

**RIVER ASSANORA AT ASSANORA 2017-2018**

<b>Sr. No</b>	<b>Parameters</b>	<b>Apr-17</b>	<b>May-17</b>	<b>Jun-17</b>	<b>Jul-17</b>	<b>Aug-17</b>	<b>Sep-17</b>	<b>Oct-17</b>	<b>Nov-17</b>	<b>Dec-17</b>	<b>Jan-18</b>	<b>Feb-18</b>	<b>Mar-18</b>
1	pH	5.75	6.2	7.03	6.28	5.87	6.85	6.9	6.3	7.09	6.7	6.96	6.77
2	Temperature °C	29	29.5	28	29.5	28	33	32	27.9	29	28	29	27.5
3	Conductivity µs/cm	54.06	53.04	138.3	51.91	50.25	52.42	53.01	97.46	62.41	59.3	57.8	59.42
4	Dissolved Oxygen mg/l	6.5	6.2	6.3	5.7	7.4	6.9	6.6	7.4	6	5.7	7.5	6
5	Turbidity (NTU)	4.71	3.75	5.75	6.78	50.1	4.14	4.2	4.88	3.02	3.06	3.49	3.27
6	Nitrite Nitrogen mg/l	0.0025	0.001	0.006	0.01	0.002	0.002	0.021	0.002	0.01	BDL	0.01	0.002
7	Nitrogen(Nitrate) mg/l	0.098	0.066	0.26	0.22	0.15	0.06	0.09	0.12	0.51	0.04	BDL	0.087
8	Phosphate mg/l	0.068	0.001	BDL	0.01	0.02	BDL	0.007	0.01	0.002	BDL	BDL	0.01
9	BOD mg/l	1.7	2.6	0.8	0.1	1.9	0.9	1.4	3.3	1.8	1.1	2	2.3
10	COD mg/l	3	3	17		14		10	7	6	2	16	4
11	Chloride mg/l	5.5	7.77	9	9	9	6.36	7	14.68	5	1.96	7.5	12.1
12	Fecal Coliform MPN/100 ml	1300	1300	2300	790	2400	1300	1300	1100	780	490	790	450
13	Total Coliform MPN/100 ml	3500	2200	4900	2400	9200	3500	2400	1700	1400	1100	1400	780
14	Ammonia mg/l	0.11	BDL	0.25	0.09	0.07	0.1	BDL	0.03	BDL	0.02	BDL	0.2
15	Total Dissolved Solids(mg/l)	17	36	127	127	33	97	126	67	43	35	72	41
16	Total Fixed Solids (mg/l)	-	-			28	56	68	47	38	20	44	22
17	Total Suspended Solid (mg/l)	32		4	4	28	8	16	12	8	5	2	6
18	Hardness(mg/l)	16	18	24	24	14	12	20	24	20	34	14	28
19	Fluoride(mg/l)	-	-								-	2.3	BDL
20	Boron(mg/l)	-	BDL	0.03	0.28	4.18	0.22	0.18	3.28	4.18	0.42	5.8	BDL
21	Sulphate (mg/l)	3.13	9.16	2.91	7.46	7.06	3.32	2.55	5.38	7.06	3.26	5.31	BDL

22	Total Alkalinity(mg/l)	24	30	30	32	26	1.1	36	26	26	72	70	34
23	Phenolphthalein Alkalinity(mg/l)	0	-	0	0	0	0	0	0	0	0	0	0
24	Sodium(mg/l)	4.9	4	5.7	4.8	4.9	42.9	2.8	12.1	1.1	0.4	5.9	27.8
25	Potassium(mg/l)	1.7	1.4	0.1	0.2	0.1	40.5	1.6	2.2	1	0.8	1	7.5
26	Calcium as CaCO <sub>3</sub> (mg/l)	10	14	10	10	8	8	16	4	4.01	4.81	4	5.6
27	Magnesium(mg/l)	1.5	0.97	3.4	3.4	BDL	BDL	BDL	3.4	2.4	1.75	BDL	3.4
28	Nickel(mg/l)	0.026						0.009					
29	Copper(mg/l)	0.035						0.012					
30	Chromium(mg/l)	BDL						BDL					
31	Cadmium(mg/l)	BDL						BDL					
32	Zinc(mg/l)	0.076						0.17					
33	Lead(mg/l)	BDL						BDL					
34	Iron(mg/l)	0.892						3.49					
35	Manganese (mg/l)	0.303						0.087					
36	Cobalt (mg/l)	BDL						BDL					
37	Alpha BHC (mg/l)	BDL						BDL					
38	Beta BHC (mg/l)	BDL						BDL					
39	Gamma BHC (mg/l)	BDL						BDL					
40	Aldrin (mg/l)	BDL						BDL					
41	Dieldrin (mg/l)	BDL						BDL					
42	O,P-DDT (mg/l)	BDL						BDL					
43	P,P-DDT (mg/l)	BDL						BDL					
44	Alpha endosulfane (mg/l)	BDL						BDL					
45	β-endosulfane (mg/l)	BDL						BDL					
46	Carbaryl (mg/l)	BDL						BDL					
47	Anilofos (mg/l)	BDL						BDL					

48	Parathion methyl (mg/l)	BDL						BDL					
49	Malathion (mg/l)	BDL						BDL					
50	Chlorpyrifos (mg/l)	BDL						BDL					

**RIVER VALVANTI AT SANQUELIM 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	6.23	6.7	6.63	6.55	6.22	7.05	7.23	6.04	7.07	7.24	6.96	7.23
2	Temperature °C	31	32	29	29.7	27	32	32	27.6	27.4	28	29	30
3	Conductivity µs/cm	64.78	83.67	167.9	46.41	59.46	58.81	58.5	88.05	63.18	95.2	57.8	66.16
4	Dissolved Oxygen mg/l	6.3	6.7	7.5	7.7	7.8	7.7	7.5	7.6	8.3	8.4	7.5	6.5
5	Turbidity (NTU)	4.19	6.85	5.69	3.91	5.26	4.96	5.09	3.07	BDL	4.16	3.49	4.07
6	Nitrite Nitrogen mg/l	0.0027	BDL	0.005	0.002	0.002	0.002	0.002	0.002	0.024	BDL	BDL	0.003
7	Nitrogen(Nitrate) mg/l	0.102	0.005	0.39	0.21	0.07	0.09	0.11	0.17	BDL	0.07	BDL	0.062
8	Phosphate mg/l	0.0096	0.02	BDL	0.02	0.04	BDL	0.001	0.008	0.004	BDL	BDL	0.01
9	BOD mg/l	1.4	4.3	1.1	0.2	0.7	0.5	0.7	2.1	2.2	1.3	1.3	2.1
10	COD mg/l	3	17	13		12		11	7	8	4	4	6
11	Chloride mg/l	6	12.63	11	11	8.5	6.85	6	10.27	4.5	2.94	7.5	5.34
12	Fecal Coliform MPN/100 ml	24000	17000	24000	7900	4900	4900	4900	7900	4900	4900	4900	4900
13	Total Coliform MPN/100 ml	54000	22000	54000	11000	7900	7900	7900	13000	7900	7900	7900	7000
14	Ammonia mg/l	0.01	BDL	0.04	0.04	0.02	0.09	BDL	0.08	BDL	BDL	0.05	0.2
15	Total Dissolved Solids(mg/l)	58	56	69	74	41	54	68	55	41	65	34	38
16	Total Fixed Solids (mg/l)	-				37	33	30	40	36	44	19	20

17	Total Suspended Solid (mg/l)	4	4	11	16	37	7	10	10	15	6	16	4
18	Hardness(mg/l)	26	28	26	26	30	20	22	22	18	26	14	30
19	Fluoride(mg/l)	-									-	2.8	0.75
20	Boron(mg/l)	-	0.2	0.07	0.6	4.38	0.08	0.06	5.95	4.38	0.39	5.5	0.53
21	Sulphate (mg/l)	4.42	10.2	3.07	4.74	2.67	2.8	2.86	5.92	2.67	2.84	5.31	BDL
22	Total Alkalinity(mg/l)	28	34	26	22	30	22	42	24	30	34	60	38
23	Phenolphthalein Alkalinity(mg/l)	0	0	0	0	0	0	0	0	0	0	0	0
24	Sodium(mg/l)	5.7	7.4	10.7	4.2	5.6	42.9	2.2	8.6	1.2	1.3	5.8	14.1
25	Potassium(mg/l)	1.4	1.5	0.4	0.6	0.2	40.4	1.5	1.8	1	0.4	1.4	7.2
26	Calcium as CaCO3(mg/l)	12	22	12	12	24	16	8	5.6	6.41	6.41	4	7.2
27	Magnesium(mg/l)	3.4	1.46	3.4	3.4	1.5	0.97	3.4	1.94	BDL	2.3	BDL	2.92
28	Nickel(mg/l)	BDL						0.012					
29	Copper(mg/l)	0.043						0.014					
30	Chromium(mg/l)	BDL						BDL					
31	Cadmium(mg/l)	BDL						BDL					
32	Zinc(mg/l)	0.06						0.26					
33	Lead(mg/l)	BDL						BDL					
34	Iron(mg/l)	0.65						0.83					
35	Manganese (mg/l)	0.307						0.043					
36	Cobalt (mg/l)	BDL						BDL					
37	Alpha BHC (mg/l)	BDL						BDL					
38	Beta BHC (mg/l)	BDL						BDL					
39	Gamma BHC (mg/l)	BDL						BDL					
40	Aldrin (mg/l)	BDL						BDL					
41	Dieldrin (mg/l)	BDL						BDL					

42	O,P-DDT (mg/l)	BDL							BDL				
43	P,P-DDT (mg/l)	BDL							BDL				
44	Alpha endosulfane (mg/l)	BDL							BDL				
45	β-endosulfane (mg/l)	BDL							BDL				
46	Carbaryl (mg/l)	BDL							BDL				
47	Anilofos (mg/l)	BDL							BDL				
48	Parathion methyl (mg/l)	BDL							BDL				
49	Malathion (mg/l)	BDL							BDL				
50	Chlorpyrifos (mg/l)	BDL							BDL				

**RIVER BICHOLIM, BARAZAN NAGAR, BICHOLIM 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	7	7.34	7.06	6.32	5.6	6.88	6.24	6.8	7.1	7.55	7.4	6.29
2	Temperature °C	33	31	30.8	29	30	31	29	28	28	28	30	30
3	Conductivity µs/cm	199.9	2432	158.25	88.29	84.88	83.96	75.96	278	77	277	87.39	149.8
4	Dissolved Oxygen mg/l	9.1	5.6	6.5	6	6.7	6.8	6.7	7.3	7.8	8	5.2	13
5	Turbidity (NTU)	2.73	7.65	3.68	8.86	6.06	5.01	9.26	3.75	8.53	7.16	1.84	1.8
6	Nitrite Nitrogen mg/l	0.1	0.058	0.264	0.01	0.011	BDL	0.01	BDL	BDL	BDL	0.02	BDL
7	Nitrogen(Nitrate) mg/l	0.69	0.81	3.46	0.98	0.45	0.38	0.41	BDL	0.55	0.24	0.2	0.55
8	Phosphate mg/l	0.02	0.03	0.05	0.007	0.02	BDL	0.02	0.02	0.024	0.022	0.009	0.14
9	BOD mg/l	2.6	1.3	2.5	1.2	1.2	1.3	0.6	1.3	4.8	3.6	0.9	5.6
10	COD mg/l	13	14			4	4	5	3	10	12	4	18
11	Chloride mg/l	9.29	1000	16	20	6.8	10	8	45	9	36.2	14	11.48
12	Fecal Coliform MPN/100 ml	24000	24000	13000	7900	4900	7900	7900	7900	4900	7900	24000	7900

13	Total Coliform MPN/100 ml	35000	35000	17000	13000	7900	13000	11000	11000	7900	13000	92000	11000
14	Ammonia mg/l	0.14	0.003	0.19	0.87	0.05	BDL	BDL	BDL	0.059	0.03	0.11	0.7
15	Total Dissolved Solids(mg/l)	118	1356	94	67	62	118	142	174	44	159	65	93
16	Total Fixed Solids (mg/l)	-	-				94	97	105	30	91	37	116
17	Total Suspended Solid (mg/l)	14	48	26	9	5	12	28	3	10	14	7	9
18	Hardness(mg/l)	62	260	58	34	30	22	32	52	38	56	52	52
19	Fluoride(mg/l)	-	-						-	-	-	0.01	0.99
20	Boron(mg/l)	-	0.8	1.22	1.2	0.08	0.08	0.12	1.1	0.84	0.84	0.11	3.68
21	Sulphate (mg/l)	2.65	95.7	4.55	3.2	1.62	BDL	4	BDL	3.6	5.29	4	2.92
22	Total Alkalinity(mg/l)	70	80	26	38	32	32	42	62	60	50	50	60
23	Phenolphthalein Alkalinity(mg/l)	0	0	0	0	0	0	0	0	0	0	0	0
24	Sodium(mg/l)	20.2	346.6	4319	4.6	5.5	43.8	3	12.4	6.6	10.7	12.3	22.3
25	Potassium(mg/l)	0.5	16.7	148.8	2	1.4	40.5	1.8	2.7	0.1	0.6	0.6	7.7
26	Calcium as CaCO3(mg/l)	38	120	30	22	18	14	16	9.6	14.4	12	10	13.6
27	Magnesium(mg/l)	5.83	34	6.8	2.9	2.92	BDL	3.89	6.8	0.5	6.32	6	4.37
28	Nickel(mg/l)	0.067						0.072					
29	Copper(mg/l)	BDL						0.034					
30	Chromium(mg/l)	BDL						BDL					
31	Cadmium(mg/l)	BDL						BDL					
32	Zinc(mg/l)	0.069						0.27					
33	Lead(mg/l)	BDL						BDL					
34	Iron(mg/l)	1.389						0.86					
35	Manganese (mg/l)	1.17						0.151					

36	Cobalt (mg/l)	BDL								BDL				
37	Alpha BHC (mg/l)	BDL								BDL				
38	Beta BHC (mg/l)	BDL								BDL				
39	Gamma BHC (mg/l)	BDL								BDL				
40	Aldrin (mg/l)	BDL								BDL				
41	Dieldrin (mg/l)	BDL								BDL				
42	O,P-DDT (mg/l)	BDL								BDL				
43	P,P-DDT (mg/l)	BDL								BDL				
44	Alpha endosulfane (mg/l)	BDL								BDL				
45	$\beta$ -endosulfane (mg/l)	BDL								BDL				
46	Carbaryl (mg/l)	BDL								BDL				
47	Anilofos (mg/l)	BDL								BDL				
48	Parathion methyl (mg/l)	BDL								BDL				
49	Malathion (mg/l)	BDL								BDL				
50	Chlorpyrifos (mg/l)	BDL								BDL				

**RIVER SINGUERIM, CANDOLIM SIDE 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	7.9	7.7	7.6	8	8.02	8.43	8.13	7.87	7.6	7.8	7.62	7.5
2	Temperature °C	32	32	32	32	32	30	30	30	29	27	30	31.1
3	Conductivity $\mu$ s/cm	52390	54980	37680	9666	15770	47400	43800	49600	47600	50720	26700	54070
4	Dissolved Oxygen mg/l	6.4	5.5	3.9	6.9	7	3.9	5.3	4.6	6.3	6.5	5.6	5.2
5	Turbidity (NTU)	13.41	10.48	13.67	15.91	16.96	4.59	5.28	3.78	7.34	10.89	5.26	7.95
6	Nitrite Nitrogen mg/l	0.01	0.03	0.01	BDL	0.082	0.013	0.012	0.02	BDL	BDL	0.006	BDL
7	Nitrogen(Nitrate) mg/l	0.03	0.02	0.23	0.64	0.8	0.33	0.09	0.15	0.12	BDL	BDL	BDL
8	Phosphate mg/l	0.02	0.03	0.04	BDL	0.01	0.06	0.04	0.05	0.02	0.057		BDL

9	BOD mg/l	2.9	1.5	1.4	2.6	3.6	1.2	1.6	1.9	3.3	2	2.4	0.8
10	COD mg/l	-	-					-	-				
11	Chloride mg/l	20339	22014	14745	2185	5248	22748.3	26808.7	17220.2	18639	19494	20546.8	19494
12	Fecal Coliform MPN/100 ml	2400	4900	270	1700	13000	4900	7900	3300	2300	450	1100	780
13	Total Coliform MPN/100 ml	3500	7900	340	3300	22000	7900	13000	4900	3300	780	1400	1300
14	Ammonia mg/l	0.07	0.068	0.03	0.03	BDL	0.05	0.19	0.03	BDL	0.02	BDL	BDL
15	Total Dissolved Solids(mg/l)	40551	31339	22617	7769	9236	35116	30061	33567	34374	30835	17391	32713
16	Total Fixed Solids (mg/l)	-	-			7924	28852	21658	27239	18700	28847	10100	30952
17	Total Suspended Solid (mg/l)	286	65	337	37	50	187	185	209	151	241	125	174
18	Hardness(mg/l)	10000	11000	4380	1100	2000	9000	10000	9500	10000	640	3400	8400
19	Fluoride(mg/l)	-	-					-	-			2.71	2.04
20	Boron(mg/l)	-	-	0.66	0.39	0.92	BDL	-	4.7	83.7	2.04	1.03	4.09
21	Sulphate (mg/l)	1228.2	1160.7	995	204	258	1895	2140.9	1842	1085.78	1533	1514.3	2026
22	Total Alkalinity(mg/l)	114	122	108	72	108	106	112	102	118	152	108	122
23	Phenolphthalein Alkalinity(mg/l)	12	8	0	0	0	0	12	0	12	6	12	2
24	Sodium(mg/l)	5202	7410	5434	1426	230.6	6550	5401	8852	6375	6732	5804	2576
25	Potassium(mg/l)	323.5	293	191	66.8	101.5	286.9	205.5	355.8	307	322.4	197.8	257.1
26	Calcium as CaCO3(mg/l)	920	3000	740	160	600	3000	1600	921.8	801.6	4.81	721.4	641.3
27	Magnesium(mg/l)	2206.4	1944	884.5	170	340	1458	2041.2	1749.6	1944	126.4	388.8	1652
28	Nickel(mg/l)	0.617						0.006					
29	Copper(mg/l)	0.064						0.002					
30	Chromium(mg/l)	0.063						BDL					



31	Cadmium(mg/l)	BDL							BDL				
32	Zinc(mg/l)	0.056							0.82				
33	Lead(mg/l)	0.701							0.316				
34	Iron(mg/l)	0.746							0.42				
35	Manganese (mg/l)	0.243							0.107				
36	Cobalt (mg/l)	BDL							0.394				
37	Alpha BHC (mg/l)	BDL							BDL				
38	Beta BHC (mg/l)	BDL							BDL				
39	Gamma BHC (mg/l)	BDL							BDL				
40	Aldrin (mg/l)	BDL							BDL				
41	Dieldrin (mg/l)	BDL							BDL				
42	O,P-DDT (mg/l)	BDL							BDL				
43	P,P-DDT (mg/l)	BDL							BDL				
44	Alpha endosulfane (mg/l)	BDL							BDL				
45	β-endosulfane (mg/l)	BDL							BDL				
46	Carbaryl (mg/l)	BDL							BDL				
47	Anilofos (mg/l)	BDL							BDL				
48	Parathion methyl (mg/l)	BDL							BDL				
49	Malathion (mg/l)	BDL							BDL				
50	Chlorpyrifos (mg/l)	BDL							BDL				

**RIVER SINQUERIM, NEAR GANPATI TEMPLE 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	7.85	7.72	7.6	7.61	7.93	7.48	8.04	7.82	7.66	7.81	7.62	7.48
2	Temperature °C	33	31	31	32	32	31	30	30	29	27	29	31.5

3	Conductivity $\mu\text{s/cm}$	49260	54180	40900	7915	16050	46210	41490	49100	46400	50570	51400	54190
4	Dissolved Oxygen mg/l	6.4	5.1	3.9	6.8	7.7	4.2	5.2	4.2	6.3	6.5	6	5.8
5	Turbidity (NTU)	9.09	10.08	24.9	13.93	25.7	5.05	10.78	3.91	6.49	7.58	6.48	12.02
6	Nitrite Nitrogen mg/l	0.06	0.05	0.02	BDL	0.003	0.006	0.013	0.02	BDL	BDL	0.006	0.015
7	Nitrogen(Nitrate) mg/l	0.12	0.09	0.23	0.76	0.98	0.29	1.43	0.19	0.1	0.17	BDL	BDL
8	Phosphate mg/l	0.01	0.05	0.05	BDL	0.02	0.05	0.05	0.05	0.01	0.045	0.016	BDL
9	BOD mg/l	2.7	1.6	2.2	2.1	2.6	1.5	-	2	3.6	1.5	2.4	2.4
10	COD mg/l	-	-					-	-	-		-	
11	Chloride mg/l	18664	21536	14995	1943	5748	34978.5	26808.7	20008.7	17661	19619	21280.6	18494
12	Fecal Coliform MPN/100 ml	1700	2300	1700	2300	7900	4900	3300	4900	3300	200	3300	1300
13	Total Coliform MPN/100 ml	2200	3300	2200	4900	11000	7000	4900	7900	4900	450	4900	2300
14	Ammonia mg/l	0.77	0.027	0.04	0.05	0.12	0.09	0.21	0.02	0.03	0.02	0.03	0.05
15	Total Dissolved Solids(mg/l)	29556	33592	24558	5431	10247	35063	29798	34643	27898	30616	35132	32496
16	Total Fixed Solids (mg/l)	-	-			8298	32132	20570	27714	17135	28500	30900	31296
17	Total Suspended Solid (mg/l)	279	54	390	24	74	167	190	198	190	249	63	208
18	Hardness(mg/l)	7000	11000	4560	772	2000	12000	22000	8000	9000	620	4200	7400
19	Fluoride(mg/l)	-	-					-	-			2.03	2.97
20	Boron(mg/l)	-	-	2.3	1.31	1.48	2.2	0.88	6.8		1.7	2.71	4.06
21	Sulphate (mg/l)	863.1	1237.2	1030	122	142	1440.7	1879	2220.6	1132.5	1570	2127.5	2049
22	Total Alkalinity(mg/l)	114	128	94	62	74	96	108	82	110	150	110	118
23	Phenolphthalein Alkalinity(mg/l)	8	12	20	0	0	18	12	10	8	6	12	2
24	Sodium(mg/l)	4709	7661	6459	1089	246	6115	5091	9781	6375	6586	5773	2536

25	Potassium(mg/l)	329.2	294.3	202.7	55	101	259.6	203.5	330.7	294.8	320.4	194.3	254.7
26	Calcium as CaCO3(mg/l)	920	2000	900	66	400	4000	1200	681.4	801.6	4.01	881.8	3.21
27	Magnesium(mg/l)	1477.4	2187	889.4	148	389	1944	5054.4	1530.9	1701	126.4	486	1603.8
28	Nickel(mg/l)	0.568						0.023					
29	Copper(mg/l)	0.064						0.063					
30	Chromium(mg/l)	0.046						BDL					
31	Cadmium(mg/l)	0.056						BDL					
32	Zinc(mg/l)	0.066						0.77					
33	Lead(mg/l)	0.625						0.242					
34	Iron(mg/l)	2.197						0.98					
35	Manganese (mg/l)	0.557						0.015					
36	Cobalt (mg/l)	BDL						BDL					
37	Alpha BHC (mg/l)	BDL						BDL					
38	Beta BHC (mg/l)	BDL						BDL					
39	Gamma BHC (mg/l)	BDL						BDL					
40	Aldrin (mg/l)	BDL						BDL					
41	Dieldrin (mg/l)	BDL						BDL					
42	O,P-DDT (mg/l)	BDL						BDL					
43	P,P-DDT (mg/l)	BDL						BDL					
44	Alpha endosulfane (mg/l)	BDL						BDL					
45	β-endosulfane (mg/l)	BDL						BDL					
46	Carbaryl (mg/l)	BDL						BDL					
47	Anilofos (mg/l)	BDL						BDL					
48	Parathion methyl (mg/l)	BDL						BDL					
49	Malathion (mg/l)	BDL						BDL					
50	Chlorpyrifos (mg/l)	BDL						BDL					

**RIVER TIRACOL AT KERI, PERNEM 2017-2018**

<b>Sr. No</b>	<b>Parameters</b>	<b>Apr-17</b>	<b>May-17</b>	<b>Jun-17</b>	<b>Jul-17</b>	<b>Aug-17</b>	<b>Sep-17</b>	<b>Oct-17</b>	<b>Nov-17</b>	<b>Dec-17</b>	<b>Jan-18</b>	<b>Feb-18</b>	<b>Mar-18</b>
1	pH	8.06	7.85	8	7.2	8.16	8.48	8.06	8.1	7.93	8.07	7.6	7.78
2	Temperature °C	32	32	31	30	31	29	29	30	28	28	29	31.4
3	Conductivity µs/cm	53530	54170	47700	3360	4529	54260	21820	46100	42700	52880	52800	51560
4	Dissolved Oxygen mg/l	6.1	6.1	5.7	6.8	7.3	5.7	6.2	6.3	6.9	7.8	6.4	6.2
5	Turbidity (NTU)	4.94	4.33	8.67	17.62	9.54	10.09	7.97	2.64	4.03	2.26	2.66	3.08
6	Nitrite Nitrogen mg/l	0.01	0.7	0.008	BDL	0.004	0.008	0.005	BDL	0.02	BDL	BDL	BDL
7	Nitrogen(Nitrate) mg/l	0.04	BDL	0.16	0.36	0.4	0.12	0.07	0.12	0.16	BDL	BDL	BDL
8	Phosphate mg/l	0.02	0.07	0.14	BDL	0.018	0.08	0.014	0.05	0.02	0.05	BDL	BDL
9	BOD mg/l	1.8	1.5	1.9	1.3	1.1	1.9	2	1.9	2.2	2.2	2.2	2.6
10	COD mg/l	-	-			-	-	-					
11	Chloride mg/l	20578.73	22014	21243	913	16620	22992.9	13015.8	18590	15948	26742	26417.3	18620
12	Fecal Coliform MPN/100 ml	13	240	33	1300	2300	2300	5400	2300	790	330	230	230
13	Total Coliform MPN/100 ml	23	540	79	2400	4900	4900	9200	4900	1700	490	490	490
14	Ammonia mg/l	0.08	0.041	0.01	BDL	0.06	0.03	0.14	0.07	0.01	BDL	BDL	BDL
15	Total Dissolved Solids(mg/l)	40918	35210	28660	1908	3047	41175	14619	32278	26847	31885	35394	30777
16	Total Fixed Solids (mg/l)	-	-			2889	35997	9478	26745	13244	28885	26010	28574
17	Total Suspended Solid (mg/l)	338	59	410	31	23	259	71	218	180	240	61	227
18	Hardness(mg/l)	7000	9000	5480	328	800	7000	3800	11100	8000	700	3600	7000
19	Fluoride(mg/l)	-	-					-				2.4	3.01
20	Boron(mg/l)	-	-	0.8	0.9	1.1	3.45	0.577	12.1	93.02	1.53	3.48	4.01
21	Sulphate (mg/l)	1117.6	1058.7	2118	65	78	3.66	740	3518.9	1144	2565	2002.4	1990

22	Total Alkalinity(mg/l)	110	120	148	42	82	148	64	108	118	154	112	122
23	Phenolphthalein Alkalinity(mg/l)	14	8	12	0	0	12	8	10	12	6	14	10
24	Sodium(mg/l)	5020	7068	7354	506	842.6	7533	2608	8545	5767	6956	5780	2384
25	Potassium(mg/l)	290.6	291.6	231.3	25.8	36.4	302.7	110.7	337.7	284.2	336.1	199	255.4
26	Calcium as CaCO <sub>3</sub> (mg/l)	1010	2000	980	28	400	2000	600	601.2	400.8	3.21	561.1	721.4
27	Magnesium(mg/l)	1455.57	1701	1093.5	63	97	1215	777.6	2332.8	1701	150.7	534.6	1263.6
28	Nickel(mg/l)	0.617						0.025					
29	Copper(mg/l)	0.059						0.009					
30	Chromium(mg/l)	0.04						BDL					
31	Cadmium(mg/l)	0.129						BDL					
32	Zinc(mg/l)	0.14						0.025					
33	Lead(mg/l)	0.697						0.041					
34	Iron(mg/l)	1.231						0.73					
35	Manganese (mg/l)	0.223						0.05					
36	Cobalt (mg/l)	BDL						BDL					
37	Alpha BHC (mg/l)	BDL						BDL					
38	Beta BHC (mg/l)	BDL						BDL					
39	Gamma BHC (mg/l)	BDL						BDL					
40	Aldrin (mg/l)	BDL						BDL					
41	Dieldrin (mg/l)	BDL						BDL					
42	O,P-DDT (mg/l)	BDL						BDL					
43	P,P-DDT (mg/l)	BDL						BDL					
44	Alpha endosulfane (mg/l)	BDL						BDL					
45	β-endosulfane (mg/l)	BDL						BDL					
46	Carbaryl (mg/l)	BDL						BDL					

47	Anilofos (mg/l)	BDL						BDL					
48	Parathion methyl (mg/l)	BDL						BDL					
49	Malathion (mg/l)	BDL						BDL					
50	Chlorpyrifos (mg/l)	BDL						BDL					

**RIVER CHAPORA NEAR SIOLIM BRIDGE 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	7.86	7.72	7.6	7.29	8.07	8.45	8.33	8.07	7.56	7.94	7.66	7.53
2	Temperature °C	33	32	32	30	32.5	29	30	29	29	28	30	31.3
3	Conductivity µs/cm	32210	35440	22980	774.5	1077	51520	26550	45400	33200	44690	51300	43820
4	Dissolved Oxygen mg/l	5.9	6.3	5.7	7	7.8	5.7	6.7	3.7	4.6	6.4	6.5	4.2
5	Turbidity (NTU)	9.62	7.75	12.33	17.55	15.13	10.54	5.82	3.17	8.05	4.54	2.34	6.07
6	Nitrite Nitrogen mg/l	0.18	0.02	0.05	BDL	0.005	0.02	0.004	0.01	0.03	0.01	BDL	0.011
7	Nitrogen(Nitrate) mg/l	0.18	0.27	0.13	0.33	0.38	0.35	0.09	0.08	0.09	BDL	BDL	BDL
8	Phosphate mg/l	0.02	0.06	0.09	0.01	0.002	0.06	0.022	0.07	0.11	0.027	BDL	BDL
9	BOD mg/l	2	1.9	4.5	1.9	1.4	1.7	4.2	1.1	1.9	1	2	3.2
10	COD mg/l	-	-			-	-	-					
11	Chloride mg/l	11246.5	14357	9247	194	4249	20791.4	15832.7	28570	11692.1	21244	20791	15745
12	Fecal Coliform MPN/100 ml	1300	1300	7900	2300	13000	7900	7900	4900	2300	1300	780	780
13	Total Coliform MPN/100 ml	1700	2200	13000	4900	24000	13000	13000	7900	3300	1700	1100	1300
14	Ammonia mg/l	0.14	0.027	0.02	BDL	0.02	0.2	0.19	0.04	BDL	BDL	0.02	0.02
15	Total Dissolved Solids(mg/l)	25220	24808	13601	551	909	39565	17789	31299	23368	26817	34717	26330
16	Total Fixed Solids (mg/l)	-	-			842	33931	9340	25541	17204	24917	28200	20557

17	Total Suspended Solid (mg/l)	202	49	156	7	36	206	81	215	150	230	80	184
18	Hardness(mg/l)	6000	7000	2540	102	800	9000	4400	11200	5000	600	4200	5200
19	Fluoride(mg/l)	-	-					-				2.68	2.28
20	Boron(mg/l)	-	-	0.55	0.62	1.2	3.49	1.21	1.94	0.51	2.15	3.62	3.54
21	Sulphate (mg/l)	497.9	637.8	550	20	26	1797.24	996.5	2052.7	431.9	1608	2165.1	1719
22	Total Alkalinity(mg/l)	96	94	52	32	66	56	90	44	152	120	104	138
23	Phenolphthalein Alkalinity(mg/l)	4	10	18	0	0	12	8	8	10	8	14	2
24	Sodium(mg/l)	3327	4802	3466	119	230.4	6981	3168	9060	4274	5822	5679	2074
25	Potassium(mg/l)	195.3	203.3	132.5	5.7	8.7	33931	133.2	339.1	234.4	294.7	195.3	223.4
26	Calcium as CaCO <sub>3</sub> (mg/l)	550	1000	440	11	200	3000	600	721.4	400.8	5.61	641.3	561.1
27	Magnesium(mg/l)	1324.35	1458	510.3	18	146	1458	923.4	2284.2	972	111.8	631.8	923.4
28	Nickel(mg/l)	0.329						0.051					
29	Copper(mg/l)	0.031						0.007					
30	Chromium(mg/l)	0.035						BDL					
31	Cadmium(mg/l)	BDL						BDL					
32	Zinc(mg/l)	0.042						0.074					
33	Lead(mg/l)	0.364						BDL					
34	Iron(mg/l)	0.705						0.87					
35	Manganese (mg/l)	0.264						0.156					
36	Cobalt (mg/l)	BDL						0.161					
37	Alpha BHC (mg/l)	BDL						BDL					
38	Beta BHC (mg/l)	BDL						BDL					
39	Gamma BHC (mg/l)	BDL						BDL					
40	Aldrin (mg/l)	BDL						BDL					
41	Dieldrin (mg/l)	BDL						BDL					

42	O,P-DDT (mg/l)	BDL						BDL					
43	P,P-DDT (mg/l)	BDL						BDL					
44	Alpha endosulfane (mg/l)	BDL						BDL					
45	β-endosulfane (mg/l)	BDL						BDL					
46	Carbaryl (mg/l)	BDL						BDL					
47	Anilofos (mg/l)	BDL						BDL					
48	Parathion methyl (mg/l)	BDL						BDL					
49	Malathion (mg/l)	BDL						BDL					
50	Chlorpyrifos (mg/l)	BDL						BDL					

**RIVER MANDOVI AT TONCA MARCELA 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	7.29	7.52	7.49	6.37	5.94	7.35	6.98	7	7.14	7.14	7.07	7.13
2	Temperature °C	34	31	31.3	29.2	29	30	29	31	29.5	28	29.5	29.6
3	Conductivity µs/cm	36390	40560	28500	116	166.74	190	218.77	8820	11240	26700	26790	33460
4	Dissolved Oxygen mg/l	5.3	4.3	5.2	7.2	7.2	7.5	7.8	6.2	5.5	5.5	5.7	5.2
5	Turbidity (NTU)	4.9	7.52	4.32	9.65	4.88	5.65	19.11	6.95	6.4	5.03	1.04	4.22
6	Nitrite Nitrogen mg/l	0.005	0.27	0.32	0.002	0.008	0.035	0.056	0.02	0.1	0.077	0.14	0.228
7	Nitrogen(Nitrate) mg/l	0.89	0.31	2.29	0.35	0.21	0.26	0.29	0.93	0.68	0.22	BDL	BDL
8	Phosphate mg/l	0.02	0.03	0.1	BDL	0.002	BDL	0.013	BDL	0.055	0.064	0.01	BDL
9	BOD mg/l	2.3	1	2.2	0.4	1	0.7	2.3	1.7	1.2	1.8	1.4	2.7
10	COD mg/l	-	-			3	5		-	-			
11	Chloride mg/l	11741	14246	11496.44	50	29.6	24	25	5048	6988	10151.1	10927	12977.6
12	Fecal Coliform MPN/100 ml	1300	330	230	2400	2400	3500	3300	7900	2300	2300	13	780
13	Total Coliform MPN/100 ml	2200	490	330	5400	3500	5400	4900	13000	4900	3300	23	1300



14	Ammonia mg/l	BDL	0.16	0.1	0.32	0.02	0.03	0.152	0.07	0.07	0.04	0.13	0.19
15	Total Dissolved Solids(mg/l)	22594	22324	17100	69	72	100	180	6200	7643.2	15485	19745	20210
16	Total Fixed Solids (mg/l)	-	-			51	29	130	4488	4585	12500	4849	20222
17	Total Suspended Solid (mg/l)	54	177	460	12	11	13	18	23	18	73	101	19
18	Hardness(mg/l)	4600	5600	3200	28	28	28	52	1200	7000	8800	3440	4000
19	Fluoride(mg/l)	-	-						-	-		1.68	2.44
20	Boron(mg/l)	-	2.49		1.36	0.12	0.69	0.72	7.4	5.39	5.01	3.17	
21	Sulphate (mg/l)	1463	829.1	959.4	3.8	2.71	2.8	6.73	149.5	458	873	1076	1296.4
22	Total Alkalinity(mg/l)	100	102	82	28	28	35	44	78	102	78	80	86
23	Phenolphthalein Alkalinity(mg/l)	4	0	10	0	0	0	0	0	0	0	2	0
24	Sodium(mg/l)	3660	5618	13.7	13.3	18.2	55.9	23	1580	2506	3957	3321	1966
25	Potassium(mg/l)	241.2	237.3	2.6	1.7	1.7	41.1	2.6	74.9	140.2	138.1	148.1	176.6
26	Calcium as CaCO3(mg/l)	900	740	600	12	14	14	22	80.2	1200	320.6	257	721.4
27	Magnesium(mg/l)	899.1	1181	631.8	3.9	3.4	3.4	7.29	243	972	1944	680	534.6
28	Nickel(mg/l)	0.996						0.042					
29	Copper(mg/l)	0.098						0.021					
30	Chromium(mg/l)	0.096						BDL					
31	Cadmium(mg/l)	BDL						BDL					
32	Zinc(mg/l)	0.111						0.87					
33	Lead(mg/l)	0.997						0.08					
34	Iron(mg/l)	0.929						1.64					
35	Manganese (mg/l)	0.253						0.062					
36	Cobalt (mg/l)	BDL						BDL					
37	Alpha BHC (mg/l)	BDL						BDL					

38	Beta BHC (mg/l)	BDL						BDL					
39	Gamma BHC (mg/l)	BDL						BDL					
40	Aldrin (mg/l)	BDL						BDL					
41	Dieldrin (mg/l)	BDL						BDL					
42	O,P-DDT (mg/l)	BDL						BDL					
43	P,P-DDT (mg/l)	BDL						BDL					
44	Alpha endosulfane (mg/l)	BDL						BDL					
45	β-endosulfane (mg/l)	BDL						BDL					
46	Carbaryl (mg/l)	BDL						BDL					
47	Anilofos (mg/l)	BDL						BDL					
48	Parathion methyl (mg/l)	BDL						BDL					
49	Malathion (mg/l)	BDL						BDL					
50	Chlorpyrifos (mg/l)	BDL						BDL					

**RIVER KHANDEPAR, OPA, PONDA 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	7.56	7.13	7.22	6.42	6.1	7.01	6.68	6.62	7.2	7.1	6.95	7.3
2	Temperature °C	33	34	27.6	28	29	29	29	29	29	28	29	28.3
3	Conductivity μs/cm	100.8	107.8	100.7	42.01	52.52	56.54	54.76	65.4	70	124.7	70.77	103.7
4	Dissolved Oxygen mg/l	7.1	7	7.6	7	7	7.2	7.3	7.6	7.5	7.2	6.7	6.7
5	Turbidity (NTU)	2.68	2.34	10.4	12.3	3.09	2.85	5.64	3.59	2.49	3.61	8.49	2.84
6	Nitrite Nitrogen mg/l	BDL	BDL	BDL	BDL	0.002	0.002	0.003	0.002	0.01	0.01	BDL	0.001
7	Nitrogen(Nitrate) mg/l	BDL	0.27	BDL	0.29	0.138	0.06	0.069	0.274	0.08	BDL	0.3	0.07
8	Phosphate mg/l	0.02	BDL	0.02	0.11	0.01	BDL	0.008	0.05	0.003	0.03	2	0.002

9	BOD mg/l	1.1	1.4	1.8	0.5	0.8	2.1	1.9	1.5	0.6	1.4	1.6	0.9
10	COD mg/l	2	7	8		BDL	3	4	12	6	4	2	18
11	Chloride mg/l	4.79	6.5	13	6.36	6.8	9.8	8.6	15.5	7	6.5	15.5	12
12	Fecal Coliform MPN/100 ml	2400	170	1300	3500	490	2400	1300	700	790	780	2300	1300
13	Total Coliform MPN/100 ml	5400	220	2300	9200	790	5400	2200	1100	1400	1100	4900	3300
14	Ammonia mg/l	0.67	0.14	0.01	0.15	BDL	BDL	BDL	0.009	0.13	0.05	0.08	0.11
15	Total Dissolved Solids(mg/l)	60	42	510	25	28.9	33	37	63	51	82	58	84
16	Total Fixed Solids (mg/l)	-				10	19	25	48	13	55	31	29
17	Total Suspended Solid (mg/l)	27	4	4	10	7	8	7	13	9	10	12	32
18	Hardness(mg/l)	44	38	32	20	16	20	25	24	28	30	34	36
19	Fluoride(mg/l)	-									-	BDL	0.15
20	Boron(mg/l)	-	5.05	2.3	BDL	0.09	0.27	0.22	0.14	0.14	2.37	BDL	0.07
21	Sulphate (mg/l)	5.3	BDL	0.6	4.54	1.42	BDL	1.93	1.54	2.89	2.48	3.9	3.37
22	Total Alkalinity(mg/l)	46	36	35	26	30	10	15	32	32	36	36	40
23	Phenolphthalein Alkalinity(mg/l)	0	0	0	0	0	0	0	0	0	0	0	0
24	Sodium(mg/l)	3.6	4.7	6.9	4	3.6	5.1	4.5	4.4	0.2	6	10.8	14
25	Potassium(mg/l)	1.8	0.6	1.7	0.3	1.2	5.8	2.5	11.5	0.6	0.6	1.2	7
26	Calcium as CaCO3(mg/l)	26	14	20	8	14	10	14	6.4	5.6	6.4	9.6	8.82
27	Magnesium(mg/l)	4.37	5.8	2.9	2.92	0.49	2.43	3.6	1.9	3.4	3.4	2.4	3.4
28	Nickel(mg/l)	0.056						0.094					
29	Copper(mg/l)	0.048						0.012					
30	Chromium(mg/l)	BDL						BDL					

31	Cadmium(mg/l)	BDL							BDL				
32	Zinc(mg/l)	0.054							0.11				
33	Lead(mg/l)	BDL							BDL				
34	Iron(mg/l)	1.588							0.27				
35	Manganese (mg/l)	0.147							0.053				
36	Cobalt (mg/l)	BDL							BDL				
37	Alpha BHC (mg/l)	BDL							BDL				
38	Beta BHC (mg/l)	BDL							BDL				
39	Gamma BHC (mg/l)	BDL							BDL				
40	Aldrin (mg/l)	BDL							BDL				
41	Dieldrin (mg/l)	BDL							BDL				
42	O,P-DDT (mg/l)	BDL							BDL				
43	P,P-DDT (mg/l)	BDL							BDL				
44	Alpha endosulfane (mg/l)	BDL							BDL				
45	β-endosulfane (mg/l)	BDL							BDL				
46	Carbaryl (mg/l)	BDL							BDL				
47	Anilofos (mg/l)	BDL							BDL				
48	Parathion methyl (mg/l)	BDL							BDL				
49	Malathion (mg/l)	BDL							BDL				
50	Chlorpyrifos (mg/l)	BDL							BDL				

**RIVER ZUARI AT MADKAI JETTY 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	7.89	7.65	7.98	7.33	7.67	8.2	7.41	7.6	7.71	7.1	7.06	7.6
2	Temperature °C	33	33	26.7	30	31	33	32	31	30	29	28	29.3
3	Conductivity µs/cm	49350	41260	46370	4669	5205	24980	25360	41500	49900	46700	40660	37880

4	Dissolved Oxygen mg/l	5.2	4.6	5.6	6.8	7.8	6.2	6.5	5.8	4.9	5.6	5	5
5	Turbidity (NTU)	16.56	20.5	13.19	27.3	16.6	13.98	18.77	13.29	13.81	11.92	15.79	4.12
6	Nitrite Nitrogen mg/l	BDL	0.05	0.05	0.04	0.007	0.043	0.009	0.009	0.1	0.02	0.02	0.06
7	Nitrogen(Nitrate) mg/l	0.19	0.15	0.2	0.63	0.15	0.09	0.157	0.07	0.32	0.31	0.14	0.01
8	Phosphate mg/l	0.02	0.06	0.04	0.16	0.09	BDL	BDL	0.05	0.05	0.02	0.06	0.11
9	BOD mg/l	1.1	2.4	2.4	4.2	3.1	1.8	1.5	1.6	1.9	1.9	1.3	2.4
10	COD mg/l	-			-	-				-			
11	Chloride mg/l	26274	39237.83	17744	1352.67	1846	15737	12141	15152.8	17605	23709	17872	14691
12	Fecal Coliform MPN/100 ml	490	130	450	780	1100	450	450	1300	450	200	450	450
13	Total Coliform MPN/100 ml	790	230	780	1100	1400	780	780	1700	780	450	780	1300
14	Ammonia mg/l	0.19	0.04	0.01	0.31	0.09	BDL	BDL	0.06	0.02	0.01	1.42	0.07
15	Total Dissolved Solids(mg/l)	39458	53105	68449	2801	2860	16767	17498	26770	29981	32690	26242	32685
16	Total Fixed Solids (mg/l)	-			-	200	9959	18848	22806	13656	25152	11544	8209
17	Total Suspended Solid (mg/l)	210	238	135	20	54	112	110	102	260	38	130	147
18	Hardness(mg/l)	5460	6600	5200	480	530	11800	3900	5000	8400	6000	4800	4640
19	Fluoride(mg/l)	-			-					-		BDL	0.66
20	Boron(mg/l)	-		6.1	1.43	4.78	1.19	1.14	7.12	9.65	2.17	BDL	2.11
21	Sulphate (mg/l)	3311.6	1344.63	45	54.8	77.9	1122	1135	1686	2.43	1689.2	2276	2006
22	Total Alkalinity(mg/l)	106	100	60	82	48	76	35	104	56	116	116	86
23	Phenolphthalein Alkalinity(mg/l)	8	8	6	-	0	0	0	0	0	0	4	2
24	Sodium(mg/l)	5069	899	6410	683.3	905.9	3071	3865	7405	257	6127	5389	1802
25	Potassium(mg/l)	330.3	4.8	254.6	34.6	38.6	144.3	198.5	266	5680	275.1	186.6	198

26	Calcium as CaCO3(mg/l)	920	1400	1200	80	98	1200	1500	481	641	1360	481	321
27	Magnesium(mg/l)	1103.2	1263	972	97.2	105	2576	2760	923	1652	631.8	878	933
28	Nickel(mg/l)	0.566						0.024					
29	Copper(mg/l)	0.115						0.014					
30	Chromium(mg/l)	BDL						BDL					
31	Cadmium(mg/l)	BDL						BDL					
32	Zinc(mg/l)	0.085						0.02					
33	Lead(mg/l)	0.648						0.068					
34	Iron(mg/l)	1.802						0.8					
35	Manganese (mg/l)	0.219						0.047					
36	Cobalt (mg/l)	BDL						0.009					
37	Alpha BHC (mg/l)	BDL						BDL					
38	Beta BHC (mg/l)	BDL						BDL					
39	Gamma BHC (mg/l)	BDL						BDL					
40	Aldrin (mg/l)	BDL						BDL					
41	Dieldrin (mg/l)	BDL						BDL					
42	O,P-DDT (mg/l)	BDL						BDL					
43	P,P-DDT (mg/l)	BDL						BDL					
44	Alpha endosulfane (mg/l)	BDL						BDL					
45	β-endosulfane (mg/l)	BDL						BDL					
46	Carbaryl (mg/l)	BDL						BDL					
47	Anilofos (mg/l)	BDL						BDL					
48	Parathion methyl (mg/l)	BDL						BDL					
49	Malathion (mg/l)	BDL						BDL					
50	Chlorpyrifos (mg/l)	BDL						BDL					

**RIVER ZUARI AT BORIM BRIDGE 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	7.77	7.25	7.6	6.25	6.24	7.57	7.01	7.13	7.2	7	6.95	7.2
2	Temperature °C	34	34.5	29.7	29	30	33	32	31	29	28	29	28.7
3	Conductivity µs/cm	35230	22340	27630	475.9	274.7	7190	9332	22500	37200	25300	27630	28910
4	Dissolved Oxygen mg/l	6.5	5.5	6.6	7	7.6	6.8	6.9	6.3	4.6	5.2	6.1	5.9
5	Turbidity (NTU)	5.83	19.09	28.4	16.19	9.35	3.35	18.16	6.34	8.97	6.07	108	13.4
6	Nitrite Nitrogen mg/l	0.03	BDL	0.02	BDL	0.002	0.005	0.008	0.002	0.01	0.05	0.12	0.12
7	Nitrogen(Nitrate) mg/l	0.07	0.314	0.1	0.44	0.16	0.04	0.17	0.12	0.45	0.93	0.05	0.17
8	Phosphate mg/l	0.02	0.03	0.03	0.14	0.023	BDL	BDL	0.007	0.03	0.03	0.04	0.041
9	BOD mg/l	1.4	1.8	3	3.3	1.8	2	1.3	2.1	1.6	2.4	3.4	2.5
10	COD mg/l	-			-	3	-			-			
11	Chloride mg/l	13065.1	21743.26	13996	127.19	65.1	2137	3133	7187.8	12991	12978	11656	9349
12	Fecal Coliform MPN/100 ml	490	230	1700	7900	7900	1700	1300	450	200	450	2300	1300
13	Total Coliform MPN/100 ml	700	330	2100	17000	13000	3300	1700	780	450	930	3300	2300
14	Ammonia mg/l	0.13	0.05	0.04	0.24	0.009	BDL	BDL	0.009	0.02	0.03	0.39	0.002
15	Total Dissolved Solids(mg/l)	26425	20343	35559	270	151.1	3580	6439	12544	21187	15180	18760	23118
16	Total Fixed Solids (mg/l)	-	88		-	76	1849	3319	10075	12728	12100	14669	7078
17	Total Suspended Solid (mg/l)	142	88	257	15	18	6	44	24	170	29	114	116
18	Hardness(mg/l)	3820	3400	2800	120	40	704	740	2600	4000	3200	3800	2960
19	Fluoride(mg/l)	-			-					-		BDL	1.78
20	Boron(mg/l)	-			0.59	0.22	2.95	2.22	4.27	4.22	4.26	BDL	1.48
21	Sulphate (mg/l)	1683.8	919.55	51	39	6.23	17.7	18.6	635.1	1365	834.4	1485	1466

22	Total Alkalinity(mg/l)	84	56	54	42	32	40	45	60	110	70	88	86
23	Phenolphthalein Alkalinity(mg/l)	8	2	15	-	0	0	0	0	8	0	0	0
24	Sodium(mg/l)	3463	5.7	3727	66.5	43.1	665.2	775.2	3587	200	3341	3647	1397
25	Potassium(mg/l)	234	3.7	158.1	4.3	2.9	45.2	50.3	162.4	4156	161.9	149.5	149
26	Calcium as CaCO <sub>3</sub> (mg/l)	640	800	600	80	14	134	150	240.5	601	561.12	401	224
27	Magnesium(mg/l)	772.74	631.8	535	9.72	6.32	138.5	140.7	486	608	437.4	680	583
28	Nickel(mg/l)	0.805						0.014					
29	Copper(mg/l)	0.13						0.009					
30	Chromium(mg/l)	BDL						BDL					
31	Cadmium(mg/l)	0.103						0.009					
32	Zinc(mg/l)	0.1						0.09					
33	Lead(mg/l)	0.822						BDL					
34	Iron(mg/l)	8.79						1.3					
35	Manganese (mg/l)	0.403						0.09					
36	Cobalt (mg/l)	BDL						BDL					
37	Alpha BHC (mg/l)	BDL						BDL					
38	Beta BHC (mg/l)	BDL						BDL					
39	Gamma BHC (mg/l)	BDL						BDL					
40	Aldrin (mg/l)	BDL						BDL					
41	Dieldrin (mg/l)	BDL						BDL					
42	O,P-DDT (mg/l)	BDL						BDL					
43	P,P-DDT (mg/l)	BDL						BDL					
44	Alpha endosulfane (mg/l)	BDL						BDL					
45	β-endosulfane (mg/l)	BDL						BDL					
46	Carbaryl (mg/l)	BDL						BDL					



47	Anilofos (mg/l)	BDL							BDL				
48	Parathion methyl (mg/l)	BDL							BDL				
49	Malathion (mg/l)	BDL							BDL				
50	Chlorpyrifos (mg/l)	BDL							BDL				

**RIVER TALPONA AT CANACONA 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	9.21	6.78	9.08	6.85	6.55	7.06	5.8	7.06	6.82	7.07	7.14	6.19
2	Temperature °C	34	34	31	29.3	30	29	34	30	29	28	26	27
3	Conductivity µs/cm	173.8	75.52	157.7	59.25	62.48	59.56	57.4	59.5	76.8	65.6	69.7	68.24
4	Dissolved Oxygen mg/l	4.9	6.6	5	7.5	8.1	7.8	7.8	7.9	6.8	7.5	6.7	7.6
5	Turbidity (NTU)	5.87	11.46	6.62	3.12	3.11	5.8	3.93	1.78	1.59	1.73	1.92	2.71
6	Nitrite Nitrogen mg/l	0.011	0.03	0.02	0.003	0.004	0.002	0.002	BDL	0.02	BDL	BDL	BDL
7	Nitrogen(Nitrate) mg/l	0.066	0.45	0.04	0.82	0.21	0.02	0.2	0.13	0.23	BDL	BDL	BDL
8	Phosphate mg/l	0.04	0.04	BDL	BDL	0.005	BDL	0.01	BDL	0.03	0.102	BDL	0.02
9	BOD mg/l	6.8	3.4	0.8	0.4	0.6	0.8	0.8	1.1	0.7	1.3	1	1.1
10	COD mg/l	30	10	10	8	14	6	6	8	10	8	4	22
11	Chloride mg/l	40.1	10.5	12.6	5.83	5.87	12.5	9	8.5	5.5	7.34	8	5.99
12	Fecal Coliform MPN/100 ml	33	790	33	490	230	230	490	330	1300	1300	20	78
13	Total Coliform MPN/100 ml	49	1700	49	1400	330	490	790	790	9200	1700	45	170
14	Ammonia mg/l	8.77	0.04	0.65	0.09	0.02	BDL	0.01	0.035	0.14	0.01	0.62	0.19
15	Total Dissolved solids(mg/l)	120	193	95	41	82	39	35	33	45	42	47	39
16	Total Fixed Solids (mg/l)	-				-		21	19	32	33	53	45

17	Total Suspended Solid (mg/l)	8	12	6	6	8	29	7	51	3	8	3	3
18	Hardness(mg/l)	56	18	26	24	16	22	20	18	24	16	30	20
19	Fluoride(mg/l)							-		-		0.3	0.71
20	Boron(mg/l)	0.014	0.19	1.42	0.02	2.79	0.78	2.66	BDL	0.75	0.72	0.01	3.6
21	Sulphate (mg/l)	1.05	2	1.87	4.05	3.66	2.6	0.69	BDL	BDL	6.1	BDL	3.59
22	Total Alkalinity(mg/l)	64	36	20	20	20	38	32	36	40	24	22	70
23	Phenolphthalein Alkalinity(mg/l)	18	0	0	0	0	0	0	BDL	0	0	0	0
24	Sodium(mg/l)	10.3	1.1	31.6	5.3	5.3	4.9	6.8	9	1.6	5.4	3.1	15.1
25	Potassium(mg/l)	0.2	0.2	1.7	0.5	1.5	0.5	3.8	2.2	0.6	0.5	1.6	7.1
26	Calcium as CaCO <sub>3</sub> (mg/l)	52	14	14	10	8	16	8	3.2	5.6	4	4.8	4.81
27	Magnesium(mg/l)	0.97	BDL	2.9	3.4	BDL	BDL	2.9	2.43	2.43	1.46	4.3	2
28	Nickel(mg/l)	BDL						0.051					
29	Copper(mg/l)	0.03						0.007					
30	Chromium(mg/l)	BDL						BDL					
31	Cadmium(mg/l)	BDL						BDL					
32	Zinc(mg/l)	0.034						0.074					
33	Lead(mg/l)	BDL						BDL					
34	Iron(mg/l)	0.408						0.87					
35	Manganese (mg/l)	0.2						0.037					
36	Cobalt (mg/l)	BDL						BDL					
37	Alpha BHC (mg/l)	BDL						BDL					
38	Beta BHC (mg/l)	BDL						BDL					
39	Gamma BHC (mg/l)	BDL						BDL					
40	Aldrin (mg/l)	BDL						BDL					
41	Dieldrin (mg/l)	BDL						BDL					

42	O,P-DDT (mg/l)	BDL							BDL				
43	P,P-DDT (mg/l)	BDL							BDL				
44	Alpha endosulfane (mg/l)	BDL							BDL				
45	$\beta$ -endosulfane (mg/l)	BDL							BDL				
46	Carbaryl (mg/l)	BDL							BDL				
47	Anilofos (mg/l)	BDL							BDL				
48	Parathion methyl (mg/l)	BDL							BDL				
49	Malathion (mg/l)	BDL							BDL				
50	Chlorpyrifos (mg/l)	BDL							BDL				

**RIVER SAL AT MOBOR 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	7.75	7.94	7.93	8.29	7.91	8.25	7.07	8	7.71	7.98	7.04	8.1
2	Temperature °C	31	34	31	31	31.5	24.2	30	32	27.5	30	27	32
3	Conductivity $\mu$ s/cm	43590	54640	65120	37020	47810	51210	48700	51500	48300	47400	36220	55070
4	Dissolved Oxygen mg/l	5.9	9.6	5.8	6	6.2	2.8	4.5	4.7	5.4	6.2	4.8	5.8
5	Turbidity (NTU)	38.7	3.05	10.49	9.09	4.85	2.95	0.49	2.33	78	5.37	12.28	4
6	Nitrite Nitrogen mg/l	0.018	0.027	0.008	0.003	0.006	0.01	0.06	0.01	0.016	BDL	0.08	0.02
7	Nitrogen(Nitrate) mg/l	0.103	0.25	0.11	0.29	0.02	0.04	0.11	8.92	0.2	0.2	BDL	0.2
8	Phosphate mg/l	0.066	0.03	BDL	0.06	0.06	0.11	0.07	0.04	0.046	0.04	0.04	0.01
9	BOD mg/l	2	5.1	1.5	5.1	2	1.3	3.4	3.2	2	1.2	1.3	0.5
10	COD mg/l	-	-			-							
11	Chloride mg/l	18744.2	21993.2	20397.9	15745	21118	19898.8	22112.29	5148	19446.1	23709	18218.6	21993
12	Fecal Coliform MPN/100 ml	790	1300	1300	1700	4900	3300	2300	2200	1300	200	3300	1300

13	Total Coliform MPN/100 ml	1300	1700	1700	2200	9400	4900	3300	2700	2300	450	4600	2300
14	Ammonia mg/l	0.01	0.05	0.57	0.07	0.05	0.09	0.07	0.26	0.06	BDL	1.09	0.12
15	Total Dissolved Solids(mg/l)	60798	30300	38496	20361	38261	29611	29220	58762	27599	27492	25354	36559
16	Total Fixed Solids (mg/l)	-	-			-		19560	28032	17005	22195	27400	29086
17	Total Suspended Solid (mg/l)	266	161	136	375	108	140	35	242	148	10	83	11
18	Hardness(mg/l)	5000	7220	28200	4600	340	360	5900	13500	5800	7600	5600	7500
19	Fluoride(mg/l)	-	-									4.38	2.7
20	Boron(mg/l)	-	3.92	3.57	1.78	0.64	0.62		11.82	7.19	2.1	7.82	
21	Sulphate (mg/l)	2720	1836.7	2736	623	2160	2255	2541.48	2880	2112.5	2372.5	1666.75	1852
22	Total Alkalinity(mg/l)	126	122	114	148	106	112	104	100	108	104	120	30
23	Phenolphthalein Alkalinity(mg/l)	5	10	8	4	0	20	8	0	4	0	0	0
24	Sodium(mg/l)	3794	7574	8218	6247	8412	10577	6724	5109	5898	6918	4692	2545
25	Potassium(mg/l)	241	302.7	258.6	211.7	256	4029	246.6	236.1	258.5	303.1	188.1	249
26	Calcium as CaCO <sub>3</sub> (mg/l)	2000	980	5000	80	180	200	1060	2100	400.8	1603	1122.2	1002
27	Magnesium(mg/l)	729	1516.3	5637.6	1098	38.9	30.9	1176.12	2770	1166.4	875	680.4	1215
28	Nickel(mg/l)	0.783						0.02					
29	Copper(mg/l)	0.107						0.014					
30	Chromium(mg/l)	0.058						BDL					
31	Cadmium(mg/l)	BDL						0.038					
32	Zinc(mg/l)	0.1						0.15					
33	Lead(mg/l)	0.801						0.127					
34	Iron(mg/l)	3.855						0.85					
35	Manganese (mg/l)	0.623						0.053					

36	Cobalt (mg/l)	BDL							BDL				
37	Alpha BHC (mg/l)	BDL							BDL				
38	Beta BHC (mg/l)	BDL							BDL				
39	Gamma BHC (mg/l)	BDL							BDL				
40	Aldrin (mg/l)	BDL							BDL				
41	Dieldrin (mg/l)	BDL							BDL				
42	O,P-DDT (mg/l)	BDL							BDL				
43	P,P-DDT (mg/l)	BDL							BDL				
44	Alpha endosulfane (mg/l)	BDL							BDL				
45	β-endosulfane (mg/l)	BDL							BDL				
46	Carbaryl (mg/l)	BDL							BDL				
47	Anilofos (mg/l)	BDL							BDL				
48	Parathion methyl (mg/l)	BDL							BDL				
49	Malathion (mg/l)	BDL							BDL				
50	Chlorpyrifos (mg/l)	BDL							BDL				

**RIVER SAL AT KHAREBAND, MARGAO 2017-2018**

Sr. No	Parameters	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
1	pH	Sample not collected due to inaccessibility	Sample not collected due to inaccessibility	6.13	6.2	6.58	6.95	6.02	6.87	6.95	6.91	6.69	
2	Temperature °C			29	29	30.5	24.3	29	32	27	29	25.2	
3	Conductivity µs/cm			738.4	125.3	162.25	167.3	135.5	310.7	353	149.5	165.4	
4	Dissolved Oxygen mg/l			2.4	1.9	2.6	1.8	3.6	7.6	1.5	2	0.3	
5	Turbidity (NTU)			17.43	13.55	8.51	13.2	2.82	19.65	13.1	7.44	25.9	
6	Nitrite Nitrogen mg/l			0.35	0.002	0.11	BDL	0.08	2.4	0.015	1.22	6.05	

7	Nitrogen(Nitrate) mg/l	0.43	0.98	0.35	0.51	0.58	0.35	1.05	3.46	5.72
8	Phosphate mg/l	0.02	0.08	0.12	0.04	0.06	0.24	0.194	0.11	0.24
9	BOD mg/l	1.9	5	-	-	0.5	1.7	16.8	5.8	4
10	COD mg/l			12		20	10		12	10
11	Chloride mg/l	42.7	20	25.49	29.49	53.81	50.99	1589.9	37.4	31.4
12	Fecal Coliform MPN/100 ml	54000	11000	35000	24000	24000	54000	13000	24000	24000
13	Total Coliform MPN/100 ml	92000	17000	54000	35000	35000	92000	24000	54000	92000
14	Ammonia mg/l	0.63	0.09	0.23	0.12	0.19	0.82	0.16	0.035	0.15
15	Total Dissolved Solids(mg/l)	427	75	145	260	84	23980	210	99	105
16	Total Fixed Solids (mg/l)					38	16889	105	49	182
17	Total Suspended Solid (mg/l)	67	46	10	21	46	46	22	21	33
18	Hardness(mg/l)	80	40	156	154	56	66	600	400	2600
19	Fluoride(mg/l)									0.33
20	Boron(mg/l)		1.18	0.4	0.5		6.6	4	0.09	6.27
21	Sulphate (mg/l)	14.36	2.15	6	94	10.9	3.36	14.98	9.1	4.52
22	Total Alkalinity(mg/l)	70	38	40	44	58	74	44	64	58
23	Phenolphthalein Alkalinity(mg/l)	0	0	0	0	0	0	0	0	0
24	Sodium(mg/l)	32.6	14	19.6	4	40.7	45.6	36.9	33.4	37
25	Potassium(mg/l)	5.8	1.2	2.5	0.8	4.2	7.7	3.3	2.4	6
26	Calcium as CaCO3(mg/l)	6	26	16	18	28	38	160.3	80	641.3

27	Magnesium(mg/l)		18	3.4	34	33	6.8	6.8	48.6	48.6	243	
28	Nickel(mg/l)						0.047					
29	Copper(mg/l)						0.024					
30	Chromium(mg/l)						BDL					
31	Cadmium(mg/l)						BDL					
32	Zinc(mg/l)						0.17					
33	Lead(mg/l)						BDL					
34	Iron(mg/l)						0.21					
35	Manganese (mg/l)						0.088					
36	Cobalt (mg/l)						BDL					
37	Alpha BHC (mg/l)						BDL					
38	Beta BHC (mg/l)						BDL					
39	Gamma BHC (mg/l)						BDL					
40	Aldrin (mg/l)						BDL					
41	Dieldrin (mg/l)						BDL					
42	O,P-DDT (mg/l)						BDL					
43	P,P-DDT (mg/l)						BDL					
44	Alpha endosulfane (mg/l)						BDL					
45	β-endosulfane (mg/l)						BDL					
46	Carbaryl (mg/l)						BDL					
47	Anilofos (mg/l)						BDL					
48	Parathion methyl (mg/l)						BDL					
49	Malathion (mg/l)						BDL					
50	Chlorpyrifos (mg/l)						BDL					