

National Mission for Clean Ganga - NMCG

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)

NGT has disposed-off the said matter vide its Order dated 22nd February 2021

State of GOA

Overall status of the State:

- I. Total Population: Urban Population & Rural Population separately.
Urban Local Bodies (ULBs') Population : 4,82,355 (*Census 2021*)
- II. Estimated Sewage Generation (MLD): **52.09 MLD** (*Urban area only*)

III. Details of Sewage Treatment Plant:

- Existing no. of STPs and Treatment Capacity (in MLD): **13 STP's with 108.45 MLD capacity.**
- Capacity Utilization of existing STPs: **45.68 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 rooms / flats & above*) have their own Treatment Plant (*as mandated under the 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 the State.
- Gap in Treatment Capacity in MLD: **Negligible.**
- No. of Operational STPs': **13 nos.**
- No. of Complying STPs': **13 nos.**
- No. of Non-complying STPs': **NIL**

Details of existing / operational 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	15.97 - MLD	Operational	Complied-with
2.	Vasco	20 – MLD	6.80 - MLD	Operational	Complied-with
3.	Durbhat	01 – MLD	0.10 - MLD	Operational	Complied-with
4.	Sancoale	01 – MLD	1.00 - MLD	Operational	Complied-with
5.	Sanquelim	0.8 – MLD	0.28 - MLD	Operational	Complied-with

6.	Kavlem, Ponda	15 - MLD	3.47 - MLD	Operational	Complied-with
7.	Colva	7.5 - MLD	0.59 - MLD	Operational	Complied-with
8.	Goa Medical College (GMC)	1.35 MLD	0.35 - MLD	Operational	Complied-with
9.	Tonca, Panaji	12.5 – MLD	2.76 - MLD	Operational	Complied-with
10.	Tonca, Panaji	15 – MLD	6.89 - MLD	Operational	Complied-with
11.	Shirvodem-Navelim	6.7 – MLD	6.70 - MLD	Operational	Complied-with
12.	Patto, Panaji	2 - MLD	0.16 - MLD	Operational & under trial-run	Complied-with
13.	Baga	5.6 - MLD	1.20 - MLD	Operational & under trial-run	Complied-with
Total		108.45 MLD	46.27 MLD <i>Last-month in January 2025, capacity being utilised was 47.55 MLD</i>		
Note : The status of existing STPs’ from sr. nos. 8 to 13 are provided by PWD					

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.	Mapusa	5.4 – MLD	98% (no change since last month)	House Sewer-connection works is in-progress.	March 2025 <i>Electrical connection is done. Land acquisition by North Goa Collector is in progress.</i>
2.	Porvorim	20 - MLD	65% (+ 3% change since November) of civil works has been completed. Around 92 % - (no change since last two-months) has been completed.	-----	December 2025
3.	Curchorem	7.5 MLD	Work has started and land-filling is in-progress. order issued for construction of STP. Around	-----	December 2026

			94% (+1% change since November) of the sewer-network is completed.		
Note : The status of under-construction STPs' at sr. nos. 1 is provided by PWD.					

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 65% (no change since last six-months) of the sewer-network is completed.	16-months time-period required from start of work.
2.	Curti, Ponda	08- MLD	STP work could not be started due to local issues. Around 92% (no change since last six-months) of the sewer-network is completed.	

* Above data does not include any packaged treatment plants /sulabh-toilets and Bio-toilets and may be obtained from Departments-concerned

IV. Details of Industrial Pollution:

- No. of industries in the State: 8,611 (850 were added during a period from October 2023 to March 2024)
- No. of water polluting industries in the State: Nil
- Quantity of effluent generated from the industries in MLD: Not available.
- Quantity of Hazardous Sludge generated from the Industries in TPD: Not available.
- Number of industrial units having ETPs: 209, being updated.
- 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 2022.*
- Current Municipal Solid Waste Generation: **766 tons per day (TPD)** – Solid waste treatment plant with 250 tons per day (tpd) capacity is fully operational at Saligao which caters to the waste being generated from coastal-stretch of North Goa district among other selective areas.
- 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., (related to 'centralised' solid waste sorting, baling and onward processing facilities operated by the Goa Waste Management Corporation (GWMC) Refer Annexure – A.*
- Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%): **Refer Annexure – B** (*related to setting-up of common waste-treatment facilities including Hazardous / Biomedical / Construction and Debris / E-waste facilities*).
- No. and capacity of C&D waste processing plants in TPD (*existing, proposed and under construction*): State has earlier proposed 500-TPD capacity C & D waste processing plant to be set up at Cudchirem in Bicholim, North Goa district. However, due to revenue-related litigations, GWMC has also initiated process for identifying an alternate land for C&D facility in Tuem in Pernem taluka of North Goa district and has also proposed to take over the land in Survey no.120 & Sy. No. 125 in Tuem Village, which is the revenue dept land / Govt. land for setting up a C& D waste facility.
- Total no. of wards, no. of wards having door-to-door collection service, no. of wards practicing segregation at source (*village Panchayat-level*): **189 village panchayats.**
- Details of MSW treatment facilities proposed and under construction (*no., capacity, and technology*): **Refer Annexure – B.**
- No. and area (*in acres*) of uncontrolled garbage dumpsites and Sanitary Landfills.: **N.A.**
- No. and area (*in acres*) of legacy waste within 1-km 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 last-month.					

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: **Refer Annexure – C.**
- Status of Treatment Facility / CBMWTF: Common Biomedical waste treatment facility is operational at Kundaim.

VII. Hazardous Waste Management:

- Total Hazardous Waste generation:
 - (a) Incinerable waste : 39,379.80 TPA
 - (b) Land-fillable waste : 3,385.21 TPA
 - (c) Recyclable waste : 33,095.57 TPA
 - Total : 77,056.58 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: **Recyclable waste is disposed off to recycling industries. While, incinerable and Landfilable wastes (about 250 MT) are treated at common HW facility at Pissurlem being operated by M/s Ponda Envirocare.**
- Details of on-going or proposed TSDF: **The State has set-up Common Hazardous Waste Treatment Facility at Pissurlem Industrial Estate for landfillable and incinerable wastes.**

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: Establishment of Common Material Recovery facility (MRF) as well as Baling facilities at Cacora and Bicholim (02 nos.).

IX. Details of Alternate Treatment Technology being adopted by the State/UT: **The State has set-up Plastic-to-Fuel plant at Pernem Municipal Council (North Goa).**

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.**

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: NGT matter related to O.A 606 of 2018 has been disposed off by the NGT, Principal Bench vide its Order dated 2nd March 2023. Subsequently, the State has complied-with the said directives.
- XIII.** Latest water quality of polluted river, its tributaries of polluted river; Although the CPCB has re-assessed the number of polluted river stretches in the State of Goa wherein number has reduced from **refer Annexure – D**.
- 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), (f) guidelines issued by the Central Ground Water Board (CGWB) is implements. **Compliance – 100%, Target – Target – achieved.**
- 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: 90%, **Actual compliance: 80%.**
- XVI.** Rainwater Harvesting: Industries, through the Department of Industries, Trade & Commerce (DITC) are being encouraged to adopt to rainwater harvesting. In addition, 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. - Expected level of compliance: 50%, **Actual compliance: 40% and being monitored.**
- XVII.** Demarcation of Floodplain and removal of illegal encroachments - Expected level of compliance: 100%, **Actual compliance: 100%, Target: Achieved** (*Demarcation completed*).
- 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:**
- XX. Development of Biodiversity Park:**
- XXI. Reuse of Treated Water: Is being motivated to utilise the treated water for non-potable uses.**
- XXII. Model River being adopted by the State& Action Proposed for achieving the bathing quality standards: River Sal. Expected level of compliance 100 %. **Actual Compliance by Water Resources Department (WRD) - 100%. Target – achieved.****
- XXIII. Status of Preparation of Action Plan:** All the action plans prepared for eleven polluted river and the action plan strategies enumerated therein are being reviewed at regular intervals through RRC-Goa meeting under the Chairmanship of Secretary, Environment.

The CPCB, based on water-quality (*i.e. Biochemical Oxygen Demand – BOD*), of rivers for years 2019 and 2021, has revised the polluted river stretches in August 2022. **Accordingly, State of Goa has reduced number of such stretches to 06 nos. as compared to 11 nos.**

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: 100%, Target – achieved.**

Annexure A

Solid waste sorting, baling and onward processing facilities operated by the Goa Waste Management Corporation (GWMC).

	Total Waste generation is 766 TPD	
	Capacity	Total Waste Capacity
1	Existing Capacity Municipal Councils/Corporation	200
2	Existing Village Panchayat Treatment Facility	35
3	GWMC Saligao Facility (250 TPD +20%)	300
4	GWMC Cacora Facility (100 TPD + 25%)	125
5	Village Panchayat MRF, GWMC Baling Stations etc.,	110
	Total Existing Capacity	770

Note: Currently there are no Gaps between Solid waste management Facilities capacity and generation in State of Goa.

Annexure B

Note: Facility at Sr. no. 1 & 2 are proposed to be constructed considering the future increase in waste generation and not for any present gap in MSW treatment.

Sr. No	Name of facility	Capacity	February-25	March-25	Timeline
1	Integrated Solid Waste Management Facility- Bainguinim	Capacity: 100 TPD (+25%) Catering to: Tiswadi & Ponda Talukas	The GWMC Board and expert committee has decided to re-float the RFQ 100 TPD SWMF at Bainguinim with revised estimates as 2 years has completed since RFQ and re-floating RFQ would attract more bidders. A Civil Appeal No. 4983 of 2021 with interlocutory application no. 105533 of 2021 (application for stay) has been instituted in Hon'ble Supreme Court of India by Bainguinim Citizen Forum V/s GWMC & others. Hearing was on 17/11/2021 & 21/04/2022 and case has been admitted in Supreme Court	The GWMC Board and expert committee has decided to re-float the RFQ 100 TPD SWMF at Bainguinim with revised estimates as 2 years has completed since RFQ and re-floating RFQ would attract more bidders. A Civil Appeal No. 4983 of 2021 with interlocutory application no. 105533 of 2021 (application for stay) has been instituted in Hon'ble Supreme Court of India by Bainguinim Citizen Forum V/s GWMC & others. Hearing was on 17/11/2021 & 21/04/2022 and case has been admitted in Supreme Court. Currently GWMC is in the process of drafting the revised RFQ for qualifying the bidders.	Proposed timeline to be decided post-verdict of Hon'ble Supreme Court case.
2	Solid Waste Management Facility – Verna (250 TPD + 20%) & 250 TPD	Capacity 250 TPD (+20%) Catering to Mormugao	Awaiting environmental clearance (EC) from Goa-SEIAA. Pre-feasibility study for setting up of Waste to Energy completed by IVL Swedish Research	GWMC, through its appointed consultant, is in the process of applying for extension of the Terms of Reference (ToR) issued by the Goa State Expert Appraisal Committee (Goa-SEAC), post	Upon grant of Environmental Clearance (EC), GWMC shall float

	Waste Energy Facility	to	& Salcete Talukas	Institute, Sweden and report submitted. GWMC vide email dated 10/07/2023 and letter dated 08/08/2023 had requested Goa-SEIAA to relist the proposal of SWMF Verna on Parivesh Portal in order to reply to queries raised by Goa-SEAC as GWMC received the information from Goa Industrial Development Corporation (GIDC) which GWMC was awaiting. GWMC submitted ADS (Additional Details Sought) raised by Goa-SEAC on Parivesh Portal on 16/05/2024. Site inspection of U06 plot at Verna by Goa-SEAC was conducted by Goa-SEAC on 06/06/2024. Meeting and presentation by GWMC to Goa-SEAC was held on 07/06/2024. Goa-SEAC has further raised ADS on Parivesh Portal to revalidate baseline data and conduct public hearing. The revalidated data and details w.r.t. public hearing is to be incorporated in the EIA Report for resubmission post which Goa-SEAC after further examination will consider for granting of Environmental Clearance (EC). The report of revalidated data submitted by consultant was placed before GWMC board held on 15/01/2025 for approval and submission to Goa -SEIAA	which the application for Environmental Clearance (EC) will be re-submitted	tender for SWMF 250 TPD
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Annexure C

Total Number of Hospitals & healthcare facilities:

- The State of Goa has 50 public healthcare facilities (*excluding veterinary & dispensaries*) with a total bed capacity of 3159.
- Total number of non-bedded facilities under public healthcare systems are 14 dispensaries.
- Goa has 102 facilities under the category of private healthcare with a total bed capacity of 2443.
- The total beds currently available under both public and private sector are 5602.
- Goa has one dental college under public healthcare and 251 dental clinics across the state under private health care system.
- The state also has 5 veterinary hospitals and 25 clinics under public facilities and 27 pet clinics under the category of private facilities.
- Apart from bedded facilities in private sector the state also has approximately 482 non bedded facilities (excluding dental clinics) that cater to consultations, observation, diagnostics and select treatment.

Annexure D

Water quality in the months of February 2025

1.RIVER CHAPORA NEAR ALORNA FORT, PERNEM			
Sr.No.	Parameters	Feb-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.60	6.0-9.0
2	Dissolved Oxygen (mg/l)	8.2	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	2300	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	220	-
Remarks: All parameters are within permissible limits for the month of February 2025.			

RIVER CHAPORA NEAR SIOLIM BRIDGE			
Sr.No.	Parameters	Feb-25	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	8.07	6.5-8.5
2	Turbidity(NTU)	6.78	30 NTU
3	Dissolved Oxygen (mg/l)	6.9	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	1300	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	490	-
Remarks: Fecal Coliform parameter is exceeding the permissible limits for the month of February 2025			

2.RIVER TIRACOL AT KERI, PERNEM

Sr.No.	Parameters	Feb-25	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	8.14	6.5-8.5
2	Turbidity(NTU)	3.53	30 NTU
3	Dissolved Oxygen (mg/l)	7.3	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	200	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	130	-

Remarks:Fecal coliform parameter is exceeding the permissible limit for the month of February 2025.

8.RIVER BICHOLIM BARAZAN NAGAR, BICHOLIM			
Sr.No.	Parameters	Feb-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.14	6.0-9.0
2	Dissolved Oxygen (mg/l)	8.5	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	3200	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	130	-

Remarks:All parameters are within permissible limits for the month of February 2025

9.RIVER MANDОВI AT TONCA MARCELA			
Sr.No.	Parameters	Feb-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.35	6.5-8.5
2	Turbidity(NTU)	3.35	30 NTU
3	Dissolved Oxygen (mg/l)	4.6	4 mg/l or more

4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	460	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	260	-

Remarks:Fecal Coliform parameter is exceeding the permissible limit for the month of February 2025

3.RIVER SINQUERIM, CANDOLIM SIDE			
Sr.No.	Parameters	Feb-25	Limit for SW II rivers as per CPCB classification based designated best use of rivers
1	pH	7.69	6.5-8.5
2	Turbidity(NTU)	14.26	30 NTU
3	Dissolved Oxygen (mg/l)	5.2	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	780	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	270	-

Remarks: Fecal Coliform is exceeding the permissible limit for the month of February 2025

RIVER SINQUERIM, NEAR GANPATI TEMPLE			
Sr.No.	Parameters	Feb-25	Limit for SW II rivers as per CPCB classification based designated best use of rivers
1	pH	7.8	6.5-8.5
2	Turbidity(NTU)	12.98	30 NTU
3	Dissolved Oxygen (mg/l)	7.0	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	780	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	130	-

Remarks: Fecal Coliform parameter is exceeding the permissible limit for the month of February 2025

5.RIVER ASSANORA AT ASSANORA			
Sr.No.	Parameters	Feb-25	Limit for class C rivers as per CPCB classification base designated best use of rivers
1	pH	6.5	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.1	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	2100	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	270	-

Remarks: All parameters are within permissible limit for the month of February 2025.

6.RIVER VALVANTI AT SANQUELIM			
Sr.No.	Parameters	Feb-25	Limit for class C rivers as per CPCB classification base designated best use of rivers
1	pH	6.5	6.0-9.0
2	Dissolved Oxygen (mg/l)	8.0	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1400	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	170	-

Remarks: All parameters are within permissible limit for the month of February 2025

10.RIVER ZUARI AT MADKAI JETTY			
Sr.No.	Parameters	Feb-25	Limit for SW II rivers as per CPCB classification base designated best use of rivers
1	pH	7.20	6.5-8.5

2	Turbidity(NTU)	8.70	30 NTU
3	Dissolved Oxygen (mg/l)	6.1	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	780	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	210	-

Remarks: Fecal Coliform parameters is exceeding permissible limit for the month of February 2025

11. RIVER ZUARI AT BORIM BRIDGE			
Sr.No.	Parameters	Feb-25	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.22	6.5-8.5
2	Turbidity(NTU)	4.64	30 NTU
3	Dissolved Oxygen (mg/l)	6.8	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	1100	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	260	-

Remarks: Fecal Coliform is exceeding the permissible limit for the month of February 2025

12.RIVER KHANDEPAR, OPA, PONDA			
Sr.No.	Parameters	Feb-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.18	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.9	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	3300	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	170	-

Remarks: All parameters are within permissible limit for the month of February 2025

13. RIVER KHANDEPAR, CODLI			
Sr.No.	Parameters	Feb-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.95	6.0-9.0
2	Dissolved Oxygen (mg/l)	8.7	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1300	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	140	-

Remarks: All parameters are within permissible limit for the month of February 2025

14.RIVER TALPONA AT CANACONA			
Sr.No.	Parameters	Feb-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	8.6	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.6	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	2400	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	170	-

Remarks: All parameters are within permissible limit for the month of February 2025

15.RIVER SAL AT KHAREBAND,MARGAO			
Sr.No.	Parameters	Feb-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers

1	pH	6.96	6.5-8.5
2	Turbidity(NTU)	11.34	30 NTU
3	Dissolved Oxygen (mg/l)	0.0	4 mg/l or more
4	BOD (mg/l)	6.0	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	24000	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	490	-

Remarks: Dissolve Oxygen parameter is below the permissible limit. Fecal coliform and BOD parameters are exceeding the permissible limit for the month of February 2025

16. RIVER SAL AT MOBOR

Sr.No.	Parameters	Feb-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.69	6.5-8.5
2	Turbidity(NTU)	21.2	30 NTU
3	Dissolved Oxygen (mg/l)	4.2	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	3300	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	220	-

Remarks: Fecal coliform parameter is exceeding the permissible limit for the month of February 2025

17. RIVER MAPUSA ON CULVERT ON HIGHWAY MAPUSA-PANAJI

Sr.No.	Parameters	Feb-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	6.57	6.5-8.5
2	Turbidity(NTU)	5.02	30 NTU
3	Dissolved Oxygen (mg/l)	4.8	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less

5	Fecal Coliform (MPN/100ml)	2300	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	260	-

Remarks: Fecal coliform parameter is exceeding the permissible limit for the month of February 2025

18. RIVER KALNA AT CHANDEL, PERNEM			
Sr.No.	Parameters	Feb-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	6.83	6.0-9.0
2	Dissolved Oxygen (mg/l)	8.0	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	2000	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	210	-

Remarks: All parameters are within the permissible limits for the month of February 2025

NOTE:

BDL- Below Detection Limit

Annexure E
Water quality in the months of March 2025

1.RIVER CHAPORA NEAR ALORNA FORT, PERNEM			
Sr.No.	Parameters	Mar-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.68	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.6	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1600	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	240	-
Remarks: All parameters are within permissible limits for the month of March 2025.			

RIVER CHAPORA NEAR SIOLIM BRIDGE			
Sr.No.	Parameters	Mar-25	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.94	6.5-8.5
2	Turbidity(NTU)	2.85	30 NTU
3	Dissolved Oxygen (mg/l)	6.0	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	350	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	220	-
Remarks:Fecal Coliform parameter is exceeding the permissible limits for the month of March 2025			

2.RIVER TIRACOL AT KERI, PERNEM
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Sr.No.	Parameters	Mar-25	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.89	6.5-8.5
2	Turbidity(NTU)	2.77	30 NTU
3	Dissolved Oxygen (mg/l)	4.5	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	43	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	540	-

Remarks: All parameters are within the permissible limits for the month of March 2025.

8.RIVER BICHOLIM BARAZAN NAGAR, BICHOLIM			
Sr.No.	Parameters	Mar-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.28	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.7	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	430	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	280	-

Remarks: All parameters are within permissible limits for the month of March 2025

9.RIVER MANDОВI AT TONCA MARCELA			
Sr.No.	Parameters	Mar-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.28	6.5-8.5
2	Turbidity(NTU)	5.28	30 NTU
3	Dissolved Oxygen (mg/l)	5.2	4 mg/l or more

4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	170	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	70	-

Remarks:Fecal Coliform parameter is exceeding the permissible limit for the month of March 2025

3.RIVER SINQUERIM, CANDOLIM SIDE			
Sr.No.	Parameters	Mar-25	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.76	6.5-8.5
2	Turbidity(NTU)	3.14	30 NTU
3	Dissolved Oxygen (mg/l)	5.9	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	920	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	220	-

Remarks: Fecal Coliform is exceeding the permissible limit for the month of March 2025

RIVER SINQUERIM, NEAR GANPATI TEMPLE			
Sr.No.	Parameters	Mar-25	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.60	6.5-8.5
2	Turbidity(NTU)	3.10	30 NTU
3	Dissolved Oxygen (mg/l)	6.2	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	540	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	170	-

Remarks: Fecal Coliform parameter is exceeding the permissible limit for the month of March 2025

5.RIVER ASSANORA AT ASSANORA			
Sr.No.	Parameters	Mar-25	Limit for class C rivers as per CPCB classification base designated best use of rivers
1	pH	6.80	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.0	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	430	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	280	-

Remarks: All parameters are within permissible limit for the month of March 2025.

6.RIVER VALVANTI AT SANQUELIM			
Sr.No.	Parameters	Mar-25	Limit for class C rivers as per CPCB classification base designated best use of rivers
1	pH	6.77	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.5	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1600	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	220	-

Remarks: All parameters are within permissible limit for the month of March 2025

10.RIVER ZUARI AT MADKAI JETTY			
Sr.No.	Parameters	Mar-25	Limit for SW II rivers as per CPCB classification base designated best use of rivers
1	pH	7.24	6.5-8.5

2	Turbidity(NTU)	5.93	30 NTU
3	Dissolved Oxygen (mg/l)	5.5	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	350	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	240	-

Remarks: Fecal Coliform parameter is exceeding permissible limit for the month of March 2025

11. RIVER ZUARI AT BORIM BRIDGE			
Sr.No.	Parameters	Mar-25	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.2	6.5-8.5
2	Turbidity(NTU)	4.1	30 NTU
3	Dissolved Oxygen (mg/l)	4.1	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	350	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	430	-

Remarks: Fecal Coliform is exceeding the permissible limit for the month of March 2025

12.RIVER KHANDEPAR, OPA, PONDA			
Sr.No.	Parameters	Mar-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.67	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.9	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	540	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	130	-

Remarks: All parameters are within permissible limit for the month of March 2025

13. RIVER KHANDEPAR, CODLI			
Sr.No.	Parameters	Mar-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.96	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.1	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	920	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	210	-

Remarks: All parameters are within permissible limit for the month of March 2025

14.RIVER TALPONA AT CANACONA			
Sr.No.	Parameters	Mar-25	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.8	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.5	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	540	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	130	-

Remarks: All parameters are within permissible limit for the month of March 2025

15.RIVER SAL AT KHAREBAND,MARGAO			
Sr.No.	Parameters	Mar-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers

1	pH	6.60	6.5-8.5
2	Turbidity(NTU)	11.22	30 NTU
3	Dissolved Oxygen (mg/l)	BDL	4 mg/l or more
4	BOD (mg/l)	5.4	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	540	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	350	-

Remarks: Dissolve Oxygen parameter is below the permissible limit. Fecal coliform and BOD parameters are exceeding the permissible limit for the month of March 2025

16. RIVER SAL AT MOBOR			
Sr.No.	Parameters	Mar-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.08	6.5-8.5
2	Turbidity(NTU)	8.74	30 NTU
3	Dissolved Oxygen (mg/l)	8.0	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	430	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	540	-

Remarks: Fecal coliform parameter is exceeding the permissible limit for the month of March 2025

17. RIVER MAPUSA ON CULVERT ON HIGHWAY MAPUSA-PANAJI			
Sr.No.	Parameters	Mar-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	6.68	6.5-8.5
2	Turbidity(NTU)	6.86	30 NTU
3	Dissolved Oxygen (mg/l)	3.5	4 mg/l or more

4	BOD (mg/l)	4.48	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	920	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	240	-

Remarks: Dissolve Oxygen parameter is below the permissible limit. Fecal coliform and BOD parameters are exceeding the permissible limit for the month of March 2025

18. RIVER KALNA AT CHANDEL, PERNEM			
Sr.No.	Parameters	Mar-25	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.02	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.9	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1600	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	350	-
Remarks: All parameters are within the permissible limits for the month of March 2025			

NOTE:

BDL- Below Detection Limit

Annexure F

Remediation of Legacy waste as in February / March 2025 GWMC undertook remediation in two phases (Phase-1 had 11 sites and Phase-2 had sites). The details of remediation are as below

Update of the Remediation of Legacy Waste Dump sites in the State of Goa (Phase I) as on 30/05/2025

Sr. No.	Name of the Local Body	Location of dump	Volume remediated till date	Qty of RDF Disposed (m ³)	Qty of Inert/ Compost Disposed (m ³)	Status of Work
1	Corporation of the City of Panaji	Campal- Attachment Point No. 290	5,305	3,168	2,070	Completed Start date - March 20/ Completed date-Feb 21
2	Corporation of the City of Panaji	Behind SBI, EDC, Patto-attachment Point No. 287	2,606	308	2,239	Completed Start Date- March 21/Completed date-June 21
3	Corporation of the City of Panaji	Near Divja Circle, Panaji- Attachment Point No. 288	569	89	424	Completed Start date-May 21/completed date -June 21
4	Margao Municipal Council	Sonsoddo dump site, Margao	1,86,234	89,678	77,723	Completed Remediation start date-Dec 19/ completed date- Mar 23
5	Mormugao Municipal Council	Headland Sada dump site, Mormugao	96,530	37,729	52,673	Remediation work Completed Start date-Feb 20/Completed date- June 2020 <u>(RDF disposal pending)</u>
6			1,55,333	62,476	58,588	Completed

	Mapusa Municipal Council	Assagao Dump site, Mapusa				Start date-Feb 20/completed date- June 2022
7	Cuncolim Municipal Council	Dumpsite at Cuncolim IDC	4,955	Pending	2,340	Remediation Completed Start date-Feb 22/completed date-May 2022 <u>(RDF disposal pending)</u>
8	Canacona Municipal Council	Dumpsite at Garbage Treatment Plant at Dumane Shristhal	~3129 (Final survey qty. not submitted)	844 (ongoing)	~2200 (quantity not submitted)	Remediation completed Work Start date-May 21. (Stopped after the monsoon and could not start further due to site hindrances). Started again on- Apr-23/ completed date-May 23 <u>(RDF disposal pending)</u>
9	Corporation of the City of Panaji	Curca- Attachment Point No. 289	8622	2264	Pending	Remediation completed Start date-Mar 23/ Completed on- May 23 <u>(Inerts and compost disposal pending)</u>
10	Bicholim Municipal Council	Adjacent to the garbage Treatment Plant, Lakherem in Sy. No.109/0.	3,395	Pending	2256	Remediation Work completed, Start date-May 22/ Completed date- Mar 2023 <u>(RDF disposal pending)</u>
11	Pernem Municipal Council	At garbage Treatment Plant of Pernem	317	Pending	119	Remediation Completed Start date-Dec 2022/Completed date-Dec 22

		Municipal Council				<i>(RDF disposal pending)</i>
Total			4,66,995	1,96,556	2,00,632	

Note: Remediation at all 11 sites was completed, however RDF disposal was pending at 6 sites. The contractor M/s. CAM Industrial Services has been terminated from Remediation Phase I contract after giving several extensions for completion of project (i.e., disposal of RDF). The RDF remaining on site will be rescreened and disposed through fresh RDF rescreening and disposal tender with cost recovery from contractor.

The status of Phase II remediation work is as below:

Sr. No.	Name of the ULB's/Local Body under Jurisdiction	Location of dump	Volume remediated (m ³)	RDF disposed (m ³)	Inerts and compost Disposed (m ³)	Status of work
1	Mapusa Municipal Council	Assagao dumpsite, Mapusa	31,368.63	18922.75	9657.00	Completed
2	Pernem Municipal Council	Pernem dumpsite	693.50	445.82	250.00	Completed
3	Curchorem Cacora Municipal Council	Cacora dumpsite	17,985.13	11,541.88	~ 6100	Completed
4	Mormugao Municipal Council	Headland Sada dumpsite	21,872.54	~ 10,000	~8,500	Completed
5	Taleigao, Panchayat, Tiswadi Taluka.	Taleigao dumpsite	~25,000 (Survey quantity pending)	~10,000	~7,000 Presently stored at site	Remediation and disposal work in progress

Additional sites

6	Margao Municipal Council	Waste inside the Sonsodd MSW shed, Sonsodd	8,929.51	5,201.28	3,480	Completed
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7	Corporation of the City of Panjim	Curca dumpsite	~6,000 <i>(Survey quantity pending)</i>	~1500	~3000 <i>Presently stored at site</i>	Remediation and disposal work in progress
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Under Phase II tender, considering the all 7 dumpsites:

Total quantity remediated till date – **~1,11,849.31** cubic meters

Total RDF disposed till date - **~57,611.73** cubic meters

Total Inerts and compost disposed till date - **~37,987** cubic meters