

GOVERNMENT OF ANDHRA PRADESH
MUNICIPAL ADMINISTRATION & URBAN DEVELOPMENT (UBS) DEPARTMENT

Letter No.1282446/UBS/2020

Dated:05-09-2022

From
The Special Chief Secretary to Government,
MA & UD Department,
A.P. Secretariat,
Velagapudi,
Guntur District

To
The Secretary,
Ministry of Jal Sakti,
MoHUA.,
Government of India,
New Delhi.(w.e.)

Sir,

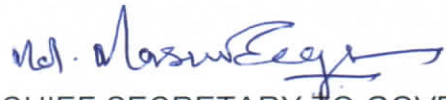
Sub:-MA & UD Department - National Green Tribunal – Orders of the
National Green Tribunal Principal Bench, New Delhi in OA
No.673/2018 - Monthly Progress Reports for the months of June and
July, 2022 - Furnished – Regarding.

Ref:-Orders of the National Green Tribunal Principal Bench, New Delhi in
OA No.673/2018, dated.24.09.2020.

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In compliance to the directions of the Hon'ble National Green Tribunal Principal Bench, New Delhi in the reference cited, I am herewith enclose the Monthly Progress Reports in the prescribed format for the months of June and July, 2022 for taking further necessary action.

Yours faithfully,



For SPECIAL CHIEF SECRETARY TO GOVERNMENT



National Mission for Clean Ganga
Format for submission of Monthly Progress Report for Month of June , 2022
in the NGT Matter OA No. 673 of 2018(in compliance to NGT order
dated 24.09.2020)

For the State of Andhra Pradesh

Overall status of the State:

I. Total Urban Population :@1.5 Crore

II. Estimated Sewage Generation (MLD) : 1503.20 MLD

III. Details of Sewage Treatment Plant:

- Existing No. of STPs and Treatment Capacity (in MLD) :535.45 MLD (45Nos)
- Present Gap in Treatment Capacity in MLD :967.75 MLD
- Capacity of under construction STP's :507.17 MLD (61 Nos)
- Quantity of Treated Sewerage (in MLD) : 382.81 MLD
- STPs Under Tender : 35.60 MLD
(Kurnool Municipal Corporation 3 STP's [35.0+0.4+0.2] MLD)
- No. of Operational STPs : 45 Nos
- No. of Complying STPs : 45 Nos
- No. of Non-complying STPs : Nil
- Quantity of Reuse of Treated water : 119.90 MLD

III (A) Details of each existing STP in the State:

Sl. No	City / Town	Location of STP	Date of Commissioning	Existing STP Capacity (in MLD)	Utilization capacity (in MLD)	Operational Status of STP	Compliance Status of STP
1	GVMC	Old town	05/2019	38.00	29.00	Operational	Complied
2		Appughar	09/2010	25.00	23.80	Operational	Complied
3		Mudasarlova	04/2008	13.00	6.50	Operational	Complied
4		Narava	08/2001	54.00	30.50	Operational	Complied
5		Anakapalle	04/2018	15.00	4.50	Operational	Complied
6		Madinabagh	-	2.00	0.50	Operational	Complied
7		Yathapalem Colonies	04/2008	2.50	0.80	Operational	Complied
8		Srinagar	04/2008	0.50	0.30	Operational	Complied
9		Karnavanipalem	12/2019	5.00	0.0	Operational	Complied
10		Mantripalem	04/ 2008	1.00	0.35	Operational	Complied
11		Aganampudi	12/2015	6.00	2.80	Operational	Complied
12		RathiCheruvu	09/ 2019	2.00	0.60	Operational	Complied
13		Kommadi / Madhurawada	08/2018	4.00	2.40	Operational	Complied
14		Bakkannapalem	08/ 2011	1.00	0.50	Operational	Complied
15		Marikavalasa	12/ 2012	2.00	0.80	Operational	Complied
16		Vambay Colony	08/ 2011	3.00	1.40	Operational	Complied
17		YSR Nagar	08/ 2011	2.00	1.20	Operational	Complied
18		Boyapalem	08/ 2011	1.00	0.60	Operational	Complied
		Sub Total		177.00	106.55		

Sl. No	City / Town	Location of STP	Date of Commissioning	Existing STP Capacity (in MLD)	Utilization on capacity (in MLD)	Operational Status of STP	Compliance Status of STP
19	Rajamahendravaram	Hukumpeta	01/2009	30.00	30.00	Operational	Complied
20	Vijayawada	Ajith Singh Nagar-1	05/2011	40.00	39.52	Operational	Complied
21		Ajith Singh Nagar-2	05/2012	20.00	20.00	Operational	Complied
22		Ramalingeswar Nagar-1	06/2012	20.00	19.74	Operational	Complied
23		Ramalingeswar Nagar-2	10/2006	10.00	9.80	Operational	Complied
24		Autonagar -1	03/2005	10.00	9.70	Operational	Complied
25		Autonagar -2	12/2018	10.00	9.80	Operational	Complied
26		Jakkampudi	07/2017	20.00	13.50	Operational	Complied
			Sub Total	130.00	122.06		
27	Tirupathi	Thukivakam	09/2018	50.00	33.00	Operational	Complied
28	Kadapa	Nanapally	08/2012	20.00	10.00	Under Rehabilitation	Complied
29	Pulivendula	Rotarypuram	01/2009	6.50	2.50	Under Rehabilitation	Complied
30	Tadipatri	Gannevaripalle	10/2010	3.50	2.50	Operational	Complied
31			10/2010	8.00	4.0	Operational	Complied
			Sub Total	11.50	6.50		Complied
32	Puttaparthi	1.Sai Nagar	07/2001	0.50	0.50	Operational	Complied
33		2. Gokulam	07/2001	0.50	0.0	Under Rehabilitation	Complied
34		3. Prasanthi Gram	07/2001	0.50	0.0	Under Rehabilitation	Complied
			Sub Total	1.50	0.50		
35	Narsaraopeta	CPT Road	02/2018	15.55	8.50	Operational	Complied
36	Nellore	Janardhan Reddy Colony	-	5.00	5.00	Operational	Complied
37		Allepuram	-	55.00	55.0		
38		Drivers Colony	-	11.00	0.00	Under Trail Run	Complied
			Sub Total	71.00	60.00		
39	Kurnool	Jammichettu	03/2019	0.80	0.80	Operational	Complied
40		SankalBagh	03/2019	0.80	0.80	Operational	Complied
41		Tungabhadra PumpHouse	03/2018	0.80	0.80	Operational	Complied
			Sub Total	2.40	2.40		
42	Tadepalli	Mahanadu-1	12/2018	0.20	0.20	Operational	Complied
43		Mahanadu-2	12/2018	0.20	0.20	Operational	Complied
44	Kondapalli	Security Colony	12/2021	0.80	0.40	Operational	Complied
45	Yemmiganuru		06/2022	19.80			
		Grand Total		535.45	382.81		

III (B) Details of Under Construction STPs in the State:

S. No.	Location	Scheme Name	No. of STP	Capacity of the plant (in MLD)	Physical Progress in %	Completion Timeline	Status
1	Srikakulam	AMRUT	1	10.00	45%	Dec -2022	-
2	Vizianagaram	AMRUT	1	5.00	55%	Dec -2022	-
3	GVMC	Smart City Package-I	1	54.00	90%	Dec -2022	In Progress
4	Kakinada	AMRUT	1	5.00	72%	March 2023	In Progress
5	Rajamahendravaram	AMRUT	1	5.00	20%	March 2023	In Progress
6	Bhimavaram	AMRUT	1	5.00	70%	Dec -2022	In Progress
7	Tadepalligudem	AMRUT	1	5.00	0%	March 2023	In Progress
8	Eluru	AMRUT	1	5.00	60%	Dec -2022	In Progress
9	Machilipatnam	AMRUT	1	5.00	48%	Dec -2022	In Progress
10	Gudivada	AMRUT	1	5.00	50%	Dec -2022	In Progress
11	Vijayawada	JNNURM	1	20.00	83%	Dec -2022	In Progress
12	Tenali	AMRUT	1	10.00	65%	Dec -2022	In Progress
		14 FC	1	2.00	30%	Dec -2022	In Progress
13	Ongole	AMRUT	1	15.00	98 %	Dec -2022	In Progress
14	Chilakaluripeta	AMRUT	1	5.00	21%	March 2023	In Progress
15	Kavali	AMRUT	1	15.00	86%	Dec -2022	In Progress
			1	20.00	85%	Dec -2022	In Progress
16	Nellore	HUDCO	1	14.00	0%	-	The site issue resolved, work will be Grounded
17	Tirupati	Smart City	1	25.00	25%	March 2023	In Progress
18	Srikalahasti	AMRUT	1	7.00	40%	Dec -2022	In Progress
19	Madanapalle	AMRUT	1	5.00	20%	Dec -2022	In Progress
20	Kadapa	AMRUT	1	20.00	0%	March 2023	-
21	Anantapuramu	AMRUT	1	10.00	0%	-	Re Tenders are under finalization
22	Dharmavaram	AMRUT	2	8.00	0%	-	Re Tenders are Under finalization
23	Guntakal	AMRUT	1	8.00	0%	March 2023	-
24	Kurnool	AMRUT	1	2.00	80%	Oct -2022	In Progress
		AMRUT	1	10.00	17%	Dec -2022	In Progress

25	Nandyal	AMRUT	1	10.00	35%	Dec -2022	In Progress
26	Adoni	AMRUT	1	5.00	25%	Dec -2022	In Progress
27	Guntur	OTSFA	1	10.00	52%	Dec -2022	-
			1	20.00	52%	Dec -2022	-
			1	42.00	51%	Dec -2022	-
			1	28.00	51%	Dec -2022	-
			1	23.00	0%	-	The site issue resolved, Work will be Grounded
28	Pulivendula	PLAN	1	10.00	96%	Dec -2022	In Progress
			1	1.50	75%	Dec -2022	In Progress
			1	1.50	0%	March 2023	
			5	2.50 (0.50 MLD x 5 Nos)	5%	March 2023	In Progress
			1	0.02	0%	Dec -2022	-
			1	0.07	0%	Dec -2022	-
			1	0.08	0%	Dec -2022	-
			1	0.10	0%	Dec -2022	-
29	Rayachoti	PLAN	6	22.40	2 %	Dec -2022	In Progress
30	Kondapalli	CSR Funds	1	2.00	12 %	July 2023	In Progress
31	Kanigiri	AIIB	1	6.00	0 %	Aug -2023	-
32	Sullurpet	AIIB	3	8.00	0 %	Aug -2023	-
33	Allagadda	AIIB	1	5.00	0 %	Aug-2023	-
34	Nandikotkur	AIIB	1	5.00	0 %	Aug-2023	-
35	Madakasira	AIIB	1	5.00	0 %	Aug- 2023	-
Grand Total			61	507.17			

III (C) Details of Proposed STPs in the State:

Phase	Description	No. of ULBs	Proposed STP capacities (MLD)	Cost of Total STPs (crores)
I	Municipal Corporations	16	539.00	1617.00
II	ULBs having population above 1,00,000 Lakh	18	221.00	663.00
III	ULBs having Population ranging between 75,000 to 1.00 Lakh	8	43.00	129.00
IV	ULBs having Population less than 75,000	78	499.00	1497.00
V	Taxes and others etc @20%			781.20
Total			1302.00	4687.20

III D) STATUS OF STPs UNDER RIVER STRETCHES

- Total Estimated Sewage Generation (in MLD) 2022 :302.00 MLD
- Existing no. of STP with Treatment Capacity (in MLD) :162.40 MLD
- Present Gap in Treatment Capacity (in MLD) : 139.60 MLD
- Capacity of under Construction STPs (in MLD) : 57.00 MLD
- Gap after completion of ongoing Projects : 82.60 MLD

S. No	Name of River Stretch	Name of the ULB	Ongoing STP Capacity (in MLD)	Status of Ongoing Works	Status of DPRs
1.	Tungabhadra	Kurnool	10 MLD	16%	Administrative sanction for an amount of Rs.79.78crs has been accorded by the Government for construction of 35.60MLD capacity of STPs which is in tender process and are under finalisation .
			2 MLD	80 %	
2	Kundu	Nandyal	10 MLD	35%	Comprehensive DPR on UGD scheme is prepared for Rs.85.00 Cr with STPs capacity of 26 (21 + 5) MLD to cater the needs of 2035 year. DPR submitted to the Govt. for according Administrative Sanction.

S. No	Name of River Stretch	Name of the ULB	Ongoing STP Capacity (in MLD)	Status of Ongoing Works	Status of DPRs
1.	Nagavali	Srikakulam	10 MLD	45%	Comprehensive proposal for providing UGD scheme for 2035 needs is prepared for an amount of Rs.190.36 Cr with an additional STP capacity of 12 MLD.
2.	Godavari	Rajamahendravaram	5 MLD	16 %	DPR on Comprehensive UGD scheme prepared with additional STP's of capacity 72.37 MLD for an amount of Rs.404.00 Cr. Government of India accorded Administrative Approval & Expenditure Sanction for an amount of 88.43 Crores for Project "Pollution abatement and conservation of River Godavari under NRCP" on Dt.17/03/2022.
3.	Krishna	Vijayawada	20 MLD	83%	DPR is prepared for Rs.246.38 Cr for providing Comprehensive UGD scheme to meet the 2035 demand including up-gradation of 2 STPs of 30.00 MLD capacity. Proposals for upgradation of existing 20.00 MLD STP, Bio –Gas Energy Plants is prepared with an estimated cost of Rs. 14.93 Crores and submitted proposal for according administrative sanction by Government.

IV. Details of Industrial Pollution:

- No. of industries in the State: 9959 No's
- No. of water polluting industries in the State: 1439 No's
- Quantity of effluent generated from the industries in MLD: 4541.95

Effluent Break-Up Details:

- Once through Cooling water: 3826.13 MLD
- Trade effluents: 412.14 MLD
- cooling tower/Boiler blow down: 254.12 MLD
- Domestic waste water: 49.565 MLD

From the total waste water generation from the industries, major portion is once through cooling water (about 85%) and temperature to be maintained for discharge of once through cooling system is not more than 5⁰C temperature of intake water.

- ✓ From the Cooling tower/Boiler blow down (about 5.6%).
- ✓ The remaining about 9.4% is generated from Trade effluent & Domestic Discharges.
- ✓ APPCB is not permitting any industry to discharge industrial / trade effluents into the rivers.
- Number of industrial units having ETPs: 1093 No's
- Number of industrial units connected to CETP: 346 No's
 - i. Existing: 1093 no's ETPs
 - ii. Under construction: Nil
 - iii. Proposed: Nil
- **Compliance status of the ETPs:**
 - ✓ APPCB is regularly monitoring the compliance status of ETPs and action is being initiated for non-compliance industries.

V. Solid Waste Management:

- Total Number of Urban Local Bodies: **123** and their Population: **1.5** Crore
- Current Municipal Solid Waste Generation: **6890** TPD for 123 ULBs
- The Source Segregation in the State is 98.17 % and 100 % door to door collection in the state.
- Total No. of wards in 123 ULBs: 3928
- No. of wards having door to door collection system: 3928
- No. of wards practicing segregation at source: 3856
- Two Waste to Energy projects at Guntur and Visakhapatnam each of 15 MW capacity are synchronized with grid and running at full load capacity. These two plants are processing around 1600 TPD of municipal solid waste. 2 Waste to Energy Projects covering 41 ULBs.
- 28 Wet Waste Projects covering 31 ULBs treating 1379 TPD with an installed capacity of 1570 TPD are existing.
- 17 Wet Waste Projects covering 17 ULBs are in progress with an installed capacity of 397 TPD.
- Work orders issued for another 37 Integrated Solid Waste Management projects and projects to be established within 1 year from handing over of land.
- For Remaining 34 ULBs feasibility study was done for clustering with the nearby existing and awarded projects. 19 ULBs within radius of 25 Km, were instructed to transport the waste to nearby projects. Balance 15 ULBs independent solutions will be planned
- 3 Construction and Demolition waste processing plants in Greater Visakhapatnam Municipal Corporation, Vijayawada Municipal Corporation and Tirupati Municipal Corporation treating 100 TPD with an installed capacity of 200 TPD are existing.
- 123 Dumpsites with an area of 1173 acres are existing in the state. Out of which remediation of dumpsites in 2 ULBs (Vijayawada & Tirupati) was completed and in 4 ULB Vishakhapatnam, Kurnool, Ananthapuramu & Dharmavaram work is under progress.
- Quantification of Dumpsites in all the ULBs completed, a model RFP along with guidelines for dumpsite remediation was communicated to the ULBs with above 1 lakh population and they were instructed to take up the tender process for remediation of dumpsites.
- 14 ULBs have invited tenders and are in various stages and 9 ULBs yet to be float tenders. 2 ULBs Work Completed, 4 ULBs work is in progress and Work awarded in 3 ULBs. For below 1 lakh Population ULBs quantification completed and proposal submitted to Government for inviting tenders on cluster basis.
- No Dump sites of legacy waste are within 1km buffer of both sides of the rivers in the state.
- 79 Material Recovery facilities are established in 79 ULBs processing 800 TPD.
44 Material Recovery facilities are to be established in 44 ULBs.

Status of ULB wise Management of Solid Waste:

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
1	Amudalavalasa	19	Existing WtC	10	85%	Vizag WtE		Established	4	85%
2	Ichchapuram	18	Existing WtC	10	85%	Feasibility Study under progress		Established	2	85%
3	Palasa- kasibugga	28	Existing WtC	15	80%	Feasibility Study under progress		In Progress		
4	Rajam	21	Existing WtC	12	80%	Vizag WtE		Established	4	85%
5	Bobbili	29	Existing WtC	16	90%	Vizag WtE		Established	8	85%
6	Salur	24	Existing WtC	13	90%	Vizag WtE		Established	6	90%
7	GVMC	918	Existing WtC	505	85%	Vizag WtE		Established	300	85%
8	Narsipatnam	30	Existing WtC	17	80%	Vizag WtE		Established	8	85%
9	Yellamanchili	23	Existing WtC	13	80%	Vizag WtE		Established	4	85%
10	Adoni	81	Existing WtCNG	45	80%	Connected to Cement Factories	3	Established	20	85%
11	Nuzivid	29	Existing WtC	16	80%	Guntur WtE		In Progress		
12	Thiruvuru	17	Existing WtCNG	9	80%	Guntur WtE		Established	2	85%
13	Tenali	80	Existing WtC	44	90%	Guntur WtE		Established	20	90%
14	Sattenpalle	28	WtCNG - Piduguralla	15	85%	Guntur WtE		Established	6	85%
15	Narsaraopet	57	WtCNG - Piduguralla	31	85%	Guntur WtE		Established	16	85%
16	Piduguralla	31	Existing WtCNG	17	85%	Guntur WtE		In Progress		
17	Allagadda	20	Existing WtC	11	85%	Connected to Cement Factories	1	Established	4	85%
18	Rayadurgam	30	Existing WtC	17	85%	RDF in progress		Established	6	85%

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
19	Puttaparty	15	Existing WtC	8	85%	RDF in progress		Established	2	85%
20	Yemmiganur	46	WtCNG - Adoni	25	85%	RDF in progress		Established	10	85%
21	Anantapur	131	Work order issued	0		Connected to Cement Factories	8	Established	35	90%
22	Atmakur K	22	WtC Awarded	0		Connected to Cement Factories	1	Established	4	90%
23	Badvel	35	Work order issued	0		Connected to Cement Factories	2	In Progress		
24	Dhone	29	Work order issued	0		Connected to Cement Factories	2	Established	6	90%
25	Markapur	35	Existing WtC	19	80%	Feasibility Study under progress		Established	8	85%
26	Giddalur	19	Existing WtC	10	85%	RDF in progress		Established	4	85%
27	Kanigiri	22	Existing WtC	12	85%	Feasibility Study under progress		Established	4	85%
28	Chirala	42	Existing WtC	23	90%	Guntur WtE		Established	9	90%
29	Gudivada	58	WtCNG awarded	0		RDF Connected / Guntur WtE	3	Established	14	90%
30	Palamaneru	25	Existing WtC	14	85%	Feasibility Study under progress		In Progress		
31	Punganur	27	Existing WtC	15	80%	Feasibility Study under progress		Established	6	85%
32	Madanpalle	67	Existing WtCNG	37	85%	RDF in progress		In Progress		
33	Sullurpet	22	Existing WtC	12	80%	Feasibility Study under progress		Established	4	85%
34	Srikakulam	65	Work order issued	0		Vizag WtE		Established	16	90%

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
35	Palakonda	16	WtC Awarded	0		Vizag WtE		In Progress		
36	Vizianagaram	119	Work order issued	0		Vizag WtE		Established	30	90%
37	Parvathipuram	26	WtC Awarded	0		Vizag WtE		In Progress		
38	Nellimarla	14	Work order issued	0		Vizag WtE		Established	2	90%
39	Gudur N	36	Work order issued	0		Connected to Cement Factories	2	In Progress		
40	Guntakal	62	Work order issued	0		Connected to Cement Factories	2	Established	14	90%
41	Jaggaiahpet	26	Work order issued	0		RDF Connected / Guntur WtE	1	In Progress		
42	Jammalamadugu	22	Existing WtC	12	80%	Connected to Cement Factories	1	In Progress		
43	Pedana	16	WtC Awarded	0		Guntur WtE		In Progress		
44	Vuyyuru	20	WtC Awarded	0		Guntur WtE		In Progress		
45	Guntur	363	Work order issued	0		Guntur WtE		Established	80	90%
46	Mangalagiri - Tadepalle	70	Work order issued	0		Guntur WtE		Established	16	90%
47	Ponnur	29	Work order issued	0		Guntur WtE		Established	6	90%
48	Chilakaluripet	49	Work order issued	0		Guntur WtE		Established	12	90%
49	Bapatla	34	Work order issued	0		Guntur WtE		Established	8	90%
50	Repalle	25	WtC Awarded	0		Guntur WtE		Established	4	90%
51	Vinukonda	30	Work order	0		Guntur WtE		In Progress		

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
			issued							
52	Macherla	28	Existing WtC	30	35%	Feasibility Study under progress		Established	6	90%
53	Kadapa	167	Work order issued	0		Connected to Cement Factories	6	Established	40	90%
54	Dharmavaram	62	No bids received, to be retendered	0		RDF in progress		In Progress		
55	Kadiri	43	No bids received, to be retendered	0		Connected to Cement Factories	1	Established	8	90%
56	Gooty	24	No bids received, to be retendered	0		RDF in progress		Established	4	90%
57	Hindupur	74	No bids received, to be retendered	0		RDF in progress		In Progress		
58	Kurnool	224	Work order issued	0		Connected to Cement Factories	2	In Progress		
59	Kalyandurgam	21	WtC Awarded	0		RDF inprogress		Established	2	90%
60	Madakasira	12	WtC Awarded	0		RDF inprogress		Established	2	90%
61	Machilipatnam	89	WtC Awarded	0		RDF Connected / Guntur WtE	3	Established	20	90%
62	Mydukur	22	Connected to Proddutur ISWM	0		Connected to Cement Factories	1	In Progress		
63	Nandigama	22	Connected to	0		RDF Connected /	1	In Progress		

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
			Jaggiahpet ISWM			Guntur WtE				
64	Nandikotkur	23	Connected to Kurnool ISWM	0		Connected to Cement Factories	1	Established	4	90%
65	Gudur K	14	Connected to Kurnool ISWM	0		RDF in progress		In Progress		
66	Nandyal	98	Work order issued	0		Connected to Cement Factories	3	In Progress		
67	Proddutur	79	Work order issued	0		Connected to Cement Factories	2	In Progress		
68	Pulivendula	32	Existing WtC	18	85%	Connected to Cement Factories	2	Established	6	85%
69	Rajahmundry	168	Work order issued	0		Connected to Cement Factories	3	Established	40	90%
70	Rajampeta	23	No bids received. to be retendered	0		Connected to Cement Factories	1	In Progress		
71	Rayachoti	44	No bids received. to be retendered	0		Connected to Cement Factories	2	Established	8	90%
72	Tadipatri	53	Existing WtC	29	90%	Connected to Cement Factories	2	Established	10	90%
73	Tirupati	208	Existing WtCNG	114	85%	Connected to Cement Factories	4	Established	45	85%
74	Ongole	123	WtCNG awarded	0		Guntur WtE		Established	30	90%
75	Chimakurthy	17	WtC Awarded	0		Guntur WtE		In Progress		

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
76	Addanki	20	WtC Awarded	0		Guntur WtE		Established	4	90%
77	Kandukur	28	WtC Awarded	0		Feasibility Study under progress		Established	6	90%
78	Kakinada	159	Work order issued	0		Feasibility Study under progress		Established	35	90%
79	Vijayawada	507	Existing WtC	279	85%	RDF Connected / Guntur WtE	6	Established	150	85%
80	Gollaprolu	11	Connected to Pithapuram ISWM	0		Feasibility Study under progress		In Progress		
81	Pithapuram	25	Work order issued	0		Feasibility Study under progress		Established	3	90%
82	Peddapuram	24	Work order issued	0		Feasibility Study under progress		Established	3	90%
83	Samalkota	28	No bids received, to be retendered	0		Feasibility Study under progress		Established	4	90%
84	Yeleswaram	16	Connected to Peddapuram ISWM	0		Feasibility Study under progress		Established	2	90%
85	Ramachandrapuram	21	Connected to Samalkot ISWM	0		Feasibility Study under progress		Established	2	90%
86	Mandapeta	26	Connected to Rajamahendravaram ISWM	0		Feasibility Study under progress		Established	4	90%
88	Tuni	26	WtC Awarded	0		Feasibility Study under progress		Established	3	90%
88	Mummidivaram	12	WtC Awarded	0		Feasibility Study		Established	2	90%

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
						under progress				
89	Amalapuram	26	WtC Awarded	0		Feasibility Study under progress		Established	3	90%
90	Eluru	106	Work order issued	0		Feasibility Study under progress		Established	22	90%
91	Tadepalligudem	51	Work order issued	0		Feasibility Study under progress		Established	8	90%
92	Tanuku	44	Work order issued	0		Feasibility Study under progress		In Progress		
93	Palakollu	33	Work order issued	0		Feasibility Study under progress		In Progress		
94	Narsapuram	29	Work order issued	0		Feasibility Study under progress		Established	4	90%
95	Bhimavaram	69	Work order issued	0		Feasibility Study under progress		Established	12	90%
96	Nidadavole	21	Connected to Tanuku ISWM	0		Feasibility Study under progress		In Progress		
97	Kovvur	19	Connected to Rajamahendravaram ISWM	0		Feasibility Study under progress		In Progress		
98	JangareddyGudem	26	No bids received, to be retendered	0		Feasibility Study under progress		Established	4	90%
99	Chittoor	92	Work order issued	0		Feasibility Study under progress		Established	18	90%
100	SriKalahasti	39	Work order issued	0		Feasibility Study under progress		Established	8	90%
101	Nagari	30	Work order	0		Feasibility Study		In Progress		

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
			issued			under progress				
102	Puttur	26	Work order issued	0		Feasibility Study under progress		In Progress		
103	Nellore	300	Work order issued	0		Feasibility Study under progress		In Progress		
104	Venkatagiri	25	Work order issued	0		Feasibility Study under progress		In Progress		
105	Yerraguntla	17	Connected to Proddutur ISWM	0		Connected to Cement Factories	1	In Progress		
106	Naidupet	22	Work order issued	0		Feasibility Study under progress		Established	4	90%
107	Atmakur N	15	No bids received, to be retendered	0		Feasibility Study under progress		In Progress		
108	Kavali	51	Work order issued	0		Feasibility Study under progress		Established	10	90%
109	Kondapalli	21	Work order issued	0		Guntur WtE		Work order Issued		
110	Akiveedu	11	No bids received, to be retendered							
111	Dachepali	11	Connected to Piduguralla ISWM							
112	Gurazala	9	Connected to Macherla ISWM							
113	Darsi	12	No bids received, to be retendered							
114	BuchireddyPalem	12	Connected to Nellore ISWM							
115	Penukonda	10	Connected to Puttaparthi ISWM							
116	Bethamcharla	14	No bids received, to be retendered							
117	Kamlapuram	7	Connected to Prodduturu ISWM							
118	Kupam	15	No bids received, to be retendered							
119	Y.S.R. -	23	Connected to Vijayawada ISWM							

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
	Tadegadapa									
120	Chuintalapudi	4			No bids received, to be retendered					
121	Podili	6			Connected to Kanigir ISWM					
122	Alluru	9			Connected to Kavali ISWM					
123	B.KothaKota	6			No bids received, to be retendered					
Total		6890								

VI. Bio-medical Waste Management:

- Total Bio-medical generation: 17.090Tones/ day
- No. of Hospitals and Health Care Facilities: 12,766Nos.

Status of Treatment Facility/ CBMWTF	Presently, there are 12 Nos. of Common Bio-medical Waste Treatment Facilities (CBMWTFs) operating in the State of Andhra Pradesh for treatment and for disposal of Bio-Medical waste as per the BMW Management Rules 2016.
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VII. Hazardous Waste Management:

- Total Hazardous Waste generation about: 34214.27Tones during the month of Jun, 2022 and cumulative quantity (April to June, 2022) is 98587.7 tones.
- No of industries generating Hazardous Waste:2708 Nos as per Hazardous Waste inventory, 2020 -21.
- **For the month of Jun, 2022, the Quantity of Hazardous Waste Treated & Disposed is as follows:**
 - i) Utilizable waste is 20039.7TPM (suitable to use as raw material or as alternative fuel viz. Co-processing in Cement Plants so as to conserve the resources),
 - ii) Recyclable waste is 289.5924 TPM (suitable for recycling /recovery of material viz. oil reclamation units, lead and zinc recovery units).
 - iii) Incinerable waste is 344.75 TPM (not suitable for any recycling / reuse and having high calorific value i.e. > 2500 K cal/kg) and
 - iv) Land fillable waste is 13540.23TPM (not suitable for any recycling / reuse and having low calorific value i.e. < 2500 K cal/kg) is reaching and treated at the TSDFs in Visakhapatnam and Nellore.

Note: The above data is obtained from the APEMC online portal. The above data may vary during verification of annual returns submitted by the industry.

• Details of on-going or proposed TSDF:

Two TSDF are existing in the State of Andhra Pradesh

- ✓ M/s Coastal Waste Management Project Unit-1, Parwada, Visakhapatnam.
- ✓ M/s Coastal Waste Management Project Unit-2 a division of Mumbai Waste Management Limited, S.P.S.R. Nellore District.

Status of compliance and operation of the CETPs:

The Ministry of Jal Shakti for regular review under taken by the Central Monitoring Committee (CMC) 13th review meeting of CMC was held on 09th June 2022. Based on this review APPCB are prepared pertaining to item no.5 of the reference D.O.No. J-24013/1/2020-NRCD-II, dated on 20.06.2022, about the information on CETPs functioning and proposed stage progress report has furnished.

- Number and total capacity of CETPs (details of existing/ under construction / proposed)
 - i. Existing: 8No's with total capacity of 21.5 MLD
 - ii. **Proposed: 3 no's**
 - 1.5 MLD at Atchuthapuram SEZ, Visakhapatnam – Waiting for ADB approval
 - 1.5 MLD at Nakkapalli, Visakhapatnam. - Waiting for ADB approval
 - 1.2 MLD at electronic cluster, Chittoor District - Tenders will be called within 1 month.

S. No	Name and Address of the CETP & contact person	Design capacity (in MLD)	Current Operating capacity (in MLD)	Type and No. of member units	Compliance status
1.	Brandix India Apparel City Private Limited, APSEZ, Atchutapuram Pudimadaka Road, Visakhapatnam.	5 *	4.9	Textile park- 14 units	Complied * APPCB permitted to establish 20 MLD capacity of CETP for operation full capacity industrial park. At present 5 MLD CETP was constructed as the effluent generation is 4 MLD.
2.	Ramky Pharma City (India) Ltd, JN Pharma City, Parawada Mandal, Visakhapatnam.	9.53	7.2	Pharmaceutical & Bulk drugs-92 units	Complied
3.	Kondapally Envirotech Pvt. Ltd., (KEPL), IDA, Kondapalli (V), Ibrahimpatnam (M), Krishna District.	0.2	* 0.0	Pharmaceutical & Bulk drugs-14 units	*Status was reviewed on 15.06.2022 and up-gradation works will be completed by end of August 2022 and effluent sent to CETP, JNPC for further treatment up to 31.08.2022.
4.	Vijayawada Auto Cluster Development Company, Industrial Estate, Auto Nagar, Vijayawada.	0.2	0.07	Food beverages, Herbal pharma, Oil solvents & lubricants - 35 units.	Complied
5.	Machilipatnam Imitation Jewellery Park Pvt. Ltd.,	0.07	0.002	Electro Plating –	Complied

	Jewellery Park, Pothepalli, Machilipatnam.			48 Units	
6.	Nagari Dyeing Owners Association, Chinthalapatteda (V), Nagari (M), Chittoor District.	4	1.29	Manual Dyeing units - 105 units	Complied
7.	Atchuthapuram Effluent Treatment Plant, Atchutapuram Visakhapatnam.	1.5	0.42	Pharmaceutical & Bulk drugs-37 units	Complied
8.	M/s Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC), 1.0 MLD CEPT, MPSEZ, Menakur (V), Naidu pet (M), SPSR Nellore District.	1.0	0.075	Pharmaceutical – 8 Units	Complied Started operations in the month November 2021 and receiving effluents from 3 Industries.
	Total	21.5	*13.9552		

VIII. Plastic Waste Management:

Total plastic waste generation	39,626 TPA (As per Annual Report for the F.Y. 2020-21).
Implementation of Plastic Waste Management Rules 2016 in Urban Local Bodies	• 26 Nos of recyclers registered with APPCB. Total recycling capacity is 28832 TPA. • The State has released G.O.Ms.No.349, dated 29.10.2018 for implementation of Plastic Waste Management Rules, 2016 in the ULBs. • The plastic waste in Urban Local Bodies is being collected through the Public Health Workers of the ULBs. The segregated plastic waste, which is recyclable, is sent to recyclers i.e., from MRFs and the segregated plastic, which is not suitable for recycling is sent to nearby Cement Plants and also being used in road construction in some ULBs. 29 ULBs have so far, tied up with nearby Cements Plants to send non-recyclable Plastic Waste & another 2 ULBs found viable to send Plastic Waste to Cement Plants, considering the distance and instructions issued to Municipal Commissioners to enter into MoU with them also by end of December, 2022. • The manufacture, sale & usage of plastic carry bags of below 75 microns' thickness is banned in the State of Andhra Pradesh. 721 Taskforce Teams are constituted in the ULBs for inspections and for surprise raids to ensure no sale & usage of banned plastic carry bags. • About 62,180 Kgs of plastic carry bags of below 75 microns' thickness were seized and Rs.49lakhs towards fine was collected from the violators. • In Visakhapatnam, Vizianagaram, Vijayawada, Kurnool & Tirupati, under extended producer responsibility, Plastic

	Waste Collection system has been established. • Instructions issued to the Municipal Commissioners of Head Quarter ULBs to conduct stakeholders' meetings under the Chairmanship of the District Collectors to ensure setting up collection centers under EPR in Municipal Corporations & bigger ULBs. • In Visakhapatnam, Vijayawada, Tirupati, Rajamahendhravaram, Kakinada & Amalapuram Plastic Waste is being used in construction of Roads and the details are as follows: • Circular instructions issued to all the ULBs on Ban on Single use Plastic.
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Sl. No.	Name of the ULB	Length of Road Constructed	Quantity of Plastic Waste utilized for constructions of Road
1	Visakhapatnam	8.0Kms	14.5 Tons
2	Vijayawada	5.0Kms	5.0 Tons
3	Tirupati	0.9Kms	0.9 Tons
4	Rajamahendhravaram	3.0Kms	4.2 Tons
5	Kakinada	1.2 Kms	2.0 Tons
6	Amalapuram	1.0 Km	0.2 Tons

IX. Details of Alternate Treatment Technology being adopted by the State

Details of Faecal Sludge Treatment Plants:

No. of Completed FSTPs	:	5 (75 KLD)
No. of In-progress FSTPs	:	60 (905 KLD)
No. of FSTPs to be retendered	:	11 (175 KLD)
No. of FSTPs DPRs to be Prepared:		15

IX(A): Details of Completed FSTPs:

S.No.	Name of ULB	Capacity (in KLD)	Operational Status of FSTP
1	Narsapur	15	Operational
2	Rajam	15	Operational
3	Palamaneru	15	Operational
4	Bobbili	15	Operational
5	Vinukonda	15	Operational

IX(B): Details of In-Progress FSTPs:

S.No	Name of the ULB	Plant Capacity (in KLD)	Expected Date of Completion
1	Dhone	20	85 % of Work Completed Sept- 22
2	Gooty	15	Sept -22
3	Jammalamadugu	15	Sept -22
4	Kadiri	25	Sept -22
5	Kalyanadurgam	10	Sept -22
6	Madakasira	5	Sept -22
7	Pulivendula	20	Sept -22
8	Puttaparthi	10	Sept -22
9	Rayachoti	25	Sept -22
10	Rayadurg	20	Sept -22
11	Allagadda	10	Sept -22
12	Atmakur (K)	15	Sept -22
13	Badvel	25	Sept -22
14	Gudur (K)	5	Sept -22
15	Mydukuru	15	Sept -22
16	Nandikotkur	15	Sept -22
17	Yelamanchili	15	Sept-22
18	Punganur	15	Sept-22
19	Rajampeta	15	Sept-22
20	Yerraguntla	10	Sept-22
21	Atmakur (N)	10	Sept-22
22	Giddalur	10	Sept-22
23	Gudur (TPT)	20	Sept-22
24	Kandukur	20	Sept-22
25	Kanigiri	15	Sept-22
26	Markapur	20	85 % of Work Completed, Sept- 22
27	Nagari	20	Sept-22
28	Naidupet	15	Sept-22
29	Puttur	15	Sept-22
30	Sullurpeta	15	Sept-22
31	Venkatagiri	15	Sept-22
32	Addanki	10	Sept-22
33	Bapatla	25	40% work completed Sept- 22
34	Chimakurthy	10	Sept-22
35	Chirala	25	40% work completed

S.No	Name of the ULB	Plant Capacity (in KLD)	Expected Date of Completion
			Sep- 22
36	Macherla	15	Sept-22
37	Mangalagiri	25	Sept-22
38	Piduguralla	15	Sept-22
39	Ponnur	15	40% work completed Sept- 22
40	Repalle	15	Sept-22
41	Sattenapalli	15	Sept-22
42	Salur	15	Sept-22
43	Amalapuram	15	Sept-22
44	Gollaprolu	5	Sept-22
45	Kovvur	10	Sept-22
46	Mandapeta	15	Sept-22
47	Mummidivaram	10	Sept-22
48	Peddapuram	15	Sept-22
49	Pithapuram	15	Sept-22
50	Ramachandrapuram	15	Sept-22
51	Samalkota	15	Sept-22
52	Tuni	15	Sept-22
53	Yeleshwaram	10	Sept-22
54	Amudalavalasa	10	Sept-22
55	Parvathipuram	15	Sept-22
56	Ichapuram	10	Sept-22
57	Narsipatnam	20	Sept-22
58	Nellimarla	10	Sept-22
59	Palakonda	10	Sept-22
60	Palasa-Kasibugga	15	Sept-22
		905	

IX (C) Details of FSTPs under TenderStage:

S.No	Name of the ULB	Capacity of Plant (KLD)
1	Jangareddigudem	15
2	Nidadavolu	15
3	Palacole	20
4	Pedana	10
5	Tadepalli	20
6	Tanuku	25
7	Vuyyuru	15
8	Jaggaihpeta	15
9	Nandigama	15
10	Nuzvidu	15
11	Tiruvuru	10

IX(D) Details of FSTPs for which DPRs Preparation in progress:

S.No	Name of ULB	Status of the project
1	Akiveedu	DPR preparation in progress - Newly Constituted ULBs
2	Kondapalli	
3	Dachepali	
4	Gurazala	
5	Darsi	
6	BuchireddyPalem	
7	Penukonda	
8	Bethamcharla	
9	Kamlapuram	
10	Kupam	
11	Y.S.R. -Tadegadapa	
12	Chuintalapudi	
13	Podili	
14	Alluru	
15	B.KothaKota	

- X.** Identification of polluting sources including drains contributing to river pollution and action as per NGT order on insitu treatment:
- A total 32 No's of outfall points of the major disposal drains have been identified which are contributing to River Pollution. All the above 32 No's of outfall points are provided with Meshes/Screens to prevent solid waste from falling in to the Rivers.
- XI. Details of Nodal Officer appointed by Chief Secretary in the State/UT:**
Commissioner & Director of Municipal Administration Appointment as a Nodal Officer for Polluted River stretches as per G.O.RT. No: 103 EFS&T Department Dated: 25-11-2020.
- XII.** Details of meetings carried under the Chairmanship of Chief Secretary in the State/UT:
- XIII. Latest water quality of polluted river, its tributaries, drains with flow details:**
- APPCB has been monitoring the 5 polluted river stretches at 27 locations on monthly basis and the data is being uploaded in RRC Website <https://rrc.ap.gov.in/Views/Monitoring.aspx> every month. **The monitoring of water quality data for the month of June 2022 is enclosed.**
 - **As per the analysis of samples collected at 27 locations in the month of June, 2022 the B.O.D value is less than 3.0 mg/lit. (Details enclosed)**
- XIV.** Ground water regulation:
- XV.** Good irrigation practices being adopted by the State:
- XVI.** Rain Water Harvesting:
- XVII.** Demarcation of Floodplain and removal of illegal encroachments:
- XVIII.** Maintaining minimum e-flow of river:
- XIX.** Plantation activities along the rivers:
- XX.** Development of biodiversity park:

XXI. Reuse of Treated Water:

- 9 ULBs Utilizing Re – Use of Treated Waste Water

Sl.No	Name of the ULB	Quantity of treated sewage Utilised					Qty of treated sewage utilised
		Gardening	Irrigation	Industrial	Parks	Others	
1	2	3	4	5	6	7	8
1	Visakhapatnam	-	0.2	38.8	-	-	39.00
2	Rajamahendravaram	-	20	-	-	-	20.00
3	Narsaraopeta	4	-	-	3	1.5	8.50
4	Tadipatri	-	6.5	-	-	-	6.50
5	Puttaparthi	-	0.3	-	-	-	0.30
6	Kurnool	0.048	-	-	0.048	-	0.096
7	Kadapa	-	10	-	-	-	10.00
8	Pulivendula	2	-	-	-	0.5	2.50
9	Tirupathi	-	29	3	-	1	33.00
	Total in MLD	6.048	66.00	41.80	3.048	3.00	119.90

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

XXIII. Status of Preparation of Action Plan by the 13 Coastal States:

XXIV. Regulation of Mining Activities in the State/UT:

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

Water quality status of polluted river stretches in Andhra Pradesh - 2022

I. River Godavari:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Godavari at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location Point
1	4367	Koundinyamukti (Kukunur) border point between Andhra Pradesh & Telangana States, West Godavari Dist.
2	4359	After confluence with Sabari at Kunavaram (waddigudem), East Godavari Dist.
3	0014	Polavaram, West Godavari Dist.
4	1218	Upstream of Rajahmundry at Kumaradevam
5	2370	At Rajahmundry Upstream of Nalla channel
6	2371	At Rajahmundry Downstream of Nalla channel
7	1219	Downstream of Rajahmundry at Dhawaleswaram
8	4365	Upstream of Narasapuram town before confluence with sewage, West Godavari Dist.
9	4366	Downstream of Narasapuram town after confluence with town sewage, West Godavari Dist.
10	4358	Near GMC Balayogi bridge, Govalanka, East Godavari Dist.

Month-wise data of water quality of river Godavari, 2022

Parameter	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Standard		
														Class A	Class B	Class C
pH	4367	8.06	8.47	8.46	8.64	8.13	7.77							6.0 - 8.5	6.0 - 9.0	
	4359	7.44	7.66	8.45	8.42	7.78	7.61									
	0014	7.45	8.03	7.80	8.01	8.27	8.16									
	1218	7.41	7.99	7.93	8.05	8.12	7.94									
	2370	7.45	7.47	7.83	7.96	7.49	7.50									
	2371	7.74	7.55	7.58	7.98	7.90	7.48									
	1219	7.75	7.31	7.87	8.01	7.05	7.83									
	4365	8.05	7.85	8.21	8.44	7.88	7.77									
	4366	8.01	4.85	8.27	8.43	7.68	7.84									
	4358	7.41	7.72	8.17	7.77	7.46	7.86									
DO	4367	8.5	8.5	7.2	7.5	6.5	6.0							6.0	5.0	4.0
	4359	8.1	8.1	7.0	7.2	6.5	6.2									
	0014	8.8	8.7	6.0	7.0	6.5	6.4									
	1218	8.5	8.0	7.0	7.4	6.4	6.3									
	2370	7.1	7.0	7.0	7.0	6.0	6.8									
	2371	6.8	6.3	6.5	6.5	5.9	6.7									
	1219	8.0	6.9	7.0	7.2	6.2	6.5									
	4365	7.2	8.0	6.7	6.6	6.0	5.6									
	4366	5.8	6.5	5.8	6.4	5.8	5.5									
	4358	6.4	7.0	7.5	6.2	6.0	7.0									
BOD	4367	2.0	2.3	2.2	1.9	2.0	1.9							2.0	3.0	3.0
	4359	2.0	2.0	2.0	2.0	1.8	1.6									
	0014	1.8	1.7	2.0	1.8	1.0	2.2									
	1218	1.6	2.0	1.8	1.5	1.1	1.3									
	2370	2.4	1.4	1.8	2.0	1.9	2.4									
	2371	2.4	1.5	1.8	2.2	2.3	2.6									
	1219	2.0	2.2	2.0	2.0	2.2	2.4									
	4365	2.0	2.1	2.1	2.0	2.4	2.0									
	4366	2.4	2.5	2.3	2.2	2.6	2.2									
	4358	2.6	2.1	2.2	2.0	2.4	2.8									

Total Coliform	4359	49	43	49	39	28	43							50	500	5000	
	0014	93	120	75	93	120	150										
	1218	75	93	39	64	120	210										
	2370	120	210	120	93	210	210										
	2371	150	460	150	120	240	240										
	1219	120	240	240	150	240	240										
	4365	120	120	120	120	150	150										
	4366	150	150	460	150	240	240										
	4358	93	240	93	93	110	150										
Fecal Coliform	4367	7	10	7	15	7	4							---	500	---	
	4359	3	3	4	3	3	3										
	0014	4	9	4	4	4	4										
	1218	3	4	3	3	7	7										
	2370	7	21	9	7	9	7										
	2371	9	28	15	9	15	9										
	1219	9	43	15	9	21	20										
	4365	9	9	4	4	4	3										
	4366	11	15	21	9	9	7										
4358	3	21	4	4	4	4											
TDS	4367	172	192	196	172	314	85							500 - 2000			
	4359	84	72	108	780	85	84										
	0014	166	200	176	158	120	105										
	1218	160	192	164	152	140	96										
	2370	184	218	196	156	144	127										
	2371	196	240	212	180	140	109										
	1219	192	208	222	182	144	97										
	4365	17124	23240	25840	25432	29462	20838										
	4366	19480	26680	26728	27364	29082	27404										
4358	17240	19400	27860	31570	3024	21065											
Note: (1) All values are expressed in mg/L except pH & Total Coliform value. Total Coliform is expressed in MPN count / 100 ml.																	
Remarks: BOD & fecal coliform values found to be within the standard limits stipulated for bathing at all the locations except at U/S & D/S of Narsapuram town. High TDS values at Narsapuram & GMC Balayogi bridge, Govalanka could be attributed to the intrusion of backwaters of Bay of Bengal.																	

2. River Krishna:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Krishna at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location point
01	1175	Sangameswaram, Kurnool Dist.
02	3083	Srisailam, Kurnool Dist.
03	4381	After confluence with river Musi at Vadapalli, Guntur Dist.
04	1786	Vedadri, Krishna Dist.
05	1787	Amaravathi, Guntur Dist.
06	0025	Prakasham barrage, Vijayawada, Krishna Dist.
07	4375	Pavitrasangamam at Ibrahimpatnam, Krishna Dist.
08	1782	Hamsaladeevi, Krishna Dist.

Month-wise data of water quality of river Krishna, 2022:

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
pH	1175	7.9	7.7	7.3	7.9	7.6	7.4							6.0 - 8.5		6.0 – 9.0
	3083	7.8	7.8	7.0	7.7	7.9	7.8									
	4381	7.85	8.23	8.14	8.24	7.62	7.70									
	1786	7.80	7.28	7.46	7.87	7.94	7.88									
	1787	7.83	8.01	7.39	8.31	7.86	7.09									
	0025	7.86	7.43	7.48	8.17	7.45	7.50									
	4375	8.17	7.77	7.86	7.99	8.01	7.96									
	1782	7.84	7.44	7.58	7.65	7.85	7.63									

DO	1175	6.0	6.1	6.0	5.7	5.2	5.8							6.0	5.0	4.0
	3083	6.5	6.3	6.0	6.0	5.4	5.9									
	4381	7.1	6.9	7.2	7.1	7.3	7.2									
	1786	7.1	6.9	6.8	6.9	7.2	6.9									
	1787	7.2	7.4	7.3	7.5	6.9	6.9									
	0025	7.3	7.1	7.2	7.4	7.2	7.1									
	4375	6.9	7.2	7.1	7.2	7.3	7.1									
	1782	6.5	6.8	6.7	6.4	6.3	6.1									
BOD	1175	<2	<2	2.5	2.0	2.5	1.8							2.0	3.0	3.0
	3083	<2	<2	<2	1.5	2.0	1.5									
	4381	2.4	2.8	2.7	2.6	2.7	2.8									
	1786	2.4	2.6	2.7	2.8	2.8	2.7									
	1787	2.6	2.4	2.5	2.6	2.8	2.7									
	0025	2.6	2.6	2.4	2.8	2.9	2.6									
	4375	2.4	2.6	2.5	2.6	2.8	2.6									
	1782	2.8	2.6	2.8	2.7	2.9	2.7									
Total Coliform	1175	792	870	914	659	830	866							50	500	5000
	3083	1120	1203	1300	602	550	617									
	4381	120	120	120	120	120	399									
	1786	120	150	150	150	120	560									
	1787	120	75	64	75	75	395									
	0025	75	64	75	120	120	423									
	4375	75	75	120	150	120	505									
	1782	150	120	150	120	120	368									

Fecal Coliform	1175	189	214	212	170	256	203							---	500	---
	3083	362	343	400	119	281	333									
	4381	3	3	3	3	3	11.9									
	1786	3	3	3	3	3	49.8									
	1787	3	3	3	3	3	30.7									
	0025	3	3	3	3	3	37.5									
	4375	3	3	3	3	3	18.9									
	1782	3	3	3	3	3	46.6									
TDS	1175	432	598	682	641	842	846							500 - 2000		
	3083	412	426	412	469	426	443									
	4381	484	502	498	498	540	510									
	1786	510	541	552	510	520	486									
	1787	470	518	510	470	576	448									
	0025	440	548	480	484	540	470									
	4375	468	510	524	506	512	470									
	1782	10400	9670	16980	18900	20100	17800									
Note: All values are expressed in mg/L except pH, Total Coliform value & Fecal Coliform. Total Coliform & Fecal Coliform is expressed in MPN count / 100 ml.																
Remarks: BOD & fecal coliform values found to be within the standard limits stipulated for bathing at all the locations. High TDS values at Hamsaladeevi could be attributed due to the intrusion of backwaters of Bay of Bengal.																

3. River Tungabhadra:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Tungabhadra at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location point
01	1785	Manthralayam, Kurnool Dist.
02	1174	Bhavapuram, Kurnool Dist.
03	4388	U/S of Kurnool town B/C with domestic sewage & A/c of Rayalaseema alkalies industries at Gondiparla, Kurnool.
04	4389	D/S of Kurnool town A/C with domestic sewage at Gondiparla, Kurnool.

Month-wise data of water quality of river Tungabhadra, 2022

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
pH	1785	7.8	7.9	7.2	7.8	7.8	7.2							6.0 – 8.5		6.0 – 9.0
	1174	7.8	7.9	7.5	7.8	7.8	6.9									
	4388	7.6	7.6	7.6	7.4	7.2	6.8									
	4389	7.2	7.2	7.0	7.2	7.0	7.0									
DO	1785	6.5	6.1	5.8	5.2	4.5	5.0							6.0	5.0	4.0
	1174	6.2	6.4	5.9	5.4	4.9	5.7									
	4388	6.1	5.8	5.5	5.1	5.1	5.6									
	4389	5.3	5.5	5.6	5.3	4.6	5.7									
BOD	1785	2.7	2.5	2.2	3.5	3.7	2.8							2.0	3.0	3.0
	1174	2.2	2.0	2.8	3.3	3.3	2.5									
	4388	3	2.7	2.2	3.5	3.3	2.3									
	4389	3.2	2.8	2.5	3.5	3.3	2.5									
Total Coliform	1785	1011	980	914	980	1553	1733							50	500	5000

	1174	1203	1300	1203	1203	1414	1203										
	4388	1046	1203	1300	866	830	1553										
	4389	1203	1046	1203	1046	1414	1120										
Fecal Coliform	1785	510	530	333	219	389	412								---	500	---
	1174	169	173	224	289	204	155										
	4388	416	412	343	258	272	352										
	4389	149	155	279	354	437	376										
TDS	1785	502	792	524	666	1046	884								500 - 2000		
	1174	723	792	810	692	682	684										
	4388	968	842	689	742	743	699										
	4389	843	823	796	746	832	745										
Note: All values are expressed in mg/L except pH, Total Coliform value & Fecal coliform. Total Coliform & Fecal Coliform is expressed in MPN count / 100 ml.																	
Remarks: BOD & fecal coliform values found to be within the standard limits stipulated for bathing at all the locations. However, the DO values found to be between 4.0 and 5.0 mg/lit. at certain instances at U/S & D/S of Kurnool town. Hence, they may be categorized as Class – C at these points.																	

4. River Nagavali:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Nagavali at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location point
01	4351	River Nagavali at Kureru, Vizianagaram Dist.
02	1448	Thotapally, Vizianagaram Dist.
03	4346	River Nagavali U/S of Srikakulam town.
04	4347	River Nagavali D/S of Srikakulam town.

Month-wise data of water quality of river Nagavali, 2022																
Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
pH	4351	7.48	7.15	8.10	8.17	8.32	7.99							6.0 – 8.5	6.0 – 9.0	
	1448	7.11	7.09	7.88	7.92	8.66	7.55									
	4346	8.31	7.24	8.18	8.26	7.18	8.37									
	4347	7.55	7.36	8.14	8.13	7.78	8.01									
DO	4351	7.1	8.3	5.5	6.5	6.2	5.6							6.0	5.0	4.0
	1448	7.7	7.4	7.0	6.2	7.2	7.4									
	4346	8.0	8.5	7.5	6.8	7.5	6.7									
	4347	7.5	7.0	7.0	6.3	7.0	6.1									
BOD	4351	1.9	1.3	2.7	2.3	2.4	2.6							2.0	3.0	3.0
	1448	1.7	1.8	2.0	1.7	2.1	2.8									
	4346	2.0	2.1	2.0	1.8	2.2	2.4									
	4347	2.5	2.5	2.5	2.2	2.5	1.8									
Total Coliform	4351	150	150	150	120	120	150							50	500	5000
	1448	120	150	120	93	150	150									
	4346	120	460	120	120	150	210									
	4347	150	1100	150	150	150	120									
Fecal Coliform	4351	15	9	15	15	7	11							----	500	----
	1448	9	15	9	4	7	9									
	4346	7	15	9	9	7	9									
	4347	15	20	15	15	9	7									
TDS	4351	188	220	240	268	259	223							500-2000		
	1448	194	196	200	238	210	211									
	4346	168	224	212	276	272	208									
	4347	242	228	248	288	258	218									
Note: All values are expressed in mg/L except pH, Total Coliform value & Fecal Coliform. Total Coliform & Fecal Coliform is expressed in MPN count / 100 ml.																
Remarks: BOD & Fecal coliform values found to within the standard limits stipulated for bathing at all the locations.																

5. River Kundu:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Kundu at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location point
1	2351	At Nandyal, Kurnool Dist.

Month-wise data of water quality of river Kundu, 2022

Parameters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
													Class A	Class B	Class C
pH	7.5	8.0	7.2	7.1	7.1	7.6							6.0 – 8.5		6.0 – 9.0
DO	6.3	6.5	6.0	5.1	4.0	4.8							6.0	5.0	4.0
BOD	3.4	2.7	2.8	3.7	3.2	2.7							2.0	3.0	3.0
Total Coliform	966	1203	1046	1733	1986	1300							50	500	5000
Fecal Coliform	306	412	491	412	722	530							---	500	---
TDS	521	762	853	742	648	682							500 - 2000		
Note: All values are expressed in mg/L except pH, Total Coliform & Fecal Coliform value. Total Coliform & Fecal Coliform is expressed in MPN count / 100 ml.															
Remarks: BOD & Fecal Coliform values found to be within the standard limits stipulated for bathing.															

CPCB Water Quality Criteria for Designated Best Use

Designated-best- use	Class of water	Criteria
Drinking Water Source without conventional treatment but after disinfection.	A	• Total Coli forms Organism MPN/100 ml shall be 50 or less. • pH between 6.5 and 8.5 • Dissolved oxygen 6 mg/l or more. • Biochemical Oxygen Demand 5 days 20°C 2mg/l or less.
Outdoor bathing (Organized)	B	• Total Coli forms Organism MPN/100 ml shall be 500 or less. • pH between 6.5 and 8.5 • Dissolved oxygen 5 mg/l or more. • Biochemical Oxygen Demand 5 days 20°C 3mg/l or less.
Drinking Water Source after conventional treatment and disinfection.	C	• Total Coli forms Organism MPN/100 ml shall be 5000 or less. • pH between 6 to 9 • Dissolved oxygen 4 mg/l or more. • Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Propagation of Wild life and Fisheries.	D	• pH between 6.5 to 8.5 • Dissolved oxygen 4 mg/l or more. • Free Ammonia (as N) 1.2 mg/l or less • pH 9 between 6.0 to 8.5.
Irrigation, Industrial Cooling, Controlled Waste disposal.	E	• Electrical Conductivity at 25°C micro mhos/cm Max. 2250. • Sodium Absorption ratio Max. 26 • Boron Max.2 mg/l.
	Below -E	Not Meeting A, B, C, D & E Criteria.

National Mission for Clean Ganga
Format for submission of Monthly Progress Report for Month of July, 2022
in the NGT Matter OA No. 673 of 2018(in compliance to NGT order
dated 24.09.2020)

For the State of Andhra Pradesh

Overall status of the State:

- I. Total Urban Population :@1.5 Crore
- II. Estimated Sewage Generation (MLD) : 1503.20 MLD

III. Details of Sewage Treatment Plant:

- Existing No. of STPs and Treatment Capacity (in MLD) : 535.45 MLD (45Nos)
- Present Gap in Treatment Capacity in MLD : 967.75 MLD
- Capacity of under construction STP's : 506.67 MLD (62 Nos)
- Quantity of Treated Sewerage (in MLD) : 382.82 MLD
- STPs Under Tender : 35.60 MLD
- (Kurnool Municipal Corporation 3 STP's [35.0+0.4+0.2] MLD)
- No. of Operational STPs : 45 Nos
- No. of Complying STPs : 45 Nos
- No. of Non-complying STPs : Nil
- Quantity of Reuse of Treated water : 119.90 MLD
- No of STPs Under Construction at APTIDCO Houses : 117.75 MLD (130 Nos)
- (0.20 to 3.70 MLD)
- Gap after completion of above STPs : 307.23 MLD
- Proposed STPs (below 1 lakh population) : 74 ULBs
- Proposed Capacity for year 2040 : 634.89 MLD
- No. of STPs : 117
- No. of NSTPs : 117
- Estimated Cost : 1445.16 Crs
- Current Status : EoI floated for 74 ULBs

III (A) Details of each existing STP in the State:

Sl. No	City / Town	Location of STP	Date of Commissioning	Existing STP Capacity (in MLD)	Utilization capacity (in MLD)	Operational Status of STP	Compliance Status of STP
1	GVMC	Old town	05/2019	38.00	29.00	Operational	Complied
2		Appughar	09/2010	25.00	23.80	Operational	Complied
3		Mudasarlova	04/2008	13.00	6.50	Operational	Complied
4		Narava	08/2001	54.00	30.50	Operational	Complied
5		Anakapalle	04/2018	15.00	4.50	Operational	Complied
6		Madinabagh	-	2.00	0.50	Operational	Complied
7		Yathapalem Colonies	04/2008	2.50	0.80	Operational	Complied
8		Srinagar	04/2008	0.50	0.30	Operational	Complied
9		Karnavani	12/2019	5.00	0.0	Operational	Complied

		palem					
10		Mantripalem	04/ 2008	1.00	0.35	Operational	Complied
11		Aganampudi	12/2015	6.00	2.80	Operational	Complied
12		Rathi Cheruvu	09/ 2019	2.00	0.60	Operational	Complied
13		Kommadi / Madhurawada	08/2018	4.00	2.40	Operational	Complied
14		Bakkannapalem	08/ 2011	1.00	0.50	Operational	Complied
15		Marikavalasa	12/ 2012	2.00	0.80	Operational	Complied
16		Vambay Colony	08/ 2011	3.00	1.40	Operational	Complied
17		YSR Nagar	08/ 2011	2.00	1.20	Operational	Complied
18		Boyapalem	08/ 2011	1.00	0.60	Operational	Complied
		Sub Total		177.00	106.55		

Sl. No	City / Town	Location of STP	Date of Commissioning	Existing STP Capacity (in MLD)	Utilization capacity (in MLD)	Operational Status of STP	Compliance Status of STP
19	Rajamahendravaram	Hukumpeta	01/2009	30.00	30.00	Operational	Complied
20	Vijayawada	Ajith Singh Nagar-1	05/2011	40.00	39.52	Operational	Complied
21		Ajith Singh Nagar-2	05/2012	20.00	20.00	Operational	Complied
22		Ramalingeswar Nagar-1	06/2012	20.00	19.74	Operational	Complied
23		Ramalingeswar Nagar-2	10/2006	10.00	9.80	Operational	Complied
24		Autonagar -1	03/2005	10.00	9.70	Operational	Complied
25		Autonagar -2	12/2018	10.00	9.80	Operational	Complied
26		Jakkampudi	07/2017	20.00	13.50	Operational	Complied
		Sub Total		130.00	122.06		
27	Tirupathi	Thukivakam	09/2018	50.00	33.00	Operational	Complied
28	Kadapa	Nanapally	08/2012	20.00	10.00	Under Rehabilitation	Complied
29	Pulivendula	Rotarypuram	01/2009	6.50	2.50	Under Rehabilitation	Complied
30	Tadipatri	Gannevaripalle	10/2010	3.50	2.50	Operational	Complied
31			10/2010	8.00	4.0	Operational	Complied
		Sub Total		11.50	6.50		Complied
32	Puttaparthi	1.Sai Nagar	07/2001	0.50	0.50	Operational	Complied
33		2. Gokulam	07/2001	0.50	0.0	Under Rehabilitation	Complied
34		3. Prasanthi Gram	07/2001	0.50	0.0	Under Rehabilitation	Complied
		Sub Total		1.50	0.50		
35	Narsaraopeta	CPT Road	02/2018	15.55	8.50	Operational	Complied
36	Nellore	Janardhan Reddy Colony	-	5.00	5.00	Operational	Complied
37		Allepuram	-	55.00	55.0		
38		Drivers Colony	-	11.00	0.00	Under Trail Run	Complied
		Sub Total		71.00	60.00		

39	Kurnool	Jammichettu	03/2019	0.80	0.80	Operational	Complied
40		Sankal Bagh	03/2019	0.80	0.80	Operational	Complied
41		Tungabhadra PumpHouse	03/2018	0.80	0.80	Operational	Complied
			Sub Total	2.40	2.40		
42	Tadepalli	Mahanadu-1	12/2018	0.20	0.20	Operational	Complied
43		Mahanadu-2	12/2018	0.20	0.20	Operationa	Complied
44	Kondapalli	Security Colony	12/2021	0.80	0.40	Operationa	Complied
45	Yemmiganuru		06/2022	19.80			
		Grand Total		535.45	382.81		

III (B) Details of Under Construction STPs in the State:

S. No.	Location	Scheme Name	No. of STP	Capacity of the plant (in MLD)	Physical Progress in %	Completion Timeline	Status
1	Srikakulam	AMRUT	1	10.00	45%	Dec -2022	-
2	Vizianagaram	AMRUT	1	5.00	55%	Dec -2022	-
3	GVMC	Smart City Package-I	1	54.00	90%	Dec -2022	In Progress
4	Kakinada	AMRUT	1	5.00	72%	March 2023	In Progress
5	Rajamahendravaram	AMRUT	1	5.00	60%	March 2023	In Progress
6	Bhimavaram	AMRUT	1	5.00	70%	Dec -2022	In Progress
7	Tadepalli gudem	AMRUT	1	5.00	0%	March 2023	In Progress
8	Eluru	AMRUT	1	5.00	90%	Dec -2022	In Progress
9	Machilipatnam	AMRUT	1	5.00	48%	Dec -2022	In Progress
10	Gudivada	AMRUT	1	5.00	50%	Dec -2022	In Progress
11	Vijayawada	JNNURM	1	20.00	83%	Dec -2022	In Progress
12	Tenali	AMRUT	1	10.00	65%	Dec -2022	In Progress
13		14 FC	1	2.00	30%	Dec -2022	In Progress
	Ongole	AMRUT	1	15.00	98 %	Sep -2022	In Progress
14	Chilakaluripeta	AMRUT	1	5.00	22%	March 2023	In Progress
15	Kavali	AMRUT	1	15.00	86%	Dec -2022	In Progress
16	Nellore	HUDCO	1	20.00	85%	Dec -2022	In Progress
			1	14.00	0%	-	The site issue resolved, work will be Grounded
17	Tirupati	Smart City	1	25.00	45%	March 2023	In Progress
18	Srikalahasti	AMRUT	1	7.00	40%	Dec -2022	In Progress

19	Madanapalle	AMRUT	1	5.00	20%	Dec -2022	In Progress
20	Kadapa	AMRUT	1	20.00	0%	March 2023	-
21	Anantapuramu	AMRUT	1	10.00	0%	-	Re Tenders are under finalization
22	Dharmavaram	AMRUT	2	8.00	0%	-	Re Tenders are Under finalization
23	Guntakal	AMRUT	1	8.00	0%	March 2023	-
24	Kurnool	AMRUT	1	2.00	80%	Oct -2022	In Progress
25		AMRUT	1	10.00	21%	Dec -2022	In Progress
	Nandyal	AMRUT	1	10.00	35%	Dec -2022	In Progress
26	Adoni	AMRUT	1	5.00	25%	Dec -2022	In Progress
27 28	Guntur	OTSFA	1	10.00	52%	Dec -2022	-
			1	20.00	52%	Dec -2022	-
			1	42.00	51%	Dec -2022	-
			1	28.00	51%	Dec -2022	-
			1	23.00	0%	-	The site issue resolved, Work will be Grounded
29	Pulivendula	PLAN	1	10.00	96%	Dec -2022	In Progress
			1	1.50	75%	Dec -2022	In Progress
			7	3.50 (0.50 MLD x 7 Nos)	5%	March 2023	In Progress
			1	0.02	0%	Dec -2022	-
			1	0.07	0%	Dec -2022	-
			1	0.08	0%	Dec -2022	-
			1	0.10	0%	Dec -2022	-
	Rayachoti	PLAN	6	22.40	2 %	Dec -2022	In Progress
30	Kondapalli	CSR Funds	1	2.00	12 %	July 2023	In Progress
31	Kanigiri	AIIB	1	6.00	0 %	Aug -2023	-
32	Sullurpet	AIIB	3	8.00	0 %	Aug -2023	-
33	Allagadda	AIIB	1	5.00	0 %	Aug-2023	-
34	Nandikotkur	AIIB	1	5.00	0 %	Aug-2023	-
35	Madakasira	AIIB	1	5.00	0 %	Aug- 2023	-
	Grand Total		62	506.67			

III (C) Details of Proposed STPs in the State:

Phase	Description	No. of ULBs	Proposed STP capacities (MLD)	Cost of Total STPs (crores)
I	Municipal Corporations	16	539.00	1617.00
II	ULBs having population above 1,00,000 Lakh	18	221.00	663.00
III	ULBs having Population ranging between 75,000 to 1.00 Lakh	8	43.00	129.00
IV	ULBs having Population less than 75,000	78	499.00	1497.00
V	Taxes and others etc @20%			781.20
	Total		1302.00	4687.20

III D) STATUS OF STPs UNDER RIVER STRETCHES

- Total Estimated Sewage Generation (in MLD) 2022 :302.00 MLD
- Existing no. of STP with Treatment Capacity (in MLD) :162.40 MLD
- Present Gap in Treatment Capacity (in MLD) : 139.60 MLD
- Capacity of under Construction STPs (in MLD) : 57.00 MLD
- Gap after completion of ongoing Projects : 82.60 MLD

S. No	Name of River Stretch	Name of the ULB	Ongoing STP Capacity (in MLD)	Status of Ongoing Works	Status of DPRs
1.	Tungabhadra	Kurnool	10 MLD	21%	Administrative sanction for an amount of Rs.79.78 crs has been accorded by the Government for construction of 35.60MLD capacity of STPs which is in tender process and are under finalisation
			2 MLD	80 %	
2	Kundu	Nandyal	10 MLD	35%	Comprehensive DPR on UGD scheme is prepared for Rs.85.00 Cr with STPs capacity of 26 (21 + 5) MLD to cater the needs of 2035 year. DPR submitted to the Govt. for according Administrative Sanction.

S. No	Name of River Stretch	Name of the ULB	Ongoing STP Capacity (in MLD)	Status of Ongoing Works	Status of DPRs
1.	Nagavali	Srikakulam	10 MLD	45%	Comprehensive proposal for providing UGD scheme for 2035 needs is prepared for an amount of Rs.190.36 Cr with an additional STP capacity of 12 MLD.
2.	Godavari	Rajamahendravaram	5 MLD	16 %	DPR on Comprehensive UGD scheme prepared with additional STP's of capacity 72.37 MLD for an amount of Rs.404.00 Cr. Government of India accorded Administrative Approval & Expenditure Sanction for an amount of 88.43 Crores for Project "Pollution abatement and conservation of River Godavari under NRCP" on Dt.17/03/2022.
3.	Krishna	Vijayawada	20 MLD	83%	DPR is prepared for Rs.246.38 Cr for providing Comprehensive UGD scheme to meet the 2035 demand including up-gradation of 2 STPs of 30.00 MLD capacity. Proposals for upgradation of existing 20.00 MLD STP. Bio -Gas Energy Plants is prepared with an estimated cost of Rs. 14.93 Crores and submitted proposal for according administrative sanction by Government.

IV. Details of Industrial Pollution:

- No. of industries in the State: 9959 No's
- No. of water polluting industries in the State: 1439 No's
- Quantity of effluent generated from the industries in MLD: 4541.95

Effluent Break-Up Details:

- Once through Cooling water: 3826.13 MLD
- Trade effluents: 412.14 MLD
- cooling tower/Boiler blow down: 254.12 MLD
- Domestic waste water: 49.565 MLD

From the total waste water generation from the industries, major portion is once through cooling water (about 85%) and temperature to be maintained for discharge of once through cooling system is not more than 5⁰C temperature of intake water.

- ✓ From the Cooling tower/Boiler blow down (about 5.6%).
- ✓ The remaining about 9.4% is generated from Trade effluent & Domestic Discharges.
- ✓ APPCB is not permitting any industry to discharge industrial / trade effluents into the rivers.
- Number of industrial units having ETPs: 1093 No's
- Number of industrial units connected to CETP: 346 No's
 - iv. Existing: 1093 no's ETPs
 - v. Under construction: Nil
 - vi. Proposed: Nil
- **Compliance status of the ETPs:**
 - ✓ APPCB is regularly monitoring the compliance status of ETPs and action is being initiated for non-compliance industries.
- Number and total capacity of CETPs (details of existing/ under construction / proposed)
 - iii. Existing: 8 No's with total capacity of 22.5 MLD
 - iv. Proposed: 3 no's
 - 1.5 MLD at Atchuthapuram SEZ, Visakhapatnam – Waiting for ADB approval
 - 1.5 MLD at Nakkapalli, Visakhapatnam. - Waiting for ADB approval.
 - 1.2 MLD at electronic cluster, Chittoor District – APIIC proposed to address a letter to the MD, APEMC for construction of CWWTF (Common Waste Water Treatment Facility) on DBFOT basis.

V. Solid Waste Management:

- Total Number of Urban Local Bodies: **123** and their Population: **1.5** Crore
- Current Municipal Solid Waste Generation: **6890** TPD for 123 ULBs
- The Source Segregation in the State is 98.17 % and 100 % door to door collection in the state.
- Total No. of wards in 123 ULBs: 3928
- No. of wards having door to door collection system: 3928
- No. of wards practicing segregation at source: 3856
- Two Waste to Energy projects at Guntur and Visakhapatnam each of 15 MW capacity are synchronized with grid and running at full load capacity. These two plants are processing around 1600 TPD of municipal solid waste. 2 Waste to Energy Projects covering 41 ULBs.
- 32 Wet Waste Projects covering 40 ULBs treating 1422TPD with an installed capacity of 1558 TPD are existing.
- 17 Wet Waste Projects covering 17 ULBs are in progress with an installed capacity of 409 TPD.
- Work orders issued for another 37 Integrated Solid Waste Management projects and projects to be established within 1 year from handing over of land.
- 14 ULBs Clustered with Integrated Solid Waste Management were instructed to transport the waste to nearby projects. Balance 15 ULBs independent solutions will be planned.
- 3 Construction and Demolition waste processing plants in Greater Visakhapatnam Municipal Corporation, Vijayawada Municipal Corporation and Tirupati Municipal Corporation treating 100 TPD with an installed capacity of 200 TPD are existing.
- 123 Dumpsites with an area of 1173 acres are existing in the state. Out of which remediation of dumpsites in 2ULBs (Vijayawada & Tirupati) was completed and in 4 ULB Vishakhapatnam, Kurnool, Ananthapuramu & Dharmavaram work is under progress.
- Quantification of Dumpsites in all the ULBs completed, a model RFP along with guidelines for dumpsite remediation was communicated to the ULBs with above 1 lakh population and they were instructed to take up the tender process for remediation of dumpsites.
- 15 ULBs have invited tenders and are in various stages and 7 ULBs yet to be float tenders. 2 ULBs Work Completed, 4 ULBs work is in progress and Work awarded in 4 ULBs. For 91 ULBs below 1 lakh Population tenders invited.
- No Dump sites of legacy waste are within 1km buffer of both sides of the rivers in the state.
- 79 Material Recovery facilities are established in 79 ULBs processing 800 TPD.
44 Material Recovery facilities are to be established in 44 ULBs.

Status of ULB wise Management of Solid Waste:

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
1	Amudalavalasa	19	Existing WtC	10	85%	Vizag WtE		Established	4	85%
2	Ichchapuram	18	Existing WtC	10	85%	Feasibility Study under progress		Established	2	85%
3	Palasa- kasibugga	28	Existing WtC	15	80%	Feasibility Study under progress		In Progress		
4	Rajam	21	Existing WtC	12	80%	Vizag WtE		Established	4	85%
5	Bobbili	29	Existing WtC	16	90%	Vizag WtE		Established	8	85%
6	Salur	24	Existing WtC	13	90%	Vizag WtE		Established	6	90%
7	GVMC	918	Existing WtC	505	85%	Vizag WtE		Established	300	85%
8	Narsipatnam	30	Existing WtC	17	80%	Vizag WtE		Established	8	85%
9	Yellamanchili	23	Existing WtC	13	80%	Vizag WtE		Established	4	85%
10	Adoni	81	Existing WtCNG	45	80%	Connected to Cement Factories	3	Established	20	85%
11	Nuzivid	29	Existing WtC	16	80%	Guntur WtE		In Progress		
12	Thiruvuru	17	Existing WtCNG	9	80%	Guntur WtE		Established	2	85%
13	Tenali	80	Existing WtC	44	90%	Guntur WtE		Established	20	90%
14	Sattenpalle	28	WtCNG - Pidugurula	15	85%	Guntur WtE		Established	6	85%
15	Narsaraopet	57	WtCNG - Pidugurula	31	85%	Guntur WtE		Established	16	85%
16	Piduguralla	31	Existing WtCNG	17	85%	Guntur WtE		In Progress		
17	Allagadda	20	Existing WtC	11	85%	Connected to Cement Factories	1	Established	4	85%
18	Rayadurgam	30	Existing WtC	17	85%	RDF in progress		Established	6	85%

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
19	Puttaparty	15	Existing WtC	8	85%	RDF in progress		Established	2	85%
20	Yemmiganur	46	WtCNG - Adoni	25	85%	RDF in progress		Established	10	85%
21	Anantapur	131	Work order issued	0		Connected to Cement Factories	8	Established	35	90%
22	Atmakur K	22	WtC Awarded	0		Connected to Cement Factories	1	Established	4	90%
23	Badvel	35	Work order issued	0		Connected to Cement Factories	2	In Progress		
24	Dhone	29	Work order issued	0		Connected to Cement Factories	2	Established	6	90%
25	Markapur	35	Existing WtC	19	80%	Feasibility Study under progress		Established	8	85%
26	Giddalur	19	Existing WtC	10	85%	RDF in progress		Established	4	85%
27	Kanigiri	22	Existing WtC	12	85%	Feasibility Study under progress		Established	4	85%
28	Chirala	42	Existing WtC	23	90%	Guntur WtE		Established	9	90%
29	Gudivada	58	WtCNG awarded	0		RDF Connected / Guntur WtE	3	Established	14	90%
30	Palamaneru	25	Existing WtC	14	85%	Feasibility Study under progress		In Progress		
31	Punganur	27	Existing WtC	15	80%	Feasibility Study under progress		Established	6	85%
32	Madanpalle	67	Existing WtCNG	37	85%	RDF in progress		In Progress		
33	Sullurpet	22	WtC Awarded	12		Feasibility Study under progress		Established	4	85%
34	Srikakulam	65	Work order issued	0		Vizag WtE		Established	16	90%

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
35	Palakonda	16	WtC Awarded	0		Vizag WtE		In Progress		
36	Vizianagaram	119	Work order issued	0		Vizag WtE		Established	30	90%
37	Parvathipuram	26	WtC Awarded	0		Vizag WtE		In Progress		
38	Nellimarla	14	Work order issued	0		Vizag WtE		Established	2	90%
39	Gudur N	36	Work order issued	0		Connected to Cement Factories	2	In Progress		
40	Guntakal	62	Work order issued	0		Connected to Cement Factories	2	Established	14	90%
41	Jaggaiahpet	26	Work order issued	0		RDF Connected / Guntur WtE	1	In Progress		
42	Jammalamadugu	22	Existing WtC	12	80%	Connected to Cement Factories	1	In Progress		
43	Pedana	16	WtC Awarded	0		Guntur WtE		In Progress		
44	Vuyyuru	20	WtC Awarded	0		Guntur WtE		In Progress		
45	Guntur	363	Work order issued	0		Guntur WtE		Established	80	90%
46	Mangalagiri - Tadepalle	70	Work order issued	0		Guntur WtE		Established	16	90%
47	Ponnur	29	Work order issued	0		Guntur WtE		Established	6	90%
48	Chilakaluripet	49	Work order issued	0		Guntur WtE		Established	12	90%
49	Bapatla	34	Work order issued	0		Guntur WtE		Established	8	90%
50	Repalle	25	WtC Awarded	0		Guntur WtE		Established	4	90%
51	Vinukonda	30	Work order	0		Guntur WtE		In Progress		

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
			issued							
52	Macherla	28	Existing WtC	30	35%	Feasibility Study under progress		Established	6	90%
53	Kadapa	167	Work order issued	0		Connected to Cement Factories	6	Established	40	90%
54	Dharmavaram	62	No bids received, to be retendered	0		RDF in progress		In Progress		
55	Kadiri	43	No bids received, to be retendered	0		Connected to Cement Factories	1	Established	8	90%
56	Gooty	24	No bids received, to be retendered	0		RDF in progress		Established	4	90%
57	Hindupur	74	No bids received, to be retendered	0		RDF in progress		In Progress		
58	Kurnool	224	Work order issued	0		Connected to Cement Factories	2	In Progress		
59	Kalyandurgam	21	WtC Awarded	0		RDF inprogress		Established	2	90%
60	Madakasira	12	WtC Awarded	0		RDF inprogress		Established	2	90%
61	Machilipatnam	89	WtC Awarded	0		RDF Connected / Guntur WtE	3	Established	20	90%
62	Mydukur	22	Connected to Proddutur ISWM	0		Connected to Cement Factories	1	In Progress		
63	Nandigama	22	Connected to	0		RDF Connected /	1	In Progress		

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
			Jaggiahpet ISWM			Guntur WtE				
64	Nandikotkur	23	Connected to Kurnool ISWM	0		Connected to Cement Factories	1	Established	4	90%
65	Gudur K	14	Connected to Kurnool ISWM	0		RDF in progress		In Progress		
66	Nandyal	98	Work order issued	0		Connected to Cement Factories	3	In Progress		
67	Proddutur	79	Work order issued	0		Connected to Cement Factories	2	In Progress		
68	Pulivendula	32	Existing WtC	18	85%	Connected to Cement Factories	2	Established	6	85%
69	Rajahmundry	168	Work order issued	0		Connected to Cement Factories	3	Established	40	90%
70	Rajampeta	23	No bids received, to be retendered	0		Connected to Cement Factories	1	In Progress		
71	Rayachoti	44	No bids received, to be retendered	0		Connected to Cement Factories	2	Established	8	90%
72	Tadipatri	53	Existing WtC	29	90%	Connected to Cement Factories	2	Established	10	90%
73	Tirupati	208	Existing WtCNG	114	85%	Connected to Cement Factories	4	Established	45	85%
74	Ongole	123	WtCNG awarded	0		Guntur WtE		Established	30	90%
75	Chimakurthy	17	WtC Awarded	0		Guntur WtE		In Progress		

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
76	Addanki	20	WtC Functional	0	40%	Guntur WtE		Established	4	90%
77	Kandukur	28	WtC Awarded	0		Feasibility Study under progress		Established	6	90%
78	Kakinada	159	Work order issued	0		Feasibility Study under progress		Established	35	90%
79	Vijayawada	507	Existing WtC	279	85%	RDF Connected / Guntur WtE	6	Established	150	85%
80	Gollaprolu	11	Connected to Pithapuram ISWM	0		Feasibility Study under progress		In Progress		
81	Pithapuram	25	Work order issued	0		Feasibility Study under progress		Established	3	90%
82	Peddapuram	24	Work order issued	0		Feasibility Study under progress		Established	3	90%
83	Samalkota	28	No bids received, to be retendered	0		Feasibility Study under progress		Established	4	90%
84	Yeleswaram	16	Connected to Peddapuram ISWM	0		Feasibility Study under progress		Established	2	90%
85	Ramachandrapuram	21	Connected to Samalkot ISWM	0		Feasibility Study under progress		Established	2	90%
86	Mandapeta	26	Connected to Rajamahendravaram ISWM	0		Feasibility Study under progress		Established	4	90%
88	Tuni	26	WtC Awarded	0		Feasibility Study under progress		Established	3	90%
88	Mummidivaram	12	WtC Awarded	0		Feasibility Study		Established	2	90%

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
						under progress				
89	Amalapuram	26	WtC Awarded	0		Feasibility Study under progress		Established	3	90%
90	Eluru	106	Work order issued	0		Feasibility Study under progress		Established	22	90%
91	Tadepalligudem	51	Work order issued	0		Feasibility Study under progress		Established	8	90%
92	Tanuku	44	Work order issued	0		Feasibility Study under progress		In Progress		
93	Palakollu	33	Work order issued	0		Feasibility Study under progress		In Progress		
94	Narsapuram	29	Work order issued	0		Feasibility Study under progress		Established	4	90%
95	Bhimavaram	69	Work order issued	0		Feasibility Study under progress		Established	12	90%
96	Nidadavole	21	Connected to Tanuku ISWM	0		Feasibility Study under progress		In Progress		
97	Kovvur	19	Connected to Rajamahendravaram ISWM	0		Feasibility Study under progress		In Progress		
98	Jangareddy Gudem	26	No bids received, to be retendered	0		Feasibility Study under progress		Established	4	90%
99	Chittoor	92	Work order issued	0		Feasibility Study under progress		Established	18	90%
100	SriKalahasti	39	Work order issued	0		Feasibility Study under progress		Established	8	90%
101	Nagari	30	Work order	0		Feasibility Study		In Progress		

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
			issued			under progress				
102	Puttur	26	Work order issued	0		Feasibility Study under progress		In Progress		
103	Nellore	300	Work order issued	0		Feasibility Study under progress		In Progress		
104	Venkatagiri	25	Work order issued	0		Feasibility Study under progress		In Progress		
105	Yerraguntla	17	Connected to Proddutur ISWM	0		Connected to Cement Factories	1	In Progress		
106	Naidupet	22	Work order issued	0		Feasibility Study under progress		Established	4	90%
107	Atmakur N	15	No bids received, to be retendered	0		Feasibility Study under progress		In Progress		
108	Kavali	51	Work order issued	0		Feasibility Study under progress		Established	10	90%
109	Kondapalli	21	Work order issued	0		Guntur WtE		Work order Issued		
110	Akiveedu	11	No bids received, to be retendered							
111	Dachepali	11	Connected to Piduguralla WtCNG							
112	Gurazala	9	Connected to Macherla WtC							
113	Darsi	12	No bids received, to be retendered							
114	Buchireddy Palem	12	Connected to Nellore ISWM							
115	Penukonda	10	Connected to Puttaparthi WtC							
116	Bethamcharla	14	No bids received, to be retendered							
117	Kamlapuram	7	Connected to Prodduturu ISWM							
118	Kupam	15	No bids received, to be retendered							
119	Y.S.R. -	23	Connected to Vijayawada WtC							

S. No	Name of the ULB	Waste Generated (TPD)	Wet waste processing	Plant Capacity (TPD)	Capacity Utilization	Dry Waste Processing				
						RDF	Waste Sent in TPD	MRF	Plant Capacity TPD	Capacity Utilization
	Tadegadapa									
120	Chuintalapudi	4				No bids received, to be retendered				
121	Podili	6				Connected to Kanigir WtC				
122	Alluru	9				Connected to Kavali ISWM				
123	B.KothaKota	6				No bids received, to be retendered				
Total		6890								

VI. Bio-medical Waste Management:

- Total Bio-medical generation: 16.257Tones/ day
- No. of Hospitals and Health Care Facilities: 12,856Nos.

Status of Treatment Facility/ CBMWTF	:	Presently, there are 12 Nos. of Common Bio-medical Waste Treatment Facilities (CBMWTFs) operating in the State of Andhra Pradesh for treatment and for disposal of Bio-Medical waste as per the BMW Management Rules 2016.
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VII. Hazardous Waste Management:

- Total Hazardous Waste generation about: 39915Tones during the month of July, 2022 and cumulative quantity (April to July, 2022) is 1,38,502.7 tones.
- No of industries generating Hazardous Waste: 2708 Nos as per Hazardous Waste inventory, 2020 -21.
- **For the month of July, 2022, the Quantity of Hazardous Waste Treated & Disposed is as follows:**
 - v) Utilizable waste is 24237TPM (suitable to use as raw material or as alternative fuel viz. Co-processing in Cement Plants so as to conserve the resources),
 - vi) Recyclable waste is 650.96 TPM (suitable for recycling /recovery of material viz. oil reclamation units, lead and zinc recovery units).
 - vii) Incinerable waste is 299.58 TPM (not suitable for any recycling / reuse and having high calorific value i.e. > 2500 K cal/kg) and
 - viii) Land fillable waste is 14672.31TPM (not suitable for any recycling / reuse and having low calorific value i.e. < 2500 K cal/kg) is reaching and treated at the TSDFs in Visakhapatnam and Nellore.

Note: The above data is obtained from the APEMC online portal. The above data may vary during verification of annual returns submitted by the industry.

• **Details of on-going or proposed TSDF:**

Two TSDF are existing in the State of Andhra Pradesh

- ✓ M/s Coastal Waste Management Project Unit-1, Parwada, Visakhapatnam.
- ✓ M/s Coastal Waste Management Project Unit-2 a division of Mumbai Waste Management Limited, S.P.S.R. Nellore District.

Status of compliance and operation of the CETPs:

S. No	Name and Address of the CETP & contact person	Design capacity (in MLD)	Current Operating capacity (in MLD)	Type and No. of member units	Compliance status
9.	Brandix India Apparel City Private Limited, APSEZ, Atchutapuram Pudimadaka Road, Visakhapatnam.	6*	5.1	Textile park- 14 units	Complied * APPCB permitted to establish 20 MLD capacity of CETP for operation full capacity industrial park. At present 6 MLD CETP was constructed as the effluent generation is 5.1 MLD.
10.	Ramky Pharma City (India) Ltd, JN Pharma City, Parawada Mandal, Visakhapatnam.	9.53	6.88	Pharmaceutical & Bulk drugs-92 units	Complied
11.	Kondapally Envirotech Pvt. Ltd., (KEPL), IDA, Kondapalli (V), Ibrahimpatnam (M), Krishna District.	0.2	* 0.0	Pharmaceutical & Bulk drugs-14 units	*Status was reviewed on 15.06.2022 and up-gradation works will be completed by end of August 2022 and effluent sent to CETP, JNPC for further treatment up to 31.08.2022.
12.	Vijayawada Auto Cluster Development Company, Industrial Estate, Auto Nagar, Vijayawada.	0.2	0.12	Food beverages, Herbal pharma, Oil solvents & lubricants - 35 units.	Complied
13.	Machilipatnam Imitation Jewellery Park Pvt. Ltd., Jewellery Park, Potheipalli, Machilipatnam.	0.07	0.0003	Electro Plating – 48 Units	Complied
14.	Nagari Dyeing Owners Association, Chinthalapatteda (V), Nagari (M), Chittoor District.	4	1.3	Manual Dyeing units - 105 units	Complied
15.	Atchuthapuram Effluent Treatment Plant, Atchutapuram Visakhapatnam.	1.5	0.58	Pharmaceutical & Bulk drugs-37 units	Complied
16.	M/s Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC), 1.0 MLD CEPT, MPSEZ, Menakur (V), Naidu pet (M), SPSR Nellore District.	1.0	0.075	Pharmaceutical – 8 Units	Complied Started operations in the month November 2021 and receiving effluents from 3 Industries.
	Total	21.5	14.0503		

VIII. Plastic Waste Management:

Total plastic waste generation	39,626 TPA (As per Annual Report for the F.Y. 2020-21).
Implementation of Plastic Waste Management Rules 2016 in Urban Local Bodies	62 Nos of recyclers registered with APPCB. Total recycling capacity is 39,991 TPA. - The State has released G.O.Ms.No.349, dated 29.10.2018 for implementation of Plastic Waste Management Rules, 2016 in the ULBs. - The plastic waste in Urban Local Bodies is being collected through the Public Health Workers of the ULBs. The segregated plastic waste, which is recyclable, is sent to recyclers i.e., from MRFs and the segregated plastic, which is not suitable for recycling is sent to nearby Cement Plants and also being used in road construction in some ULBs. 29 ULBs have so far, tied up with nearby Cements Plants to send non-recyclable Plastic Waste & another 2 ULBs found viable to send Plastic Waste to Cement Plants, considering the distance and instructions issued to Municipal Commissioners to enter into MoU with them also by end of December, 2022. - The manufacture, sale & usage of plastic carry bags of below 75 microns' thickness is banned in the State of Andhra Pradesh. 721 Taskforce Teams are constituted in the ULBs for inspections and for surprise raids to ensure no sale & usage of banned plastic carry bags. - About 1.58.842Kgs of plastic carry bags of below 75 microns' thickness were seized and Rs.154lakhs towards fine was collected from the violators. - In Visakhapatnam, Vizianagaram, Vijayawada, Kurnool & Tirupati, under extended producer responsibility, Plastic Waste Collection system has been established. - Instructions issued to the Municipal Commissioners of Head Quarter ULBs to conduct stakeholders' meetings under the Chairmanship of the District Collectors to ensure setting up collection centers under EPR in Municipal Corporations & bigger ULBs. - In Visakhapatnam, Vijayawada, Tirupati, Rajamahendravaram, Kakinada & Amalapuram Plastic Waste is being used in construction of Roads and the details are as follows:

Sl. No.	Name of the ULB	Length of Road Constructed	Quantity of Plastic Waste utilized for constructions of Road
1	Visakhapatnam	8.0 Kms	14.5 Tons
2	Vijayawada	5.0 Kms	5.0 Tons
3	Tirupati	0.9Kms	0.9 Tons
4	Rajamahendravaram	3.0 Kms	4.2 Tons
5	Kakinada	1.2 Kms	2.0 Tons
6	Amalapuram	1.0 Km	0.2 Tons

IX. Details of Alternate Treatment Technology being adopted by the State**Details of Faecal Sludge Treatment Plants:**

No. of Completed FSTPs	:	5 (75 KLD)
No. of In-progress FSTPs	:	60 (905 KLD)
No. of FSTPs to be retendered	:	11 (175 KLD)
No. of FSTPs DPRs to be Prepared:		15

IX(A): Details of Completed FSTPs:

S.No.	Name of ULB	Capacity (in KLD)	Operational Status of FSTP
1	Narsapur	15	Operational
2	Rajam	15	Operational
3	Palamaneru	15	Operational
4	Bobbili	15	Operational
5	Vinukonda	15	Operational

IX(B): Details of In-Progress FSTPs:

S.No	Name of the ULB	Plant Capacity (in KLD)	Expected Date of Completion
1	Dhone	20	85 % of Work Completed Sep- 22
2	Gooty	15	Dec -22
3	Jammalamadugu	15	Dec -22
4	Kadiri	25	Dec -22
5	Kalyanadurgam	10	Dec -22
6	Madakasira	5	Dec -22
7	Pulivendula	20	Dec -22
8	Puttaparthi	10	Dec -22
9	Rayachoti	25	Dec -22
10	Rayadurg	20	Dec -22
11	Allagadda	10	Dec -22
12	Atmakur (K)	15	Dec -22
13	Badvel	25	Dec -22
14	Gudur (K)	5	Dec -22
15	Mydukuru	15	Dec -22

S.No	Name of the ULB	Plant Capacity (in KLD)	Expected Date of Completion
16	Nandikotkur	15	Dec -22
17	Yelamanchili	15	Dec-22
18	Punganur	15	Dec-22
19	Rajampeta	15	Dec-22
20	Yerraguntla	10	Dec-22
21	Atmakur (N)	10	Dec-22
22	Giddalur	10	Dec-22
23	Gudur (TPT)	20	Dec-22
24	Kandukur	20	Dec-22
25	Kanigiri	15	Dec-22
26	Markapur	20	85 % of Work Completed, Sep- 22
27	Nagari	20	Dec-22
28	Naidupet	15	Dec-22
29	Puttur	15	Dec-22
30	Sullurpeta	15	Dec-22
31	Venkatagiri	15	Dec-22
32	Addanki	10	Dec-22
33	Bapatla	25	40% work completed Sep- 22
34	Chimakurthy	10	Dec-22
35	Chirala	25	40% work completed Sep- 22
36	Macherla	15	Dec-22
37	Mangalagiri	25	Dec-22
38	Piduguralla	15	Dec-22
39	Ponnur	15	40% work completed Sep- 22
40	Repalle	15	Dec-22
41	Sattenapalli	15	Dec-22
42	Salur	15	Dec-22
43	Amalapuram	15	Dec-22
44	Gollaprolu	5	Dec-22
45	Kovvur	10	Dec-22
46	Mandapeta	15	Dec-22
47	Mummidivaram	10	Dec-22
48	Peddapuram	15	Dec-22
49	Pithapuram	15	Dec-22
50	Ramachandrapuram	15	Dec-22
51	Samalkota	15	Dec-22

S.No	Name of the ULB	Plant Capacity (in KLD)	Expected Date of Completion
52	Tuni	15	Dec-22
53	Yeleshwaram	10	Dec-22
54	Amudalavalasa	10	Dec-22
55	Parvathipuram	15	Dec-22
56	Ichapuram	10	Dec-22
57	Narsipatnam	20	Dec-22
58	Nellimarla	10	Dec-22
59	Palakonda	10	Dec-22
60	Palasa-Kasibugga	15	Dec-22
		905	

IX (C) Details of FSTPs under TenderStage:

S.No	Name of the ULB	Capacity of Plant (KLD)
1	Jangareddigudem	15
2	Nidadavolu	15
3	Palacole	20
4	Pedana	10
5	Tadepalli	20
6	Tanuku	25
7	Vuyyuru	15
8	Jaggaiahpetta	15
9	Nandigama	15
10	Nuzvidu	15
11	Tiruvuru	10

IX(D) Details of FSTPs for which DPRs Preparation in progress:

S.No	Name of ULB	Status of the project
1	Akiveedu	DPR preparation in progress - Newly Constituted ULBs
2	Kondapalli	
3	Dachepali	
4	Gurazala	
5	Darsi	
6	Buchireddy Palem	
7	Penukonda	
8	Bethamcharla	
9	Kamlapuram	
10	Kupam	
11	Y.S.R. -Tadegadapa	
12	Chuintalapudi	
13	Podili	
14	Alluru	
15	B.KothaKota	

X. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on insitu treatment:

- A total 32 No's of outfall points of the major disposal drains have been identified which are contributing to River Pollution. All the above 32 No's of outfall points are provided with Meshes/Screens to prevent solid waste from falling in to the Rivers.

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

Commissioner & Director of Municipal Administration Appointment as a Nodal Officer for Polluted River stretches as per G.O.RT. No: 103 EFS&T Department Dated: 25-11-2020.

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

XIII. Latest water quality of polluted river, its tributaries, drains with flow details:

- APPCB has been monitoring the 5 polluted river stretches at 27 locations on monthly basis and the data is being uploaded in RRC Website <https://rrc.ap.gov.in/Views/Monitoring.aspx> every month. The monitoring of water quality data for the month of July, 2022 is enclosed.
- As per the analysis of samples collected at 27 locations in the month of July 2022 the B.O.D value is less than 3.0 mg/lit. (Details enclosed)

- XIV. Ground water regulation:
- XV. Good irrigation practices being adopted by the State:
- XVI. Rain Water Harvesting:
- XVII. Demarcation of Floodplain and removal of illegal encroachments:
- XVIII. Maintaining minimum e-flow of river:
- XIX. Plantation activities along the rivers:
- XX. Development of biodiversity park:

XXI. Reuse of Treated Water:

- 9 ULBs Utilizing Re – Use of Treated Waste Water

S.No	Name of the ULB	Installed Capacity (in MLD)	Qty of treated sewage utilised
1	2	3	4
1	Visakhapatnam	177.00	39.00
2	Rajamahendravaram	30.00	20.00
3	Tirupathi	50.00	33.00
4	Narsaraopeta	15.55	8.50
5	Tadipatri	11.50	6.50
6	Puttaparthi	1.50	0.30
7	Kurnool	2.40	0.096
8	Kadapa	20.00	10.00
9	Pulivendula	6.50	2.50
	Total in MLD	314.45	119.90

- XXII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards:
- XXIII. Status of Preparation of Action Plan by the 13 Coastal States:
- XXIV. Regulation of Mining Activities in the State/UT:
- XXV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring.

Water quality status of polluted river stretches in Andhra Pradesh - 2022

1. River Godavari:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Godavari at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location Point
1	4367	Koundinyamukti (Kukunur) border point between Andhra Pradesh & Telangana States, West Godavari Dist.
2	4359	After confluence with Sabari at Kunavaram (waddigudem), East Godavari Dist.
3	0014	Polavaram, West Godavari Dist.
4	1218	Upstream of Rajahmundry at Kumaradevam
5	2370	At Rajahmundry Upstream of Nalla channel
6	2371	At Rajahmundry Downstream of Nalla channel
7	1219	Downstream of Rajahmundry at Dhawaleswaram
8	4365	Upstream of Narasapuram town before confluence with sewage, West Godavari Dist.
9	4366	Downstream of Narasapuram town after confluence with town sewage, West Godavari Dist.
10	4358	Near GMC Balayogi bridge, Govalanka, East Godavari Dist.

Month-wise data of water quality of river Godavari, 2022																
Parameter	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Standard		
														Class A	Class B	Class C
pH	4367	8.06	8.47	8.46	8.64	8.13	7.77	8.4						6.0 - 8.5	6.0 - 9.0	
	4359	7.44	7.66	8.45	8.42	7.78	7.61									
	0014	7.45	8.03	7.80	8.01	8.27	8.16	7.57								
	1218	7.41	7.99	7.93	8.05	8.12	7.94	7.58								
	2370	7.45	7.47	7.83	7.96	7.49	7.50	7.34								
	2371	7.74	7.55	7.58	7.98	7.90	7.48	7.7								
	1219	7.75	7.31	7.87	8.01	7.05	7.83	8.05								
	4365	8.05	7.85	8.21	8.44	7.88	7.77	7.48								
	4366	8.01	4.85	8.27	8.43	7.68	7.84	7.48								
	4358	7.41	7.72	8.17	7.77	7.46	7.86	7.79								
DO	4367	8.5	8.5	7.2	7.5	6.5	6.0	6.8						6.0	5.0	4.0
	4359	8.1	8.1	7.0	7.2	6.5	6.2									
	0014	8.8	8.7	6.0	7.0	6.5	6.4	7.0								
	1218	8.5	8.0	7.0	7.4	6.4	6.3	6.8								
	2370	7.1	7.0	7.0	7.0	6.0	6.8	7.2								
	2371	6.8	6.3	6.5	6.5	5.9	6.7	7.4								
	1219	8.0	6.9	7.0	7.2	6.2	6.5	7.4								
	4365	7.2	8.0	6.7	6.6	6.0	5.6	5.6								
	4366	5.8	6.5	5.8	6.4	5.8	5.5	5.4								
	4358	6.4	7.0	7.5	6.2	6.0	7.0	6.5								
BOD	4367	2.0	2.3	2.2	1.9	2.0	1.9	1.9						2.0	3.0	3.0
	4359	2.0	2.0	2.0	2.0	1.8	1.6									
	0014	1.8	1.7	2.0	1.8	1.0	2.2	2.0								
	1218	1.6	2.0	1.8	1.5	1.1	1.3	2.2								
	2370	2.4	1.4	1.8	2.0	1.9	2.4	2.2								
	2371	2.4	1.5	1.8	2.2	2.3	2.6	2.4								
	1219	2.0	2.2	2.0	2.0	2.2	2.4	2.4								
	4365	2.0	2.1	2.1	2.0	2.4	2.0	1.4								
	4366	2.4	2.5	2.3	2.2	2.6	2.2	1.3								
	4358	2.6	2.1	2.2	2.0	2.4	2.8	2.6								

2. River Krishna:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Krishna at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location point
01	1175	Sangameswaram, Kurnool Dist.
02	3083	Srisaillam, Kurnool Dist.
03	4381	After confluence with river Musi at Vadapalli, Guntur Dist.
04	1786	Vedadri, Krishna Dist.
05	1787	Amaravathi, Guntur Dist.
06	0025	Prakasham barrage, Vijayawada, Krishna Dist.
07	4375	Pavitrasangamam at Ibrahimpatnam, Krishna Dist.
08	1782	Hamsaladeevi, Krishna Dist.

Month-wise data of water quality of river Krishna, 2022:

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
pH	1175	7.9	7.7	7.3	7.9	7.6	7.4	7.8						6.0 - 8.5	6.0 - 9.0	
	3083	7.8	7.8	7.0	7.7	7.9	7.8	7.9								
	4381	7.85	8.23	8.14	8.24	7.62	7.70	7.60								
	1786	7.80	7.28	7.46	7.87	7.94	7.88	7.49								
	1787	7.83	8.01	7.39	8.31	7.86	7.09	7.96								
	0025	7.86	7.43	7.48	8.17	7.45	7.50	7.24								
	4375	8.17	7.77	7.86	7.99	8.01	7.96	7.78								
	1782	7.84	7.44	7.58	7.65	7.85	7.63	7.83								

DO	1175	6.0	6.1	6.0	5.7	5.2	5.8	6.1						6.0	5.0	4.0
	3083	6.5	6.3	6.0	6.0	5.4	5.9	5.8								
	4381	7.1	6.9	7.2	7.1	7.3	7.2	7.4								
	1786	7.1	6.9	6.8	6.9	7.2	6.9	7.1								
	1787	7.2	7.4	7.3	7.5	6.9	6.9	7.2								
	0025	7.3	7.1	7.2	7.4	7.2	7.1	7.4								
	4375	6.9	7.2	7.1	7.2	7.3	7.1	7.4								
	1782	6.5	6.8	6.7	6.4	6.3	6.1	6.7								
BOD	1175	<2	<2	2.5	2.0	2.5	1.8	1.5						2.0	3.0	3.0
	3083	<2	<2	<2	1.5	2.0	1.5	1.3								
	4381	2.4	2.8	2.7	2.6	2.7	2.8	2.6								
	1786	2.4	2.6	2.7	2.8	2.8	2.7	2.8								
	1787	2.6	2.4	2.5	2.6	2.8	2.7	2.8								
	0025	2.6	2.6	2.4	2.8	2.9	2.6	2.6								
	4375	2.4	2.6	2.5	2.6	2.8	2.6	2.6								
	1782	2.8	2.6	2.8	2.7	2.9	2.7	2.6								
Total Coliform	1175	792	870	914	659	830	866	722						50	500	5000
	3083	1120	1203	1300	602	550	617	816								
	4381	120	120	120	120	120	399	342.8								
	1786	120	150	150	150	120	560	439								
	1787	120	75	64	75	75	395	275								
	0025	75	64	75	120	120	423	367								
	4375	75	75	120	150	120	505	412								
	1782	150	120	150	120	120	368	328.2								

Fecal Coliform	1175	189	214	212	170	256	203	312								
	3083	362	343	400	119	281	333	298								
	4381	3	3	3	3	3	11.9	10.3								
	1786	3	3	3	3	3	49.8	15.6								
	1787	3	3	3	3	3	30.7	14.2								
	0025	3	3	3	3	3	37.5	25.3								
	4375	3	3	3	3	3	18.9	15.6								
	1782	3	3	3	3	3	46.6	24.4								
TDS	1175	432	598	682	641	842	846	752								
	3083	412	426	412	469	426	443	412								
	4381	484	502	498	498	540	510	440								
	1786	510	541	552	510	520	486	502								
	1787	470	518	510	470	576	448	410								
	0025	440	548	480	484	540	470	440								
	4375	468	510	524	506	512	470	420								
	1782	10400	9670	16980	18900	20100	17800	8460								
Note: All values are expressed in mg/L except pH, Total Coliform value & Fecal Coliform. Total Coliform & Fecal Coliform is expressed in MPN count / 100 ml. Remarks: BOD & fecal coliform values found to be within the standard limits stipulated for bathing at all the locations. High TDS values at Hamsaladeevi could be attributed due to the intrusion of backwaters of Bay of Bengal.																

3. River Tungabhadra:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Tungabhadra at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location point
01	1785	Manthralayam, Kurnool Dist.
02	1174	Bhavapuram, Kurnool Dist.
03	4388	U/S of Kurnool town B/C with domestic sewage & A/c of Rayalaseema alkalies industries at Gondiparla, Kurnool.
04	4389	D/S of Kurnool town A/C with domestic sewage at Gondiparla, Kurnool.

Month-wise data of water quality of river Tungabhadra, 2022

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
pH	1785	7.8	7.9	7.2	7.8	7.8	7.2	7.9						6.0 – 8.5		6.0 – 9.0
	1174	7.8	7.9	7.5	7.8	7.8	6.9	7.4								
	4388	7.6	7.6	7.6	7.4	7.2	6.8	7.2								
	4389	7.2	7.2	7.0	7.2	7.0	7.0	6.9								
DO	1785	6.5	6.1	5.8	5.2	4.5	5.0	5.6						6.0	5.0	4.0
	1174	6.2	6.4	5.9	5.4	4.9	5.7	5.4								
	4388	6.1	5.8	5.5	5.1	5.1	5.6	4.8								
	4389	5.3	5.5	5.6	5.3	4.6	5.7	4.4								
BOD	1785	2.7	2.5	2.2	3.5	3.7	2.8	2.0						2.0	3.0	3.0
	1174	2.2	2.0	2.8	3.3	3.3	2.5	1.8								
	4388	3	2.7	2.2	3.5	3.3	2.3	2.0								
	4389	3.2	2.8	2.5	3.5	3.3	2.5	2.8								
Total Coliform	1785	1011	980	914	980	1553	1733	1553						50	500	5000

	1174	1203	1300	1203	1203	1414	1203	1414									
	4388	1046	1203	1300	866	830	1553	1414									
	4389	1203	1046	1203	1046	1414	1120	1733									
Fecal Coliform	1785	510	530	333	219	389	412	358							---	500	---
	1174	169	173	224	289	204	155	243									
	4388	416	412	343	258	272	352	320									
	4389	149	155	279	354	437	376	549									
TDS	1785	502	792	524	666	1046	884	1096							500 - 2000		
	1174	723	792	810	692	682	684	894									
	4388	968	842	689	742	743	699	990									
	4389	843	823	796	746	832	745	994									
Note: All values are expressed in mg/L except pH, Total Coliform value & Fecal coliform. Total Coliform & Fecal Coliform is expressed in MPN count / 100 ml.																	
Remarks: BOD & fecal coliform values found to be within the standard limits stipulated for bathing at all the locations. However, the DO values found to be between 4.0 and 5.0 mg/lit. at certain instances at U/S & D/S of Kurnool town. Hence, they may be categorized as Class – C at these points.																	

4. River Nagavali:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Nagavali at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location point
01	4351	River Nagavali at Kureru, Vizianagaram Dist.
02	1448	Thotapally, Vizianagaram Dist.
03	4346	River Nagavali U/S of Srikakulam town.
04	4347	River Nagavali D/S of Srikakulam town.

Month-wise data of water quality of river Nagavali, 2022																
Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
pH	4351	7.48	7.15	8.10	8.17	8.32	7.99	7.88						6.0 – 8.5	6.0 – 9.0	
	1448	7.11	7.09	7.88	7.92	8.66	7.55	7.97								
	4346	8.31	7.24	8.18	8.26	7.18	8.37	7.27								
	4347	7.55	7.36	8.14	8.13	7.78	8.01	7.19								
DO	4351	7.1	8.3	5.5	6.5	6.2	5.6	6						6.0	5.0	4.0
	1448	7.7	7.4	7.0	6.2	7.2	7.4	6.2								
	4346	8.0	8.5	7.5	6.8	7.5	6.7	6.9								
	4347	7.5	7.0	7.0	6.3	7.0	6.1	5.5								
BOD	4351	1.9	1.3	2.7	2.3	2.4	2.6	2.2						2.0	3.0	3.0
	1448	1.7	1.8	2.0	1.7	2.1	2.8	2.2								
	4346	2.0	2.1	2.0	1.8	2.2	2.4	2.6								
	4347	2.5	2.5	2.5	2.2	2.5	1.8	2.8								
Total Coliform	4351	150	150	150	120	120	150	150						50	500	5000
	1448	120	150	120	93	150	150	120								
	4346	120	460	120	120	150	210	240								
	4347	150	1100	150	150	150	120	150								
Fecal Coliform	4351	15	9	15	15	7	11	7						----	500	----
	1448	9	15	9	4	7	9	4								
	4346	7	15	9	9	7	9	7								
	4347	15	20	15	15	9	7	7								
TDS	4351	188	220	240	268	259	223	135						500-2000		
	1448	194	196	200	238	210	211	120								
	4346	168	224	212	276	272	208	175								
	4347	242	228	248	288	258	218	174								
Note: All values are expressed in mg/L except pH, Total Coliform value & Fecal Coliform. Total Coliform & Fecal Coliform is expressed in MPN count / 100 ml.																
Remarks: BOD & Fecal coliform values found to within the standard limits stipulated for bathing at all the locations.																

5. River Kundu:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Kundu at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2022 is as follows:

S. No.	Code	Location point
1	2351	At Nandyal, Kurnool Dist.

Month-wise data of water quality of river Kundu, 2022

Parameters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
													Class A	Class B	Class C
pH	7.5	8.0	7.2	7.1	7.1	7.6	6.9						6.0 – 8.5		6.0 – 9.0
DO	6.3	6.5	6.0	5.1	4.0	4.8	4.4						6.0	5.0	4.0
BOD	3.4	2.7	2.8	3.7	3.2	2.7	2.5						2.0	3.0	3.0
Total Coliform	966	1203	1046	1733	1986	1300	1733						50	500	5000
Fecal Coliform	306	412	491	412	722	530	403						---	500	---
TDS	521	762	853	742	648	682	689						500 - 2000		
Note: All values are expressed in mg/L except pH, Total Coliform & Fecal Coliform value. Total Coliform & Fecal Coliform is expressed in MPN count / 100 ml.															
Remarks: BOD & Fecal Coliform values found to be within the standard limits stipulated for bathing.															

CPCB Water Quality Criteria for Designated Best Use

Designated-best- use	Class of water	Criteria
Drinking Water Source without conventional treatment but after disinfection.	A	• Total Coli forms Organism MPN/100 ml shall be 50 or less. • pH between 6.5 and 8.5 • Dissolved oxygen 6 mg/l or more. • Biochemical Oxygen Demand 5 days 20°C 2mg/l or less.
Outdoor bathing (Organized)	B	• Total Coli forms Organism MPN/100 ml shall be 500 or less. • pH between 6.5 and 8.5 • Dissolved oxygen 5 mg/l or more. • Biochemical Oxygen Demand 5 days 20°C 3mg/l or less.
Drinking Water Source after conventional treatment and disinfection.	C	• Total Coli forms Organism MPN/100 ml shall be 5000 or less. • pH between 6 to 9 • Dissolved oxygen 4 mg/l or more. • Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Propagation of Wild life and Fisheries.	D	• pH between 6.5 to 8.5 • Dissolved oxygen 4 mg/l or more. • Free Ammonia (as N) 1.2 mg/l or less • pH 9 between 6.0 to 8.5.
Irrigation, Industrial Cooling, Controlled Waste disposal.	E	• Electrical Conductivity at 25°C micro mhos/cm Max. 2250. • Sodium Absorption ratio Max. 26 • Boron Max.2 mg/l.
	Below -E	Not Meeting A, B, C, D & E Criteria.