26380	28.62	28.48	44.7
4	Dissolved Oxygen mg/l	6.7	5.4	6.6	7.4	7.2	6.3	6.1	6.4	6.4	5.93	5.8	
5	Turbidity (NTU)	6.57	8.42	19.41	7.86	24.6	10.43	2.66	2.94	6.58	3.29	4.22	2.52
6	Nitrite Nitrogen mg/l	0.003	0.017	0.017	0.004	0.012	0.004	0.001	0.002	0.021	0.002	0.003	0.003
7	Nitrogen(Nitrate) mg/l	0.018	0.045	0.369	0.156	0.09	0.07	0.05	0.013	0.02	0.02	0.057	0.008
8	Phosphate mg/l	0.014	0.005	0.019	0.005	0.03	0.027	0.03	0.02	0.03	0.010	0.100	0.025
9	BOD mg/l	1.7	2	0.8	1.4	1.3	0.9		2.3	1.3	1.4	1.7	1.2
10	COD mg/l	18	25	7	8	18	22	30	18.4	14	25.0		-
11	Chloride mg/l	22539.1 1	21005.0 1	1100.72	2018.88	2003.8 1	5447.9 6	16994	11267.4 3	8497.37	24440	9227	12964
12	Fecal Coliform MPN/100 ml	450	200	780	24000	2300	7900	450	780		780	780	780

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
13	Total Coliform MPN/100 ml	1300	200	780	54000	4900	11000	1100	1300		1300	1100	1100
14	Ammonia mg/l	0.037	0.128	0.079	0.001	0.04	0.098	0.1	0.02	0.02	0.012	0.038	0.025

Table 3 ab - RIVER SINGUERIM, CANDOLIM SIDE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.77	7.64	7.21	7.43	7.63	7.77	7.8	7.82	7.65	7.54	7.32	7.64
2	Temperature °C	31	32	29	30	28	28	31	32	29	31	30	30
3	Conductivity µs/cm	55610	57030	19800	4758	23200	41510	44.1	24100	50440	50.68	52.2	52.9
4	Dissolved Oxygen mg/l	6.3	4.7	5.6	7.5	5.4	4.8	6	5.7	5	5.47	4.9	5.4
5	Turbidity (NTU)	6.38	20.9	14.29	23.7	12.8	5.53	5.47	4.77	11.83	7.57	9.8	7.09
6	Nitrite Nitrogen mg/l	0.004	0.016	0.025	0.016	0.009	0.005	0.003	0.003	0.003	0.007	0.004	0.004
7	Nitrogen(Nitrate) mg/l	0.032	0.035	0.29	0.479	0.1	0.063	0.1	0.013	0.03	0.02	0.035	0.005
8	Phosphate mg/l	0.023	0.015	0.012	0.013	0.04	0.036	0.06	0.02	0.06	0.024	0.026	0.019
9	BOD mg/l	1.4	2.2	1.7	1.8	0.9	1.1		2.1	1.3	2.5	1.6	1.4
10	COD mg/l	18	28	21	13	2	26	21	17.6	31	70.0		-
11	Chloride mg/l	26034.48	31203.98	8316.57	2137.64	10608.41	18127.71	18894	17483.94	18744.19	19183	19912	17122
12	Fecal Coliform MPN/100 ml	780	400	780	24000	4900	13000	780	1300	-	2200	780	780
13	Total Coliform MPN/100 ml	2200	680	780	35000	13000	24000	1100	2200	-	3400	1100	780
14	Ammonia mg/l	0.04	0.113	0.128	0.002	0.06	0.137	0.043	0.03	0.01	0.028	0.013	0.017

Table 3 ac - RIVER SINGUERIM, NEAR GANPATI TEMPLE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.85	7.74	7.16	7.56	7.56	7.76	7.8	7.85	7.66	7.73	7.1	7.39
2	Temperature °C	31	32	29	30	29	28	31	33	29	31	31	30
3	Conductivity µs/cm	55490	56370	22030	9393	22200	41620	44.46	24310	50800	50.37	52.5	52.6
4	Dissolved Oxygen mg/l	6.4	4.7	5.5	6.6	5.2	4.7	5.9	5.5	5.2	5.49	4.8	5.1
5	Turbidity (NTU)	6.53	20.1	28.9	12.3	14.8	6.08	9.06	10.96	12.12	7.49	11.8	10.21
6	Nitrite Nitrogen mg/l	0.005	0.02	0.035	0.01	0.012	0.007	0.006	0.01	0.022	0.004	0.03	0.005
7	Nitrogen(Nitrate) mg/l	0.06	0.066	0.279	0.448	0.1	0.1	0.09	0.03	0.02	0.02	0.047	0.001
8	Phosphate mg/l	0.016	0.058	0.019	0.012	0.05	0.045	0.053	0.09	0.05	0.022	0.024	0.045
9	BOD mg/l	1.5	1.4	1.8	1.4	0.8	2.7		1.7	1.6	1.1	1.1	2.8
10	COD mg/l	19	25	24	16	12	27	26	19.2	78	75.0		-
11	Chloride mg/l	21574.87	25861.66	12230.25	3206.45	7897.37	15717.11	19194	18066.74	18744.19	19183	19912	16877
12	Fecal Coliform MPN/100 ml	1300	4900	4900	24000	1300	24000	450	1300	-	2200	1700	780
13	Total Coliform MPN/100 ml	3300	17000	7900	35000	2300	35000	1400	2600	-	4000	2700	1100
14	Ammonia mg/l	0.034	0.196	0.131	0.009	0.09	0.208	0.059	0.19	0.02	0.084	0.048	0.039

Table 3 ad - RIVER MANDOVI AT IFFI JETTY 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.95	8.35	7.83	7.45	7.18	7.6	7.85	7.95	7.95	7.60	7.70	7.79
2	Temperature °C	32	32	30	27	30	31	30	30	30	29	29	31
3	Conductivity µs/cm	54720	55350	44000	16870	14750	35180	47120	51000	51200	47.81	49.0	48.7
4	Dissolved Oxygen mg/l	6.5	4	6.5	7.2	7.3	6.7	6.4	6.5	6.4	5.7	6.5	6.2
5	Turbidity (NTU)	14.29	27.2	22.8	24.5	19.6	17.7	2.57	1.43	1.76	5.07	3.16	4.35
6	Nitrite Nitrogen mg/l	0.005	0.028	0.007	0.013	0.009	0.012	0.003	0.004	0.003	0.009	0.017	0.009
7	Nitrogen(Nitrate) mg/l	0.012	0.111	1.16	0.237	0.1	0.03	0.02	0.03	0.003	0.037	0.026	0.04
8	Phosphate mg/l	0.037	0.044	0.504	0.015	0.04	0.015	0.04	0.04	0.01	0.025	0.019	0.02
9	BOD mg/l	1.9	1.9	1.6	1.5	1.1	1.8	2.6	1	1.4	0.9	1.9	1.1
10	COD mg/l	23	70	26	3	10	44.8	23	33	38	31.0	31.0	27
11	Chloride mg/l	20663.81	21138.84	15138.57	2475.3	15676.88	15200	17338.6	16634.03	21733.51	18333.85	18212.44	21490.68

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
12	Fecal Coliform MPN/100 ml	NIL	450	1300	24000	7900	7900	7900	13000	-	7900	780	450
13	Total Coliform MPN/100 ml	450	2300	2300	35000	24000	13000	11000	22000	-	13000	1300	780
14	Ammonia mg/l	0.029	0.089	0.046	0.11	0.02	0.08	0.04	0.03	0.08	0.100	0.038	0.05

Table 3 ae - RIVER MANDOVI NEAR HOTEL MARIOTT 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	8.12	6.14	8.02	7.34	7.36	7.84	7.8	7.92	7.85	7.38	7.60	7.99
2	Temperature °C	33	32	29	27	30	31	30	31	30	30	29	31
3	Conductivity µs/cm	55310	55310	46130	16090	15580	32000	51000	50940	51550	48.68	50.8	49.3
4	Dissolved Oxygen mg/l	6.1	5.9	6.6	7.1	7.1	6.5	5.4	6.2	6.1	6.2		6.2
5	Turbidity (NTU)	12.25	12.47	15.63	29.3	21.4	26.2	9.29	1.57	3.01	4.24		8.59
6	Nitrite Nitrogen mg/l	0.007	0.028	0.014	0.009	0.011	0.016	0.01	0.01	0.003	0.008	0.012	0.010
7	Nitrogen(Nitrate) mg/l	0.016	1.11	1.47	0.193	0.1	0.03	0.02	0.03	0.01	0.037	0.093	0.33
8	Phosphate mg/l	0.035	0.038	0.036	0.013	0.05	0.013	0.053	0.06	0.02	0.040	0.016	0.013
9	BOD mg/l	2.6	2	1.3	0.4	1.2	1.3	3	1.3	2.2	1.3	2.7	2.2
10	COD mg/l	27	54	27	19	16	30.4	31	39	23	14.0	67.0	35
11	Chloride mg/l	21970.14	20663.81	15427.84	2475.3	13319.45	12800	21328.8	20397.93	27318.66	18940.94	18940.94	19912.27
12	Fecal Coliform MPN/100 ml	2300	4600	450	24000	2300	1700	450	1300	-	2300	200	450
13	Total Coliform MPN/100 ml	4900	35000	450	35000	6300	3300	780	2300	-	4900	450	680
14	Ammonia mg/l	0.048	0.05	0.103	0.04	0.04	0.33	0.012	0.01	0.03	0.071	0.014	0.03

Table 3 af - RIVER MANDOVI AT AMONA 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.02	7.53	6.7	6.68	7.12	7.34	7.21	7.01	6.78	7.05	7.41	7.1
2	Temperature °C	33	33	28	26	27	27	31	30	28	29.5	31	32
3	Conductivity µs/cm	36200	39780	397.89	203.67	62.1	413.44	289.5	6074	13970	18.92	23.29	30.4
4	Dissolved Oxygen mg/l	5	5	6.7	7.3	7.4	6.8	6.9	6.8	6.2	5.9	7.0	5.41
5	Turbidity (NTU)	4.68	3.76	20.7	18.82	14.6	12.1	10.2	4.55	14.8	3.67	8.16	3.54
6	Nitrite Nitrogen mg/l	0.029	0.077	0.029	0.005	0.006	0.004	0.01	0.002	0.004	0.061	0.016	0.014
7	Nitrogen(Nitrate) mg/l	0.162	0.033	1.64	0.152	0.13	0.095	0.11	0.033	0.07	0.07	0.05	0.03
8	Phosphate mg/l	0.002	0.01	0.012	0.004	0.01	0.003	0.021	0.011	0.02	0.005	0.043	0.026
9	BOD mg/l	2	0.6	0.5	1	1	0.6	1.5	0.7	0.8	0.7	2.1	1.01
10	COD mg/l	29	59	21	10	10	14	10	10	4	10.0	4.0	9.0
11	Chloride mg/l	14488.42	17576.11	85.33	589.36	51.86	3156.82	4006.74	1912.81	3179.87	6604.33	18687.82	9735.28
12	Fecal Coliform MPN/100 ml	200	200	2300	24000	4900	13000	1300	1300	1300	780	3300	1300
13	Total Coliform MPN/100 ml	610	200	3300	35000	24000	24000	3100	1700	1700	780	7900	1700
14	Ammonia mg/l	0.012	0.098	0.058	0.02	0.01	0.03	0.034	0.074	0.04	0.02	0.06	0.05

Table 3 ag - RAIKA LAKE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.02		6.73	6.88	6.77	6.19	6.35	5.68	7.04	7.79	6.78	7.3
2	Temperature °C	33		30	29	30	32	33	34	30	31	34	34
3	Conductivity µs/cm	117.07		90.94	66.17	67.33	76.58	157.73	103.9	104.91	86.2	98.6	123.0
4	Dissolved Oxygen mg/l	3.1		7.1	8.4	6.8	5.1	5	4.8	5.7	6.7	7.97	7.1
5	Turbidity (NTU)	215		6.2	3.16	3.51	2.6	2.79	3.18	5.41	4.19	7.46	13.9
6	Nitrite Nitrogen mg/l	0.028		0.005	0.018	0.005	0.003	0.003	0.003	0.004	0.002	0.003	0.006
7	Nitrogen(Nitrate) mg/l	0.013		0.676	0.0366	0.06	0.007	0.001	0.01	BDL	0.02		0.005
8	Phosphate mg/l	0.173		0.013	0.014	0.01	0.01	0.01	0.01	0.01	0.011	0.017	0.02

9	BOD mg/l	8	2	1.6	1.3	1.5	1.3	1.4	1.7	1.8	3.3	4.9
10	COD mg/l	42	8	7	1	8.8	5	8	11	9	28.0	28
11	Chloride mg/l	28.93	8.74	4.71	5.66	9	8	10.6	13.7	14.49	11.0	17.87
12	Fecal Coliform MPN/100 ml	200	200	130	200	780	7900	4600	-	2300	3300	1300
13	Total Coliform MPN/100 ml	780	780	220	450	1100	11000	7000	-	7900	7000	17000
14	Ammonia mg/l	0.586	0.005	0.01	0.01	0.12	0.033	0.05	0.02		0.08	0.52

Table 3 ah - SAIPEM LAKE, NAVELIM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	-	-	5.94	6.46	6.69	6.65	6.76	6.57	-	-	6.42	6.24
2	Temperature °C	-	-	32	31	31	29	32	31	-	-	28	31
3	Conductivity µs/cm	-	-	308.46	287.5	241.6	332.8	483.67	373.08	-	-	343	332
4	Dissolved Oxygen mg/l	-	-	2	1.5	1.3	1.3	1.3	0.1	-	-	0	0.6
5	Turbidity (NTU)	-	-	32.5	7.65	10.2	13.4	16.3	8.41	-	-	76.4	40.9
6	Nitrite Nitrogen mg/l	-	-	0.005	0.097	0.05	0.007	0.31	0.02	-	-	0.012	0.016
7	Nitrogen(Nitrate) mg/l	-	-	2.941	0.878	0.23	BDL	BDL	0.15	-	-	0.04	0.50
8	Phosphate mg/l	-	-	0.207	0.051	0.17	0.3	0.3	0.64	-	-	1.25	0.301
9	BOD mg/l	-	-	1.8	1.3	7.01	6.3	1.2	0.8	-	-	18.4	18.8
10	COD mg/l	-	-	25	34	44	20.4	30	20	-	-	32.0	30.0
11	Chloride mg/l	-	-	28.17	24.05	11787.1	35	39	23.04	-	-	37.67	36.2
12	Fecal Coliform MPN/100 ml	-	-	24000	13000	13000	17000	24000	24000	-	-	7900	13000
13	Total Coliform MPN/100 ml	-	-	54000	24000	24000	35000	35000	35000	-	-	24000	24000
14	Ammonia mg/l	-	-	0.005	1.16	1.2	3.14	1.93	5.51	-	-	6.74	1.57

Table 3 ai - CURTORIM LAKE, CURTORIM 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	6.84	-	6.75	5.72	6.63	6.2	6.21	5.8	6.68	7.43	6.72	7.1
2	Temperature °C	34	-	31	30	30	31	33	34	32	30	35	34
3	Conductivity µs/cm	181.21	-	76.84	83.98	80.81	109.72	183.88	123.7	128.01	121.9	133	154.6
4	Dissolved Oxygen mg/l	5.8	-	6.3	3.3	3.4	4	4.5	6.6	3.1	6.8	7.8	6.7
5	Turbidity (NTU)	10.34	-	45.3	19.5	14.1	30.6	2.59	8.23	10.5	6.27	15.1	7.11
6	Nitrite Nitrogen mg/l	0.006	-	0.001	0.02	0.006	0.011	0.002	0.004	0.007	0.002	0.002	0.001
7	Nitrogen(Nitrate) mg/l	0.019	-	0.506	0.107	0.04	BDL	0.026	NIL	BDL	0.02		0.008
8	Phosphate mg/l	0.006	-	0.067	0.009	0.02	0.03	0.03	0.013	0.1	0.004	0.013	0.008
9	BOD mg/l	4.7	-	1.8	1.2	0.5	0.7	2.2	3.9	7.2	3.2	5.24	2.8
10	COD mg/l	23	-	14	10	28	38.4	22	13	22	19	24.0	21
11	Chloride mg/l	30.86	-	6.8	5.19	5.66	13	11	11.52	11.74	15.99	29.49	18.87
12	Fecal Coliform MPN/100 ml	1300	-	200	1300	1300	7900	7900	4900	-	1300	4900	4900
13	Total Coliform MPN/100 ml	3300	-	200	2200	2100	11000	13000	7900	-	2300	9400	11000
14	Ammonia mg/l	0.179	-	0.001	0.18	0.02	0.05	0.01	0.083	0.55	0.58	0.18	0.18

Table 3 aj - RIVER ZUARI AT MADKAI JETTY 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.28	7.77	7.36	6.75	6.52	7.71	7.27	6.82	7.49	7.18	7.30	7.79
2	Temperature °C	32	34	29	27	30	30	30	31	30	30	30	30
3	Conductivity µs/cm	51870	53430	21620	477.1	1275	43660	28200	40350	46840	46.8	43.6	50.2
4	Dissolved Oxygen mg/l	3.7	5.2	6	6.8	6.7	5.1	5.4	5	4.7	5.18	6.33	6.0
5	Turbidity (NTU)	8.2	36.4	39.3	62.4	39.5	6.56	8.05	11.16	7.43	15.10	15.6	3.46
6	Nitrite Nitrogen mg/l	0.02	0.024	0.017	0.02	0.03	0.006	0.009	0.01	0.009	0.011	0.005	0.003
7	Nitrogen(Nitrate) mg/l	0.04	BDL	0.709	0.212	0.071	0.065	0.84	0.02	0.05	0.06	0.031	0.002
8	Phosphate mg/l	0.03	0.123	0.063	0.042	0.164	0.051	0.027	0.062	0.01	0.046	0.015	0.020
9	BOD mg/l	0.9	1.1	1.1	1	2	3.2	3.1	1	1.6	3.36	1.7	1.7
10	COD mg/l	27	51	23	4	12	23	15	24	28	29	30.0	84.00

11	Chloride mg/l	19594.99	24526.08	6942.53	1781.36	684.9	22650.4	11777.38	13479.86	23433.34	13012.99	18455	16388.0
12	Fecal Coliform MPN/100 ml	200	400	780	2400	7900	3300	1300	1300	-	4900	780	200
13	Total Coliform MPN/100 ml	450	1100	1300	5400	13000	4900	1700	2300	-	7900	1300	450
14	Ammonia mg/l	0.056	0.038	0.028	0.032	0.086	0.084	0.096	0.112	0.04	0.07	0.012	0.017

Table 3 ak - RIVER ZUARI AT BORIM BRIDGE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.38	7.65	7.22	6.56	5.84	7.1	7.38	6.79	7.05	7.04	6.93	7.25
2	Temperature °C	34	34	29	27	29	31	30	33	30	30	30	32
3	Conductivity µs/cm	27710	44100	165	221.2	5.473	21800	928.3	13420	26290	19.38	20.28	33.6
4	Dissolved Oxygen mg/l	5.9	4.9	5.2	6.9	7.4	4.9	7	5.5	5.1	6.5	6.8	4.5
5	Turbidity (NTU)	9.92	12.48	47	35.6	7.83	4.59	21.5	8.94	16.99	6.26	9.07	5.12
6	Nitrite Nitrogen mg/l	0.019	0.03	0.017	0.013	0.006	0.006	0.01	0.01	0.005	0.007	0.013	0.012
7	Nitrogen(Nitrate) mg/l	0.029	0.026	1.01	0.163	0.05	0.096	0.05	0.03	0.03	0.07	0.040	0.004
8	Phosphate mg/l	0.011	0.036	0.006	0.024	0.014	0.022	0.027	0.02	0.01	0.011	0.002	0.024
9	BOD mg/l	2.4	1.5	0.7	1.5	1.9	1.6	2.4	0.6	1.3	1.29	1.2	1.7
10	COD mg/l	24	40	7	6	12	12	11	11	21	82	31	26.0
11	Chloride mg/l	10331.9	18819.52	395.34	2018.88	34.2	21158.3	2549.7	3571.59	10320.38	9490.67	6799	8806.0
12	Fecal Coliform MPN/100 ml	200	1700	450	13000	4900	13000	1700	1300	-	2200	450	780
13	Total Coliform MPN/100 ml	2300	7000	450	24000	7900	17000	2200	1700	-	3400	780	780
14	Ammonia mg/l	0.049	0.049	0.068	0.008	0.019	0.128	0.073	0.073	0.08	0.02	0.001	0.066

Table 3 al - CARAMBOLIM LAKE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH			5.79	5.91	6.58	7.08	6.88	6.46	6.04	5.45	6.91	7.09
2	Temperature °C			29	29	29	31	30	31	25	26	28	30
3	Conductivity µs/cm			165.68	124.18	95.07	133.76	144.51	135.35	163.68	156.74	179.7	195.3
4	Dissolved Oxygen mg/l			4.5	3	5.1	1.1	2.6	1.6	1	0.8	1.83	3.9
5	Turbidity (NTU)			27	11.9	6.73	12.6	6.53	19.79	16.4	28.2	27.7	12.1
6	Nitrite Nitrogen mg/l			0.001	0.005	0.005	0.005	0.002	0.004	0.004	0.005	0.002	0.002
7	Nitrogen(Nitrate) mg/l			0.134	0.132	0.01	0.01	0.016	0.034	BDL	0.146		0.01
8	Phosphate mg/l			0.086	0.015	0.02	0.02	0.015	0.022	0.003	0.007	0.007	0.004
9	BOD mg/l			2.3	1.1	1.5	6	2.4	1.2	0.7	7.9	29	3.7
10	COD mg/l			18	6	24	16.8	6	11	9	19.0	75.0	8
11	Chloride mg/l			16.51	9.43	7.07	11	12.4	17	10.76	17.48	29.99	6070.81
12	Fecal Coliform MPN/100 ml			200	230	2300	17000	200	400	2300	7900	7900	3300
13	Total Coliform MPN/100 ml			200	330	4900	22000	200	680	4900	11000	24000	4900
14	Ammonia mg/l				0.1	0.03	0.18	0.014	0.03	0.02	0.107	0.16	0.024

Table 3 am - BOREWELL/TUBE WELL/ OPEN WELL IN ZUARI INDUSTRIES LTD, ZUARINAGAR 2013-2014

Sr. No	Parameters	Apr-13	Oct-13
1	pH	6.79	6.55
2	Temperature °C	33	32
3	Conductivity µs/cm	257.46	267.85
4	Dissolved Oxygen mg/l	2.5	3.2
5	Turbidity (NTU)	0.21	5.88
6	Nitrite Nitrogen mg/l	0.001	BDL
7	Nitrogen(Nitrate) mg/l	0.14	0.17

8	Phosphate mg/l	0.012	0.02
9	BOD mg/l	0.9	0.8
10	COD mg/l	BDL	2
11	Chloride mg/l	8.26	12.1
12	Fecal Coliform MPN/100 ml	NIL	NIL
13	Total Coliform MPN/100 ml	<1.8	<1.8
14	Ammonia mg/l	0.049	0.27

Table 3 an - BOREWELL/TUBE WELL/OPEN WELL AT SANCOALE INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	Oct-13
1	pH	6.83	6.37
2	Temperature °C	33	29
3	Conductivity µs/cm	248.06	109.06
4	Dissolved Oxygen mg/l	3.4	7.2
5	Turbidity (NTU)	1.35	5.66
6	Nitrite Nitrogen mg/l	0.001	0.001
7	Nitrogen(Nitrate) mg/l	0.009	0.64
8	Phosphate mg/l	0.05	0.01
9	BOD mg/l	1	0.5
10	COD mg/l	BDL	6
11	Chloride mg/l	4.86	11.6
12	Fecal Coliform MPN/100 ml	NIL	17
13	Total Coliform MPN/100 ml	<1.8	21
14	Ammonia mg/l	0.035	0.008

Table 3 ao - BOREWELL/TUBE WELL/ OPEN WELL AT VERNA INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	Oct-13
1	pH	7.19	6.65
2	Temperature °C	33	32
3	Conductivity µs/cm	222.08	440.31
4	Dissolved Oxygen mg/l	6	4.5
5	Turbidity (NTU)	1.82	0.81
6	Nitrite Nitrogen mg/l	0.001	0.001
7	Nitrogen(Nitrate) mg/l	0.039	0.02
8	Phosphate mg/l	0.024	0.05
9	BOD mg/l	1	2.2
10	COD mg/l	BDL	11
11	Chloride mg/l	6.31	10
12	Fecal Coliform MPN/100 ml	NIL	11
13	Total Coliform MPN/100 ml	<1.8	14
14	Ammonia mg/l	0.051	0.038

Table 3 ap - BOREWELL/ TUBE WELL/ OPEN WELL KUNDAIM INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	Oct-13
1	pH	5.92	5.08
2	Temperature °C	30	32
3	Conductivity µs/cm	238.87	205.55
4	Dissolved Oxygen mg/l	5	3.7
5	Turbidity (NTU)	60.5	4.54
6	Nitrite Nitrogen mg/l	0.002	0.001
7	Nitrogen(Nitrate) mg/l	0.208	0.736
8	Phosphate mg/l	0.16	0.02
9	BOD mg/l	0.6	0.4
10	COD mg/l	BDL	11

Sr. No	Parameters	Apr-13	Oct-13
11	Chloride mg/l	4.37	6
12	Fecal Coliform MPN/100 ml	NIL	NIL
13	Total Coliform MPN/100 ml	<1.8	<1.8
14	Ammonia mg/l	0.179	0.005

Table 3 aq - BORE WELL/ TUBE WELL / OPENWELL IN CORLIM INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	Oct-13
1	pH	5.69	5.38
2	Temperature °C	32	30
3	Conductivity µs/cm	40.2	92.7
4	Dissolved Oxygen mg/l	6.9	5.2
5	Turbidity (NTU)	0.31	0.37
6	Nitrite Nitrogen mg/l	0.001	0.002
7	Nitrogen(Nitrate) mg/l	0.997	0.48
8	Phosphate mg/l	0.002	0.004
9	BOD mg/l	0.4	1.5
10	COD mg/l	BDL	9
11	Chloride mg/l	1.94	15.54
12	Fecal Coliform MPN/100 ml	NIL	NIL
13	Total Coliform MPN/100 ml	560	<1.8
14	Ammonia mg/l	0.098	0.029

Table 3 ar - BOREWELL/TUBE WELL/OPEN WELL IN PILERNE INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	Oct-13
1	pH	6.17	6.86
2	Temperature °C	33	33
3	Conductivity µs/cm	266.2	173.04
4	Dissolved Oxygen mg/l	2.6	3.7
5	Turbidity (NTU)	2.24	2.42
6	Nitrite Nitrogen mg/l	0.001	0.005
7	Nitrogen(Nitrate) mg/l	0.49	0.01
8	Phosphate mg/l	0.051	0.07
9	BOD mg/l	0.7	
10	COD mg/l	BDL	6
11	Chloride mg/l	2.43	8
12	Fecal Coliform MPN/100 ml	NIL	NIL
13	Total Coliform MPN/100 ml	<1.8	<1.8
14	Ammonia mg/l	0.101	0.057

Table 3 as - BORE WELL/TUBE WELL/ OPEN WELL IN CUNCOLIM INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	Oct-13
1	pH	6.77	6.22
2	Temperature °C	36	31
3	Conductivity µs/cm	288.46	569.76
4	Dissolved Oxygen mg/l	5.4	2.6
5	Turbidity (NTU)	4.91	3.99
6	Nitrite Nitrogen mg/l	BDL	0.005
7	Nitrogen(Nitrate) mg/l	0.035	0.599
8	Phosphate mg/l	0.036	0.017
9	BOD mg/l	0.5	0.5

Sr. No	Parameters	Apr-13	Oct-13
10	COD mg/l	4	3
11	Chloride mg/l	11.88	59.3
12	Fecal Coliform MPN/100 ml	NIL	2
13	Total Coliform MPN/100 ml	<1.8	13
14	Ammonia mg/l	0.057	0.03

Table 3 at - BOREWELL/TUBE WELL/OPEN WELL IN BETHORA INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	Oct-13
1	pH	6.61	4.74
2	Temperature °C	32	31
3	Conductivity µs/cm	972.75	159.21
4	Dissolved Oxygen mg/l	6.7	5.2
5	Turbidity (NTU)	0.42	0.64
6	Nitrite Nitrogen mg/l	0.001	0.002
7	Nitrogen(Nitrate) mg/l	0.326	1.37
8	Phosphate mg/l	0.003	0.01
9	BOD mg/l	0.4	1.1
10	COD mg/l	3	10
11	Chloride mg/l	9.5	7
12	Fecal Coliform MPN/100 ml	NIL	450
13	Total Coliform MPN/100 ml	180	680
14	Ammonia mg/l	0.015	0.001

Table 3 au - BOREWELL/ TUBEWELL/OPENWELL IN MADKAI INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	Oct-13
1	pH	5.16	5.96
2	Temperature °C	32	31
3	Conductivity µs/cm	60300	135.14
4	Dissolved Oxygen mg/l	6.3	6.8
5	Turbidity (NTU)	0.02	0.51
6	Nitrite Nitrogen mg/l	BDL	0.001
7	Nitrogen(Nitrate) mg/l	0.828	0.58
8	Phosphate mg/l	BDL	0.003
9	BOD mg/l	0.4	1.4
10	COD mg/l	2	1
11	Chloride mg/l	10.93	13.6
12	Fecal Coliform MPN/100 ml	NIL	NIL
13	Total Coliform MPN/100 ml	<1.8	<1.8
14	Ammonia mg/l	0.051	0.337

Table 3 av - AGRICULTURAL CANAL UPSTREAM OF CUNCOLIM INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.6	canal was dry	6.12	5.65	7	6.41	Canal was dry	Canal was dry	Canal was dry	6.74	6.75	6.57
2	Temperature °C	33		31	29	28	30				28	28	30
3	Conductivity µs/cm	56.08		54.02	102.21	115.1	108.35				49.80	46.7	49.3
4	Dissolved Oxygen mg/l	6.5		5	6	7	8.4				7.7	7.7	7.9
5	Turbidity (NTU)	2.34		12.43	20.9	16	9.42				1.70	1.52	1.83
6	Nitrite Nitrogen mg/l	0.002		0.009	0.006	0.009	0.01				0.002	0.002	0.002
7	Nitrogen(Nitrate) mg/l	0.05		0.96	0.94	0.417	0.59				0.015	0.02	0.013
8	Phosphate mg/l	0.003		0.009	0.003	0.012	0.01				0.004	0.005	0.022

9	BOD mg/l	1.4	0.6	0.5	0.1	1.5	1.1	0.9	0.3
10	COD mg/l	10	9	4	8	3	7.00	6.0	3.0
11	Chloride mg/l	4.75	4.37	5.23	12.23	19.91	5.83	3.42	3.91
12	Fecal Coliform MPN/100 ml	1300	33	3500	1300	1300	3300	3300	1300
13	Total Coliform MPN/100 ml	17000	49	5400	5400	5400	7000	4900	2300
14	Ammonia mg/l	0.048	0.027	0.015	0.055	0.09	0.064	0.03	0.02

Table 3 aw - AGRICULTURAL CANAL DOWNSTREAM OF CUNCOLIM INDUSTRIAL ESTATE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	
1	pH	8.26	canal was dry	6.2	5.6	5.78	5.78	5.82	5.58	6.01	6.78	6.65	7.08	
2	Temperature °C	37		32	30	30	31	31	31	28	25	28	29	30
3	Conductivity µs/cm	107.11		1454	881.43	534.7	397.36	632.41	542.2	1212	50.04	45.7	50.0	
4	Dissolved Oxygen mg/l	6.7		4.5	4.7	5.8	6	6.5	5.2	8.2	7.9	7.6	8.3	
5	Turbidity (NTU)	2.62		13.29	11.6	9.59	2.41	0.85	0.95	1.1	1.95	1.88	2.23	
6	Nitrite Nitrogen mg/l	0.006		0.024	0.006	0.01	0.01	0.003	0.001	0.004	0.006	0.002	0.001	
7	Nitrogen(Nitrate) mg/l	0.086		12.23	3.323	2.29	1.25	0.77	0.52	0.12	0.015	0.01	0.008	
8	Phosphate mg/l	0.008		0.017	0.001	0.01	0.002	0.002	0.003	0.02	0.002	0.007	0.035	
9	BOD mg/l	1.4		0.7	0.2	0.3	0.2	1	1.1	1.3	1.4	0.6	1.2	
10	COD mg/l	11		8	3	8	8	4	4	5	BDL	10.0	3.0	
11	Chloride mg/l	10.45		2671.16	24.23	30.82	32.05	48.7	43.05	49.9	1.46	2.45	3.91	
12	Fecal Coliform MPN/100 ml	1700		NIL	78	790	78	13000	13000		4900	3300	2300	
13	Total Coliform MPN/100 ml	22000		<1.8	130	1700	130	24000	17000		7900	7000	3300	
14	Ammonia mg/l	0.11		1.63	0.266	0.415	0.4	0.395	0.51	0.05	0.063	0.02	0.02	

Table 3 ax - ANJUNEM LAKE 2013-2014

Sr. No	Parameters	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
1	pH	7.51	7.29	5.96	6.82	7.11	7.33	6.6	6.09	7.13	6.47	6.01	8.04
2	Temperature °C	33	33	30	26	30	28	31	30	27	28	31	33
3	Conductivity µs/cm	48.1	50.53	51.3	90.76	41.35	41.74	42.23	49.43	48.24	42.6	45.5	51.0
4	Dissolved Oxygen mg/l	7.5	7.5	7.5	7.1	8.2	7.7	7.8	7.2	6.1	7.8	8.2	8.2
5	Turbidity (NTU)	2.47	2.7	3.74	2.92	2.2	1.98	2.43	1.25	1.29	0.85	2.73	3.70
6	Nitrite Nitrogen mg/l	0.002	0.003	0.005	0.001	0.003	0.002	0.001	0.001	0.002	0.001	0.001	0.002
7	Nitrogen(Nitrate) mg/l	0.029	0.007	0.39	0.355	0.005	0.007	0.015	0.01	BDL	BDL	0.01	BDL
8	Phosphate mg/l	0.003	0.009	0.015	BDL	0.062	0.007	0.003	0.01	0.004	0.004	0.008	0.008
9	BOD mg/l	1.1	1.3	0.3	0.1	0.2	0.5	0.7	0.3	1.3	1.0	1.7	1.1
10	COD mg/l	5	2	1	7	3	14	6	5.2	7	6.0	10.0	6.0
11	Chloride mg/l	6.8	5.83	0.97	3.8	2.44	4.4	2.4	0.97	0.49	3.42	3.91	4.89
12	Fecal Coliform MPN/100 ml	NIL	NIL	NIL	200	20	40	450	78	170	790	790	130
13	Total Coliform MPN/100 ml	<1.8	400	400	400	45	68	780	130	540	1700	1300	350
14	Ammonia mg/l	0.014	0.03	0.132	0.029	0.016	0.047	0.019	0.02	0.03	0.03	0.02	0.02

Table 3 ay - RIVER MANDOVI AT RIBANDAR

Sr. No	Parameters	Jan-14	Feb-14	Mar-14
1	pH	7.41	7.33	7.84
2	Temperature °C	29	27	31
3	Conductivity µs/cm	38.7	39.7	43.2
4	Dissolved Oxygen mg/l	5.4	5.9	8.0
5	Turbidity (NTU)	3.96	3.52	14.2

Sr. No	Parameters	Jan-14	Feb-14	Mar-14
6	Nitrite Nitrogen mg/l	0.057	0.023	0.005
7	Nitrogen(Nitrate) mg/l	0.04	0.04	0.03
8	Phosphate mg/l	0.01	0.017	0.01
9	BOD mg/l	1.6	1.87	3.7
10	COD mg/l	13.0	41.0	27
11	Chloride mg/l	13942.49	20243.7	17605.36
12	Fecal Coliform MPN/100 ml	1300	3300	780
13	Total Coliform MPN/100 ml	2300	7900	1300
14	Ammonia mg/l	0.03	0.10	0.096

Table 3 az - INLET SAMPLE TO STP AT TONCA-PANAJI

Sr. No	Parameters	Jan-14	Feb-14	Mar-14
1	pH	6.43	6.65	6.75
2	BOD mg/l	264	94.9	42.4
3	COD mg/l	400	280	85
4	Suspended Solids mg/l	30	27	18

Table 3 aaa - OUTLET SAMPLE TO STP AT TONCA-PANAJI

Sr. No	Parameters	Jan-14	Feb-14	Mar-14
1	pH	6.89	4.67	7.12
2	BOD mg/l	0.4	0.8	0.7
3	COD mg/l	20	40	22
4	Suspended Solids mg/l	4.0	4.0	2.0

