

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 since October 2024**
- Capacity Utilization of existing STPs: **75.25 MLD (October) / 52.13 MLD (November)**
- 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. since October 2024**
- No. of Complying STPs': **13 nos. since October 2024**
- 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	31-MLD / 15.65 MLD	Operational	Complied-with
2.	Vasco	20 – MLD	7.61 – MLD / 6.4 MLD	Operational	Complied-with
3.	Durbhat	01 – MLD	0-14 – MLD / 0.1 MLD	Operational	Complied-with
4.	Sancoale	01 – MLD	1.00 – MLD / 1.00 MLD	Operational	Complied-with

5.	Sanquelim	0.8 – MLD	1.04 – MLD / 0.52 MLD	Operational	Complied-with
6.	Kavlem, Ponda	15 - MLD	3.09 – MLD / 1.87 MLD	Operational	Complied-with
7.	Colva	7.5 - MLD	-----	Operational	Complied-with
8.	Goa Medical College (GMC)	1.35 MLD	0.43 – MLD / 0.47 MLD	Operational	Complied-with
9.	Tonca, Panaji	12.5 – MLD	8.31 – MLD / 7.0 MLD	Operational	Complied-with
10.	Tonca, Panaji	15 – MLD	12.66 – MLD / 9.57 MLD	Operational	Complied-with
11.	Shirvodem- Navelim	6.7 – MLD	6.70 – MLD / 6.70 MLD	Operational	Complied-with
12.	Patto, Panaji	2 - MLD	2.07 – MLD / 1.65 MLD	Operational & under trial-run	Complied-with
13.	Baga	5.6 - MLD	1.2 – MLD / 1.2 MLD	Operational & under trial-run	Complied-with
Total		108.45 MLD since October 2024	75.25 MLD (October) Last-month in September 2024, capacity being utilised was 69.93 MLD 52.13 MLD (November) Last-month in October 2024, capacity being utilised was 75.25 MLD		
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 five months)	House Sewer-connection works is in-progress.	December 2024 STP completed. Electrical connection is done. Land acquisition by North Goa Collector is in progress.
2.	Porvorim	20 - MLD	58% - October (+ 1% change since August) of civil works has been completed. Around 92 % - (no change since October) has been completed.	-----	December 2025
3.	Curchorem	7.5 MLD	Work has started and ground-improvement is in-progress. order	-----	December 2026

			issued for construction of STP. Around 89% (+1% change since October) 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), bimethanation, 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 of 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
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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). However, currently, it is being made operational.**

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: 75%.**
- XVI. Rain Water 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. The said draft-report was perused and the GSPCB responded to the CPCB informing about the mismatch in the water-quality data in the revised six polluted river-stretches.

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.

1	Integrated Solid Waste Management Facility- Bainguinim	Capacity:	100 TPD (+25%)	- Revised RFQ approved and floated on 13/09/2022 & opened on 20/12/2022. - Technical scrutiny has been completed and 3 bidders were shortlisted. After Inspection of facilities, the bidders were called for presentations before the Expert Committee in the month of May. Post the presentations and evaluation, successful bidders will be issued RFP's. Currently final RFP formulation is in process. RFP shall be floated tentatively in February-2024 due to changes in financial model. - 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. (No Change)	Proposed timeline to be decided post-verdict of Hon'ble Supreme Court case.
		Catering to:	Tiswadi & Ponda Talukas		
2	Solid Waste Management Facility – Verna (250 TPD + 20%)& 250 TPD Waste to Energy Facility	Capacity	250 TPD (+20%)	Awaiting environmental clearance (EC) from Goa-SEIAA. - Pre-feasibility study for setting up of Waste to Energy completed by IVL Swedish Research 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 sorder 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).	Upon grant of Environmental Clearance (EC), GWMC shall float tender for SWMF 250 TPD.
		Catering to	Mormugao & Salcete Talukas		

3	Construction & Demolition Waste Management Facility – Bicholim	Capacity: 500 TPD Land:44,478 sqm Catering to:	State of Goa	- Demarcation from Dy. Collector- Bicholim and ISLR was scheduled on 31/01/2024. However, the same was stopped by locals during demarcation. ISLR has fixed next demarcation in month of February along with police protection. However, it was decided that since the process of mutation was still pending at Mamlatdar-Bicholim, the final date of demarcation shall be fixed post mutation. Subsequently mutation process was finalized in June and ISLR has fixed demarcation survey on 18th July 2024 with police protection - Meanwhile GWMC has also initiated process for identifying an alternate land for C&D facility in Tuem 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 of C& D waste facility. In regard GWMC has requested Revenue dept. to handover the said land to GWMC and simultaneously GWMC has applied for NOC from TCP and Forest Department and is awaiting final NOC for TCP & Forest. GWMC has sent reminder letters to TCP & Forest for grant of NOC. - This proposed C&D waste facility in Tuem, will be additional facility to the one proposed at Curchirem which is necessary due to increase in quantum of C&D waste and for reduction of cost of transportation etc. Meantime, Collector North Goa has notified an abandoned laterite quarry in Tuem Village for deposition C&D waste for backfilling and subsequently deposition of waste by various agencies has already started and around 256 trips of trucks have been deposited at site.	GWMC was to float tender for setting up C & D Waste Management Facility by December-2021 but due to delay in site clearance from Revenue Department and construction work towards the same has not commenced.
4	Common Hazardous Waste Treatment Storage and Disposal Facility (CHWTSD)	Capacity	25,000 TPA Secured Landfill (SLF) & 1.5 ton/hr incinerators	- Phase 1: Completed - Phase 2: 99% completed (<i>No change - only administrative block office finishing work is remaining which will be completed post monsoons however plant is functional</i>), - Work towards Boiler, Incineration system (Phase II) is completed - Incinerator has been commissioned. - Application for consent to operate for incinerator received from GSPCB. No Change	TSDF commissioned on March 2021. Incinerator commissioned in March 2023.
5	Design-Build and Operate an E-Waste Management (Collection, Storage and Dismantling)	Capacity	15 - TPD	- Work Order is issued to the contractor dated 27/08/2021. - Since 27/08/2021, the operator has started collection of e-waste from ULBs/RLBs and the same is disposed scientifically to authorized recyclers. - GIDC has sub-leased the plot to CAM Industrial Services. - Construction licence from GIDC received on 26/12/2022. Construction of retaining wall and foundation of main site has commenced. Construction is in progress.	Collection of e-waste has started from 27/08/2021. Dismantling facility will be completed and commissioned by <i>December- 2024</i>

				No Change	
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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 October 2024 and November 2024

<u>DATA of 11 Polluted River Stretches for Major Rivers of OCTOBER 2024</u>			
1.RIVER CHAPORA NEAR ALORNA FORT, PERNEM			
Sr.No.	Parameters	Oct-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.87	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.3	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 limits for the month of October 2024			

RIVER CHAPORA NEAR SIOLIM BRIDGE			
Sr.No.	Parameters	Oct-24	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	8.0	6.5-8.5
2	Turbidity(NTU)	2.52	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)	1700	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	170	-
Remarks:Fecal Coliform parameter is exceeding the permissible limits for the month of October 2024			

2.RIVER TIRACOL AT KERI, PERNEM			
Sr.No.	Parameters	Oct-24	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)	5.11	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)	2100	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	210	-
Remarks:Fecal coliform parameter is exceeding the permissible limit for the month of October 2024			

8.RIVER BICHOLIM BARAZAN NAGAR, BICHOLIM			
Sr.No.	Parameters	Oct-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.18	6.0-9.0
2	Dissolved Oxygen (mg/l)	8.1	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 permissible limits for the month of October 2024			

9.RIVER MANDОВI AT TONCA MARCELA			
Sr.No.	Parameters	Oct-24	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	6.74	6.5-8.5
2	Turbidity(NTU)	27.5	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)	1300	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	170	-
Remarks:Fecal Coliform parameter is exceeding the permissible limit for the month of October 2024			

3.RIVER SINQUERIM, CANDOLIM SIDE			
Sr.No.	Parameters	Oct-24	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.86	6.5-8.5
2	Turbidity(NTU)	5.56	30 NTU
3	Dissolved Oxygen (mg/l)	5.6	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)	110	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of October 2024			

RIVER SINQUERIM, NEAR GANPATI TEMPLE			
Sr.No.	Parameters	Oct-24	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.99	6.5-8.5
2	Turbidity(NTU)	6.62	30 NTU
3	Dissolved Oxygen (mg/l)	6.3	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)	320	-
Remarks: Fecal Coliform parameter is exceeding the permissible limit for the month of October 2024			

5.RIVER ASSANORA AT ASSANORA			
Sr.No.	Parameters	Oct-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.87	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)	2700	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	210	-

Remarks: All parameters are within permissible limit for the month of October 2024

6.RIVER VALVANTI AT SANQUELIM

Sr.No.	Parameters	Oct-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.79	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)	4900	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	210	-

Remarks: All parameters are within permissible limit for the month of October 2024

10.RIVER ZUARI AT MADKAI JETTY

Sr.No.	Parameters	Oct-24	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.8	6.5-8.5
2	Turbidity(NTU)	6.40	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 is exceeding permissible limit for the month of October 24.

11. RIVER ZUARI AT BORIM BRIDGE

Sr.No.	Parameters	Oct-24	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.21	6.5-8.5
2	Turbidity(NTU)	2.74	30 NTU
3	Dissolved Oxygen (mg/l)	5.0	4 mg/l or more

4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	700	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	130	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of October 24.			

12.RIVER KHANDEPAR, OPA, PONDA			
Sr.No.	Parameters	Oct-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.19	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.4	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)	470	-
Remarks: All parameters are within permissible limit for the month of October 24.			

13. RIVER KHANDEPAR, CODLI			
Sr.No.	Parameters	Oct-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.05	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)	1300	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	230	-
Remarks: All parameters are within permissible limit for the month of October 24.			

14.RIVER TALPONA AT CANACONA			
Sr.No.	Parameters	Oct-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.84	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.7	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 October 24.

15.RIVER SAL AT KHAREBAND,MARGAO			
Sr.No.	Parameters	Oct-24	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	6.49	6.5-8.5
2	Turbidity(NTU)	2.90	30 NTU
3	Dissolved Oxygen (mg/l)	2.8	4 mg/l or more
4	BOD (mg/l)	6.0	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	4900	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	490	-
Remarks:Fecal coliform is exceeding the permissible limit for the month of October 24.			

16. RIVER SAL AT MOBOR			
Sr.No.	Parameters	Oct-24	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.8	6.5-8.5
2	Turbidity(NTU)	2.08	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)	1100	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	110	-
Remarks: Fecal coliform is exceeding the permissible limit for the month of October 24.			

NOTE:

BDL- Below Detection Limit

DATA of 11 Polluted River Stretches for Major Rivers of NOVEMBER 2024

1.RIVER CHAPORA NEAR ALORNA FORT, PERNEM

Sr.No.	Parameters	Nov-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.75	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.0	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1700	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	200	-

Remarks: All parameters are within permissible limits for the month of November 2024

RIVER CHAPORA NEAR SIOLIM BRIDGE

Sr.No.	Parameters	Nov-24	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.45	6.5-8.5
2	Turbidity(NTU)	1.78	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)	1300	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	210	-

Remarks:Fecal Coliform parameter is exceeding the permissible limits for the month of November 2024

2.RIVER TIRACOL AT KERI, PERNEM

Sr.No.	Parameters	Nov-24	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.38	6.5-8.5
2	Turbidity(NTU)	4.01	30 NTU
3	Dissolved Oxygen (mg/l)	6.6	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)	140	-
Remarks:Fecal coliform parameter is exceeding the permissible limit for the month of November 2024			

8.RIVER BICHOLIM BARAZAN NAGAR, BICHOLIM			
Sr.No.	Parameters	Nov-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.45	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)	1700	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	170	-
Remarks:All parameters are within permissible limits for the month of November 2024			

9.RIVER MANDOVI AT TONCA MARCELA			
Sr.No.	Parameters	Nov-24	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.21	6.5-8.5
2	Turbidity(NTU)	4.45	30 NTU
3	Dissolved Oxygen (mg/l)	6.5	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	330	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	230	-
Remarks:Fecal Coliform parameter is exceeding the permissible limit for the month of November 2024			

3.RIVER SINQUERIM, CANDOLIM SIDE			
Sr.No.	Parameters	Nov-24	Limit for 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)	3.4	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)	1700	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	220	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of November 2024			

RIVER SINGUERIM, NEAR GANPATI TEMPLE			
Sr.No.	Parameters	Nov-24	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.26	6.5-8.5
2	Turbidity(NTU)	3.11	30 NTU
3	Dissolved Oxygen (mg/l)	4.3	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)	400	-
Remarks: Fecal Coliform parameter is exceeding the permissible limit for the month of November 2024			

5.RIVER ASSANORA AT ASSANORA			
Sr.No.	Parameters	Nov-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.87	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.5	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	2200	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	240	-
Remarks: All parameters are within permissible limit for the month of November 2024			

6.RIVER VALVANTI AT SANQUELIM			
Sr.No.	Parameters	Nov-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	7.16	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)	4600	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	220	-
Remarks: All parameters are within permissible limit for the month of November2024			

10.RIVER ZUARI AT MADKAI JETTY			
Sr.No.	Parameters	Nov-24	Limit for SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.50	6.5-8.5
2	Turbidity(NTU)	6.12	30 NTU
3	Dissolved Oxygen (mg/l)	4.9	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)	140	-
Remarks: Fecal Coliform is exceeding permissinle limit for the month of November 24.			

11. RIVER ZUARI AT BORIM BRIDGE			
Sr.No.	Parameters	Nov-24	Limit for 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)	7.78	30 NTU
3	Dissolved Oxygen (mg/l)	7.2	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)	140	-

Remarks: Fecal Coliform is exceeding the permissible limit for the month of November 24.

12.RIVER KHANDEPAR, OPA, PONDA

Sr.No.	Parameters	Nov-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.41	6.0-9.0
2	Dissolved Oxygen (mg/l)	4.9	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	680	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	210	-

Remarks: All parameters are within permissible limit for the month of November 24.

13. RIVER KHANDEPAR, CODLI

Sr.No.	Parameters	Nov-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.46	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)	450	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	170	-

Remarks: All parameters are within permissible limit for the month of November 24.

14.RIVER TALPONA AT CANACONA

Sr.No.	Parameters	Nov-24	Limit for class C rivers as per CPCB classification based on designated best use of rivers
1	pH	6.91	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.8	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)	210	-
Remarks: All parameters are within permissible limit for the month of November 24.			

15.RIVER SAL AT KHAREBAND,MARGAO			
Sr.No.	Parameters	Nov-24	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	6.66	6.5-8.5
2	Turbidity(NTU)	12.10	30 NTU
3	Dissolved Oxygen (mg/l)	2.4	4 mg/l or more
4	BOD (mg/l)	6.0	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	4600	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	470	-
Remarks:Dissolve Oxygen parameter is below the permissibile limit. Fecal coliform and BOD is exceeding the permissible limit for the month of November 24.			

16. RIVER SAL AT MOBOR			
Sr.No.	Parameters	Nov-24	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	8.06	6.5-8.5
2	Turbidity(NTU)	1.59	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)	780	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	120	-
Remarks: Fecal coliform is exceeding the permissible limit for the month of November 24.			

NOTE:

BDL- Below Detection Limit

Annexure E

Remediation of Legacy waste as in October 2024 – November 2024

Update of the Remediation of Legacy Waste Dump sites in the State of Goa as on 01/11/2024

Sr. No.	Name of the Local Body	Location of dump	Agency/Contractor	Volume remediated till date	Qty of RDF Disposed(m3)	Qty of Inert/Compost Disposed(m3)	Status of Work
1	Corporation of the City of Panaji	Campal- Attachment Point No. 290	CAM INDUSTRIAL SERVICES	5305.00	3168.00	2070.00	Completed Start date -March 20/ Completed date-Feb 21
2	Corporation of the City of Panaji	Behind SBI, EDC, Patto- attachment Point No. 287	CAM INDUSTRIAL SERVICES	2606.00	308.00	2239.00	Completed Start Date- March 21/ Completed date-June 21
3	Corporation of the City of Panaji	Near Divja Circle, Panaji- Attachment Point No. 288	CAM INDUSTRIAL SERVICES	569.00	89.00	424.00	Completed Start date-May 21/ Completed date -June 21
4	Margao Municipal Council	Sonsoddo dump site, Margao	HINDUSTAN WASTE TREATMENT PVT. LTD.	172178.71	~88,200 (ongoing)	77723.00	Remediation completed Start date-Dec 19/ Completed date- March 23 (RDF disposal in progress)
5	Mormugao Municipal Council	Headland Sada dump site, Mormugao	CAM INDUSTRIAL SERVICES	96530.00	37729.00	52673.00	Completed Start date-Feb 20/ Completed date- June 2020
6	Mapusa Municipal Council	Assagao Dump site, Mapusa	SAURASHTRA ENVIRO PVT. LTD.	155333.00	62475.72	58587.63	Completed Start date-Feb 20/ Completed date- June 2022
7				4955.00	Pending	2340.00	Remediation Completed

	Cuncolim Municipal Council	Dumpsite at Cuncolim IDC	CAM INDUSTRIAL SERVICES				Start date-Feb 22/completed date-May 2022 (RDF disposal pending)
8	Canacona Municipal Council	Dumpsite at Garbage Treatment Plant at Dumane Shristhal	CAM INDUSTRIAL SERVICES	3129.00	~843.66 (ongoing)	~2200 (approx.)	Remediation Completed Work Start date-May 21. Stopped after Monsoon & could not start further due to site hindrances. Start date- 01/April/2023 / Completed date- 30/05/2023 (RDF disposal pending)
9	Corporation of the City of Panaji	Curca- Attachment Point No. 289	CAM INDUSTRIAL SERVICES	8621.42	~2263.27 (ongoing)	pending	Remediation Completed Start date 07/03/2023/ Completed date- 22/05/2023 (RDF disposal pending)
10	Bicholim Municipal Council	Adjacent to the garbage Treatment Plant, Lakherem in Sy. No.109/0.	CAM INDUSTRIAL SERVICES	3394.48	Pending	2256.00	Remediation Completed Start date-May 22/ completed date- 16/March/2023 (RDF disposal pending)
11	Pernem Municipal Council	At garbage Treatment Plant of Pernem Municipal Council	CAM INDUSTRIAL SERVICES	317.00	Pending	119.00	Remediation Completed Start date-Dec 22/completed date- Dec 2022 (RDF disposal pending)
				4,52,938.61	1,95,076.65	2,00,631.00	



Qty not finalised

3,95,707.65