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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakanthnagar, Unit-VIII,

Bhubaneswar - 751 012

No. 11594

Ind-VI-BW/2824 (Pt.V) /19-20

Dt. 23.11.20

Speed Post/ Email

To

Dr. D. P. Mathuria
Executive Director, National Mission for Clean Ganga
Department for Water Resources, River Development & Ganga Rejuvenation,
Ministry of Jal Shakti
1st Floor, Major Dhyan Chand National Stadium, India Gate, New Delhi-110 002

Sub : Submission of Monthly Progress Report for October-2020 related to Control of River Pollution -Reg.


Ref : Email of Dt. 08.10.2020

Sir,

In inviting a reference to above subject, the Monthly Progress Report for the month of October-2020 as per the Revised MPR Format in compliance to the Proceedings of the 7th Central Monitoring Committee is enclosed herewith for your kind information and necessary action.

Yours faithfully,

Encl : As above


Member Secretary

Memo No. 11595

Date : 23.11.20

Copy forwarded to Dr. J.C. Babu, Addl. Director, WQM-I Division, Central Pollution Control Board, Paribesh Bhawan, East Arjun Nagar, Delhi -110032 for kind information and necessary action.

Encl : As above



Member Secretary

Memo No. 11596

Date : 23.11.20

Copy forwarded to the Director, Env.-cum-Spl. Secy. to Government, Forest and Environment Department, Govt. of Odisha for kind information and necessary action.

Encl : As above


Member Secretary

**Compliance of Minutes of 7th Meeting of Central Monitoring Committee held
on 09.11.2020 through Video Conferencing**

Suggestions of 7th CMC Meeting	Compliance by OSPCB
1) Quantum of estimated sewage generation is an Issue.	As per the information received from Odisha Water Supply and Sewerage Board operating under Housing and Urban Development Department of Odisha, the total Sewage generation from six major urban local bodies of the State, such as Puri, Bhubaneswar, Cuttack, Sambalpur, Rourkela and Talcher, is 367 MLD.
2) The compliance status with regard to the operational FSTPs and ETPs needs to be provided.	Compliance status of STPs are given in Annexure-3. Compliance status of FSTPs are given in Annexure-6.
3) State is requested to provide all the details along with the information with reference to CEQMS and adoption of ZLDs.	42 industries have installed 73 numbers of online effluent quality monitoring systems connected to RT-DAS server of the SPC Board till 31.03.2020 265 Numbers of industries have adopted Zero Liquid Discharge.
4) Model River being adopted by the State to be identified and specified in the MPR.	Mentioned in Section XXI.

National Mission for Clean Ganga
Format for submission of Monthly Progress Report in the NGT Matter OA
No. 673 of 2018 (in compliance to NGT order dated 24.09.2020)

For the State of ODISHA for the month of October, 2020

Overall status of the State:

I. Total Population: Urban Population & Rural Population separately

As per **Census 2011**,

Total population of Odisha is 4,19,74,218.

Urban population is 70,03,656.

Rural population is 3,49,70,562

II. Estimated Sewage Generation (MLD):

Sewage generation in the State : 367 MLD

(Only from Puri, Bhubaneswar, Cuttack, Sambalpur,
Rourkela and Talcher)

III. Details of Sewage Treatment Plant:

- Existing no. of STPs and Treatment Capacity (in MLD): 5 Nos : 91 MLD
- Capacity Utilization of existing STPs: 70 MLD
- MLD of sewage being treated through Alternate technology: 440 KLD (0.44 MLD)
- Gap in Treatment Capacity in MLD: 297 MLD
- No. of Operational STPs: 5 STPs
- No. of Complying STPs: 3 STPs
- No. of Non-complying STPs: 2 STPs

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	CDA-Bidanasi area, Cuttack	36 MLD	19MLD	Operational	Complying
2	Mattagajpur, Cuttack	33 MLD	33 MLD	Operational	Complying
3	Mangalaghat, Puri	15 MLD	11 MLD	Operational	Complying
4	Bankimuhan, Puri	5 MLD	5 MLD	Operational	Not-Complying
5	Mandapal, Talcher	2 MLD	2 MLD	Operational	Not-Complying

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	Dhanupalli, Sambalpur	40 MLD	92% completed	35.43% sewer Network completed 38% pumping station work completed. House sewer connections not taken up.	Targeted for part commissioning during March, 2021
2	Mattagajpur, Cuttack	16 MLD	75% completed	72% household connections completed	March, 2021
3	Meherpalli, Bhubaneswar	56 MLD	64% completed	50% sewer Network completed 41% pumping station work completed 77 % household connections completed	December, 2021
4	Basuaghai, Bhubaneswar	28 MLD	67% completed	39% sewer Network completed 47% pumping station work completed 75 % household connections completed	December, 2021
5	Kochilaput, Bhubaneswar	43.5 MLD	63% completed	20% sewer Network completed 27% pumping station work completed 8 % household connections completed	December, 2021
6	Paikarapur, Bhubaneswar	8 MLD	88% completed	88% sewer Network completed 55% pumping station work completed 62% household connections completed	December, 2021
7	Rokat, Bhubaneswar	48 MLD	66% completed	Not taken up	June, 2021
8	RuptalaBalughat, Rourkela	40 MLD	97% completed	67.6% sewer Network completed 69% pumping station work completed	Targeted for part commissioning during March, 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
			Nil	

IV. **Details of Industrial Pollution:**

- No. of industries in the State: 6972
- No. of water polluting industries in the State:1030
- Quantity of effluent generated from the industries in MLD: 886 MLD
- Quantity of Hazardous Sludge generated from the Industries in TPD:141.9 TPD
- Number of industrial units having ETPs: 1030
- Number of industrial units connected to CETP: No CETP in the State
- Number and total capacity of ETPs (details of existing/ under construction / proposed)
Existing : 1030 Numbers, 886 MLD
Under Construction : Nil
Proposed : Nil
Total :1030 Numbers, 886 MLD
- Compliance status of the ETPs:ETP Outlets are complying to the discharge norms.
Wherever violation is observed, show cause notices are being issued to the industries.
So far, Show Cause Notices have been issued to six industries under Section 25 and 33A Water (PCP) Act, 1974 and amendments thereunder. Further, Directions have been issued to four industries under section 33 A of Water (PCP) Act, 1974 and amendments thereunder
- Number and total capacity of CETPs (details of existing/ under construction / proposed) Nil
- Status of compliance and operation of the CETPs :

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: 114 Urban Local Bodies
 - Total number of Urban Local Bodies:114
 - Population: 60,35,851(as per 2011 census)

- Current Municipal Solid Waste Generation : 1685 TPD
- Number, installed capacity and utilization of existing MSW processing facilities in TPD (bifurcated by type of processing eg- Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, decentralized pit composting), biomethanation, MRF etc
- Existing MSW Processing Facilities :

Type of Processing Facility	Numbers	Installed Capacity	Utilization
Compost Plant- Micro Composting Centre (MCC)	112	478	52 %
Materials Recovery Facility (MRF)	84	322	42 %

- Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%)

Action plan to bridge the gap between Installed Capacity and Current Utilization

- ULBs will improve the coverage of wards on source segregation (currently 80% wards covered, by December 2020- 90%, by March 2020- 95%)
 - SwachhSathis and Swachh Supervisors have been assigned to create awareness on the roles and responsibilities of different waste generators.
 - Naming & Shaming measures are being taken up by door-to-door collectors to achieve 100% Source Segregation
 - Door-to-door collection of segregated waste are being taken up through women driven Battery Operated Vehicles
 - AmaSahar App has been adopted for real time monitoring of Waste Collection, Transportation, Processing, User Fee Collection and Disbursement of Incentives to Sanitation Workers
- No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction)
- All 114 ULBs have designated sites for storage of Construction & Demolition waste. 126 numbers of such sites across all ULBs of Odisha have been notified for wider circulation amongst public. Further, the C&D waste is used for construction of road subgrade, temporary pathways, raising the low-lying areas, etc. thereby offsetting the use of soil for all these purposes.
- Total no. of wards, no. of wards having door to door collection service, no. of wards practicing segregation at source

Total no. of Wards	No. of Wards having Door to door collection Service	No. of Wards practicing Source Segregation
2024	2024 (100%)	1627 (80%)

- Details of MSW treatment facilities proposed and under construction (no., capacity, and technology)
 - **MSW processing facilities Proposed:**
 - Composting Facility - Micro Composting Center (MCC):242 Nos. (Capacity:1,210 TPD)
 - Material Recovery Facilities (MRF): 235 Nos. (Capacity:1,175 TPD)
 - MSW processing facilities Functional :
 - Composting Facility- Number of Functional Micro Composting Center (MCC):112 Nos.(Capacity:478 TPD)
 - Number of Functional Material Recovery Facilities (MRF):84Nos. (Capacity: 322 TPD)
 - MSW processing facilities Under Construction:
 - Composting Facility - Micro Composting Centres (MCC):114 Nos. (Capacity:570 TPD)
 - Material Recovery Facilities (MRF):88Nos. (Capacity:440 TPD)
- No. and area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills.
 - Garbage dumpsites: 102 numbers (200 Acre approx.)
 - Sanitary Landfill: Nil
- No. and area (in acres) of legacy waste within 1km buffer of both side 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
 - No. of drains reaching to River System, lakes, Water Bodies, Pond, Marsh Land, WaterLands:225
 - Drains having floating racks/screens installed: 210

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
Enclosed as Annexure-1					

VI. Bio-medical Waste Management:

- Total Bio-medical generation: 14564 Kg/Day
- No. of Hospitals and Health Care Facilities: 3398
- Status of Treatment Facility/ CBMWTF: 13951 Kg/ Day

Bio-medical wastes generating from the health care establishments are being managed either through common biomedical waste treatment and Disposal (CBWTDF) facilities or by deep-burial practice.

Bar-code System has been implemented in the following four Common Facilities (CBWTDF) :

- 1) M/s. Sani Clean Pvt. Ltd., Khurda,
- 2) M/s Mediaid Marketing Services, Bhubaneswar at SCB Medical and Hospital, Cuttack
- 3) M/s Mediaid Marketing Services, Bhubaneswar at Rourkela Govt. Hospital, Rourkela
- 4) M/s. Bio-Tech Solutions, at VSS Medical College and Hospital Burla, Sambalpur.

VI. Hazardous Waste Management:

- Total Hazardous Waste generation: 6,79,656 Tonne/Annum
- No. of Industries generating Hazardous waste : 360
- Treatment Capacity of all TSDFs :
 - (a) SLF Capacity : 75,000 Tonne/Annum
 - (b) Treatment Capacity : 12,000 Tonne/ Annum
- Avg. Quantity of Hazardous waste reaching the TSDFs and Treated : 60000 Tonne/Annum
- Details of on-going or proposed TSDF :
- A common Hazardous waste Treatment, Storage and Disposal Facility (CHWTSDf) has been established during the financial year 2010-11 at Kanchichuan in Jajpur district of Odisha. The Facility is being operated by M/s RamkyEnviro Engineers Ltd, Hyderabad. So far, 179 nos. of Industries/ Mines have taken membership agreement with the CHWTSDf. Treatment Capacity of the TSDF is as follows :
 - (a) SLF Capacity : 75,000 Tonne/Annum
 - (b) Treatment Capacity : 12,000 Tonne/ AnnumOn an average, 60,000 TPA of Hazardous waste is being treated in the TSDF.

VII. Plastic Waste Management:

- Total Plastic Waste generation: 101.3 TPD

- Treatment/ Measures adopted for reduction or management of plastic waste:
 - The trade, manufacture, import, store, carry, transport and use of single use plastic and plastic carry bags are prohibited within the jurisdiction of all ULBs
 - The segregated and stored plastic waste at Materials Recovery Facilities are sold off to registered plastic recyclers for further processing and recycling.
 - Non-Recyclable Plastic Waste are sent to Cement Factory for Co-Processing.

VIII. Details of Alternate Treatment Technology being adopted by the State/UT

Besides, establishing Sewage Treatment Plants for treatment of municipal wastewater, actions has also been taken to treat fecal sludge being generated from the urban local bodies under Septage Management System in a phased manner is envisaged to be taken up during the period from 2016-17 to 2021-22 which will lead to improved urban sanitation with positive impact on public health, environment & river water quality. Since the cost of construction and Operation and Maintenance of Septage Treatment Projects is low, such projects are now implemented in different ULBs of the State. The status of Septage Management Plants undertaken in the State of Odisha is given in Annexure-2.

IX. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment: Drains contributing to river pollution have been identified by H & UD Department. Detail information is under preparation

X. Details of Nodal Officer appointed by Chief Secretary in the State/UT:

XI. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT:

XII. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;

Enclosed as Annexure-3.

XIII. Ground water regulation:

1. So far no such cases of illegal groundwater abstraction are noticed.
2. Govt. of Odisha has formulated an act for regulation of groundwater namely “The Odisha Groundwater (Regulation, Development and Management) Act, 2011”
3. Central Ground Water Board (CGWB) and District Level Evaluation Committee(DLEC) strictly control the groundwater abstraction by the industries.
4. Chief Engineer and Director, Groundwater Development, Bhubaneswar monitors the fluctuation of the groundwater level in all 30 districts in 10 years interval.

XIV. Good irrigation practices being adopted by the State:

Inflow from the catchment and outflow from the river of the basins are managed effectively by the Chief Engineer and Basin Managers for 11 Nos. of river basins of Odisha.

XV. Rain Water Harvesting:

Rain water harvesting.

Rooftop Rainwater Harvesting Structures (RRHS)

	<u>Govt</u>	<u>Private</u>	
2018-19	358 nos.	9438 nos.	(in 11 towns of 9 districts)
2019-20	Nil	Nil	
2020-21	300 Nos (Provision)	6000 Nos	A provision of Rs. 37 crores has been kept for construction of RRHS.

Ground Water Recharge

i) Through Wells (recharge shaft on Tanks and pond)	2019-20	nil
	2020-21	65 nos. in 11 districts (work will be completed in 2020-21)
ii) Through Check dams	up to 03/2020	15612 nos. in 30 districts
	up to 07/2020	15740 nos. in 30 districts (A provision of Rs. 67 crores has been kept for construction of check dams in 30 districts)

XVI. Demarcation of Floodplain and removal of illegal encroachments:

No cases of encroachment have been noticed so far.

Out of 9 Nos. of polluted river stretches, in Gangua Nalla (Priority No-I), a proposal for construction of a cross regulator at the off taking point of Gangua Nalla has been approved in 128th TAC of DOWR to divert the flood discharge of Chandaka Catchment to Kuakhia river (Approximately 30% of flood water) through Budhi Nalla in order to save the urban flooding of storm water in Bhubaneswar city. This is one of the flood plain zone protection work in Gangua Nalla to be executed by DoWR. It is under tendering process.

XVII. Maintaining minimum e-flow of river:

E-flow is maintained.

Watershed Management – Integrated Watershed Management Programme is executed throughout the State by Odisha Watershed Development Mission.

XVIII. Plantation activities along the rivers:

1094699 nos. of sapling and seedling have been planted during monsoon 2018 along the bank of the rivers, dam sites, barrage sites and canal sites, out of which 329962 nos. of plants are alive (30.14% - Survival Status)

XIX. Development of biodiversity park:

Information under collection

XX. Reuse of Treated Water:

All Water polluting industries are being regulated under the consent administration of the Board. 806 MLD treated industrial wastewater are being recycled/ reused in the process or being utilized for plantation/ irrigation purposes. For reuse of treated domestic wastewater, bulk users have been identified. Proposal for reuse of treated wastewater is enclosed as Annexure-4.

XXI. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards:

As per 2020 river water quality status as given in Annexure-3 (a), no. of priority-wise polluted river stretches is : Priority-I: Nil, Priority-II: Nil, Priority-III: One, Priority-IV: Two, Priority-V: Four and 12 stretches are meeting Clean Category. and meeting bathing water quality. Actions are being taken as given in the foregoing sections to meet the bathing water quality.

XXII. Status of Preparation of Action Plan by the 13 Coastal States: Odisha Coastal Zone Management Authority has been requested to prepare action plans for coastal stretch along Puri, Gopalpur and Paradeep and of Atharabanki Creek in the State of Odisha. Information is awaiting.

XXIII. Regulation of Mining Activities in the State/UT: Enclosed as Annexure-5.

XXIV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring :

- Show Cause Notices have been issued to six industries under Section 25 and 33A Water (PCP) Act, 1974 and amendments thereunder
- Directions have been issued to four industries under section 33 A of Water (PCP) Act, 1974 and amendments thereunder

Status of ULB wise Management of Solid Waste

Sl. No.	ULB Name	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
		Wet Waste	Dry Waste	Wet Waste	Dry Waste	MCC	MRF	Wet Waste	Dry Waste	MCC	MRF	
1	Anandpur (M)	4	4	4	4	1	1	100%	100%	1	1	31-12-2020
2	Angul (M)	5	5	5	5	3	2	100%	100%	0	0	
3	Asika (NAC)	4	4	4	4	2	1	100%	100%	0	0	
4	Athagad (NAC)	1	1	0	0	0	0	0%	0%	1	1	31-12-2020
5	Athmallik (NAC)	1	1	1	0	1	0	100%	0%	0	1	31-12-2020
6	Attabira NAC	2	2	2	0	1	0	100%	0%	0	1	31-12-2020
7	Balangir (M)	5	5	5	3	1	1	100%	60%	2	2	31-12-2020
8	Balasore (M)	10	10	0	0	0	0	0%	0%	4	4	31-12-2020
9	Balimela (NAC)	1	1	1	1	1	1	100%	100%	0	0	
10	Balliguda NAC	1	1	1	0	1	0	100%	0%	0	1	31-12-2020
11	Balugaon (NAC)	1	1	0	0	0	0	0%	0%	1	1	31-12-2020
12	Banki (NAC)	2	2	2	2	1	1	100%	100%	0	0	
13	Banpur (NAC)	1	1	0	0	0	0	0%	0%	1	1	31-12-2020
14	Barbil (M)	6	6	5	5	1	1	83%	83%	1	1	31-12-2020
15	Bargarh (M)	1	1	1	1	1	1	100%	100%	2	2	31-12-2020
16	Baripada (M)	10	10	10	0	2	0	100%	0%	2	4	31-12-2020
17	Barpali (NAC)	3	3	3	2.5	1	1	100%	83%	0	0	
18	Basudebpur (M)	5	5	0	0	0	0	0%	0%	2	2	31-12-2020
19	Bellaguntha (NAC)	2	2	2	0	1	0	100%	0%	0	1	31-12-2020
20	Belpahar (M)	3	3	3	0	1	0	100%	0%	1	2	31-12-2020
21	Berhmapur (MC)	65	49	0	8	0	4	0%	16%	1	0	31-12-2020
22	Bhadrak (M)	8	8	0	0	0	0	0%	0%	4	4	31-12-2020
23	Bhanjanagar NAC	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
24	Bhawanipatna (M)	5	4	3	4	1	1	60%	100%	2	2	31-12-2020
25	Bhuban (NAC)	2	2	2	2	2	1	100%	100%	0	0	
26	Bhubaneswar (MC)	248	166	5	5	1	1	2%	3%	25	25	31-12-2020
27	Bijepur (NAC)	2	2	1	1	1	1	50%	50%	0	0	
28	Binika (NAC)	1	1	1	1	1	1	100%	100%	0	0	
29	Biramitrapur (M)	2	2	2	0	1	0	100%	0%	1	2	31-12-2020
30	Boudhgarh (NAC)	2	2	2	0	1	0	100%	0%	0	1	31-12-2020
31	Brajaraj Nagar (M)	4	4	4	0	1	0	100%	0%	2	3	31-12-2020
32	Buguda (NAC)	2	2	2	2	1	1	100%	100%	0	0	
33	Byasanagar (M)	4	4	4	3	1	1	100%	75%	1	1	31-12-2020
34	Champua NAC	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
35	Chandbali (NAC)	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
36	Chhatrapur (NAC)	4	4	4	4	1	1	100%	100%	0	0	
37	Chikiti (NAC)	2	2	2	2	1	1	100%	100%	0	0	
38	Choudwar (M)	6	5	2	2	1	1	33%	40%	1	1	31-12-2020
39	Cuttack (MC)	142	104	11.7	2	3	1	8%	2%	16		Annexure-1
40	Daspalla NAC	2	2	2	2	1	1	100%	100%	0		
41	Deogarh (M)	2	2	2	2	1	1	100%	100%	0	0	

Sl. No.	ULB Name	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
		Wet Waste	Dry Waste	Wet Waste	Dry Waste	MCC	MRF	Wet Waste	Dry Waste	MCC	MRF	
42	Dhamnagar (NAC)	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
43	Dharmagarh NAC	2	2	2	2	1	1	100%	100%	0	0	
44	Dhenkanal (M)	8	8	8	8	5	3	100%	100%	0	0	
45	Digapahandi (NAC)	2	2	2	2	1	1	100%	100%	0	0	
46	G. Udayagiri (NAC)	2	2	2	2	1	1	100%	100%	0	0	
47	Ganjam (NAC)	1	1	0	0	0	0	0%	0%	1	1	31-12-2020
48	Gopalpur (NAC)	2	2	2	2	1	1	100%	100%	0	0	
49	Gudari (NAC)	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
50	Gunupur (M)	4	4	0	0	0	0	0%	0%	1	1	31-12-2020
51	Hindol NAC	2	2	2	2	1	1	100%	100%	0	0	
52	Hinjilicut (M)	3	3	3	3	1	1	100%	100%	0	0	
53	Jagatsinghpur (M)	6	5	0	0	0	0	0%	0%	2	2	31-12-2020
54	Jajpur (M)	6	5	5	5	1	1	83%	100%	1	1	31-12-2020
55	Jaleshwar (M)	3	3	0	0	0	0	0%	0%	1	1	31-12-2020
56	Jatani (M)	6	5	5	5	1	1	83%	100%	1	1	31-12-2020
57	Jeypore (M)	10	10	5	5	1	1	50%	50%	2	2	31-12-2020
58	Jharsuguda (M)	8	8	5	0	1	0	63%	0%	2	3	31-12-2020
59	Joda (M)	6	5	6	5	2	2	100%	100%	0	0	
60	Junagarh (NAC)	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
61	Kabisurjyanagar (NAC)	2	2	2	2	1	1	100%	100%	0	0	
62	Kamakshyanagar (NAC)	1	1	1	1	1	1	100%	100%	0	0	
63	Kantabanji (NAC)	1	1	1	1	1	1	100%	100%	0	0	
64	Karanjia (NAC)	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
65	Kashinagar (NAC)	1	1	0	0	0	0	0%	0%	1	1	31-12-2020
66	Kendrapara (M)	5	5	5	5	1	1	100%	100%	1	1	31-12-2020
67	Keonjharagarh (M)	6	6	5	0	1	0	83%	0%	1	2	31-12-2020
68	Kesinga (NAC)	2	2	2	2	1	1	100%	100%	0	0	
69	Khalikote (NAC)	2	2	2	2	1	1	100%	100%	0	0	
70	Khandapada (NAC)	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
71	Khariar (NAC)	2	2	2	2	1	1	100%	100%	0	0	
72	Khariar Road (NAC)	2	2	2	2	1	1	100%	100%	0	0	
73	Khordha (M)	5	4	5	4	1	1	100%	100%	1	1	31-12-2020
74	Kodala (NAC)	2	2	2	0	1	0	100%	0%	0	1	31-12-2020
75	Konark (NAC)	2	2	1	1	1	1	50%	50%	0	0	
76	Koraput (M)	8	8	5	5	1	1	63%	63%	1	1	31-12-2020
77	Kotpad (NAC)	2	2	2	2	2	2	100%	100%	0	0	
78	Kuchinda (NAC)	2	2	2	1.5	1	1	100%	75%	0	0	
79	Malkangiri (M)	4	4	0	0	0	0	0%	0%	1	1	31-12-2020
80	Nabarangapur (M)	3	3	3	0	1	0	100%	0%	0	1	31-12-2020

Sl. No.	ULB Name	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
		Wet Waste	Dry Waste	Wet Waste	Dry Waste	MCC	MRF	Wet Waste	Dry Waste	MCC	MRF	
81	Nayagarh (M)	3	3	3	0	1	0	100%	0%	0	1	31-12-2020
82	Nilagiri (NAC)	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
83	Nimapara (NAC)	2	2	2	0	1	0	100%	0%	0	1	31-12-2020
84	Nuapada NAC	2	2	2	2	1	1	100%	100%	0	0	
85	Odagaon (NAC)	1	1	1	1	1	1	100%	100%	0	0	
86	Padmapur NAC	2	2	2	0	1	0	100%	0%	0	1	31-12-2020
87	Paradeep (M)	9	7	9	7	2	2	100%	100%	1	1	31-12-2020
88	Paralakhemundi (M)	7	7	3	3	1	1	43%	43%	1	1	31-12-2020
89	Patnagarh (NAC)	2	2	2	2	1	1	100%	100%	0	0	

Sl. No.	ULB Name	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
		Wet Waste	Dry Waste	Wet Waste	Dry Waste	MCC	MRF	Wet Waste	Dry Waste	MCC	MRF	
92	Pipili (NAC)	2	2	2	0	1	0	100%	0%	0	1	31-12-2020
93	Polasara (NAC)	2	2	2	2	1	1	100%	100%	0	0	
93	Polasara (NAC)	2	2	2	2	1	1	100%	100%	0	0	
94	Puri (M)	29	27	20	20	4	4	69%	74%	3	3	31-12-2020
94	Puri (M)	29	27	20	20	4	4	69%	74%	1	1	31-12-2020
95	Purusottampur (NAC)	2	2	0	0	0	0	0%	0%	1	1	31-12-2020
95	Purusottampur (NAC)	2	2	0	0	0	0	0%	0%	0	0	
96	Rairangpur (M)	1	1	1	1	1	1	100%	100%	0	0	
96	Rairangpur (M)	1	1	1	1	1	1	100%	100%	1	1	31-12-2020
97	Rajagangapur (M)	2	2	2	2	1	1	100%	100%	1	1	31-12-2020
97	Rajagangapur (M)	2	2	2	2	1	1	100%	100%	1	1	31-12-2020
98	Rambha (NAC)	0	0	0	0	1	1	0%	0%	0	0	
98	Rambha (NAC)	0	0	0	0	1	1	0%	0%	1	1	31-12-2020
99	RANPUR NAC	1	1	0	0	0	0	0%	0%	7	7	31-12-2020
99	RANPUR NAC	1	1	0	0	0	0	0%	0%	7	7	31-12-2020
100	Raurkela (MC)	52	44	15	7.5	3	3	29%	17%	1	3	31-12-2020
100	Raurkela (MC)	52	44	15	7.5	3	3	29%	17%	1	3	31-12-2020
101	Rayagada (M)	7	7	7	0	2	0	100%	0%	1	3	31-12-2020
101	Rayagada (M)	7	7	7	0	2	0	100%	0%	1	3	31-12-2020
102	Redhakhoh (NAC)	1	1	1	1	1	1	100%	100%	0	0	
102	Redhakhoh (NAC)	1	1	1	1	1	1	100%	100%	0	0	
103	Sambalpur (MC)	46	41	15	0	3	0	33%	0%	8	10	31-12-2020
103	Sambalpur (MC)	46	41	15	0	3	0	33%	0%	8	10	31-12-2020
104	Sonepur (M)	3	3	3	3	1	1	100%	100%	0	0	
104	Sonepur (M)	3	3	3	3	1	1	100%	100%	0	0	
105	Soro (M)	3	3	3	3	1	1	100%	100%	0	0	
105	Soro (M)	3	3	3	3	1	1	100%	100%	0	0	
106	Sunabeda (M)	5	5	5	5	1	1	100%	100%	1	1	31-12-2020
106	Sunabeda (M)	5	5	5	5	1	1	100%	100%	1	1	31-12-2020
107	Sundargarh (M)	5	4	5	4	2	1	100%	100%	0	1	31-12-2020
107	Sundargarh (M)	5	4	5	4	2	1	100%	100%	0	1	31-12-2020
108	Surada (NAC)	2	2	2	2	1	1	100%	100%	0	0	
108	Surada (NAC)	2	2	2	2	1	1	100%	100%	0	0	
109	Talcher (M)	6	6	5	5	1	1	83%	83%	1	1	31-12-2020
109	Talcher (M)	6	6	5	5	1	1	83%	83%	1	1	31-12-2020
110	Tarbha (NAC)	1	1	1	1	1	1	100%	100%	0	0	
110	Tarbha (NAC)	1	1	1	1	1	1	100%	100%	0	0	
111	Titilagarh (M)	3	3	3	3	1	1	100%	100%	0	0	
111	Titilagarh (M)	3	3	3	3	1	1	100%	100%	0	0	
112	Tusura NAC	1	1	0	0	0	0	0%	0%	1	1	31-12-2020
112	Tusura NAC	1	1	0	0	0	0	0%	0%	1	1	31-12-2020
113	Udala (NAC)	2	2	2	2	1	1	100%	100%	0	0	
113	Udala (NAC)	2	2	2	2	1	1	100%	100%	0	0	
114	Umerkote (M)	0	0	0	0	1	1	0%	0%	0	0	
114	Umerkote (M)	0	0	0	0	1	1	0%	0%	0	0	
Total:		923	762	478.2	321.5	112	84	52%	42%	126	151	

Details of Septage Management in the State of Odisha

Coverage of all ULBs under Septage Management System in a phased manner is envisaged to be taken up during the period from 2016-17 to 2021-22 which will lead to improved urban sanitation with positive impact on public health, environment & river water quality. Since the cost of construction and Operation and Maintenance of Septage Treatment Projects is low, such projects are now implemented in different ULBs of the State.

The status of Septage Management Plans undertaken in the State of Odisha is given below.

Total Septage Treatment Capacity : 1767 KLD

(Commissioned (10 Nos in 10 ULBs.) : 440 KLD

Under Construction (82 Nos. in 82 ULBs : 1367 KLD)

ULB-wise status of Septage Treatment Plants are as follows

04 Status of Septage Management Projects in Odisha.

[As on 20th Oct., 2020]

Progress as on 20th October 2020

Sl No.	Prioritized work	Intervention	Progress as on 20 th October 2020
1	Construction of septage treatment facilities in 92 nos. ULBs of the State	<p>i) Construction of 10 nos. of Septage Treatment Plants in 10 ULBs of the State (1) Baripada (50 KLD), (2) Berhampur (40 KLD), (3) Bhubaneswar (75 KLD), (4) Puri (50 KLD), (5) Rourkela (40 KLD), (6) Sambalpur (20 KLD), (7) Dhenkanal (27 KLD), (8) Cuttack (60 KLD), (9) Balasore (60 KLD) & (10) Angul (18 KLD).</p> <p>ii. Construction of 30 Nos of SeTPs in 30 Nos of ULBs (1) Balangir (30 KLD), (2) Bhawanipatna (30 KLD), (3) Titilagarh (10 KLD), (4) Kesinga (10 KLD), (5) Khariar (10 KLD), (6) Kantabanjhi (10 KLD), (7) Barbil (20 KLD), (8) Joda (20 KLD), (9) Kamakshyanagar (10 KLD), (10) Aska (10 KLD), (11) Hinjicut (10 KLD), (12) Polasara (10 KLD), (13) Sorada (10 KLD), (14) Jatni (20 KLD), (15) Khurda (20 KLD), (16) Paradeep (20 KLD), (17) Banki (10 KLD), (18) Nayagarh (10 KLD), (19) Nimapara (10 KLD), (20) Jharsuguda (40 KLD), (21) Brajarajnagar (30 KLD), (22) Sundargarh (20 KLD), (23) Belpahar (10 KLD), (24) Anandapur (10 KLD), (25) Basudevapur (10 KLD), (26) Nilagiri (10 KLD), (27) 2nd SeTP Rokat, Bhubaneswar (75 KLD), (28) Choudwar (12 KLD), (29) Burla (20 KLD) & (30) Hirakud (20 KLD).</p> <p>iii) Construction of 41 Nos of SeTPs in 41 ULBs (1) Baragarh (30 KLD), (2) Biramitrapur (10 KLD), (3) Keonjhar (30 KLD), (4) Talcher (20 KLD), (5) Deogarh (10 KLD), (6) Jeypore (40 KLD), (7) Nabarangpur (20 KLD), (8) Malkangiri (20 KLD), (9) Patnagarh (10 KLD), (10) Boudhagarh (10 KLD), (11) Sonepur (10 KLD), (12) Vyasagar (30 KLD), (13) Kendrapara (20 KLD), (14) Odgaon (10 KLD), (15) Dasapalla (10 KLD), (16) Khancapara (10 KLD), (17) Dhamanagar (10 KLD), (18) Chandabali (10 KLD), (19) Phulbani (20 KLD), (20) Karanjia (10 MLD), (21) Jagatsinghpur (20 KLD), (22) Rayagada (30 KLD), (23) Sunabeda (20 KLD), (24) Konark (10 KLD), (25) Khalikote (10 KLD), (26) Pattamundai (10 KLD), (27) Rairangpur (10 KLD), (28) Kuchinda (10 KLD), (29) Tarabha (10 KLD), (30)</p>	<p>Completed & commissioned</p> <p>Work under progress by different organisations.</p> <ul style="list-style-type: none"> * PHEO (8 nos. SeTPs) : (1) Bhawanipatna- 30 KLD, (2) Aska- 10 KLD, (3) Sorada- 10 KLD, (4) Banki- 10 KLD, (5) Jharsuguda- 40 KLD, (6) Brajarajnagar- 30 KLD, (7) Sundargarh- 20 KLD (8) Belpahar- 10 KLD. * WATCO (2 nos.) : (1) Jatani- 20 KLD (2) Khordha- 20 KLD) * OWSSB (1 no.) : 2nd SeTP at Rokat Bhubaneswar * Practical Action Team - (1 No.) : Chowdwar (12 KLD) * EOs of ULBs - (16 Nos.) : It is targeted to complete the construction of SeTPs during the year 2020-21. * As per decision of the Govt. the concerned EOs of the ULBs shall look after the construction of SeTPs in the ULBs. * Letter of Acceptance has been issued by OWSSB. * It is targeted to complete the construction of SeTPs during the year 2021-22.

Progress Report Sept. 2020

Sl. No.	Prioritized work	Intervention	Progress as on 20 th October 2020
		Balguda (10 KLD), (31) G Udaigiri (10 KLD), (32) Gudari (10 KLD), (33) Gunupur (10 KLD), (34) Kasingar (10 KLD), (35) Pariaxhemundi (20 KLD), (36) Purushotampur (10 KLD), (37) Rajgangpur (20 KLD), (38) Bhadrak (30 KLD), (39) Binika (10 KLD), (40) Rairkhol - (10 KLD), (41) Digapahandi (10 KLD).	
		iv) Construction of 7 nos. of SeTPs in 5 ULBs (1) Padampur- 10 KLD (2) Bijepur- 10 KLD, (3) Barapalli- 10 KLD, (4) Junagarh - 10 KLD , (5) Kotpad - 10 KLD (6) Berhampur – 2 nd Plant, (7) Khariar Road.	* Tender invited for 2nd time by OWSSB on dtc 21.09.2020 * Tender opened & under scrutiny
		v) Construction of 4 nos. of SeTPs in 4 ULBs (1) Jajpur (2) Jaleswar (3) Banapur & (4) Bhanjanagar.	DPR will be prepared after availability of suitable lands.

Latest Water quality of polluted river, its tributaries, drains and ground water quality in the catchment of Polluted river stretches during October, 2020

Polluted River stretch :October, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
1. Gangua nallah (D/s Bhubaneswar) (Priority-I)	Rajdhani Engineering College	7.8	2.2	5.6	160000	160000	240	NC
	Palasuni	7.8	1.5	4.2	160000	160000	130	NC
	Samantarapur	7.2	3.1	5.1	54000	24000	79	NC
	Vadimula	7.3	3.7	4.5	35000	13000	49	NC
2. Daya River (Bhubaneswar to Bargarh) (Priority-IV)	Bhubaneswar D/s at Kanti	7.5	5.6	3.6	17000	4900	13	NC
	Bhubaneswar FD/s at Manitri	7.4	6.1	2.8	11000	2700	11	NC
	Kanas	7.5	6.9	2.2	22000	7900	NA	NC
3. Kuakhai River (Urali to Bhubaneswar) (Priority-IV)	Bhubaneswar FU/s	7.6	7.5	1.7	2400	490	4	C
	Bhubaneswar U/s	8.1	6.8	1.9	3500	2400	8	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Bhubaneswar city along Kuakhai River, Daya River and Gangua nallah

Station Name	Month	pH	BOD, mg/L	Nitrate-mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL
Khandagiri Area	October, 2020	7.8	<1.0	2.394	79	13
Old town-Samantarapur Area	October, 2020	6.8	<1.0	1.824	11	<1.8
Kalpana-Laxmisagar Area,	October, 2020	6.1	<1.0	6.579	23	<1.8
Chandrasekharapur	October, 2020	6.4	<1.0	31.813	<1.8	<1.8
Capital Hospital Area,	October, 2020	6.1	<1.0	1.593	<1.8	<1.8
Secretariate-Govenor House-Old bus stand Area	October, 2020	No sampling				
Drinking water Specification (IS : 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

n.a. : Not analysed

Drain Water quality of Bhubaneswar city falling on Gangua nallah (During October, 2020)

Sl. No.	Type	Quantity (MLD)	BOD (mg/L)	FC (MPN/ 100 mL)
	Drain Name	-		
1	Patia	-	63.4	1,60,000
2	Sainik School	-	34.5	35,000
3	OAP area	-	4.8	4900
4	VaniVihar	-	120.0	1,60,000
5	Laxmisagar area	-	74.0	1,60,000
6	Baragada Area	-	66.0	1,60,000
7	Kedargouri	-	31.0	92,000
8	Airport area	-	10.7	17,000
9	Ghatikia	-	41.7	92,000
10	Nicco Park	-	101.0	1,60,000
11				

Polluted River stretch :October, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
4. Kathajodi River (Cuttack to Urali) (Priority-III)	Cuttack D/s	7.7	8.0	2.6	7900	3300	8	NC
	Cuttack FD/s at Mattagajpur	7.3	6.4	2.8	17000	3900	NA	NC
5. Serua River (Khandaeta to Sankhatrasa) (Priority-V)	Cuttack FD/s at Sankhatrasa	7.0	7.4	2.7	9200	2200	NA	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Cuttack city along Mahanadi river, Kathajodi River and Serua river

Stn Name	Month	pH	BOD, mg/L	Nitrate-mg/L	TC, MPN/100 mL	FC, MPN/100 mL
Jagatpur	October, 2020	6.6	0.3	1.181	<1.8	<1.8
Mangalabag	October, 2020	7.2	0.3	1.408	<1.8	<1.8
Madhupatna-Kalyan Nagar Area	October, 2020	6.5	0.4	1.452	<1.8	<1.8
Badambadi Area	October, 2020	6.9	0.3	1.373	<1.8	<1.8
Bidanasi-Tulsipur Area,	October, 2020	6.9	0.4	1.058	<1.8	<1.8
Drinking water Specification (IS : 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

n.a. : Not analysed

Characteristic of Drains falling on Kathajodi river (October, 2020)

Sl. No.	Station Name	Parameters					
		pH	BOD, mg/l	COD, mg/l	TSS, mg/l	TC	FC
						MPN/100ml	
1	Outlet of STP, Cuttack at CDA-Bidanasi area (36 MLD)	6.9	3.3	12.0	19.0	1300	330
2	Wastewater discharge to Kathajodi river through sluice gate at Khan nagar	7.2	88.4	140.0	70.0	>1,60,000	>1,60,000
3	Wastewater discharge to Kathajodi river at Mattagajpur	7.2	3.5	16.0	27.0	17000	3300

Polluted River stretch :October, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
6. Guradih nallah Along Rourkela (Priority-III)	Rourkela (before confluence with Brahmani river)	8.2	4.4	6.0	92000	35000	NA	NC
7. Brahmani (Rourkela to Biritola) (Priority-V)	Panposh D/s at Deogaon	7.5	7.2	3.6	17000	7900	23	NC
	Rourkela D/s at Jalda	7.6	6.8	2.8	13000	3300	17	NC
	Rourkela FD/s at Attaghat	7.4	6.8	1.6	2400	1300	11	C
	Rourkela FFD/s at Biritola	7.4	7.4	1.4	1300	790	4	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

No Ground water quality monitoring in Rourkela city by State Pollution Control Board, Odisha

Polluted River stretch :October, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
8. Nandira jhor D/s Talcher (Priority-III)	Nandira D/s at Dasnali	7.9	6.6	1.4	3500	1300	NA	C
9. Banguru nallah Along Talcher (Priority-V)	Along Talcher	7.5	6.8	1.0	1100	330	NA	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Talcher city in the catchment of Nandira jhor and Banguru nallah

Stn Name	Month	pH	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Talcher Town	October, 2020	7.0	<1.0	1.076	79	22
Meramundali area	October, 2020	7.4	<1.0	0.882	<1.8	<1.8
Talcher Thermal area	October, 2020	7.4	<1.0	1.009	23	<1.8
Banarpal	October, 2020	7.1	<1.0	0.955	13	<1.8
Kulad	October, 2020	8.0	<1.0	0.985	13	<1.8
Drinking water Specification (IS : 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

n.a. : Not analysed

Polluted River stretch :October, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
10. Mahanadi (Sambalpur to Paradeep) (Priority-V)	Sambalpur D/s	7.9	7.0	1.9	3500	1300	5	C
	Sambalpur FD/s at Shankarmath	7.7	6.4	1.5	2800	1700	4	C
	Sambalpur FFD/s at Huma	7.7	6.8	1.1	2200	1300	8	C
	Sonepur U/s	7.7	7.0	1.5	330	110	4	C
	Sonepur D/s	8.1	6.6	1.9	790	230	4	C
	Tikarpada	7.7	7.4	1.1	170	45	<1.8	C
	Narasinghpur	7.6	8.0	<1.0	1300	230	8	C
	Munduli	7.5	7.4	<1.0	490	130	4	C
	Cuttack U/s	7.7	7.8	1.2	790	230	2	C
	Cuttack D/s	7.8	8.0	1.4	2800	1300	5	C
	Cuttack FD/s	7.7	8.0	1.2	1700	790	2	C
	Paradeep U/s	7.1	6.4	1.0	130	78	4	C
Paradeep D/s	7.3	6.2	1.1	230	130	7	C	
11. Bheden Along Bheden (Priority-V)	Jharsuguda	8.3	8.0	1.0	790	170	NA	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Water quality of Tributaries of Mahanadi River (October, 2020)

Name of river	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
Ib River	Sundargarh	7.6	7.8	1.0	1300	330	NA	C
	Jharsuguda	7.2	7.6	1.4	1300	490	NA	C
	Brajrajnagar U/S	7.5	7.8	1.1	2200	700	NA	C
	Brajrajnagar D/S	7.7	8.2	1.6	3500	790	NA	C
Ong River	Dharuakhaman	8.0	6.4	1.1	330	78	NA	C
Tel River	Monmunda	8.1	6.2	1.1	1100	490	NA	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality

Stn Name	Month	pH	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Sambalpur town Along Mahanadi River						
Near Panthanivas	October, 2020	7.4	0.2	29.580	<1.8	<1.8
Near Railway station	October, 2020	7.3	0.2	22.146	<1.8	<1.8
Near VSS Medical College, Burla	October, 2020	6.6	0.3	22.146	<1.8	<1.8
Paradeep town Along Mahanadi River						
Badapadia market complex	October, 2020	8.3	1.7	7.015	1700	790
Musadiha	October, 2020	8.0	1.1	2.729	1300	490
Jharsuguda town in the catchment of Bheden river and Ib river						
Burkhamunda	October, 2020	8.1	<1.0	3.866	<1.8	<1.8
Badamal Industrial Estate	October, 2020	7.3	<1.0	1.417	<1.8	<1.8
Budhipadar	October, 2020	6.8	<1.0	3.359	<1.8	<1.8
Brajaraj Nagar Mining belt	October, 2020	6.5	<1.0	5.302	<1.8	<1.8
Rampur area (Water tank)	October, 2020	7.1	<1.0	0.936	<1.8	<1.8
Ib thermal power station	October, 2020	7.2	<1.0	0.991	<1.8	<1.8
Belpahar area	October, 2020	6.9	<1.0	2.080	<1.8	<1.8
Drinking water Specification (IS : 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

n.a. : Not analysed

Polluted River stretch :October, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
12. Mangala (Along Puri) (Priority-V)	Mangala D/s at Golasahi	7.2	6.9	1.5	1300	330	NA	C
13. Nuna (Along Bijipur, Puri) (Priority-V)	Luna at Bijipur	7.3	6.4	1.4	7900	2200	33	C
14. Ratnachira (Along Sakhigopal, Puri) (Priority-V)	Kumardihi	6.7	6.6	1.7	490	170	4	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Puri town along Mangala river

Stn Name	Month	pH	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Hospital-Bus stand- Mausima temple area	October, 2020	7.5	<1.0	10.863	<1.8	<1.8
Near Jagannath Temple,	October, 2020	7.6	<1.0	1.854	<1.8	<1.8
Near Sea Beach	October, 2020	7.9	<1.0	3.044	<1.8	<1.8
Baliapanda	October, 2020	7.3	<1.0	28.706	<1.8	<1.8
Drinking water Specification (IS : 10500:2012)Desirable limit		6.5-8.5	-	45	Absent	Absent

NA : Not analysed

Characteristic of Drain falling on Mangala river (October, 2020)

Sl. No.	Station Name	Parameters					
		pH	BOD, mg/l	COD, mg/l	TSS, mg/l	TC	FC
1	Outlet of STP, Puri at Mangalaghat 15 MLD)	7.4	5.5	39.7	18.0	170	170

Polluted River stretch :October, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
15. Nagavali (Jaykaypur to Rayagada) (Priority-V)	Jayakaypur D/s	7.8	6.7	1.6	1100	310	<1.8	C
	Rayagada D/s	8.0	7.5	1.3	2400	490	5	C

No Ground water quality monitoring in Rayagada town by State Pollution Control Board, Odisha

Polluted River stretch : September, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
16. Budhabalanga (Mahulia to Baripada) (Priority-V)	Baripada D/s	7.3	6.4	1.2	1300	490	11	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

No Ground water quality monitoring in Baripada town by State Pollution Control Board, Odisha

Polluted River stretch : October, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
17. Kusumi Along Tangi (Priority-V)	Along Tangi	7.7	7.4	<1.0	3500	1300	23	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

No Ground water quality monitoring in Tangi town by State Pollution Control Board, Odisha

Polluted River stretch :October, 2020

Name of polluted river stretch	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non-Conforming (NC))
18. Rushikulya Pratappur to Ganjam (Priority-V)	Madhopur	7.1	6.2	1.1	1100	490	8	C
	Potagarh	7.4	6.5	2.0	490	170	13	C
19. Sabulia Along Jagannathpatna, Rambha (Priority-V)	Jagannathpatna, Rambha	7.8	6.4	1.3	3500	1700	21	C
		Not Monitored						
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5-8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Berhampur town in the catchment of Rushikulya river

Stn Name	Month	pH	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Near MKCG Medical College	October, 2020	7.8	0.3	1.356	49	13
Bus stand	October, 2020	7.3	0.3	1.180	79	23
Badabazar	October, 2020	7.1	0.2	1.289	22	<1.8
Railway station	October, 2020	7.2	0.6	6.336	49	13

Drinking water Specification (IS : 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent
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NA : Not analysed

Annexure-3 (b)

Status of Polluted River stretches in the State of Odisha during the period 2017-2020 as on date

Sl. No.	Polluted River Stretches identified by CPCB	Priority Category of Polluted River stretch				Remarks (As on 2020)
		2017 (BOD mg/l, max)	2018 (BOD mg/l, max)	2019 (BOD mg/l, max)	2020 (uptoOctober) (BOD mg/l, max)	
1.	Gangua River (Along Bhubaneswar)	Priority-I (39.0)	Priority-I (70.8)	Priority-I (39.2)	Priority-III (19.9)	Priority has been reduced from I to III (Improved)
2	Daya (Bhubaneswar to Bargarh)	Priority-IV (7.3)	Priority-IV (7.4)	Priority-IV (7.3)	Priority-V (4.7)	Priority has been reduced from IV to V (Improved)
3	Brahmani (Rourkela to Biritol)	Priority-V (6.0)	Priority-IV (7.6)	Priority-V (5.3)	Priority-IV (6.3)	Priority has been increased from V to IV (Deteriorated)
4	Guradih nallah (Rourkela)	Priority-III (11.3)	Priority-IV (10.1)	Priority-IV (8.5)	Priority-IV (7.6)	Priority has been reduced from III to IV (Improved)
5	Mangala (Along Puri)	Priority-V (5.7)	Priority-V (5.8)	Priority-IV (7.4)	Priority-V (4.6)	No Improvement
6	Nagavali (Jaykaypur to Rayagada)	Priority-V (3.5)	Clean (2.8)	Clean (2.2)	Clean (2.1)	Clean (Improved)
7	Kathajodi (Cuttack to Urali)	Priority-III (11.2)	Priority-V (5.7)	Priority-V (3.9)	Priority-V (3.6)	Priority has been reduced from III to V (Improved)
8	Serua (Khandaeta to Sankhatrasa)	Priority-V (4.8)	Priority-V (5.5)	Priority-V (3.1)	Priority-V (3.8)	No Improvement
9	Ratnachira (Along Bhubaneswar, Puri)	Priority-V (3.3)	Priority-V (3.5)	Clean (2.7)	Clean (1.7)	Clean (Improved)
10	Nandira Jhor (D/s of Talcher)	Priority-III (13.0)	Priority-V (3.5)	Clean (1.9)	Clean (1.9)	Clean (Improved)
11	Kuakhai (Along Bhubaneswar)	Priority-IV (7.7)	Clean (1.6)	Clean (1.9)	Clean (1.8)	Clean (Improved)
12	Mahanadi (Sambalpur to Paradeep)	Priority-V (3.2)	Clean (2.3)	Clean (2.3)	Clean (2.7)	Clean (Improved)
13	Rushikulya (Pratappur to Ganjam)	Priority-V (3.4)	Priority-V (3.7)	Clean (2.6)	Clean (2.1)	Clean (Improved)
14	Banguru nallah (Along Talcher, Rengali)	Priority-V (3.2)	Priority-V (3.9)	Clean (1.9)	Clean (1.6)	Clean (Improved)
15	Bheden (Along Bheden)	Priority-V (3.6)	Clean (2.8)	Clean (2.0)	Clean (1.8)	Clean (Improved)
16	Kusumi (Along Talcher)	Priority-V (3.2)	Clean (1.7)	Clean (2.6)	Clean (2.0)	Clean (Improved)
17	Nuna (Along Bijipur)	Priority-V (3.1)	Clean (2.7)	Clean (2.5)	Clean (1.6)	Clean (Improved)
18	Sabulia (Jagannathpatna, Rambha)	Priority-V (5.0)	Clean (2.4)	Clean (2.2)	Clean (1.7)	Clean (Improved)
19	Budhabalanga (Mahulia to Baripada)	Priority-V (3.5)	Clean (2.8)	Clean (1.6)	Clean (1.9)	Clean (Improved)

Annexure-3 (c)

**Summary of Number of Polluted River Stretches under
Different Category during the Period 2017-2020 as on date**

Category	No. of polluted River stretch (2017)	No. of polluted River stretch (2018)	No. of polluted River stretch (2019)	No. of polluted River stretch (2020) (uptoOctober)
Priority-I	1	1	1	Nil
Priority-II	Nil	Nil	Nil	Nil
Priority-III	3	Nil	Nil	1
Priority-IV	2	3	3	2
Priority-V	13	7	3	4
		8 (Clean)	12 (Clean)	12 (Clean)
Total :	19	19	19	19

N.B.Clean - BOD < 3 mg/l

Water quality of Rivers in Odisha during October, 2020

Total River water quality Monitoring Station : 128

No. of stations conforming to Bathing Water quality : 115

(a) Mahanadi River System

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Ib	1	Sundargarh	7.6	7.8	1.0	1300	330	NA	C
	2	Jharsuguda	7.2	7.6	1.4	1300	490	NA	C
	3	BrajrajnagarU/S	7.5	7.8	1.1	2200	700	NA	C
	4	BrajrajnagarD/S	7.7	8.2	1.6	3500	790	NA	C
Bheden	5	Jharsuguda	8.3	8.0	1.0	790	170	NA	C
Hirakud Reservoir	6	Hirakud	7.5	7.4	1.4	1300	490	NA	C
Mahanadi	7	Sambalpur U/S	7.8	7.4	1.1	1700	790	2	C
	8	Sambalpur D/S	7.9	7.0	1.9	3500	1300	5	C
	9	Sambalpur FD/S at Shankarmath	7.7	6.4	1.5	2800	1700	4	C
	10	Sambalpur FD/S at Huma	7.7	6.8	1.1	2200	1300	8	C
	11	Power Channel U/S	7.6	7.2	1.1	330	130	NA	C
	12	Power Channel D/S	7.6	6.8	1.7	1300	220	NA	C
	13	Sonepur U/S	7.7	7.0	1.5	330	110	4	C
	14	Sonepur D/S	8.1	6.6	1.9	790	230	4	C
	15	Tikarpada	7.7	7.4	1.1	170	45	<1.8	C
	16	Narasinghpur	7.6	8.0	<1.0	1300	230	8	C
	17	Munduli	7.5	7.4	<1.0	490	130	4	C
	18	Cuttack U/s	7.7	7.8	1.2	790	230	2	C
	19	Cuttack D/s	7.8	8.0	1.4	2800	1300	5	C
	20	Cuttack FD/s	7.7	8.0	1.2	1700	790	2	C
Ong	21	Paradeep U/S	7.1	6.4	1.0	130	78	4	C
	22	Paradeep D/S	7.3	6.2	1.1	230	130	7	C
Tel	23	Dharuakhaman	8.0	6.4	1.1	330	78	NA	C
Kathajodi	24	Monmunda	8.1	6.2	1.1	1100	490	NA	C
	25	Cuttack U/s	7.6	8.6	1.1	1100	490	2	C
	26	Cuttack D/s	7.7	8.0	2.6	7900	3300	8	NC
	27	Cuttack FD/s at Mattagajpur	7.3	6.4	2.8	17000	3900	NA	NC
	28	Cuttack FFD/s at Kamasasan	7.4	9.2	1.2	2800	1100	NA	C

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Serua	29	Cuttack FD/s at Sankhatrasa	7.0	7.4	2.7	9200	2200	NA	C
Kuakhai	30	Bhubaneswar FU/s	7.6	7.5	1.7	2400	490	4	C
	31	Bhubaneswar U/s	8.1	6.8	1.9	3500	2400	8	C
Daya	32	Gelapur	7.8	7.8	1.2	2400	1300	NA	C
	33	Bhubaneswar D/s	7.5	5.6	3.6	17000	4900	13	NC
	34	BhubaneswarFD/s	7.4	6.1	2.8	11000	2700	11	NC
	35	Kanas	7.5	6.9	2.2	22000	7900	NA	NC
Birupa	36	Choudwar	7.0	6.2	1.2	3500	1300	NA	C
Gangua nallah	37	Rajdhani Engineering College	7.8	2.2	5.6	160000	160000	240	NC
	38	Palasuni	7.8	1.5	4.2	160000	160000	130	NC
	39	Samantarapur	7.2	3.1	5.1	54000	24000	79	NC
	40	Vadimula	7.3	3.7	4.5	35000	13000	49	NC
Kushabhadra	41	Bhingarpur	7.9	8.0	1.4	1700	700	NA	C
	42	Nimapara	7.5	7.3	1.1	13000	3400	NA	NC
	43	Gop	7.4	7.4	2.0	11000	3300	NA	NC
Gobari	44	Kendrapada U/s	7.0	5.8	1.5	2200	1100	NA	C
	45	Kendrapada D/s	6.8	5.4	1.9	2800	1300	NA	C
Mangala	46	Mangala U/s at Malatipatpur	7.5	7.5	1.1	230	45	NA	C
	47	Mangala D/s at Golasahi	7.2	6.9	1.5	1300	330	NA	C
Bhargavi	48	Chandanpur	6.9	7.3	<1.0	790	330	NA	C
Devi	49	Machhagaon	7.0	6.0	1.2	130	45	NA	C
Luna	50	Luna at Bijipur	7.3	6.4	1.4	7900	2200	33	C
Sabulia	51	Rambha, Jagatnathpatna	7.8	6.4	1.3	3500	1700	21	C
Kusumi	52	Tangi	7.7	7.4	<1.0	3500	1300	23	C
Kansari	53	Banapur	7.8	6.6	1.9	1300	330	NA	C
Badasankha	54	Langalaeswar	7.7	6.7	1.7	2400	790	NA	C
Ratnachira	55	Kumardihi	6.7	6.6	1.7	490	170	4	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			6.5-8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

NA : Not analysed

D : Desirable P : Permissible

(B) Brahmani River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Brahmani	1	Panposh U/S	7.4	6.8	1.3	1700	790	NA	C
	2	Panposh D/S	7.5	7.2	3.6	17000	7900	23	NC
	3	Rourkela D/S at Jalda	7.6	6.8	2.8	13000	3300	17	NC
	4	Rourkela FD/s at Attaghat	7.4	6.8	1.6	2400	1300	11	C
	5	Rourkela FFD/s at Biritola	7.4	7.4	1.4	1300	790	4	C
	6	Bonaigarh	7.5	6.9	1.2	1100	230	NA	C
	7	Rengali	7.5	5.8	1.2	130	20	NA	C
	8	Samal	7.3	6.2	1.1	3500	1300	NA	C
	9	Talcher FU/S	7.3	7.2	<1.0	790	220	<1.8	C
	10	Talcher U/s	7.3	7.0	1.0	1300	330	2	C
	11	Mandapal	7.5	6.8	1.6	3500	2400	NA	C
	12	Talcher D/S	7.1	6.8	1.8	2200	790	4	C
	13	Talcher FD/S	7.9	6.8	1.1	1100	490	<1.8	C
	14	Dhenkanal U/s	7.6	6.8	1.1	330	130	NA	C
	15	Dhenkanal D/s	7.4	6.4	1.4	490	130	NA	C
	16	Bhuban	7.4	6.8	1.2	790	170	NA	C
	17	Kabatabandha	8.2	8.0	1.1	2400	790	NA	C
	18	Dharmasala U/s	8.2	7.5	1.3	1300	330	NA	C
	19	Dharmasala D/s	7.1	7.3	1.4	2400	790	NA	C
	20	Pottamundai	7.2	6.2	1.8	1300	490	NA	C
Kharasrota	21	Khanditara	7.4	8.2	1.1	330	130	NA	C
	22	Binjharpur	7.3	7.9	1.1	1300	490	NA	C
	23	Ali	7.1	6.4	1.4	1100	490	NA	C
Nandira jhor	24	Nandira U/s	7.8	7.2	1.1	1700	790	NA	C
	25	Nandira D/s	7.9	6.6	1.4	3500	1300	NA	C
Kisindajhor	26	Kisindajhor	8.0	10.4	1.8	2400	490	<1.8	C
Sankh	27	Sankh U/s	7.4	6.8	1.3	3500	1300	NA	C
Koel	28	Koel U/s	7.5	7.0	1.6	2400	790	NA	C
Guradih nallah	28	Rourkela (before confluence with Brahmani river)	8.2	4.4	6.0	92000	35000	NA	Drain
Badajhor	30	Badajhor	6.7	7.5	1.1	700	220	NA	C
Damsala	31	Dayanabil	7.2	7.3	1.2	2400	490	NA	C
Gondanallah	32	Marthapur	7.5	6.2	1.6	4900	1700	NA	C
Karo	33	Barbil	7.7	7.5	1.2	790	220	NA	C
Lingra	34	Lingira U/s	8.4	10.0	<1.0	2400	790	NA	C
	35	Lingira D/s	8.4	8.8	1.2	3500	1300	NA	C

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Ramiala	36	Kamakhyanagar	7.8	7.0	1.9	3500	1300	NA	C
Bangurunallah	37	Bangurunallah	7.5	6.8	1.0	1100	330	NA	C
Singadajhor	38	Singadajhor	7.6	7.4	1.0	790	330	NA	C
Tikira	39	Kaniha U/s	7.5	6.8	1.4	1300	330	NA	C
	40	Kaniha D/s	7.3	6.6	1.9	2200	700	NA	C
Bangurusingadajhor	41	Bangurusingadajhor	7.9	7.4	1.8	1400	460	NA	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			6.5-8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

(C) Baitarani River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Kundra nallah	1	Joda	7.3	6.1	1.1	1300	230	NA	C
Kusei	2	Deogaon	8.0	8.4	1.3	490	230	NA	C
Baitarani	3	Naigarh	7.5	6.8	<1.0	1300	330	NA	C
	4	Unchabali	7.4	7.3	<1.0	1700	490	NA	C
	5	Champua	7.6	6.9	<1.0	1100	330	NA	C
	6	Tribindha	7.8	7.0	<1.0	490	130	NA	C
	7	Joda	7.6	6.7	1.2	790	230	NA	C
	8	Anandpur	7.7	7.1	1.7	1300	330	NA	C
	9	Jajpur	7.5	7.7	1.1	3500	1300	NA	C
	10	Chandbali U/s	6.8	6.0	<1.0	220	110	NA	C
	11	Chandbali D/s	6.8	6.0	1.6	270	110	NA	C
Dhamra	12	Dhamra	6.7	6.4	1.7	1100	330	NA	C
Salandi	13	Bhadrak U/s	6.5	6.0	<1.0	1700	490	NA	C
	14	Bhadrak D/s	6.5	6.4	1.3	2800	1100	NA	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			6.5-8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

NA : Not analysed

D : Desirable P : Permissible

(D) Rushikulya River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Russelkunda Reservoir	1	Russelkunda Reservoir	7.4	7.7	1.2	1300	490	NA	C
Badanadi	2	Aska	7.7	6.7	1.1	2200	1300	NA	C
Rushikulya	3	Aska	7.7	6.3	1.6	1400	490	NA	C
	4	Nalabanta	6.8	6.6	1.0	1700	790	NA	C
	5	Madhopur	7.1	6.2	1.1	1100	490	8	C
	6	Potagarh	7.4	6.5	2.0	490	170	13	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			6.5-8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

(E) Subarnarekha River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Subarnarekha	1	Rajghat	7.2	6.8	1.4	2400	790	NA	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			6.5-8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

(F) Budhabalanga River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Budhabalanga	1	Baripada D/s	7.3	6.4	1.2	1300	490	11	C
	2	Balasore U/s	7.1	6.0	1.2	1100	270	NA	C
	3	Balasore D/s	6.9	6.0	2.8	2200	790	NA	C
	4	Hatiagond (Sona)	7.3	6.4	1.1	2400	1300	NA	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			6.5-8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

NA : Not analysed

D : Desirable P : Permissible

(G) Bahuda River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Bahuda	1	Damodarpally	7.7	6.1	1.6	940	330	NA	C
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			6.5-8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

(H) Nagavali River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Nagavali	1	Penta U/s	7.4	6.6	<1.0	330	78	NA	C
	2	Jayjkaypur D/s	7.8	6.7	1.6	1100	310	<1.8	C
	3	Rayagada D/s	8.0	7.5	1.3	2400	490	5	C

(I) Vansadhara River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Vansadhara	1	Muniguda	8.1	7.1	<1.0	1300	230	NA	C
	2	Gunupur	7.9	6.7	1.2	1400	460	NA	C

NA. : Not analysed

D : Desirable P : Permissible

(J) Kolab River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Kerandi	1	Sunabeda	7.5	7.3	1.2	2200	640	NA	C

(K) Indravati River system

Name of River	Sl. No.	Name of Monitoring Station	pH	DO, mg/L	BOD, mg/L	TC, MPN/100 mL	FC, MPN/100 mL	FS, MPN/100 mL	Water Quality Status (Conforming (C)/ Non-Conforming (NC))
Indravati	1	Nawarangpur	7.8	7.1	1.6	3500	1300	NA	C

Proposed Utilization of Treated wastewater of STPs

(A) Cuttack

(i) Proposed utilization of wastewater of 33 MLD STP at Mattagajpur, Cuttack

Presently the treated wastewater is being discharge to Kathajodiriver.

1. It is proposed to utilize part of the treated wastewater from STP for agricultural use in the nearby cultivation area which is 5 Km from STP.
2. A part of treated wastewater may be utilized in the Central Rice Research Institute, Bidyadharpur which is around 5 Km away from STP.

(ii) Proposed utilization of wastewater of 36 MLD STP at Bidanasi, CDA, Cuttack

Presently the treated wastewater is being discharge to Kathajodiriver through Peta Nallah. 5% of treated wastewater is being reused in the Plant and lawns developed both inside and outside of the plant.

1. It is proposed to utilize the treated wastewater from STP in the development of Peta nallah as water body for recreational facility which is flowing adjacent to the STP.
2. A part of treated wastewater may be utilized for water different gardens and parks (BijuPatnaik Park and BirenMitra Park) which are around 5 Km away from STP.

(iii) Proposed utilization of wastewater of 16 MLD STP at Mttagajpur, Cuttack

The treated wastewater will be discharged to Kathajodiriver as per DPR.

1. It is proposed to utilize the part of the treated wastewater from STP for agricultural use in the nearby cultivation area which is 5 km from STP.
2. A part of treated wastewater may be utilized in the Central Rice Research Institute, Bidyadharpur which is around 5 Km away from STP.

(B) Puri

(i) Proposed utilization of wastewater of 15 MLD STP at Mangalaghat, Puri

Presently the treated wastewater is being discharge to Mangalariver.

1. It is proposed to utilize part of the treated wastewater from STP in Railway coach washing yard at Puri which is around 8 Km away from the STP.
2. The balance treated water from the STP may be utilized for development of Musa River as water body for recreational facility which is 3 Km away from the STP.

(ii) Utilization of wastewater of 5 MLD STP at Bankimuhan, Puri

Presently the treated wastewater is being utilized for casuarinaplantiation at Baliguali, Puri.

(C) Bhubaneswar

(i) Proposed utilization of wastewater of 56 MLD STP at Meherpalli, Bhubaneswar

The treated wastewater will be discharged to Gangua nallah as per DPR.

1. It is proposed to utilize part of the treated wastewater from STP in washing of Railway platforms at Bhubaneswar Railway Station and for washing of Railway coaches.
2. A part of treated water from STP may be used for Ground water recharge inside the plant. Some quantity of treated water may be used in-situ for watering of plantation and landscaping developed around the STP.

(ii) Proposed utilization of wastewater of 28 MLD STP at Basuaghai, Bhubaneswar

The treated wastewater will be discharged to Gangua nallah as per DPR.

1. It is proposed to utilize part of the treated wastewater from STP by the Bhubaneswar Smart City Authority for their use.
2. Some quantity of treated water may be used in-site for watering of plantation and landscaping around the STP.
3. Part of the treated water can be used for watering of parks and landscaping developed by the Bhubaneswar Municipal Corporation.

(iii) Proposed utilization of wastewater of 43.5 MLD STP at Kochilaput, Bhubaneswar

The treated wastewater will be discharged to the nearest natural drain as per DPR.

1. It is proposed to utilize part of the treated wastewater from STP in the firms of OUAT which is 10 km away from STP.
2. Part of treated water may be utilized by Airport Authority for their non-potable use which is 5 km away from the STP.
3. Some quantity of treated water may be used in-site for watering of plantation and landscaping around the STP.
1. Part of the treated water can be used for watering of parks and landscaping developed by the Bhubaneswar Municipal Corporation (Madhusudan Park, Kharabela Park, Forest Park etc.)

(iv) Proposed utilization of wastewater of 8 MLD STP at Paikarapur, Kalinganagar, Bhubaneswar

The treated wastewater will be discharged to the nearest natural drain as per DPR.

1. It is proposed to utilize part of the treated wastewater from STP in watering different nearby parks developed by Govt. and semi Govt. organisations.
2. A part of treated water may be utilized for ground water recharge inside the plant and watering of plantation and landscaping developed around the STP.
3. Part of the treated water may be used in institutions like CET, Bhubaneswar, SOA University etc which are within 5 km from STP.

(v) Proposed utilization of wastewater of 48 MLD STP at Rokhat, Bhubaneswar

The treated wastewater will be discharged to Budhi nallah flowing nearby as per DPR.

1. It is proposed to utilize part of the treated wastewater from STP in Railway coach Factory of Indian Railways at Mancheswar, Bhubaneswar which is within 2- 2.5 km away from the location of STP.
2. Part of treated wastewater may be utilized in IDCO Industrial Estate, Mancheswar, Bhubaneswar which is 5 km away from the STP

3. Part of treated wastewater may be utilized in Golf course at Infocity, Bhubaneswar which is 10 Km away from the STP
4. Part of treated wastewater may be utilized for watering of gardens developed by Infosys, TCS, KISS campus and other institutions which are within 10 km away from STP.
5. Part of treated wastewater may be utilized in Nandankanan Botanical Garden and lake which is 20 km away from STP.
6. A part of treated water may be utilized for ground water recharge inside the plant area.

(D) Sambalpur

Proposed utilization of wastewater of 40 MLD STP at Dhanupalli, Sambalpur

The treated wastewater will be discharged to Mahanadi river as per DPR.

1. The bulk treated wastewater from STP may be supplied to the Bhusan Steel and Power, Jharsuguda which is within 50 km away from the STP.
2. The bulk treated wastewater from STP may also be supplied to the Vedanta Aluminium factory at Jharsuguda which is also within 50 km away from the STP.
3. A part of treated water from the STP may be utilized for agricultural purpose in the area surrounding STP.

(E) Rourkela

Proposed utilization of wastewater of 40 MLD STP at Balughat, Rourkela

The treated wastewater will be discharged to Brahmani river as per DPR.

1. The treated wastewater from STP may be used for meeting water requirement of Rourkela Steel Plant .
2. A part of treated water from STP may be used in Railway coach washing platform.

(F) Talcher

Proposed utilization of wastewater of 2 MLD STP at Mandapal, Talcher

The treated wastewater is being discharged to Brahmani river..

1. It is proposed to utilize the treated wastewater from STP in the Talcher Thermal Power Plant of NTPC which is situated 7 Km from Talcher town.

Regulation of mining activities in Odisha

Overview of mining activities in Odisha

In Odisha, 249 major mineral mines of different categories are under the consent administration of State Pollution Control Board. Major mineral mines are under Coal, Iron and Manganese, Chromite, Bauxite, limestone and Dolomite sector. The details of the mines as well as mines having valid consent till 22.10.2020 is given in Table 6 1.

Table – 1: Major mines under consent administration of State Pollution Control Board

Sl. No.	Mineral Ore	No. of Mines	Mines having valid consent
1.	Coal	32	29
2.	Iron & Manganese	164	70
3.	Chromite	21	13
4.	Bauxite	07	06
5	Limestone and Dolomite	25	09
Total		249	127

There are also 1481 nos. of other mines which are mostly Graphite, Quartzite, Pyrophyllite, Fireclay, Soapstone, China-clay, Gemstone, Mineral sand, Stone quarry and Sand mines etc. The major mineral mines i.e. Coal, Iron, Manganese, Chromite and Bauxite are mostly concentrated in seven mining clusters of Joda-Barbil-Koira, Talcher-Angul, Ib-Valley, Hemgiri block, Sukinda, Sundargarh and Raygada-Koraput area. The distribution of mines in these clusters are presented in Table 6 2.

Table – 2: Mines in different cluster of Odisha

Sl. No.	Cluster	Mineral	Nos. of Mines in cluster	Total nos. of mines in the different sector	Percentage of total mines in the cluster
1.	Joda-Barbil & Koira (Keonjhar and Sundergarh)	Iron & Manganese	128	164	90%
2.	Talcher (Angul)	Coal	15	32	47%
3.	Ib Valley (Jharsuguda)	Coal	10		31%
4.	Hemgiri block (Sundargarh)	Coal	05		16%
5.	Sukinda (Jajpur)	Chromite	17	21	81%

6.	Sundargarh (Sundargarh)	Limestone & Dolomite	22	25	88%
7.	Raygada- Koraput(Raygad and, Koraput)	Bauxite	05	07	71%
Total			202	249	81%

The mines in cluster constitute about 81% of total mines in the respective sectors.

Measures taken for abatement of pollution due to mining activities

Consent is granted to the mines under the above provisions stipulating conditions related to prevention and control of environmental pollution. Status compliance of the stipulated conditions is periodically verified by the Board officials and appropriate action is taken based on the status compliance of the stipulation. The pollution mitigation measures of individual mines in a specific sector are summarized in Table 3.

Table 3: Pollution Mitigation Measures taken by mines in different Sectors

Sl. No.	Mines	Water pollution mitigation measures	Air pollution mitigation measures
1.	Coal	<ul style="list-style-type: none"> • Garland drain and provision of settling pond/ mine sump for surface runoff management • Effluent Treatment Plant for mine drainage water • Sewage Treatment Plant for domestic effluent • Oil and Grease Trap for treatment of workshop effluent • Concurrent back filling of mined out voids using internal burden and followed by biological reclamation 	<ul style="list-style-type: none"> • Deployment of surface miner with inbuilt dust suppression system replacing Blasting and Dumper óShovel combination method of mining.. • Wet drilling and controlled blasting of over burden(OB) to minimize dust generation • Water sprinkling system at various dust generating sources to control fugitive dust emission • Black topping and proper maintenance of permanent coal transportation roads to reduce fugitive dust generation • Avoiding creation of ruts and pot holes on haul roads of mine to minimize generation of fugitive dust • Plantation

2.	Iron &Manganese	<ul style="list-style-type: none"> • Toe wall, garland drain and sedimentation basin for runoff management • check dam and check weirs at strategic location of the mine for runoff management • Stabilization of OB by covering it with geotextile/coir matting and plantation • Sewage Treatment Plant for domestic effluent in large mines having colony/Discharge of domestic effluent to soak pit via septic tank • Oil and Grease separation system for treatment of workshop effluent 	<ul style="list-style-type: none"> • Wet drilling and controlled blasting to minimize dust generation • Water sprinkling on haul roads and dry-fog system in mineral handling plants for control of fugitive dust • Proper maintenance of haul roads to prevent generation of dust • Disposal of tailings generated from ore beneficiation plant into tailing pond and recirculation of overflow water/discharge after settling of tailings • Plantation
3.	Chromite	<ul style="list-style-type: none"> • Effluent Treatment Plant for treatment of mine drainage water and surface runoff water • Toe wall and garland drain • Stabilization of OB by coir matting and plantation • Sewage Treatment plant for domestic effluent/or discharge into soak pit via septic tank 	<ul style="list-style-type: none"> • Wet drilling and controlled blasting to minimize dust generation • Water sprinkling on haul roads to minimize dust generation • Plantation
4.	Limestone and Dolomite	<ul style="list-style-type: none"> • Toe wall and garland drain • Settling pond 	<ul style="list-style-type: none"> • Wet drilling and controlled blasting to reduce dust generation • Water sprinkling on haul roads to prevent dust generation • plantation
5.	Bauxite	<ul style="list-style-type: none"> • Check dam for surface runoff management • Effluent Treatment Plant for workshop and canteen effluent • Back filling of mined out area using overburden 	<ul style="list-style-type: none"> • Deployment of ripper dozer to minimize dust generation • Water sprinkling on haul roads to control dust emission • Plantation

Status of the functional Septage Treatment Plants in Odisha

Sl No	Name of the Town	Capacity of the SeTP (KLD)	Year of commissioning	Project cost (Crores)	Remark
1.	Bhubaneswar	75	October 2018	3.54	Operations and management by WATCO
2.	Cuttack	60	January 2020	1.75	Operations and management by ULB through Bahucharamata transgender group
3.	Behrampur	40	October 2018	2.22	Operations and management by ULB through Agrata CLF
4.	Dhenkanal	27	October 2018	2.85	Operations and management by ULB through JeevanJyoti ALF
5.	Sambalpur	20	October 2018	1.66	Operations and management by ULB through Patneswar ALF
6.	Rourkela	40	October 2018	1.90	Operations and management by ULB through JeevanJyoti ALF
7.	Angul	18	January 2020	2.53	Operations and management by ULB through Jay Hanuman ALF
8.	Balasore	60	January 2020	2.45	Operations and management by ULB through Jyotirmayee ALF
9.	Puri	50	October 2018	1.61	Operations and management by PHEO
10.	Baripada	50	February 2019	2.045	Operations and management by ULB through Sraddha Saburi ALF