

National Mission for Clean Ganga

Format for submission of Monthly Progress Report (MPR) in the NGT
Matter O.A. No. 673 of 2018 (in compliance to NGT order dated 24.09.2020)

For the State of GOA

Overall status of the State:

I. Total Population: Urban Population & Rural Population separately.

Urban Population:- 9,37,788 and Rural Population:-5,20,757. (Census 2011)

II. Estimated Sewage Generation (MLD): 112.53 MLD (Urban area only)

III. Details of Sewage Treatment Plant:

- Existing no. of STPs and Treatment Capacity (in MLD): 09 STPs' with 78.35 MLD capacity
- Capacity Utilization of existing STPs: 29.05 MLD.
- MLD of sewage being treated through Alternate technology: In state of Goa where sewer network is not available, Septic Tank- Soak Pit arrangement is adopted. Many Hotels and residential buildings (with 50 flats & above) have their own Package Treatment Plant (as governed by TCP Act 2010). Sulabh toilets (PWD) are provided for group of houses/community and Bio-toilets have been provided under Open Defecation Free (ODF) policy in Goa.
- Gap in Treatment Capacity in MLD: Negligible.
- No. of Operational STPs: 09 nos.
- No. of Complying STPs: 09 nos.
- No. of Non-complying STPs: NIL

Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
1.	Shirvodem, Navelim.	20 - MLD	08 - MLD	Operational	Complied-with
2.	Vasco	20 – MLD	06 – MLD	Operational	Complied-with
3.	Durbhat	01 – MLD	0.4 – MLD	Operational	Complied-with
4.	Goa Medical College	1.35 MLD	0.5 – MLD	Operational	Complied-with

	(GMC)				
5.	Sancoale	01 – MLD	01 – MLD	Operational	Complied-with
6.	Sanquelim	0.8 – MLD	0.15 – MLD	Operational	Complied-with
7.	Tonca, Panaji	12.5 – MLD	10 – MLD	Operational	Complied-with
8.	Tonca, Panaji	15 – MLD	02 – MLD	Operational	Complied-with
9.	Shirvodem- Navelim	6.7 – MLD	01 – MLD	Operational	Complied-with

Details of under construction STPs in the State

No.	Location	Capacity of the plant in MLD	Physical Progress (in %)	Status of I&D or House sewer connections	Completion Timeline
1	Kavlem, Ponda	15 –MLD	91% of civil works STP completed and Electrical / Mechanical works will be started after monsoons. Around 88% of the sewer-network is completed.	House connection can start in September 2021.	December 2021
2	Colva	7.5 – MLD	70% of sewer-network is completed. STP is ready for trial-run.	House connections can start in September 2021.	
3	Patto, Panaji	02 – MLD	55% physical progress.	100% completed	
4	Mapusa	5.4 – MLD	85% progress	House connections can start in September 2021.	
5	Baga	6.5 – MLD	90% progress	House connections can star in September 2021.	

Details of proposed STPs in the State

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
1.	Undir, Bandora	15 – MLD	STP work could not be started due to local issues. Around 60% of the sewer-network is completed.	16-months time-period required from star of work.
2.	Curti, Ponda	08- MLD	STP work could not be started due to local issues.	

			Around 90% of the sewer-network is completed.	
3.	Porvorim	20 – MLD	STP work could not be started due to local issues. Around 80% of the sewer-network is completed. House connections yet to be started.	

IV. Details of Industrial Pollution:

- No. of industries in the State: 8,611
- No. of water polluting industries in the State: Nil
- Quantity of effluent generated from the industries in MLD:
- Quantity of Hazardous Sludge generated from the Industries in TPD:
- Number of industrial units having ETPs: 209
- Number of industrial units connected to CETP: State does not have any CETP
- Number and total capacity of ETPs (details of existing/ under construction / proposed)
- Compliance status of the ETPs: 207
- Number and total capacity of CETPs (details of existing/ under construction / proposed) : State does not have any CETP
- Status of compliance and operation of the CETPs : Not Applicable in view of above.

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (existing, under construction & proposed)
Not Applicable				

V. Solid Waste Management:

- Total number of Urban Local Bodies and their Population: As referred in MPR for the month ending September 2020.
- Current Municipal Solid Waste Generation: 766 tons per day (TPD) – as per the waste characterization report, 2018.
- Number, installed capacity and utilization of existing MSW processing facilities in TPD (bifurcated by type of processing e.g.- Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, decentralized pit composting), biomethanation, MRF etc., As referred in MPR for the month ending September 2020.
- Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%): As referred in MPR for the month ending September 2020.

- No. and capacity of C&D waste processing plants in TPD (*existing, proposed and under construction*): State has proposed 500-TPD capacity C & D waste processing plant at Cudchirem in Bicholim, North Goa district.
- Total no. of wards, no. of wards having door to door collection service, no. of wards practicing segregation at source: As referred in MPR for the month ending September 2020.
- Details of MSW treatment facilities proposed and under construction (*no., capacity, and technology*): As referred in MPR for the month ending September 2020.
- No. and area (*in acres*) of uncontrolled garbage dumpsites and Sanitary Landfills.: N.A.
- No. and area (*in acres*) of legacy waste within 1km buffer of both sides of the rivers: Nil.
- No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers: Nil.

Status of ULB wise Management of Solid Waste

ULB	Total MSW generation in TPD	Total MSW being processed in TPD	Existing MSW facilities	Utilization Capacity of the existing MSW facilities	Proposed MSW Facilities & Completion Timeline
As referred in MPR for the month ending September 2020.					

VI. Bio-medical Waste Management: *As per Annual report*

- Total Bio-medical generation: 2,992 kgs. per day (*bio-medical waste*) / 17,179 kgs. per day (*sanitary waste*).
- No. of Hospitals and Health Care Facilities: As referred in MPR for the month ending September 2020.
- Status of Treatment Facility/ CBMWTF: As referred in MPR for the month ending September 2020.

VII. Hazardous Waste Management: *As per Annual report*

- Total Hazardous Waste generation:
 - (a) Incinerable waste : 20,200.38 TPA
 - (b) Land-fillable waste : 6,022.44 TPA
 - (c) Recyclable waste : 1.00 TPA
 - Total : 23,993.36 TPA.
- No. of Industries generating Hazardous waste : 1,628 nos.
- Treatment Capacity of all TSDFs : 16,846 metric tons per year
- Avg. Quantity of Hazardous waste reaching the TSDFs and Treated: Currently, majority of the HW-generated is disposed through Inter-State movement by recycling

/ utilization / disposal at common secured landfill site / common incinerator / co-processing to neighboring States under valid agreement.

- Details of on-going or proposed TSDF : The State has proposed Common Hazardous Waste Treatment Facility at Pissurlem Industrial Estate. The same has been referred in Annexure – D above.

VIII. Plastic Waste Management:

- Total Plastic Waste generation: 80.66 Tons per day (TPD) – *as per the waste characterization report, 2018*
- Treatment/ Measures adopted for reduction or management of plastic waste: As referred in MPR for the month ending September 2020.

IX. Details of Alternate Treatment Technology being adopted by the State/UT : The State has proposed to set-up Plastic-to-Fuel plant at Pernem Municipal Council (North Goa) on a trial-basis. It is expected to start the work by this month-end.

X. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment: There is no industrial discharge within any of the polluted river-stretches. However, water-quality has been analysed – **refer Annexure - 1**

XI. Details of Nodal Officer appointed by Chief Secretary in the State/UT: Secretary, Environment is a Nodal Officer to be assisted by Director, Department of Environment & Climate Change (DoE & CC), Goa.

XII. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT: The State, in compliance to the NGT Order in a matter of 606 of 2018 (*SWM-related matters & Ors.*), has constituted the State Level Committee (SLC) under the Chairmanship of Chief Secretary and has conducted twenty meetings so-far, the last being on 19th November 2020.

XIII. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river; **refer Annexure – 2.**

XIV. Ground water regulation: (a) Ground Water Act, 2002 is enacted in the State of Goa, (b) Ground water extraction is being monitored, (c) It is mandatory to register all the ground water structures in the State, (d) Commercial ground water extraction is levied with water tax, (e) Goa is declared as ‘Safe zone’ under the Ground water development by the Central Ground Water Board (CGWB) –

Expected level of compliance : 100%, Actual compliance : 80%, Target : March 2021.

XV. Good irrigation practices being adopted by the State: Water User Associations (WUAs) are formed to economise the use of water.

Expected level of compliance: 80%, Actual compliance: 60%, Target: May 2021.

XVI. Rain Water Harvesting: Although the State receives abundant rainfall to the tune of about 160-inches per year, the Town and Country Planning (TCP) Department has made roof-top rainwater harvesting mandatory for multi-dwelling units as well as residential-cum-commercial complexes. Department of Industries, Trade and Commerce (DITC) is encouraging the industries to adopt rainwater harvesting initiatives.

Expected level of compliance: 50%, Actual compliance: 20%, Target: March 2021.

XVII. Demarcation of Floodplain and removal of illegal encroachments: 70%, Expected level of compliance: 100%, Actual compliance: 80%, Target: March 2021.

XVIII. Maintaining minimum e-flow of river: Rivers are perennial. There is no issue of e-flow in major rivers.

XIX. Plantation activities along the rivers: Major stretches of lower-reaches of major rivers (*i.e. downstream regions*) are flanked by mangroves while, along upper-reached (*i.e. upstream regions*), there is either coconut plantation or no space for any plantation.

XX. Development of Biodiversity Park: As referred in MPR for the month ending September 2020.

XXI. Reuse of Treated Water:, Although there is no agricultural demand, part utilization has been proposed for (i) release of STP-treated water at Colva into Sal-river so as to maintain the flow, (ii) flushing of St. Inez creek, (iii) municipal gardening, (iv) social forestry, (v) private-plantation, (vi) dust-suppression measures and every attempt is being made to utilize the STP-treated waters.

XXII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards: As referred in MPR for the month ending September 2020.

XXIII. Status of Preparation of Action Plan by the 13 Coastal States: Central Pollution Control Board (CPCB) has approved the Action plans prepared for Sal river (*priority criteria- III*) as well as Mandovi and Talpona rivers (*both falling under priority criteria – IV*). In the remaining eight pollutes river-stretches, various

Action Plan Strategies (APSs') which are proposed in respective action plan are being reviewed by the Secretary, (Environment) recently on 09th November 2020, in the capacity of Chairman, RRC-Goa with specific reference to on-site status vis-à-vis timelines for its completion.

XXIV. Regulation of Mining Activities in the State/UT: It is being monitored as per Hon'ble Supreme Court Directives through the Department of Mines and Geology (DMG).

XXV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring: Ground water and river waters are monitored under Goa Ground Water Act, 2002 and Goa Irrigation Act, 1973 respectively by Ground Water and Canal Officers respectively.

Expected level of compliance: 100%, Actual compliance: 80%, Target: May 2021.

Annexure – 1

LIMITS	SW-II	6.5-8.5	≥4.0	≤3.0		100		
	Class C	6.0-9.0	≥4.0	≤3.0	≤5000			
Sampling Date	Name of the Rivers	pH	DO	BOD	Total Coliform	Fecal Coliform	E.Coli	Fecal Streptococci
08.11.2019	Rv. Assanora near Alto Porvorim	6.60	6.5	BDL	2200	1700	Present	151
08.11.2019	Rv. Assanora near Ambarim	7.00	7.0	BDL	3500	1700	Present	>1601
08.11.2019	Rv. Assanora near Calvim	6.64	5.5	BDL	2200	1300	Present	1601
08.11.2019	Rv. Assanora near Indira Nagar	7.07	6.1	BDL	2800	2200	Present	>1601
08.11.2019	Rv. Assanora near Karaswada	7.11	4.0	BDL	2200	1700	Present	95
08.11.2019	Rv. Talpona at Shree Samsthana Gokam Partajali Jeevottam Mata	6.66	7.9	BDL	2400	1300	Present	13
08.11.2019	Rv. Talpona near Mastimol	6.74	7.3	BDL	5400	2200	Present	221
11.11.2019	Riv.Chapora near Siolim	6.69	4.7	BDL	3500	1100	Present	541
11.11.2019	Riv.Chapora near Agarwada	7.46	7.3	BDL	1700	790	Present	151
11.11.2019	Riv.Chapora near Pernem	7.0	4.9	2.1	3500	2400	Present	151
11.11.2019	Rv. Chapora near Arabo	6.62	6.3	BDL	2400	790	Present	22
11.11.2019	Rv. Chapora near Ozarim	6.69	7.5	BDL	5400	3500	Present	1601
11.11.2019	Rv. Chapora near Manecurim	Sample Not Collected						
11.11.2019	Rv. Chapora near Salem	6.80	7.4	BDL	9200	5400	Present	>1601
11.11.2019	Rv. Bicholim near Azad Jama Masjid	6.74	7.5	BDL	490	230	Present	221
12.11.2019	Rv. Sal at Kankamoddi	6.8	7.0	BDL	13000	7900	Present	351
12.11.2019	Rv. Sal at Jackniband bus stand	6.6	7.1	BDL	22000	7900	Present	48
12.11.2019	Rv. Sal at 20MLD STP, Shirvodem	6.8	2.4	6.0	17000	11000	Present	151
12.11.2019	Riv.Sal at Kamat Hotel	6.58	5.7	BDL	28000	13000	Present	351
12.11.2019	Riv.Sal at Tanishq, Colva circle	6.6	0.5	7.44	35000	17000	Present	>1601
12.11.2019	Riv.Sal at District hospital	6.56	3.7	BDL	24000	13000	Present	95
13.11.2019	Riv.Valvanti near Karapur	6.17	7.3	BDL	1700	1100	Present	64
13.11.2019	Riv.Khandepar near Dabal bus stand	6.33	7.2	BDL	2200	1700	Present	221
13.11.2019	Riv.Khandepar near Nirankar	6.25	7.1	BDL	1400	1100	Present	221
13.11.2019	Riv.Khandepar near Kodar	6.30	7.3	BDL	2800	2200	Present	171
13.11.2019	Riv.Khandepar near Codli	6.39	7.2	BDL	490	230	Present	95
	Riv.Khandepar near Piliem	Sample Not Collected						
13.11.2019	Riv.Mandovi near Padoli	6.79	7.5	BDL	1700	1100	Present	221
13.11.2019	Riv.Mandovi near Ganjem	6.97	7.7	BDL	1300	490	Present	151
13.11.2019	Riv.Mandovi near Pilgao	6.72	7.5	BDL	3500	2400	Present	>1601

13.11.2019	Riv.Mandovi near Candola	6.76	6.1	2.1	330	230	Present	151
13.11.2019	Riv.Mandovi near Narve	6.71	6.3	BDL	1300	490	Present	171
13.11.2019	River Mandovi near Ella	7.1	5.8	BDL	1100	490	Present	48
13.11.2019	River Mandovi near Sao Matias	7.2	7.4	2.6	330	230	Present	221
13.11.2019	River Mandovi near Porvorim	7.5	5.8	BDL	2400	790	Present	71
13.11.2019	River Mandovi near Panaji	7.6	5.1	BDL	3500	1300	Present	49
15.11.2019	River Mandovi near Aguada Fort	7.3	6.0	2.1	490	230	Present	151
	River Mandovi near Vagurbem	Sample Not Collected						
15.11.2019	River Terekhol near Shipeyetuwadi	7.1	1.5	4.0	2200	1700	Present	1601
15.11.2019	River Terekhol near Bhaljhajan	7.1	7.2	BDL	330	230	Present	221
15.11.2019	River Terekhol near Savarjuva	7.2	7.7	2.3	220	130	Present	33
15.11.2019	River Terekhol near Corgao	7.5	6.8	BDL	1700	790	Present	95
15.11.2019	River Terekhol near Talawane	6.71	7.6	2.6	2200	1700	Present	>1601
15.11.2019	River Terekhol near Kindala	6.65	7.1	BDL	1100	790	Present	85
15.11.2019	River Terekhol near Nanerwada	6.59	7.9	BDL	2200	1300	Present	48
15.11.2019	River Terekhol near Kavathani	6.62	8.0	BDL	3500	1700	Present	151
15.11.2019	River Terekhol near Casino	6.74	7.9	BDL	940	490	Present	48
15.11.2019	Riv.Terekhol near Tamboso	7.00	7.9	BDL	240	170	Present	48
15.11.2019	Riv.Zuari at Marcaim	7.07	5.8	2.6	3500	2400	Present	>1601
15.11.2019	Riv.Zuari at Bandora	6.01	6.9	2.0	5400	3500	Present	221
15.11.2019	Riv.Zuari at Cortalim	6.18	6.8	BDL	7900	4900	Present	151
	Riv.Zuari at Curchorem	Sample Not Collected						
	Riv.Zuari at Savardem	Sample Not Collected						
	Riv.Zuari at Macasana	Sample Not Collected						

Annexure 2

DATA of 11 polluted river stretches from May 20-Oct 2020 for major Rivers

1.RIVER CHAPORA NEAR ALORNA FORT, PERNEM

Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.99	7.33	6.53	6.85	6.5	6.86	6.0-9.0
2	Dissolved Oxygen mg/l	6.1	6.5	7.2	7.5	6.9	7.6	4 mg/l or more
3	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
4	Total Coliform MPN/100ml	2300	3300	2700	3200	2600	2700	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits.								

RIVER CHAPORA NEAR SIOLIM BRIDGE

Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.85	5.9	6.72	7.75	6.7	7.58	6.5-8.5
2	Turbidity (NTU)	17.10	6.17	16.80	43.32	14.67	5.34	30 NTU
3	Dissolved Oxygen mg/l	6.0	5.9	6.6	7.2	7.3	7.0	4 mg/l or more
4	BOD mg/l	2.0	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	280	1300	1300	1100	1100	2300	100 or less MPN/100ml

Remarks: pH is below permissible limit in the month of June 20. Turbidity is exceeding the permissible limit in the month of Aug 20. Fecal Coliform is exceeding the permissible limit from May 20 to Oct 20.

2.RIVER TIRACOL AT KERI, PERNEM

Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.82	7.68	6.64	6.88	6.5	7.09	6.5-8.5
2	Turbidity (NTU)	6.46	11.94	30.9	60.4	19.53	6.11	30 NTU
3	Dissolved Oxygen mg/l	5.0	5.5	6.6	6.3	8.2	6.5	4 mg/l or more
4	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	130	140	230	210	170	490	100 or less MPN/100ml

Remarks: Turbidity is exceeding the permissible limit in the month of Aug 20. Fecal Coliform is exceeding the permissible limit from May 20 to Oct 20.

3.RIVER SINQUERIM, CANDOLIM SIDE

Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.68	7.6	7.6	7.2	7.5	7.4	6.5-8.5
2	Turbidity (NTU)	7.51	4.98	13.8	23.7	30	4.90	30 NTU
3	Dissolved Oxygen mg/l	4.7	5.4	7.2	7.5	6.0	4.9	4 mg/l or more
4	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	330	2200	1300	1400	1100	2300	100 or less MPN/100ml

Remarks: Fecal Coliform is exceeding the permissible limit from May 20 to Oct 20.

RIVER SINQUERIM, NEAR GANPATI TEMPLE

Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.78	7.6	7.6	7.4	7.4	7.4	6.5-8.5
2	Turbidity (NTU)	6.48	5.48	14.17	24.4	14.73	4.54	30 NTU
3	Dissolved Oxygen mg/l	6.5	5.2	7.1	7.2	6.2	5.9	4 mg/l or more
4	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	490	1400	2700	2100	1700	2200	100 or less MPN/100ml
Remarks: Fecal Coliform is exceeding the permissible limit from May 20 to Oct 20.								

4.RIVER ZUARI AT MADKAI JETTY								
Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.8	6.7	6.5	6.58	6.48	7.5	6.5-8.5
2	Turbidity (NTU)	8.19	3.06	12.78	41.7	14.07	6.21	30 NTU
3	Dissolved Oxygen mg/l	5.0	4.0	6.2	7.5	7.0	4.8	4 mg/l or more
4	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	790	1100	1300	780	680	1300	100 or less MPN/100ml
Remarks: pH is below permissible limit in the month of Sept 20. Turbidity is exceeding the permissible limit in the month of Aug 20. Fecal Coliform is exceeding the permissible limit from May 20 to Oct 20.								

RIVER ZUARI AT BORIM BRIDGE								
Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.10	6.71	6.32	6.50	6.30	6.74	6.5-8.5
2	Turbidity (NTU)	17.70	3.11	44.00	13.63	14.18	3.63	30 NTU

3	Dissolved Oxygen mg/l	3.8	4.5	6.3	7.0	6.5	6.1	4 mg/l or more
4	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	130	230	450	400	450	1100	100 or less MPN/100ml
Remarks: pH is below permissible limit in the month of July 20 and Sept 20. Turbidity is exceeding the permissible limit in the month of July 20. Fecal Coliform is exceeding the permissible limit from May 20 to Oct 20.								

5.RIVER ASSANORA AT ASSANORA								
Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.42	6.98	6.34	6.81	5.69	6.19	6.0-9.0
2	Dissolved Oxygen mg/l	5.7	6.8	6.5	6.9	6.5	6.9	4 mg/l or more
3	BOD mg/l	2.2	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
4	Total Coliform MPN/100ml	1700	1100	490	460	340	1300	5000 or less MPN/100ml
Remarks: pH is below permissible limit in the month of Sept 20.								

6.RIVER VALVANTI AT SANQUELIM								
Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.89	6.84	6.14	6.63	5.86	6.15	6.0-9.0
2	Dissolved Oxygen mg/l	6.4	6.4	7.6	7.7	7.5	7.8	4 mg/l or more
3	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
4	Total Coliform MPN/100ml	2200	3300	3300	2700	2600	3200	5000 or less MPN/100ml
Remarks: pH is below permissible limit in the month of Sept 20.								

7.RIVER KHANDEPAR, OPA, PONDA

Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.43	6.88	6.31	6.3	6.5	6.78	6.0-9.0
2	Dissolved Oxygen mg/l	6.7	6.5	7.3	7.6	7.0	7.1	4 mg/l or more
3	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
4	Total Coliform MPN/100ml	220	330	790	700	630	790	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits.								

RIVER KHANDEPAR, CODLI								
Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.78	7.25	6.1	6.78	6.42	6.89	6.0-9.0
2	Dissolved Oxygen mg/l	6.5	7.0	7.0	7.5	7.5	7.1	4 mg/l or more
3	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
4	Total Coliform MPN/100ml	230	220	260	220	210	700	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits.								

8.RIVER BICHOLIM BARAZAN NAGAR, BICHOLIM								
Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.73	6.31	6.07	6.07	5.9	5.93	6.0-9.0
2	Dissolved Oxygen mg/l	5.8	5.9	7.0	7.2	6.2	7.0	4 mg/l or more
3	BOD mg/l	2.0	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
4	Total Coliform MPN/100ml	4600	7000	7900	5800	4600	7000	5000 or less MPN/100ml

Remarks: pH is below permissible limit in the month of Sept 20 and Oct 20. Total Coliform is exceeding the permissible limit from June to Aug 20, Oct 20.

9.RIVER MANDOVI AT TONCA MARCELA

Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.2	6.88	6.57	6.47	6.74	6.24	6.5-8.5
2	Turbidity(NTU)	6.69	3.12	44.8	16.27	7.91	17.51	30 NTU
3	Dissolved Oxygen mg/l	5.2	4.0	6.5	7.3	7.0	6.7	4 mg/l or more
4	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	680	780	9300	1100	790	1100	100 or less MPN/100ml

Remarks: pH is below permissible limit in the month of Aug 20 and Oct 20. Turbidity is exceeding the permissible limit in the month of July 20. Fecal Coliform is exceeding the permissible limit from May 20 to Oct 20.

10.RIVER TALPONA AT CANACONA

Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.46	6.59	6.41	6.35	6.59	6.59	6.0-9.0
2	Dissolved Oxygen mg/l	6.8	7.0	7.1	7.4	7.3	7.4	4 mg/l or more
3	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
4	Total Coliform MPN/100ml	780	2700	4600	2200	2100	2200	5000 or less MPN/100ml

Remarks: All parameters are within permissible limits.

11.RIVER SALAT KHAREBAND,MARGAO

Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	Sample Not collected due to excessive growth of water hyacinth	Sample Not collected due to excessive growth of water hyacinth	6.8	7.23	6.86	6.72	6.5-8.5
2	Turbidity(NTU)			7.87	3.64	6.87	7.23	30 NTU
3	Dissolved Oxygen mg/l			4.7	4.3	4.0	2.8	4 mg/l or more
4	BOD mg/l			BDL	BDL	BDL	3.1	3 mg/l or less
5	Fecal Coliform MPN/100ml			7000	4900	5800	4900	100 or less MPN/100ml
Remarks: Dissolved Oxygen is below permissible limit in the month of Oct 20. BOD is exceeding permissible limit in the month of Oct 20. Fecal Coliform is exceeding the permissible limit from July 20 to Oct 20.								

RIVER SAL AT MOBOR								
Sr.No.	Parameters	May -20	June -20	July -20	Aug -20	Sept- 20	Oct- 20	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.72	7.82	7.8	6.89	7.34	7.21	6.5-8.5
2	Turbidity(NTU)	16.73	13.78	38.1	25.81	5.33	3.01	30 NTU
3	Dissolved Oxygen mg/l	5.0	6.0	6.5	6.4	5.6	6.0	4 mg/l or more
4	BOD mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	1300	1700	2700	1300	1100	1700	100 or less MPN/100ml
Remarks: Turbidity is exceeding the permissible limit in the month of July 20. Fecal Coliform is exceeding the permissible limit from May 20 to Oct 20.								

NOTE:

1)BDL- Below Detection Limit