

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

Letter No.1282446/K/2020

Dated:12.08.2024.

From

The Special Chief Secretary to Government,
Government of Andhra Pradesh,
MA&UD Department,
AP Secretariat, Velagapudi.

To

The Secretary,
Ministry of Jal Sakti,
MoHUA., Government of India,
New Delhi.

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 Report for the Month of June, 2024 - Furnished – Regarding.

Ref:- 1. Orders of the National Green Tribunal Principal Bench, New Delhi in OA No.673/2018, dated.24.09.2020.
2. From the CDMA, AP, Lr.Roc.No.12057/54/2020/Lsec, dated: 09.08.2024, through e-mail.

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In compliance with the directions of the Hon'ble National Green Tribunal Principal Bench, New Delhi in the reference 1st cited, I herewith enclose the Monthly Progress Report in the prescribed format for the month of June, 2024, Which was received vide reference 2nd cited, for taking further necessary action in the matter

Yours faithfully,



for Special Chief Secretary to Government

Copy to:-

The Director of Municipal Administration, AP.

National Mission for Clean Ganga
Format for submission of Monthly Progress Report for Month of June 2024
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 (as per 2011 -Census) : @1.5 Crore
- II.** Estimated Sewage Generation (MLD) : 1503.20 MLD

III. Details of Sewage Treatment Plants:

- Existing STPs and Treatment Capacity (52 ULBs) : 690.90 MLD (104 Nos)
- Present Gap in Treatment Capacity in MLD : 812.30 MLD
- **Quantity of Sewerage Treated** : **520.85 MLD**
- Reuse of Treated water (Qty) : 233.83 MLD
- Capacity of STPs under Construction : 706.86 MLD
 - Capacity of under construction STP's (33 ULBs) : 536.37 MLD
by ENC (PH) (62 STPs)
 - Capacity of Under Construction STPs at : 39.10 MLD
APTIDCO Houses (41 ULBs) (56 STPs)
 - Capacity of under s under Construction STPs : 131.39 MLD
Under SBM 2.0 (53 STPs/ NSTPs)
(out of 567.00 MLD total sanctioned, (28 ULBs)
131.39 MLD is under construction)
- Gap in treatment capacity after completion of : 105.46 MLD.
above STPs
- STPs sanctioned Under SBM 2.0 & under : 136.34 MLD (21 ULBs)
Tender Process (below 1 lakh population) (22 STPs)
(Out of balance 437.61 MLD, 136.34 MLD is in Tender Stage)
- STPs sanctioned under AMRUT 2.0 : 377.91 MLD (26 ULBs)
(26 ULBs -373.27 MLD)
Including 40.24 MLD Capacity STPs of Kurnool& Narasapuram)
(Rs.1829.28 Crs by Government of India
(DPRs under preparation)

III (A) Details Existing STPs 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	38.00	Operational	Complied
2		Appughar	09/2010	25.00	25.00	Operational	Complied
3		Mudasarlova	04/2008	13.00	13.00	Operational	Complied
4		Narava	08/2001	54.00	54.00	Operational	Complied
5		Anakapalle	04/2018	15.00	15.00	Operational	Complied
6		Madinabagh	2018	2.00	2.00	Operational	Complied
7		Yathapalem Colonies	04/2008	2.50	2.50	Operational	Complied
8		Srinagar	04/2008	0.50	0.50	Operational	Complied
9		Karnavani palem	12/2019	5.00	0.0	-	STP was commissioned in December, 2019 & is now under non-utilisation due to delay in giving HSCs. Now, the defunct electro-mechanical equipment is being refurbished & being put to utilisation. (1500 HSCs given)
10		Mantripalem	04/ 2008	1.00	1.00	Operational	Complied
11		Aganampudi	12/2015	6.00	6.00	Operational	Complied
12		Rathi Cheruvu	09/ 2019	2.00	2.00	Operational	Complied
13		Kommadi / Madhurawada	08/2018	4.00	4.00	Operational	Complied
14		Bakkannapalem	08/ 2011	1.00	1.00	Operational	Complied
15		Marikavalasa	12/ 2012	2.00	2.00	Operational	Complied

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
16		Vambay Colony	08/ 2011	3.00	3.00	Operational	Complied
17		YSR Nagar	08/ 2011	2.00	2.00	Operational	Complied
18		Boyapalem	08/ 2011	1.00	1.00	Operational	Complied
19		Narava	10/2022	54.00	15.00	Operational	Complied
20		Paradesi-palem	08/2022	2.00	0.50	Operational	Complied
			Sub Total	233.00	187.50		
21	Rajamahendravaram	Hukumpeta	01/2009	30.00	30.00	Operational	Complied
22	Vijayawada	Ajith Singh Nagar-1	05/2011	40.00	40.00	Operational	Complied
23		Ajith Singh Nagar-2	05/2012	20.00	20.00	Operational	Complied
24		Ramalingeswar Nagar-1	06/2012	20.00	20.00	Operational	Complied
25		Ramalingeswar Nagar-2	10/2006	10.00	10.00	Operational	Complied
26		Autonagar -1	03/2005	10.00	10.00	Operational	Complied
27		Autonagar -2	12/2018	10.00	10.00	Operational	Complied
28		Jakkampudi	07/2017	20.00	20.00	Operational	Complied
			Sub Total	130.00	130.00		
29	Tirupathi	Thukivakam	09/2018	50.00	33.00	Operational	Complied
30	Kadapa	Nanepally	Aug 2012	20.00	10.00	-	A new STP 20MLD capacity is under construction at Nanapally under AMRUT Scheme, as the existing STP has become redundant for Rehabilitation and it will be completed by end of September, 2024.
31	Pulivendula	Rotarypuram	10/2022	10.00	5.00	Operational	Complied

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
32	Tadipatri	Gannevari-palle	10/2010	3.50	3.50	Operational	Complied
33			10/2010	8.00	8.00	Operational	Complied
	Puttaparthi		Sub Total	11.50	11.50		
34		Sai Nagar	07/2001	0.50	0.50	Operational	Complied
35		Gokulam	07/2001	0.50	0.20	Operational	Complied
36		Prasanthi Gram	07/2001	0.50	0.0	Under Rehabilitation	STP is under rehabilitation in full scale & will be brought to operational by March, 2024
			Sub Total	1.50	0.70		
37	Narsaraopeta	CPT Road	02/2018	15.55	9.50	Operational	Complied
38	Nellore	Janardhan Reddy Colony	-	5.00	5.00	Operational	Complied
39		Allepuram	-	55.00	55.00	Operational	Complied
40		Drivers Colony	-	11.00	0.00	Operational	STP is brought to operation through interception of sewage & House Service Connections are simultaneously in progress
			Sub Total	71.00	60.00		
41	Kurnool	Jammichettu	03/2019	0.80	0.80	Operational	Complied
42		Sankal Bagh	03/2019	0.80	0.80	Operational	Complied
43		Tungabhadra Pump House	03/2018	0.80	0.80	Operational	Complied
			Sub Total	2.40	2.40		
44	Tadepalli	Mahanadu-1	12/2018	0.20	0.20	Operational	Complied
45		Mahanadu-2	12/2018	0.20	0.20	Operational	Complied
				0.40	0.40		

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
46	Kondapalli	Security Colony	12/2021	0.80	0.40	Operational	Complied
47		Security Colony	01/2023	2.00	1.00	Operational	Complied
				2.80	1.40		
48	Yemmiganuru	Soganur Road	06/2022	19.80	5.00	Operational	Complied
49	Ongole	Koppolu	10/2022	15.00	15.00	Operational	Complied
	15	Grand Total		612.95	501.40		

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

S. No.	Location	Scheme Name	No. of STP	Capacity of the plant (in MLD)	Physical Progress in %	Completion Timeline	Status
1	Kakinada	AMRUT	1	5.00	75%	-	The work was stopped by the contracting agency and notices on 03-06-2021&14-10-2022 issued and final notice issued on 02-07-2024 to resume the work.
2	Srikakulam	AMRUT	1	10.00	45%	-	The Govt have accorded permission for closure of contract. The Govt requested the Commissioner Srikakulam Corp to take the loan from Punjab National Bank to dovetail the balance loan amount of Rs.2041.78 Lakhs sanctioned for SWD to be

S. No.	Location	Scheme Name	No. of STP	Capacity of the plant (in MLD)	Physical Progress in %	Completion Timeline	Status
							utilized for this work.
3	Vizianagaram	AMRUT	1	5.00	54%	-	Govt. have accorded permission for closure of contract vide G.O. Ms No. 73 Dt:01-06-2023. Estimates under Preparation.
4	Rajamahendravaram	AMRUT	1	5.00	66%	Sep - 2024	In Progress
		NRCP	1	50.60	0%	August- 2025	The work is grounded Civil works are in Progress.
5	Eluru	AMRUT	1	5.00	100%	-	STP work completed and is in Operational.The HSCs work is in progress.
6	Bhimavaram	AMRUT	1	5.00	94%	Sep - 2024	The Electro mechanical equipment work and pump sets erection works are in Progress
7	Tadepalli gudem	AMRUT	1	5.00	35%	-	The work stopped by the agency. Notice issued to the agency to speed up the work.
8	Machilipatnam	AMRUT	1	5.00	48%	-	The Government have accorded permission for closure of Contract vide G.O.Ms. No. 72 Dt: 01-06-2023 and requested the ULB to bear the additional amount of Rs.4.84 Crs.

S. No.	Location	Scheme Name	No. of STP	Capacity of the plant (in MLD)	Physical Progress in %	Completion Timeline	Status
							Council Resolution is awaited
9	Gudivada	AMRUT	1	5.00	93%	Sep- 2024	The Electro mechanical equipment work and pump sets erection works are in Progress
10	Vijayawada	JNNUR M	1	20.00	95%	August- 2024	In Progress
11	Tenali	AMRUT	1	10.00	95%	Sep- 2024	In Progress
		14 FC	1	2.00	30%	-	Work stopped due to court case
12	Chilakaluripet	AMRUT	1	5.00	30%	-	The work is stopped by the agency. Several notices Dt:03-08-2023, 26-08-2023, 14-09-2023, 05-10-2023, 16-11-2023 and final notice was issued to the agency on 07-02-2024. Works resumed & is in progress.
13	Kavali	AMRUT	1	15.00	96%	-	Work stopped by the agency for delay in payment of bills.
14	Nellore	HUDCO	1	20.00	85%	-	The work has been stopped by the agency due to non payment of bills
			1	14.00	0%	-	The site issue resolved work will be grounded
15	Tirupati	Smart City	1	25.00	85%	August-2024	In Progress
16	Srikalahasti	AMRUT	1	7.00	53%	August- 2024	Civil Work is in Progress

S. No.	Location	Scheme Name	No. of STP	Capacity of the plant (in MLD)	Physical Progress in %	Completion Timeline	Status
17	Madanapalle	AMRUT	1	5.00	22%	-	The work was stopped by the contracting agency for the last one year and the department has issued notices on 07-11-2023,04-01-2024 and 09-02-2024 to resume the work. The work could not be resumed due to land issue.
18	Kadapa	AMRUT	1	20.00	54%	Sep- 2024	Civil work is in Progress and electro mechanical equipment procured.
19	Anantapuramu	AMRUT	1	10.00	-	Dec-2024	Agreement Concluded work Grounded
20	Dharmavaram	AMRUT	2	8.00	-	Dec-2024	Agreement Concluded work will be Grounded
21	Guntakal	AMRUT	1	8.00	2%	Dec-2024	Agreement concluded. work Grounded
22	Kurnool	AMRUT	1	2.00	98%	July -2024	Civil work and erection of electro mechanical works completed. Testing is in progress
		AMRUT	1	10.00	28%	Dec-2024	Civil work is in Progress
		AMRUT 2.0	3	35.60	-	-	Survey work Completed. designs under finlization
23	Nandyal	AMRUT	1	10.00	65%	August -2024	The civil works & Erection of mechanical works are in progress.
24	Adoni	AMRUT	1	5.00	36%	Dec -2024	Civil work is in Progress
25	Guntur	OTSFA	1	10.00	70%	-	The Govt vide memo No 11376/UBS/ 2015 Dt:14-02-2023 has accorded permission for revoke the safe closure and continuation of the
			1	20.00	60%	-	
			1	42.00	60%	-	
			1	28.00	51%	-	
			1	23.00	0%	-	

S. No.	Location	Scheme Name	No. of STP	Capacity of the plant (in MLD)	Physical Progress in %	Completion Timeline	Status
							project with full scope of work.
26	Pulivendula	PLAN	1	1.50	97%	Sep -2024	97 % civil works are completed. Erection of mechanical work is in progress
			1	1.50	82%	Sep -2024	In Progress
			5	2.50 (0.50 MLD x 5 Nos)	70%	Sep -2024	In Progress
			1	0.02	60%	Sep -2024	These 4 STPs are being executed These 4 STPs are being executed through Compact Unit STPs & 60% work completed & expected to be completed by Sep - 2024.
			1	0.07			
			1	0.08			
			1	0.10			
27	Rayachoti	PLAN	3	6.35	5%	March- 2025	The agency has not started the work
			2	0.55	-	-	Drawings to be submitted for approval
			1	15.50	2%	March- 2025	Designs & Drawings to be submitted for approval. Land acquisition under process.
28	Kanigiri	AIIB	1	6.00	2%	-	New site is identified & handing over of site is under process
29	Sullurpet	AIIB	3	8.00	4%	-	Sites handed over, Designs under finalization.
30	Allagadda	AIIB	1	5.00	2%	-	Sites handed over, Designs under finalization. Project Monitoring Committee is to Clear designs.

S. No.	Location	Scheme Name	No. of STP	Capacity of the plant (in MLD)	Physical Progress in %	Completion Timeline	Status
31	Nandikotkur	AIIB	1	5.00	0 %	-	Site to be handed over
32	Madakasira	AIIB	1	5.00	2%	-	Sites handed over, Designs under finalization PMC to Clear designs.
33	Proddutur	PLAN	1	24.00	-	-	Survey is in progress
Grand Total			62	536.37			

III C) Details of STPs Under Construction in APTIDCO Housing Colonies:

- Out of 129 STPs 73 STPs are Completed in TIDCO Colonies : 77.95 MLD (73 Nos STPs) (42 ULBs)
- **Out of 73 STPs 14 STPs are completed, (14 Nos. STPs Now operational (13 ULBs) : 19.45 MLD**
- Out of 129 STPs 56 STPs are in Progress in TIDCO Colonies in 41 ULBs. : 39.10 MLD (56 Nos STPs)

Sl. No	Name of the ULB	Name of the Location	Capacity in MLD	Physical Progress in %	Completion Timeline
1	2	3	4	5	6
1	Srikakulam	Patrunivalasa	2.10	Completed	Operational
2	Vizianagaram	Saripalli	1.50	Completed	Operational
3	GVMC	Satyanarayanapuram	1.50	Completed	Completed. Trail Run is in Progress
4	GVMC	Parawada	0.50	Completed	Completed. Trail Run is in Progress
5	Tadepalli Gudem	a. Kondruprolu-I	2.00	Completed	Completed. Trail Run is in Progress
6		b. Kondruprolu-II	0.75	Completed	Completed. Trail Run is in Progress
7	Palakollu	Penukulapadu	3.50	Completed	Completed. Trail Run is in Progress

Sl. No	Name of the ULB	Name of the Location	Capacity in MLD	Physical Progress in %	Completion Timeline
8	Kavali	Maddurupadu	1.50	Completed	Operational
9	Atmakur	Nellorepalem	1.00	Completed	Operational
10	Gudur	Gandhinagar	3.70	Completed	Operational
11	Kurnool	Jagannadhagattu	0.50	95%	95 % work Completed , waiting for Beneficiary occupancy for fixing of Electrical and Mechanical Works in the Plant to avoid thefting.
12			0.50	95%	
13			1.00	95%	
14			1.50	95%	
15			2.00	95%	
16	Nandyal	SRBC Colony	1.00	95%	
17			1.00	95%	
18		Nandhamuri Nagar	1.00	95%	
19			1.00	95%	
20	Adhoni	Siriguppa Road	1.00	95%	
21			1.00	95%	
22	Peddapuram	Valuthimmapuram	2.00	Completed	Completed, but Trail Run is in Progress.
23	Mandapeta	Gollapunta	3.00	Completed	Trail run heal up for went for power supply.
24	Pithapuram	Gorsa	0.50	Completed	Completed, Trail Run is in Progress.
25	Ramachandrapuram	Kothuru (Ph-I)	0.75	Completed	
26	Amalapuram	Bodasukurru	1.00	90%	Civil Works 90% completed finishing works are in progress. Sep - 2024
27	Rajamahendravararam	Bommuru-I	1.50	Completed	Completed, Trail Run is in Progress.
28	Rajamahendravararam	Torredu	0.50	Completed	
29	Samalkota	Jaggamvaripeta	0.50	Completed	

Sl. No	Name of the ULB	Name of the Location	Capacity in MLD	Physical Progress in %	Completion Timeline
30	Samalkota	Uppuvarisatram	0.50	Completed	Sep – 2024
31	Tenali	Chinaravuru	0.60	Completed	Operational
32	Ponnuru	Nidubrolu	1.25		
33	Chilakaluripeta	Purushothapatnam	2.80		
34	GVMC	Dabbanda	0.90	Completed	Civil works Completed, Trial run is heldup for went of sewage.
35	GVMC	Aganampudi (Tri Junction)	1.10	Completed	Civil works Completed, Trial run is heldup for went of sewage & Power Supply.
36	Vijayawada	Jakkampudi I (A)	0.90	Completed	Civil works Completed, Trial run is heldup for went of sewage & Power Supply.
37	Vijayawada	Jakkampudi II (B)	0.60	Completed	
38	Vijayawada	Jakkampudi III (C)	0.90	Completed	
39	Vijayawada	Jakkampudi IV (D)	0.90	Completed	
40	Gudivada	Mallayapalem I	1.60	Completed	Operational
41	Gudivada	Mallayapalem II	2.70		
42	Machilipatnam	Gosangam II	0.50	Completed	
43	Machilipatnam	Rudravaram II	0.70	Completed	Completed, Trial run is heldup for went of sewage.
44	Mangalagiri	RGK Colony -I	0.80	Completed	Operational
45	Guntur	Vengalayapalem I & II	1.50	Completed	Completed, Trial run is heldup for went of sewage.
46	Repalle	Repalle II	0.60	Completed	Completed, Trial run is heldup for went of housing works not at takenup.
47	Piduguralla	Kondamodu II	1.30	Completed	Completed, Trial run is heldup for went of housing works not at Completed.

Sl. No	Name of the ULB	Name of the Location	Capacity in MLD	Physical Progress in %	Completion Timeline
48	Macherla	Gorilamandhi-II	0.50	Completed	Completed, Trial run is heldup for went of housing works not at takenup.
49	Srikalahasthi II	S.W. Hostel -II	0.90	Completed	Completed & Trial run is heldup for went of sewage & Power Supply.
50	Chittoor	Murukumbattu -II	1.30	Completed	
51	Puttur	Nandimangalam -II	0.20	Completed	
52	Punganur	Ethuru -II	0.70	Completed	Completed & Trial run is in Progress.
53	Madanapalli	Venkappakota -II	0.90	Completed	
54	Srikalahasthi I	Rajiv Nagar -I	1.00	Completed	Completed & Trial run heldup for went of sewage & Power Supply
55	Kakinada	Kakinada(Paralovapeta)	1.50	75%	October – 2024 Civil Works 75% Completed Remaining Works in Progress
56	Rajahmundry	Bommuru-II	1.50	70%	October – 2024 Civil Works 70% Completed Remaining Works in Progress
57		Namavaram	0.75	72%	October – 2024 Civil Works 70% Completed Remaining Works in Progress
58	Ramachandrapuram	KothuruIII	1.00	72%	October – 2024 Civil Works 70% Completed Remaining Works in Progress
59	Naidupeta-II	Biradawada	0.90	Completed	Completed & Trial run heldup for went of sewage & Power Supply
60	Sullurupeta-II	Mannrupoluru	0.80	Completed	
61	Venkatagiri-II	Chevireddypalli	0.80	Completed	Operational

Sl. No	Name of the ULB	Name of the Location	Capacity in MLD	Physical Progress in %	Completion Timeline
62	Nellore	Akkacheruvupadu-II	1.60	Completed	Completed & Trial run heldup for went of sewage & Power Supply
63	Nellore	Kallurupalli-II	1.10	Completed	
64	Nellore	Kondlapudi II&III	1.20	Completed	
65	Kandukur	Uppucheruvu-I	1.40	Completed	Completed, but Trial run is in Progress.
66	Markapur	Pedanagulavaram Road -I	0.50	50%	December - 2024
67	Vizianagaram	Sonia nagar	0.50	Completed	Completed Trial run is in Progress
68	Nellimarla	Nellimarla	0.30	90%	Oct - 2024 Civil Works 90% Completed & STP structure completed except collection well. Media filling to be don
69	Rajam	Kancharam	0.20	90%	Oct - 2024 Civil Works 90% Completed & STP structure completed except collection well. Media filling to be done
70	Amadalavalasa	Byrsastrulla-pet	0.30	90%	
71	Bobbili	Bobbili	0.80	80%	Oct - 2024 Civil Works 80% Completed & remaing work in Progress.
72	Saluru	Saluru	0.60	Completed	Completed Trial run is in Progress.
73	Parvathipuram	Parvathipuram	0.40	85%	Oct - 2024 Civil Works 85% Completed & remaing work in Progress.
74	Tanuku	Indiramma Colony	0.20	10%	Aug - 2024
75	Tanuku	BalaBalaji	0.30	10%	Aug - 2024
76	Jangareddygudem	Markandeyapuram -II	0.40	30%	Aug - 2024

Sl. No	Name of the ULB	Name of the Location	Capacity in MLD	Physical Progress in %	Completion Timeline
77	Nidadavolu	Tirugudem -II	0.50	20%	Aug - 2024
78	Kovvuru	Pedathallapunta -II	0.30	10%	Aug - 2024
79	Eluru	Ponangi road	2.50	30%	Aug - 2024
80	Eluru	Kotturu road	0.20	30%	Aug - 2024
81	Vinukonda	Vellaturu road II	0.70	42%	Aug - 2024
82	Kanigiri	Chakirala -III	0.50	45%	Aug - 2024
83	Giddaluru	Modempalli -III	0.60	41%	Aug - 2024
84	Addanki	Singarakonda -III	0.50	45%	Aug - 2024
85	Nuziveedu	M.R. Apparao colony II	1.30	25%	Aug - 2024
86	Tiruvuru	PT Kotturu I	0.40	25%	Aug - 2024
87		PT Kotturu II	0.40	25%	Aug - 2024
88	Jaggaihpeta	Gurukulapathasala II	1.60	25%	Aug - 2024
89	Nandigama	Hanumanthupalem II	0.20	25%	Aug - 2024
90	Vuyyuru	Gemini School -II	0.90	25%	Aug - 2024
91	Vuyyuru	Gandigunta -II	0.30	25%	Aug - 2024
92	Vuyyuru	Raghava estates -II	0.10	25%	Aug - 2024
93	Adavitakkilapadu (Guntur)	Adavitakkilapadu	2.00	Completed	Completed
94	Kadapa	Chinnachowk -I	1.00	75%	Oct -2024
95	Kadapa	Chalamareddypalli -II	1.00	75%	Oct-2024
96	Jammalamadugu	Gudemcheruvu -II	1.00	73%	Oct-2024
97	Rayachoti	Sibyala -II	0.50	68%	Oct-2024
98	Yerraguntla	Yerraguntla road -II	1.00	75%	Oct-2024
99	Nandyal	Alyyalurimitta	1.00	75%	August - 2024
100	Allagadda	Chinthakuntla Village-III	0.60	75%	Nov - 2024
101	Tadipatri I &II	Gannavaripalli -I&II	2.75	Completed	Sep-2024
102	Dharmavaram	Regatipalli-II	0.75	72%	Sep-2024
103	Hindupur	Kotipi-II	0.70	72%	Sep-2024
104	Kadiri	Hindupur road-II	0.60	74%	Sep-2024

Sl. No	Name of the ULB	Name of the Location	Capacity in MLD	Physical Progress in %	Completion Timeline
105	Puttaparthi	Karnataka nagepalli-II	0.25	60%	Sep-2024
106	Ananthapur	Pandameru-3	1.25	70%	Sep-2024
107	Guntakal	Dhonimukkala-3	1.25	67%	Sep-2024
108	Raydurgam	Mallapuram-3	0.60	67%	Sep-2024
109	Ichapuram	Ichapuram	0.10	25%	Aug-2024
110	Palasa	Palasa	0.40	65%	Aug-2024
111	GVMC	Appikonda	0.40	65%	Aug-2024
112	GVMC	Mulagada	0.20	80%	Aug-2024
113	GVMC	Nadipur	0.50	65%	Aug-2024
114	GVMC	Sangivalasa	0.30	32%	Aug-2024
115	GVMC	Kondakoppaka	0.20	55%	Aug-2024
116	GVMC	Sirasapalli	0.30	80%	Aug-2024
117	GVMC	AtchauLova-1	1.00	60%	Aug-2024
118	GVMC	AtchauLova-2	1.00	60%	Aug-2024
119	Yelamanchili	Yelamanchili	0.20	Completed	Operational
120	Narsipatnam	Narsipatnam-1	0.60	60%	Nov-2024
121		Narsipatnam-2	0.30	60%	Nov-2024
122	CRDA	Ananthavaram	0.20	Completed	Completed.
123		Dondapadu	0.50		
124		Thulluru	0.20		
125		Mandadam	0.20		
126		Inavolu	0.30		
127		Nowluru	0.30		
128		Penumaka	0.30		
129		Nidamaru	0.30		
	Total		117.05		

III D) STATUS OF RIVER STRETCHES

- Central Pollution Control Board has newly identified 3 Nos., Polluted River Stretches i.e., Gosthani, Upputeru & Vasishta in Andhra Pradesh and also delisted 5 Polluted River Stretches, previously listed out.
- It is submitted that the River stretches of Gosthani & Upputeru reported by Central Pollution Control Board are within Rural areas. The BOD Level of Gosthani River stretch reported by CPCB is 8.6 and as per the Report of the A.P Pollution Control Board for June, 2024 , the BOD level of the said River stretch is 3.6, which is above the admissible level of 3.0 (Priority Class-IV).
- The BOD level of Upputeru River stretch reported by CPCB is 3.4 & as per the Report of the APPCB for the Month June,2024, the BOD level reported is 2.80 which is below admissible level of 3.0 (Priority Class-V).
- Regarding Vashista River, it is submitted that the Stretches (Locations) are Upstream of Narsapuram Town before confluence of town sewage (Code 4365) and Down Stream of Narsapuram Town after confluence of town sewage (Code 4366). In both the said two locations, the BOD levels observed by Central Pollution Control Board before confluence of the Town Sewage at Upstream of the River stretch is 5.9, which is above admissible level and after confluence of Town Sewage at Downstream of the River stretch is 58, which is above admissible level.

As per the Report given by the AP Pollution Control Board, Vijayawada for June, 2024, the BOD Level taken at the two identified Stretches of River Vashista for the i.e., Upstream and Downstream are 2.00 and 2.20 respectively (Codes:4365 & 4366), which are within the admissible levels prescribed i.e., 3.0.

It is submitted that at Downstream of Vashista River stretch, the BOD Level arrived is 58 during the year 2019, after confluence of town sewage. The BOD Values from the years 2021 to June,2024 (month-wise) are collected from AP Pollution Control Board, Vijayawada and it is observed that all the BOD values are within admissible levels (Below 3.0) for River Vashista stretch (Code 4366). (copies enclosed)

However, it is further submitted that one STP is taken up with a capacity of 8.00 MLD with an estimated cost of Rs.14.60 Crs under SBM 2.0 in Narsapuraram Municipality and Land Acquisition is under process.

III E) Status of STPs & NSTPs in the ULBs with below 1 Lakh Population:

State Level Technical Committee and State High Power Committee have approved the construction of STPs in ULBs with below 1 lakh population:

(There are 74 ULBs with below One lakh population)

- Proposed STPs in : 66 ULBs
- Proposed Capacity for the year 2040 : 569.00 MLD
- Total Project Cost : Rs.1445 Cr
- As mentioned above, City Sanitation Action Plans and DPRs for 74 ULBs were completed and submitted to Director, SBM & Director, CPHEEO, New Delhi for release of funds.
- ULBs with Below 1 Lakh Population - 91 ULBs (out of 91 ULBs, 15 are newly constituted ULBs). Out of 76, two ULBs are newly sanctioned and STPs will be taken after completion of detailed engineering.
- In 74 ULBs, 8 ULBs are excluded, as the STPs of 90 MLD capacities are being constructed with AIIB funds in Sullurpet, Nandikotkur, Allagadda, Madakasira and Kanigiri and State Special Grant in Pulivendula and Rayachoti. Puttaparthi is having 3 existing STPs.
- In 66 ULBs with a capacity of 569 MLD at a Total Project Cost of Rs.1445 Crs.
- 28 ULBs where Govt. land is available (covers 131.37 MLD) are formed into 8 Clusters. Tender process is completed in 8 clusters, Work Order issued and Agreement concluded.
- Private lands are available in 21 ULBs covering 136.34MLD, Cluster-9 to Cluster-13, these works are in tender stage. Details are as follows.

Cluster-Wise Abstract on STPs Under Construction:

Sl. No.	Cluster no.	No. of ULBs	Total No. of Projects (STP+NSTP)	Proposed Capacity (MLD)	Land available (in Ac)	Project Cost Rs.in Cr
1	Cluster 01	6	19 (1-STP, 18-NSTPs)	7.58	3.38	13.428
2	Cluster 02	4	8 (6-STPs, 2-NSTPs)	18.04	8.62	29.792
3	Cluster 03	3	5 (4-STPs, 1-NSTP)	22.54	9.07	37.245
4	Cluster 04	3	3 (3-STPs)	14.10	4.17	23.265
5	Cluster 05	2	4 (1-STP, 3-NSTPs)	8.45	3.64	14.172

6	Cluster 06	4	6 (2-STPs, 4-NSTPs)	19.23	7.84	32.074
7	Cluster 07	2	3 (3-STPs)	22.90	8.51	37.785
8	Cluster 08	4	5 (2-STPs, 3-NSTPs)	18.53	7.48	30.813
Totals		28	53 (22-STPs & 31-NSTPs)	131.37	52.71	218.573

Cluster 1 Details:

District Name	Name of the ULB	Total No. of Projects (STP+NSTP)	Proposed Capacity (MLD)
Srikakulam	Amadalavalasa	NSTP 02	0.142
		NSTP 05	0.180
		NSTP 06	0.186
		NSTP 07	0.101
		NSTP 08	0.277
	Ichapuram	NSTP 01	0.778
		NSTP 02	0.371
PalasaKasibugga	NSTP 03	0.014	
Vizianagaram	Bobbili	STP 01	3.5
		NSTP 01	0.151
		NSTP 02	0.157
		NSTP 04	0.203
		NSTP 05	0.065
		NSTP 06	0.066
Anakapalli	Narsipatnam	NSTP 02	0.244
	Yellamanchali	NSTP 01	0.400
		NSTP 02	0.500
		NSTP 05	0.109
		NSTP 11	0.138
			7.58

Cluster 02 Details:

Kakinada	Pithapuram	STP 01	1.100
		STP 02	1.000
East Godavari	Nidadavole	STP 01	3.700
		STP 02	3.000
West Godavari	Palacole	STP 01	5.100
		STP 02	4.000
	Tanuku	NSTP 01	0.066
		NSTP 02	0.071
	Total		18.04

Cluster 03 Details:

NTR District	Tiruvuru	NSTP 03	0.240
Palnadu	Piduguralla	STP 01	5.900
		STP 02	5.200
	Vinukonda	STP 01	5.700
		STP 02	5.500
	Total		22.54

Cluster 04 Details:

Prakasam	Giddalur	STP 01	6.100
Baptla	Bapatla	STP 01	3.000
	Chirala	STP 02	5.000
	Total		14.10

Cluster 05 Details:

Nandyal	Atmakur	NSTP 01	0.586
		NSTP 02	0.181
		NSTP 03	0.253
YSR Kadapa	Jammalamadugu	STP 01	7.430
	Total		8.45

Cluster 06 Details:

YSR Kadapa	Badvel	NSTP 01	0.243
		NSTP 02	0.654
		NSTP 03	0.447
	Mydukur	STP 01	8.100
SPS Nellore	Kandukur	STP 01	9.600
	Atmakur	NSTP 03	0.186
	Total		19.23

Cluster 07 Details:

Ananthapur	Gooty	STP 01	3.600
		STP 02	4.400
Sri Satya Sai	Kadiri	STP 01	14.900
	Total		22.90

Cluster 08 Details:

Tirupati	Gudur	NSTP 01	0.106
	Venkatagiri	STP 01	9.580
	Naidupet	STP 01	7.900
		NSTP 01	0.788
Chittoor	Punganur	NSTP 02	0.157
	Total		18.53

Details of Cluster 9 to Cluster 13 Under Tender stage are as follows:

Cluster 09 Details:

1	Amadalavalasa	STP 04	1.000	0.40	1.65	Tender Stage
2	Ichapuram	STP 01	4.800	1.92	7.92	
3	Salur	STP 01	7.500	2.55	12.38	
4	Narasipatnam	STP 01	4.800	1.92	7.92	
	Sub Total	4 STPs	18.10	6.79	29.87	

Cluster 10 Details:

5	Yeleswaram	STP 01	4.700	2.00	7.76	Tender Stage
6	Amalapuram	STP 01	7.400	2.96	12.21	
7	Ramachandrapuram	STP 01	6.700	2.55	11.06	
8	Jangareddygudem	STP 01	5.00	2.94	8.25	
	Sub Total	4 STPs	23.80	10.45	39.27	

Cluster 11 Details:

9	Macherla	STP 01	9.900	5.00	16.34	Tender Stage
10	Sattenapalli	STP 01	9.470	4.00	15.63	
11	Nandigama	STP 02	2.770	1.52	4.57	
12	Addanki	STP 01	7.000	3.00	11.55	
13		STP 02	2.400	1.50	3.96	
	Sub Total	5 STPs	31.54	15.02	52.04	

Cluster 12 Details:

13	Markapur	STP 01	12.400	5.00	20.46	Tender Stage
14	Chimakurthy	STP 01	5.900	2.36	9.74	
15	Gudur	STP 01	7.400	2.96	12.21	
16	Punganur	STP 02	4.200	1.68	6.93	
17	Palamaneru	STP 01	8.700	3.48	14.36	
18	Nagari	STP 01	7.000	2.80	11.55	
	Sub Total	6 STPs	45.60	18.28	75.24	

Cluster 13 Details:

19	Dhone	STP 01	11.300	3.46	18.65	Tender Stage
20	Gudur	STP 01	3.800	1.52	6.27	
21	Yerraguntla	STP 02	2.200	2.20	3.63	
	Sub Total	3 STPs	17.300	7.180	28.55	
	Total	22 STPs	136.34	57.72	224.96	
Grand Total		75 (44 STPs & 31 NSTPs)	267.71	110.43	443.53	

Government have issued instructions to Municipal Commissioners to identify suitable lands required for construction of STPs & NSTPs. To speed up the Land Acquisition, necessary orders are also issued to the District Collectors to acquire the private land thro' Voluntary Acquisition (Sale) of Land Scheme/Programme.

The Finance Department has advised to take up the construction uniformly across the State with first phase budget outlay of Rs.50 Crs. The Government accorded administrative sanction vide G.O.Rt.No.227, dated 10.04.2023 of MA & UD Department to initiate Land Acquisition in 22 ULBs (Ac 59.65 cents), under Phase-I to construct STPs/NSTPs. The District Collectors were also requested to initiate the Land Acquisition process for Ac.59.65 cents and give advance possession of Ac.61.83 cents of Government lands and other department lands to ULBs.

IV. Details of Industrial Pollution:

- No. of Industries in the State: 10015 Nos.
- No. of water polluting industries in the State: 1488 Nos.
- Quantity of effluent generated from the industries in MLD: 5373.196

Effluent Break-Up Details:

- Once through Cooling water: 3826.13 MLD
- Trade effluents: 450.185 MLD
- Cooling tower/Boiler blow down: 928.573 MLD
- Domestic waste water: 168.308 MLD

Out of the total waste water generation from the industries, major portion is once through cooling water (about 71.21%) 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 17.28%).
- The remaining about 11.51% 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: 1114 No's
- Number of industrial units connected to CETP: 367 No's
 - i. Existing: 1112 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. Number and total capacity of CETPs (details of existing/ under construction / proposed).

- Existing: 9 No's with total capacity of 22.80 MLD
- CETP of 1.5 MLD proposed at Visakhapatnam: APIIC has invited bids for establishment of CETP on Design, Built, Finance, Operate and Transfer model for a total capacity of 7.00 MLD in phased manner. In first phase 2.00 MLD CETP has to be developed with a brown field capacity. Tenders invited and bidders participated in the bid but due to technical reasons bids were cancelled. Again tenders need to be invited for expansion of CETP.

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
1.	Brandix India Apparel City Private Limited, APSEZ, Atchutapuram Pudimadaka Road, Visakhapatnam.	20.00	4.624	Textile park- 14 units (Marine outfall)	Complied
2.	Visakha Pharamcity (Formerly) M/s RamkyPharma City (India) Ltd, JN PharmaCity, Parawada Mandal, Visakhapatnam.	9.53	4.698	Pharmaceutical & Bulk drugs – 92 units (Marine outfall)	Complied
3.	Atchuthapuram Effluent Treatment Plant, Atchutapuram Visakhapatnam.	1.5	0.673	Pharmaceutical & Bulk drugs, other units – 45 (Marine outfall)	Complied
4.	Kondapally Envirotech Pvt. Ltd., (KEPL), IDA, Kondapalli(V), Ibrahimpatnam (M), Krishna District.	0.2	0.1738	Pharmaceutical & Bulk drugs- 14 units (ZLD) (Reused in cooling towers of CETP and in member industries)	Complied
5.	Vijayawada Auto Cluster Development Company, Industrial Estate, Auto Nagar, Vijayawada.	0.2	0.0231	Food beverages, Herbal pharma, Oil solvents & lubricants - 35 units (For Green belt development)	Complied
6.	Machilipatnam Imitation Jewellery Park Pvt. Ltd., Jewellery Park, Potheipalli, Machilipatnam.	0.07	0.00028	Electro Plating – 48 Units (ZLD)	Complied
7.	Nagari Dyeing Owners Association, Chinthalapatteda (V), Nagari (M), Chittoor District.	4	0.435	Manual Dyeing units - 90 units (After treatment , shell be discharged into open channel)	Complied

8.	M/s. Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC), MPSEZ, Menakuru (V), Naidupet (M), SPSR Nellore	1.0	0.105	Pharmaceutical – 17 units (After treatment , recycled into Various Units)	Complied.
9.	M/s. APIIC Mega Food Park, CETP (Phase-I), Sy.No.11, Mallavalli (V), Bapulapadu (M), Krishna District.	0.3	0	1 Unit (Onland for irrigation)	It is under stabilization
	Total	36.80	10.732		

V. Solid Waste Management:

- Number of Urban Local Bodies : 123
- Current Municipal Solid Waste Generation: **6890** TPD
- Percentage of collection of Segregated Waste from Source is 98.25.
- Percentage of door to door garbage collection 100.
- Interim Plan is being implemented to provide immediate solution to Solid Waste Management in all ULBs to process & treat the wet, dry & combustible wastes.

Door to Door Garbage collection & Source Segregation

- No. of wards in 123 ULBs : 3928
- No. of wards with door to door garbage collection system: 3928
- No. of wards practicing segregation of waste at source: 3859
- 1.21 crores Dustbins in three Colors (3 Bins to each household) have been distributed free of cost to encourage segregation at household level.

Waste to Energy Projects

- There are two Waste to Energy Plants established in Visakhapatnam & Guntur with 15 MW capacity each, which are functional, treating 1800 TPD of the Waste from 80 ULBs (Vishakhapatnam – 27 ULBs & Guntur 53 ULBs – Combustible Waste).
- For Disposal of Combustible Waste, 43 ULBs are mapped to 5 Cement Plants to treat 355 TPD.

Wet Waste Processing Plants

- Total 46 Nos. Waste to Compost Plants, Bio-methanation Plants and ISWM Plants are established covering 55 ULBs. Out of which 33 Nos. are Waste to Compost Plants, 4 Nos. are Bio-CNG plants & 9 Nos. are Integrated Solid Waste Management Plants.

- 33 Nos. Waste to Compost Plants are established covering 37 ULBs and quantity of waste being treated is 1391 TPD.
- 4 Bio-CNG Plants are established covering 8 ULBs & quantity of waste being treated is 175 TPD.
- 9 Nos. Integrated Solid Waste Management Projects are established covering 10 ULBs & quantity of waste being treated is 380 TPD.
- There are 68 Nos. Windrow Composting Units in 68 ULBs processing Wet Waste of 1844 TPD, as an interim measure, till the establishment of ISWM Projects/Waste to Compost Plants/Bio-CNG Plants are established.
- Total 12 Waste to Compost/Bio-methanation Plants (10 Waste to Compost & 2 Bio-methanation) covering 12 ULBs are in progress with an installed capacity of 391 TPD.
- Work Orders issued to 37 Integrated Solid Waste Management Projects covering 51 ULBs. Out of these, 9 Plants are completed & functional, covering 10 ULBs.
- Compost produced is being sold to farmers by Processing Plant Developers & in ULB operated Plants, Compost is being used in Parks, Greenery in Central Medians, Avenue Plantation etc.
- CNG gas produced is being sold to Commercial establishments like Hotels, Restaurants etc.,

Material Recovery facilities (MRFs)

- MRFs already established in 3 Nos. (GVMC, Vijayawada & Tirupathi Municipal Corporations). Construction of MRFs is in progress in 40 ULBs. Tenders to be called for in 62 ULBs. In remaining 18 ULBs, ISWM Plants proposed in which MRFs facilities will be provided.
- Material Recovery facilities have been established as an interim measure in 120 ULBs to process the dry waste @ 945 TPD, till establishment of MRFs/ISWM Plants is completed.
- Sorted out recyclables are being sold to identified Recyclers by the ULBs.

Thus, the total waste generated i.e., 6890 MTs is being treated with the existing processing facilities established in the ULBs.

Construction & Demolition Waste Processing Plants

- Construction & Demolition waste Processing Plants are established in Greater Visakhapatnam Municipal Corporation, Vijayawada Municipal Corporation and Tirupati Municipal Corporation for treatment of C&D waste and utilizing the processed

C&D Waste as paver blocks in footpath works, sand in building/road works. The Paver Blocks & sand are being sold to private agencies/contractors.

- In Kakinada & Kurnool Municipal Corporations, Crushing Units are established by ULBs. Fly Ash Bricks & 20 mm metal are being manufactured in Kurnool and being sold to private agencies & contractors. In Kakinada the crushed C&D Waste being used to fill the low-lying areas.

Bio-Remediation of Legacy Waste

- Dumpsites with an area of 1011 Acres are existing in the ULBs.
- Out of 32 ULBs under the category of above 1 Lakh Population, Bio-remediation was completed in 10 ULBs i.e., completed in Vijayawada, Tirupati, Ananthapuramu, Ongole, Machilipatnam Municipal Corporations, Dharmavaram, Guntakal, Chilakalurpet Tadepalligudem & Gudivada Municipalities.
- Work is under progress in remaining 22 ULBs.
- Out of 91 ULBs under the category of below 1 Lakh population, Bio remediation was completed in 10 ULBs i.e., Nuzvidu, Yelamanchili, Kovvur, Pulivendula, Badvel, Rayachoti , Mydukur , Mangalagiri – Tadepalli, Kondapalli & Palacole.
- Work is in progress in the remaining 81 ULBs.
- So far, 41.34 lakh Tons of Legacy Waste has been treated, out of 85.00 Lakh Tons of estimated quantity.

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	19.00	Existing WtC	11.00	100%	WtE Vizag	6.00	Established	2.00	100%
2	Ichchapuram	18.00	Existing WtC	11.00	100%	WtE Vizag	6.00	Established	1.00	100%
3	Palasa- kasibugga	28.00	Existing WtC	18.00	100%	WtE Vizag	10.00	Established	1.00	100%
4	Rajam	21.00	Existing WtC	12.00	100%	WtE Vizag	7.00	Established	2.00	100%
5	Bobbili	29.00	Existing WtC	18.00	100%	WtE Vizag	12.00	Established	1.00	100%
6	Salur	24.00	Existing WtC	18.00	100%	WtE Vizag	7.00	Established	1.00	100%
7	GVMC	918.00	Existing WtC	520.00	100%	WtE Vizag	353.00	Established	46.00	100%
8	Narsipatnam	30.00	Existing WtC	16.00	100%	WtE Vizag	12.00	Established	2.00	100%
9	Yellamanchili	23.00	Existing WtC	13.00	100%	WtE Vizag	8.00	Established	2.00	100%
10	Adoni	81.00	Existing CNG	23.00	100%	Connected to Cement Factories	14.00	Established	44.00	100%

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
11	Nuzivid	29.00	Existing WtC	16.00	100%	WtE Guntur	10.00	Established	3.00	100%
12	Tiruvuru	17.00	Existing WtC	9.00	100%	WtE Guntur	6.00	Established	2.00	100%
13	Tenali	80.00	Existing WtC	44.00	100%	WtE Guntur	32.00	Established	4.00	100%
14	Sattenpalle	28.00	CNG - Piduguralla	13.00	100%	WtE Guntur	10.00	Established	5.00	100%
15	Narsaraopet	57.00	CNG - Piduguralla	13.00	100%	WtE Guntur	30.00	Established	14.00	100%
16	Piduguralla	31.00	Existing CNG	13.00	100%	WtE Guntur	12.00	Established	6.00	100%
17	Allagadda	20.00	Existing WtC	11.00	100%	Connected to Cement Factories	4.00	Established	5.00	100%
18	Rayadurgam	30.00	Existing WtC	18.00	100%	Connected to Cement Factories	4.00	Established	8.00	100%
19	Puttaparty	15.00	Existing WtC	8.00	100%	Connected to Cement Factories	3.00	Established	4.00	100%
20	Yemmiganur	46.00	CNG – Adoni	23.00	100%	Connected to Cement Factories	8.00	Established	15.00	100%
21	Anantapur	131.00	Windrow composting	81.00	100%	Connected to Cement Factories	20.00	Established	30.00	100%
22	Atmakur K	22.00	Windrow composting	13.00	100%	Connected to Cement Factories	3.00	Established	6.00	100%

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
23	Badvel	35.00	ISWM Functional	20.00	100%	Connected to Cement Factories	6.00	Established	9.00	100%
24	Dhone	29.00	Windrow composting	18.00	100%	Connected to Cement Factories	5.00	Established	6.00	100%
25	Markapur	35.00	Existing WtC	19.00	100%	WtE Guntur	14.00	Established	2.00	100%
26	Giddalur	19.00	Existing WtC	11.00	100%	Connected to Cement Factories	3.00	Established	5.00	100%
27	Kanigiri	22.00	Existing WtC	12.00	100%	WtE Guntur	8.00	Established	2.00	100%
28	Chirala	42.00	Existing WtC	25.00	100%	WtE Guntur	15.00	Established	2.00	100%
29	Gudivada	58.00	Windrow composting	32.00	100%	WtE Guntur	23.00	Established	3.00	100%
30	Palamaneru	25.00	Existing WtC	15.00	100%	Connected to Cement Factories	3.00	Established	7.00	100%
31	Punganur	27.00	Existing WtC	16.00	100%	Connected to Cement Factories	4.00	Established	7.00	100%
32	Madanpalle	67.00	Existing CNG	29.00	100%	Connected to Cement Factories	11.00	Established	28.00	100%
33	Sullurpet	22.00	Existing WtC	12.00	100%	WtE Guntur	7.00	Established	3.00	100%
34	Srikakulam	65.00	ISWM Functional	35.00	100%	WtE Vizag	26.00	Established	3.00	100%

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	16.00	Windrow composting	8.00	100%	WtE Vizag	6.00	Established	2.00	100%
36	Vizianagaram	119.00	ISWM Functional	65.00	100%	WtE Vizag	48.00	Established	6.00	100%
37	Parvathipuram	26.00	Windrow composting	14.00	100%	WtE Vizag	9.00	Established	3.00	100%
38	Nellimarla	14.00	Windrow composting	8.00	100%	WtE Vizag	5.00	Established	1.00	100%
39	Gudur N	36.00	Windrow composting	19.00	100%	Connected to Cement Factories	13.00	Established	4.00	100%
40	Guntakal	62.00	Windrow composting	32.00	100%	Connected to Cement Factories	11.00	Established	19.00	100%
41	Jaggaihpeta	26.00	Windrow composting	14.00	100%	WtE Guntur	8.00	Established	4.00	100%
42	Jammalamadugu	22.00	Existing WtC	12.00	100%	Connected to Cement Factories	4.00	Established	6.00	100%
43	Pedana	16.00	Windrow composting	9.00	100%	WtE Guntur	5.00	Established	2.00	100%
44	Vuyyuru	20.00	Windrow composting	11.00	100%	WtE Guntur	6.00	Established	3.00	100%
45	Guntur	363.00	Windrow composting	200.00	100%	WtE Guntur	145.00	Established	18.00	100%
46	Mangalagiri - Tadepalle	70.00	Windrow composting	38.00	100%	WtE Guntur	28.00	Established	4.00	100%

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
47	Ponnur	29.00	Existing WtC	16.00	100%	WtE Guntur	9.00	Established	4.00	100%
48	Chilakaluripet	49.00	Windrow composting	27.00	100%	WtE Guntur	20.00	Established	2.00	100%
49	Bapatla	34.00	Windrow composting	19.00	100%	WtE Guntur	10.00	Established	5.00	100%
50	Repalle	25.00	Existing WtC	13.00	100%	WtE Guntur	8.00	Established	4.00	100%
51	Vinukonda	30.00	ISWM Functional	16.00	100%	WtE Guntur	9.00	Established	5.00	100%
52	Macherla	28.00	Existing WtC	19.00	100%	WtE Guntur	8.00	Established	1.00	100%
53	Kadapa	167.00	Windrow composting	93.00	100%	Connected to Cement Factories	28.00	Established	46.00	100%
54	Dharmavaram	62.00	Windrow composting	35.00	100%	Connected to Cement Factories	11.00	Established	16.00	100%
55	Kadiri	43.00	Windrow composting	24.00	100%	Connected to Cement Factories	7.00	Established	12.00	100%
56	Gooty	24.00	Windrow composting	13.00	100%	Connected to Cement Factories	4.00	Established	7.00	100%
57	Hindupur	74.00	Windrow composting	40.00	100%	Connected to Cement Factories	13.00	Established	21.00	100%
58	Kurnool	224.00	Windrow composting	128.00	100%	Connected to Cement Factories	36.00	Established	60.00	100%

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
59	Kalyandurgam	21.00	WtC Functional	11.00	100%	Connected to Cement Factories	4.00	Established	6.00	100%
60	Madakasira	12.00	Windrow composting	7.00	100%	Connected to Cement Factories	2.00	Established	3.00	100%
61	Machilipatnam	89.00	Windrow composting	49.00	100%	WtE Guntur	36.00	Established	4.00	100%
62	Mydukur	22.00	Windrow composting	12.00	100%	Connected to Cement Factories	3.00	Established	7.00	100%
63	Nandigama	22.00	Windrow composting	12.00	100%	WtE Guntur	7.00	Established	3.00	100%
64	Nandikotkur	23.00	Windrow composting	13.00	100%	Connected to Cement Factories	4.00	Established	6.00	100%
65	Gudur K	14.00	Windrow composting	8.00	100%	Connected to Cement Factories	2.00	Established	4.00	100%
66	Nandyal	98.00	Windrow composting	59.00	100%	Connected to Cement Factories	16.00	Established	23.00	100%
67	Proddutur	79.00	Windrow composting	44.00	100%	Connected to Cement Factories	13.00	Established	22.00	100%
68	Pulivendula	32.00	Existing WtC	19.00	100%	Connected to Cement Factories	5.00	Established	8.00	100%
69	Rajahmundry	168.00	ISWM Functional	92.00	100%	WtE Vizag	67.00	Established	8.00	100%
70	Rajampeta	23.00	Windrow composting	13.00	100%	Connected to Cement Factories	4.00	Established	6.00	100%

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
71	Rayachoti	44.00	ISWM Functional	26.00	100%	Connected to Cement Factories	7.00	Established	11.00	100%
72	Tadipatri	53.00	Existing WtC	31.00	100%	Connected to Cement Factories	9.00	Established	13.00	100%
73	Tirupati	208.00	Existing CNG	110.00	100%	Connected to Cement Factories	35.00	Established	63.00	100%
74	Ongole	123.00	Windrow composting	68.00	100%	WtE Guntur	49.00	Established	6.00	100%
75	Chimakurthy	17.00	Existing WtC	9.00	100%	WtE Guntur	5.00	Established	3.00	100%
76	Addanki	20.00	Existing WtC	11.00	100%	WtE Guntur	6.00	Established	3.00	100%
77	Kandukur	28.00	Windrow composting	14.00	100%	WtE Guntur	10.00	Established	4.00	100%
78	Kakinada	159.00	ISWM Functional	87.00	100%	WtE Vizag	64.00	Established	8.00	100%
79	Vijayawada	507.00	Existing WtC	290.00	100%	WtE Guntur	203.00	Established	25.00	100%
80	Gollaprolu	11.00	Windrow composting	6.00	100%	WtE Vizag	3.00	Established	2.00	100%
81	Pithapuram	25.00	Windrow composting	13.00	100%	WtE Vizag	8.00	Established	4.00	100%
82	Peddapuram	24.00	Windrow composting	13.00	100%	WtE Vizag	7.00	Established	4.00	100%

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
83	Samalkota	28.00	Windrow composting	16.00	100%	WtE Vizag	8.00	Established	4.00	100%
84	Yeleswaram	16.00	Windrow composting	9.00	100%	WtE Vizag	5.00	Established	2.00	100%
85	Ramachandrapuram	21.00	Windrow composting	12.00	100%	WtE Vizag	6.00	Established	3.00	100%
86	Mandapeta	26.00	Windrow composting	14.00	100%	WtE Vizag	8.00	Established	4.00	100%
88	Tuni	12.00	Windrow composting	6.00	100%	WtE Vizag	4.00	Established	2.00	100%
88	Mummidivaram	26.00	Windrow composting	14.00	100%	WtE Vizag	8.00	Established	4.00	100%
89	Amalapuram	26.00	Existing WtC	14.00	100%	WtE Vizag	8.00	Established	4.00	100%
90	Eluru	106.00	Windrow composting	59.00	100%	WtE Guntur	42.00	Established	5.00	100%
91	Tadepalligudem	51.00	Windrow composting	28.00	100%	WtE Guntur	20.00	Established	3.00	100%
92	Tanuku	44.00	Windrow composting	24.00	100%	WtE Guntur	13.00	Established	7.00	100%
93	Palakollu	33.00	Windrow composting	18.00	100%	WtE Guntur	10.00	Established	5.00	100%
94	Narsapuram	29.00	Windrow composting	16.00	100%	WtE Guntur	9.00	Established	4.00	100%

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
95	Bhimavaram	69.00	Windrow composting	38.00	100%	WtE Guntur	28.00	Established	3.00	100%
96	Nidadavole	21.00	Windrow composting	12.00	100%	WtE Guntur	6.00	Established	3.00	100%
97	Kovvur	19.00	Clustered with ISWM Rajahmundry	10.00	100%	WtE Vizag	6.00	Established	3.00	100%
98	JangareddyGudem	26.00	Windrow composting	14.00	100%	WtE Guntur	8.00	Established	4.00	100%
99	Chittoor	92.00	Windrow composting	55.00	100%	Connected to Cement Factories	16.00	Established	21.00	100%
100	SriKalahasti	39.00	Windrow composting	23.00	100%	Connected to Cement Factories	7.00	Established	9.00	100%
101	Nagari	30.00	Windrow composting	17.00	100%	Connected to Cement Factories	6.00	Established	7.00	100%
102	Puttur	26.00	Windrow composting	15.00	100%	Connected to Cement Factories	5.00	Established	6.00	100%
103	Nellore	300.00	Windrow composting	165.00	100%	WtE Guntur	120.00	Established	15.00	100%
104	Venkatagiri	25.00	ISWM Functional	13.00	100%	WtE Guntur	8.00	Established	4.00	100%
105	Yerraguntla	17.00	Windrow composting	10.00	100%	Connected to Cement Factories	4.00	Established	3.00	100%
106	Naidupet	22.00	Windrow composting	12.00	100%	WtE Guntur	7.00	Established	3.00	100%

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
107	Atmakur N	15.00	Windrow composting	8.00	100%	WtE Guntur	5.00	Established	2.00	100%
108	Kavali	51.00	Windrow composting	28.00	100%	WtE Guntur	20.00	Established	3.00	100%
109	Kondapalli	21.00	ISWM Functional	12.00	100%	WtE Guntur	6.00	Established	3.00	100%
110	Akiveedu	11.00	Windrow composting	6.00	100%	WtE Guntur	2.00	Established	3.00	100%
111	Dachepali	11.00	Clustered with Existing Bio CNG Piduguralla	6.00	100%	WtE Guntur	3.00	Established	2.00	100%
112	Gurazala	9.00	Clustered with Existing WtC, Macherla	5.00	100%	WtE Guntur	3.00	Established	1.00	100%
113	Darsi	12.00	Windrow composting	6.00	100%	WtE Guntur	4.00	Established	2.00	100%
114	BuchireddyPalem	12.00	Windrow composting	6.00	100%	WtE Guntur	4.00	Established	2.00	100%
115	Penukonda	10.00	Clustered with Existing WtC, Puttaparthi	5.00	100%	Connected to Cement Factories	2.00	Established	3.00	100%
116	Bethamcharla	14.00	Windrow composting	9.00	100%	Connected to Cement Factories	2.00	Established	3.00	100%
117	Kamlapuram	7.00	Windrow composting	4.00	100%	Connected to Cement Factories	1.00	Established	2.00	100%

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
118	Kuppam	15.00	Windrow composting	9.00	100%	Connected to Cement Factories	3.00	Established	3.00	100%
119	Y.S.R. - Tadigadapa	29.00	Clustered with Existing WtC, Vijayawada	19.00	100%	WtE Guntur	9.00	Established	1.00	100%
120	Chintalapudi	4.00	Windrow composting	4.00	100%	WtE Guntur	1.00	Established	1.00	100%
121	Podili	6.00	Clustered with Existing WtC, Kanigiri	5.00	100%	WtE Guntur	2.00	Established	1.00	100%
122	Alluru	9.00	Windrow composting	5.00	100%	WtE Guntur	3.00	Established	1.00	100%
123	B.KothaKota	6.00	Windrow composting	3.00	100%	Connected to Cement Factories	1.00	Established	2.00	100%

VI. Bio-medical Waste Management:

- Total Bio-medical waste generation: 16 Tonns/Day
- No. of Hospitals and Health Care Facilities: 14,956 Nos.

Status of Treatment Facility/ CBMWTF	:	Presently, there are 13 Nos. of Common Bio-medical Waste Treatment and disposal 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 is about: 48,460.81 Tones during the month of June, 2024 and cumulative quantity (April 2022 to June 2024) is approximately 12,15,719.0695 Tones.
- No of industries generating Hazardous Waste: 2854 Nos as per Hazardous Waste inventory, 2022-23.
- **For the month of June, 2024, the Quantity of Hazardous Waste Treated & Disposed is as follows:**
 - i) Utilizable waste is 32645.87 TPM (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 2954.91 TPM (suitable for recycling /recovery of material viz. oil reclamation units, lead and zinc recovery units).
 - iii) Incinerable waste is 256.34 TPM (not suitable for any recycling / reuse and having high calorific value i.e. > 2500 K cal/kg) and
 - iv) Land fillable waste is 12603.68 TPM (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 common 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.

VIII. Plastic Waste Management:

Total Plastic Waste Generation	64339.412 TPA (As per Annual Report for the F.Y. 2022-23).																
Implementation of Plastic Waste Management Rules, 2016 in Urban Local Bodies	144 Nos of Producers and 93 Importers, 66 Brand owners& 59 Nos of plastic waste processors are registered in the EPR Portal of CPCB. - The State has released G.O.Ms.No.81, dated 29.11.2022 for implementation of identified Banned Single Use Plastic (SUP) by designating enforcement authorities and stipulating penalties foe effective enforcement of PWM Rules. - APPCB along with stake holding depts. has conducted 1,28,401 Special Inspection Drives from July 2022 to March 2024 & seized 87,678 Kgs of banned SUP material and levied Rs.325.76 Lakhs on violators. - Instructions have been issued to the urban local bodies to continu special inspection drives upto June 2024. - Communicated Draft SOP on Characterization and Assessment of Plastic Waste Generation in the state to the stakeholder's departments. - The status of EPR Target fulfillment by PIBOs and Credit generation by PIBOs during the F.Y.2022-2023 is as follows:																
	<table><tr><th>Type of Entity</th><th>No.of Registrstions</th><th>No. of Units Fulfilled EPR Target</th></tr><tr><td>Producer</td><td>122</td><td>61 (9271.14 Tonnes)</td></tr><tr><td>Brand Owners</td><td>42</td><td>23 (15129.39 Tonnes)</td></tr><tr><td>Importer</td><td>26</td><td>17 (273.54 Tonnes)</td></tr></table>	Type of Entity	No.of Registrstions	No. of Units Fulfilled EPR Target	Producer	122	61 (9271.14 Tonnes)	Brand Owners	42	23 (15129.39 Tonnes)	Importer	26	17 (273.54 Tonnes)				
	Type of Entity	No.of Registrstions	No. of Units Fulfilled EPR Target														
	Producer	122	61 (9271.14 Tonnes)														
	Brand Owners	42	23 (15129.39 Tonnes)														
	Importer	26	17 (273.54 Tonnes)														
	<table><tr><th>Type of Entity</th><th>No.of Registrstions</th><th>No of Units generated EPR credits</th><th>Quantity of EPR Credits Generated (in Tonnes)</th></tr><tr><td>Recycler</td><td>46</td><td>07</td><td>5836</td></tr><tr><td>Cement Co-Processing</td><td>08</td><td>06</td><td>87113</td></tr><tr><td>Waste to Energy</td><td>02</td><td>--</td><td>--</td></tr></table>	Type of Entity	No.of Registrstions	No of Units generated EPR credits	Quantity of EPR Credits Generated (in Tonnes)	Recycler	46	07	5836	Cement Co-Processing	08	06	87113	Waste to Energy	02	--	--
Type of Entity	No.of Registrstions	No of Units generated EPR credits	Quantity of EPR Credits Generated (in Tonnes)														
Recycler	46	07	5836														
Cement Co-Processing	08	06	87113														
Waste to Energy	02	--	--														

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

No. of Completed FSTPs : 7 (115 KLD)

No. of In-progress FSTPs : 84 (1200 KLD)

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
6	Dhone	20	Completed
7	Markapur	20	Completed
Total		115	

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

S.No	Name of the ULB	Plant Capacity (in KLD)	Expected Date of Completion
1	Gooty	15	30% Work Completed Sep-2024
2	Jammalamadugu	15	25% Work Completed Sep-2024
3	Kadiri	25	75% Work Completed August-2024
4	Kalyanadurgam	10	Dec-2024
5	Madakasira	5	Dec-2024
6	Pulivendula	20	98% Work completed August- 2024
7	Puttaparthi	10	Dec-2024
8	Rayachoti	25	98% Work completed August-2024
9	Rayadurg	20	Dec-2024
10	Allagadda	10	Dec-2024
11	Atmakur (K)	15	Dec-2024

S.No	Name of the ULB	Plant Capacity (in KLD)	Expected Date of Completion
12	Badvel	25	Dec-2024
13	Gudur (K)	5	Dec-2024
14	Mydukuru	15	Dec-2024
15	Nandikotkur	15	Dec-2024
16	Yelamanchili	15	Dec-2024
17	Punganur	15	90% Work completed August-2024
18	Rajampeta	15	Dec-2024
19	Yerraguntla	10	Dec-2024
20	Atmakur (N)	10	Dec-2024
21	Giddalur	10	Dec-2024
22	Gudur (TPT)	20	40% Work completed August -2024
23	Kandukur	20	15% Work completed August -2024
24	Kanigiri	15	15% Work completed August -2024
25	Nagari	20	35% Work completed September -2024
26	Naidupet	15	Dec-2024
27	Puttur	15	Dec-2024
28	Sullurpeta	15	25% Work Completed September -2024
29	Venkatagiri	15	30% Work completed September -2024
30	Addanki	10	Dec-2024
31	Bapatla	25	75% work Completed August -2024
32	Chimakurthy	10	Dec-2024
33	Chirala	25	80% work Completed August -2024
34	Macherla	15	15% Work Completed October -2024
35	Mangalagiri	25	Dec-2024
36	Piduguralla	15	10% Work Completed October -2024

S.No	Name of the ULB	Plant Capacity (in KLD)	Expected Date of Completion
37	Ponnur	15	85% work Completed August -2024
38	Repalle	15	Dec-2024
39	Sattenapalli	15	Dec-2024
40	Salur	15	Dec-2024
41	Amalapuram	15	Dec-2024
42	Gollaprolu	5	Dec-2024
43	Kovvur	10	Dec-2024
44	Mandapeta	15	Dec-2024
45	Mummidivaram	10	Dec-2024
46	Peddapuram	15	50% Work completed September -2024
47	Pithapuram	15	20% Work completed September -2024
48	Ramachandrapuram	15	20% Work completed October -2024
49	Samalkota	15	Dec-2024
50	Tuni	15	Dec-2024
51	Yeleshwaram	10	20% Work completed October -2024
52	Amudalavalasa	10	Dec-2024
53	Parvathipuram	15	Dec-2024
54	Ichapuram	10	Dec-2024
55	Narsipatnam	20	Dec-2024
56	Nellimarla	10	Dec-2024
57	Palakonda	10	Dec-2024
58	Palasa-Kasibugga	15	Dec-2024
59	Kondapalli	20	25% Work completed September -2024
60	Jaggiahpetta	15	35% Work completed September -2024
61	Nandigama	15	30% Work completed September -2024
62	Jangareddigudem	15	Dec-2024
63	Nidadavolu	15	Dec-2024
64	Palacole	25	Dec-2024

S.No	Name of the ULB	Plant Capacity (in KLD)	Expected Date of Completion
65	Pedana	10	Dec-2024
66	Tadepalli	30	30% Work completed September -2024
67	Tanuku	20	Dec-2024
68	Vuyyuru	10	Dec-2024
69	Nuzividu	20	Dec-2024
70	Tiruvuru	10	30% Work completed September -2024
71	Akiveedu	10	Dec-2024
72	Dachepali	10	Dec-2024
73	Gurazala	10	Dec-2024
74	Darsi	10	Dec-2024
75	Buchireddy Palem	10	Dec-2024
76	Penukonda	10	Dec-2024
77	Bethamcharla	10	Dec-2024
78	Kamalapuram	10	Dec-2024
79	Kuppam	15	Dec-2024
80	Y.S.R. -Tadigadapa	25	Dec-2024
81	Chintalapudi	10	Dec-2024
82	Podili	10	Dec-2024
83	Alluru	10	Dec-2024
84	B.KothaKota	10	Dec-2024
	Total	1220	

It is submitted that owing to disputes in lands identified, there is delay in completion of construction of FSTPs in some ULBs. Those issues will be resolved shortly in co-ordination with the District Administration and progress will be submitted in the ensuing Monthly Progress Reports.

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 has been appointed 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:

A Review meeting was conducted by the Chief Secretary to Government on 12.10.2023 with the officials of Municipal Administration Department, Swachh Andhra Corporation, Engineer-in-Chief (Public Health), APUFIDC, APPCB etc., on solid and liquid waste management and on the Orders of the Hon'ble National Green Tribunal, New Delhi in O.A.No.606 of 2018.

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

- APPCB has been monitoring the 8 (5+3) polluted river stretches at 31 (27+4) locations on monthly basis and the data is being uploaded in RRC Website <https://rrc.ap.gov.in/Views/Monitoring.aspx> every month. (Annexure)

XIV. Ground Water Regulation:

The main objective of the Ground Water and Audit Department is to monitor Ground Water regime, scientific Development and management of Ground Water resources in the state. In view of repeated droughts and alarming depletion in groundwater resources, emphasis is laid on efficient water conservation and management. One such measure is the enactment called Andhra Pradesh Water, Tree Act (APWALTA) in 2002. This act is a comprehensive act covering surface and groundwater resources. The act aims to promote water conservation, enhance tree cover and regulate the exploitation and use of ground and surface water. The act empowered the State Government to appoint a State Level Authority viz., Andhra Pradesh Water, Land and Tree Authority.

The Authority has the mandate to promote water conservation, enhance tree cover, regulate exploitation of ground and surface water, make regulations for the functioning of the authorities at District and Mandal Level (administrative units within Districts). The Groundwater Department is providing necessary technical inputs to the authority whenever requested for effective implementation of the Act.

Annual Assessment of Ground Water Resources:

Ground Water Resources Assessment for the State of Andhra Pradesh is being carried out annually by the ground water & Water audit Department under the guidelines of State Level Committee (SLC) on Groundwater Assessment at State Level and under the overall supervision of the Central Level Expert Group based on the norms and guidelines of the GEC-2015 methodology. Such exercise has been taken up recently for the year 2021-22. The assessment involves comparing of annual extractable Groundwater Resources, total annual Groundwater extraction and the % of utilization with respect to annual extractable resource i.e. stage of development for all 18,376 villages, 670 Mandals and 748 micro basins in the State.

Out of all the states in the country only Andhra Pradesh and Telangana states are doing this assessment taking village as basic assessment unit rest of the states are doing the exercise taking Mandal as basic assessment unit. Based on the computation assessment units i.e., Villages are categorized as Over Exploited where the groundwater extraction is > 100%, critical where the extraction between 90-100%, semi-critical where the extraction is 70- 90 % and Safe where the extraction is <70%. of the Availability.

After every periodic assessment the Government come up with a notification listing over exploited villages and ban further exploitation of Groundwater and sand mining in these villages. The below given table gives the region wise classification of these villages in the State. That implies no new permissions to drill bore wells be entertained in these villages.

Number of Mandals and Villages notified as over-exploited in Andhra Pradesh

(as per GEC-2023)

Region	No. of Over Exploited Mandals	No. of Notified OE Villages
Coastal	5	126
Rayalaseema	5	62
Total	10	188

XV. Good Irrigation practices being adopted by the State:

The Ground Water and Water Audit Department is not directly involved in execution of the Water Conservation and rainwater harvesting in the state. However, the inferences drawn from the activities of the Ground Water and Water Audit Department are disseminated to the line departments, planners, stake holders for taking appropriate management measures for optimal utilization and sustainable development of Groundwater Resource.

- **Groundwater Quality:**

The Ground Water and Water Audit Department collect Pre and Post monsoon water samples from the permanent monitoring stations and analyze the samples for major cations and anions as to assess irrigation suitability. The Rural Water Supply (RWS) Department is having the appropriate laboratory equipment to analyze all parameters at regional level as the department is specialized in dealing with the issues related to drinking water Parameters. The Pollution Control Board possess the requisite equipment to analyze all the parameters to know the major pollution hotspots and to study the periodical variations, particularly in industrial area.

- **Groundwater Charging:**

Not charging any Groundwater extraction charges as per present policies and legislations However the process of implementation of Groundwater extraction charges for industrial use is under process.

XVI. Rain Water Harvestings:

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 Parks:

The Andhra Pradesh State Biodiversity Board was established under Biodiversity Act, 2002 (Central Act) and was established in the Year 2006. The main objectives or functions of the Biodiversity Board are:

1. Conservation of the Bio Diversity in the State.
2. Sustainable utilization of bio- resources and
3. Fair and equitable share of sale proceeds of bio- resources to all the stakeholders

The Andhra Pradesh State Biodiversity Board as part of fulfillment of its objects it has taken up various activities as shown below:

Development of Biodiversity of Parks & Digital Museums:

The A.P. State Biodiversity Board have approved a vision plan and perspective plan in its meeting held on 28.07.2020 wherein it has agreed to set up Biodiversity Parks and Digital Museums in 7 districts out of 26 districts in the State to showcase the ecosystems, fauna and flora of Andhra Pradesh and to bring awareness and interest on the ecology and conservation of biodiversity among the general public especially for the student community.

Out of 7 parks proposed the Government have permitted the District Collector, YSR District, Kadapa to handed over 6 Acres of land at Chinnachowk Village, Kadapa Rural Mandal. The A.P. Greening & Beautification Corporation is taking up the works of Biodiversity Park, remaining 6 parks are in process.

As a part of establishment of Biodiversity Digital Museums, the A.P. State Bio-Diversity Board have entered into an agreement with M/s. KELTRON, Tiruvananthapuram a Government of Kerala Undertaking for supply of Digital Kiosks of 32" 2nos and 42" 1no to each digital museum which displays the world biodiversity, Indian Biodiversity and State Biodiversity in particular to that area in two languages i.e., English and Telugu. It also provides Play Station, Quiz and Other child interested games related to Ecology. Further, the A.P. State Biodiversity Board have also designed and ordered models and wall panels to display the Andhra Pradesh Ecology Systems in FRP made along with a 10 x 6 size display table and clear acrylic box and wall panels reflecting fauna and flora of A.P, Biodiversity acts printed on Vinyl with lamination, pasting of Vinyl to ACP panel and framing including computer design of 5' x 3' size of 10nos to each museum. All the 7 museums were located in Government buildings identified by concerned Municipal Corporations within the city limits.

The Andhra Pradesh State Bio Diversity Board have taken initiation on the orders of Hon'ble National Green Tribunal (NGT). New Delhi and also as per the directions of the Secretary, Jala Shakti, Government of India during the 15th Central Monitoring Committee meeting held on 10.01.2023 regarding the action Plan relating to conservation of biodiversity, setting up of biodiversity parks on flood plains along polluted river stretches.

Accordingly, the Andhra Pradesh State Biodiversity Board in its meeting held on 21.11.2023 have approved for Establishment of Bio diversity parks on the flood plains of polluted river stretches of Andhra Pradesh, as such a letter has been addressed to the concerned District Collectors of the five identified polluted River Stretches of Andhra Pradesh to identify at least 20.00 Acres of land to establish biodiversity parks and explaining the necessity and also benefits of the establishments of the bio diversity parks in the river plains taking the Yamuna Bio diversity park developed by DDA on the floods plains as a modal. It is also appropriate to inform that a letter has been addressed to prof. .C.R Babu, who is the architect of Yamuna Biodiversity park and other seven parks in New Delhi to identify possibilities to establish bio Diversity parks

in the river plains of Andhra Pradesh vide this office letter no: 1221/NGT/2023, Dated: 13.12.2023.

Conservation Activities:

1) Home Herbal Garden:

The National Medicinal Plant Board, New Delhi have sanctioned projects on conservation of Nurseries namely, Home Herbal Garden (HHG) and other one nursery activities. The APSBB have procured and raised nurseries for supply of plants as proposed by the NMPB to supply to the households about 7,80,000 plants are proposed for 13,000 household beneficiaries in 13 districts of A.P. Each district is selected 10 Mandals and in each Mandal 10 villages and in each village 10 beneficiaries totalling to 13,000 beneficiaries as in 1st phase. Till now, 5,89,300 plants were distributed to the beneficiaries.

2) Nurseries:

The National Medicinal Plant Board, New Delhi have sanctioned nursery project to APSBB for raising 7,80,000 bag plant nurseries in 13 districts of Andhra Pradesh out of 13 districts nurseries raised in 11 districts, each nursery consisting of 60,000 bag plants which are to be distributed to the identified beneficiaries of the Grama Sabhas. About 2,28,930 nursery plants were distributed till now under the scheme.

3) Other Nurseries:

The APSBB have raised and procured bag plants of 1,14,000 with ABS funds available and out of the scheme 51,000 bag plants were distributed so far to the identified beneficiaries.

4) Awareness programmes:

The APSBB have created massive awareness programmes to the BMCs, Officials and general public (especially targeting student community) in the past 2.5 years through physical and virtual mode. Most of the Programmes are virtually organised due to Covid pandemic and created awareness among all sections of public. It also taken up printing of leaflets, brochures, knowledge material and widely distributed through BMCs of all the levels and also by conducting awareness programmes for all stakeholders.

The APSBB have also produced documentary films under the series a window to the A.P. State Biodiversity, about 7 films on wetlands, dry lands, Mada forests, grass lands

and Forest Ecology also on HHG, the experiences of biodiversity conservers in the society.

The APSBB has strated awarencess programmes and as a part it scheduled a programme from May, 2024 to all the BMC Members and stakeholders to create awareness on Bio diversity act and conservation of Biodiversity in phased manner by grouping 50 persons in each training programme at A.P. forest Academy, Rajamahedhravaram and during May, 2024 (2) training camps were organized.

On the eve of World Environment Day I.e., 5th June, 2024, the APSBB have started a massive plantation programme throughout the State to transplant on the banks of the rivers and tanks and also at protected places like Schools, Colleges and Government Buildings. The APSBB also conducted various programmes to create awareness among the students community with the support of NGC co-ordinators throughout the State by organizing competitions on conservation of environment through drawing, painting, essay writing and elocution at village, Mandal, District and State levels. Prizes and Certificates were awarded to the 1st, 2nd and 3rd places.

On the orders of the Ministry of Ayush, Government of India and National Biodiversity Authority (NBA), the APSBB have conducted International Day of Yoga, 2024 on 21.06.2024 towards creating awareness and health consciousness to the general public on the theme of “ Yoga for self and society ”.

The APSBB have taken up reprinting of books on Biodiversity Act, 2002 and Amendment Act, 2023 for distribution to the BMC members and other stakeholders to create awareness on Bio Diversiy Act.

5) CAAP and ICAAP Activities:

As a part of Operationalization of BMCs the APSBB have designed a programme namely Core Activities Action Plan (CAAP) In all BMCs in the State by identifying 15 core activities and selected 551 Mandal Biodiversity Coordinators out of 661 Mandals and organized to open Local Biodiversity fund (LBF) accounts in BMCs on joint operation mode.

To make a model BMCs an Intensive Core Activities Action Plan (ICAAP) with 10 core activities in 78 Mandals of 661 Mandals by taking 20 villages in each Mandal to operate the ICAAP. The 78 Mandals were divided into 26 clusters consisting of 3 Mandals in each cluster to implement the ICAAP activities. In IACCP activities raising

nurseries of 1 lakh bag plants in each cluster, establishment of Mandal Biodiversity Park/Raasi Vanam/ Nakshatra Vanam/ Butterfly Park/Smruthi Vanam etc., of 1 Acre in each Mandal. Promotion of Organic farming and land races, cultivation of Wild variety crops, Promotion of unique animal breed, Identification of BHS etc., are included in the ICAAP.

Statement showing the Particulars of Conservation and awareness programmes done under APSBB during the Period up to June, 2024.

S. No.	Name of the activity	Number of programmes taken up during the mentioned period		
		2024-25		
		Target	Achieved	Distributed
1.	Biodiversity Management Committees constituted	-	14,157	Completed
2.	PBRs written (e-PBRs)	-	-	Completed
	ZP level – 13			
	Mandal level – 661			
	Municipal Corporation level – 120			
	Gram Panchayath level – 13,363			
3.	Awareness programmes Physical	-	05	-
	Virtual	-	01	-
4.	Conservation (Nurseries raised)	-	-	-
	i)NMPB – Home Herbal Garden	-	-	-
	ii)NMPB - Nurseries			
	iii)Others – Nurseries under ABS funds			
	iv)Others – ICAAP Nurseries			
5.	Biodiversity Parks in Districts	07	01	-
6.	Biodiversity Parks in flood plains	05	-	
7.	Biodiversity Museums	07	07	Completed

XXI. Reuse of Treated Water:

14 ULBs Utilizing Re–Use of Treated Waste Water

S.No	Name of the ULB	Installed Capacity (in MLD)	Qty of treated sewage utilised (in MLD)
1	2	3	4
1	Visakhapatnam	233.00	85.93
2	Rajamahendhravaram	30.00	20.00
3	Vijayawada	130.00	45.00
4	Tirupathi	50.00	33.00
5	Narsaraopeta	15.55	8.50
6	Tadipatri	11.50	6.50
7	Puttaparthi	1.50	0.30
8	Kurnool	2.40	0.096
9	Kadapa	20.00	10.00
10	Pulivendula	10.00	2.50
11	Yemmiganuru	19.80	5.00
12	Ongole	15.00	15.00
13	Nellore	71.00	0.50
14	Eluru	5.00	1.00
	Total	614.75	233.83

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

2 River stretches are identified as Model Rivers. i.e. Under Category - IV River Tungabhadra & under Category – V River Krishna.

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 - 2024

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, 2024 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, 2024

Parameter	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Standard		
														Class A	Class B	Class C
pH	4367	7.05	8.25	8.20	7.88	8.00	7.43							6.0 - 8.5		6.0 – 9.0
	4359	8.27	7.60	7.22	7.55	8.00	7.80									
	0014	7.73	7.70	7.95	7.75	8.04	7.53									
	1218	7.80	7.52	7.73	7.51	7.21	7.41									
	2370	7.67	7.81	8.26	7.31	6.26	7.28									
	2371	7.69	7.69	8.02	7.20	6.27	7.20									
	1219	7.65	7.75	7.81	7.48	6.27	7.14									
	4365	8.20	7.44	7.80	7.64	7.70	7.15									
	4366	7.90	7.51	7.71	7.59	7.58	7.15									
	4358	7.90	7.46	7.95	7.69	7.56	6.99									
DO	4367	6.1	6.6	7.4	7.0	6.2	6.3							6.0	5.0	4.0
	4359	7.8	7.5	6.4	6.5	7.1	6.5									
	0014	6.9	6.2	6.2	5.8	7.0	6.8									
	1218	7.6	7.8	7.5	7.4	7.5	7.7									
	2370	7.5	7.8	7.6	7.4	7.5	7.6									
	2371	7.0	7.4	7.1	7.1	7.0	7.2									
	1219	7.0	6.9	7.2	7.0	7.0	7.1									
	4365	6.5	5.0	5.7	7.8	6.8	5.4									
	4366	6.4	7.0	4.0	5.8	5.6	6.0									
	4358	6.4	6.6	6.2	6.6	6.7	6.8									
BOD	4367	2.1	2.3	1.9	2.4	2.4	2.2							2.0	3.0	3.0
	4359	1.5	2.4	2.0	2.5	2.8	2.1									
	0014	2.2	2.1	2.3	2.2	2.5	2.5									
	1218	2.0	2.0	2.0	1.9	1.9	1.8									
	2370	2.0	2.0	2.0	2.0	1.9	1.9									
	2371	2.2	2.2	2.1	2.2	2.0	1.9									
	1219	2.2	2.2	2.1	2.0	2.0	2.0									
	4365	2.0	1.9	2.4	2.6	2.2	2.0									
	4366	1.8	2.2	2.7	2.5	2.4	2.2									
	4358	2.4	2.2	2.3	2.2	2.1	2.0									

Total Coliform	4367	64	75	64	43	64	75							50	500	5000
	4359	93	75	93	64	75	64									
	0014	43	39	43	39	43	64									
	1218	93	75	64	43	64	64									
	2370	95	120	150	75	64	75									
	2371	150	150	150	120	150	120									
	1219	93	75	93	75	64	120									
	4365	150	120	93	75	93	75									
	4366	240	210	150	120	120	93									
	4358	75	64	75	64	75	93									
Fecal Coliform	4367	3	4	3	3	3	4							---	500	---
	4359	3	3	4	3	4	3									
	0014	4	4	3	3	3	4									
	1218	3	4	3	3	4	3									
	2370	4	3	4	4	3	3									
	2371	7	4	7	11	7	4									
	1219	4	4	7	9	4	3									
	4365	4	7	4	4	3	4									
	4366	7	9	7	11	7	7									
	4358	3	4	3	3	4	3									
TDS	4367	144	235	184	344	428	496							500 - 2000		
	4359	135	100	76	52	76	51									
	0014	150	156	164	144	118	132									
	1218	180	192	184	228	112	128									
	2370	182	180	180	224	128	112									
	2371	176	176	172	244	96	120									
	1219	157	168	176	192	106	112									
	4365	9856	16100	18624	19225	21348	17100									
	4366	14684	19820	24576	19336	25248	22336									
	4358	13292	19124	27128	28748	30128	18004									

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 Downstream & 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, 2024 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, 2024:

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
pH	1175	7.7	7.9	8.1	8.0	7.9	7.3							6.0 - 8.5	6.0 – 9.0	
	3083	7.5	7.8	8	7.5	7.9	7.9									
	4381	8.18	8.01	8.09	8.12	7.91	7.86									
	1786	8.0	7.82	7.63	7.82	7.93	7.86									
	1787	7.20	7.93	7.82	7.06	7.24	7.85									
	0025	7.56	7.69	7.51	8.07	7.52	7.60									
	4375	7.71	7.46	7.63	7.94	7.16	7.38									
	1782	7.84	7.96	7.63	7.82	7.73	7.64									

DO	1175	5.8	5.6	5.4	5.3	5.4	5.0							6.0	5.0	4.0
	3083	5.9	5.6	6.1	5.8	5.6	5.8									
	4381	7.2	7.3	7.1	6.9	6.8	7.1									
	1786	7.7	7.4	7.3	7.1	7.4	7.1									
	1787	7.6	7.3	6.9	6.7	6.9	7.2									
	0025	7.8	7.3	7.1	7.3	7.2	6.9									
	4375	7.8	7.2	7.3	7.1	7.3	7.2									
	1782	6.4	6.8	6.7	6.5	6.4	6.6									
BOD	1175	1.5	2.0	2.2	2.0	2.5	1.5							2.0	3.0	3.0
	3083	2.0	1.8	1.7	2.2	2.0	1.2									
	4381	2.7	2.6	2.8	2.7	2.9	2.7									
	1786	2.8	2.4	2.5	2.8	2.9	2.6									
	1787	2.5	2.6	2.8	2.6	2.8	2.6									
	0025	2.5	2.7	2.6	2.8	2.7	2.8									
	4375	2.4	2.7	2.5	2.8	2.7	2.6									
	1782	2.5	2.7	2.5	2.9	2.7	2.5									
Total Coliform	1175	727	816	770	727	770	830							50	500	5000
	3083	727	866	816	870	816	866									
	4381	150	120	93	75	120	150									
	1786	64	75	120	150	210	150									
	1787	75	150	120	150	120	150									
	0025	120	75	64	75	150	120									
	4375	93	75	93	64	75	93									
	1782	75	63	75	64	75	93									

Fecal Coliform	1175	258	284	251	226	245	266							---	500	---
	3083	220	266	244	281	214	244									
	4381	28	39	11	14	15	14									
	1786	14	9	15	21	28	11									
	1787	11	15	14	15	14	15									
	0025	11	9	11	14	21	11									
	4375	20	14	15	9	11	9									
	1782	11	14	11	9	11	11									
TDS	1175	563	499	595	545	540	326							500 - 2000		
	3083	495	482	458	490	465	416									
	4381	536	504	524	569	593	560									
	1786	642	612	664	684	716	668									
	1787	534	564	606	610	604	528									
	0025	455	503	512	542	520	563									
	4375	306	403	520	510	502	490									
	1782	14570	17200	17500	20220	18500	16560									
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, 2024 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, 2024

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
pH	1785	7.9	Dried	Dried	Dried	Dried	7.7							6.0 – 8.5		6.0 – 9.0
	1174	7.9	7.8	8	7.8	8.0	7.8									
	4388	7.5	7.4	7.5	7.1	Dried	7.6									
	4389	7.5	7.6	7.6	8.0	Dried	7.2									
DO	1785	5.8	Dried	Dried	Dried	Dried	5.5							6.0	5.0	4.0
	1174	5.7	5.5	5.2	5.3	5.1	5.7									
	4388	5.7	5.5	5.1	5.0	Dried	5.6									
	4389	5.5	5.3	5.2	5.1	Dried	5.7									
BOD	1785	1.5	Dried	Dried	Dried	Dried	1.8							2.0	3.0	3.0
	1174	2.0	2.2	2.5	2.5	2.8	1.8									
	4388	2.0	2.2	2.5	2.8	Dried	1.7									
	4389	1.7	2.0	2.2	2.5	Dried	1.5									

Total Coliform	1785	613	Dried	Dried	Dried	Dried	980							50	500	5000
	1174	665	727	830	921	866	870									
	4388	689	770	866	980	Dried	921									
	4389	770	830	921	980	Dried	870									
Fecal Coliform	1785	201	Dried	Dried	Dried	Dried	303							---	500	---
	1174	243	278	298	312	289	298									
	4388	196	211	293	306	Dried	284									
	4389	230	267	275	293	Dried	265									
TDS	1785	870	Dried	Dried	Dried	Dried	436							500 - 2000		
	1174	886	912	850	990	1065	660									
	4388	735	865	982	1015	Dried	540									
	4389	867	969	1050	1095	Dried	710									
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, 2024 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, 2024

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard			
														Class A	Class B	Class C	
pH	4351	8.03	7.67	7.75	7.60	8.10	8.05								6.0 – 8.5	6.0 – 9.0	
	1448	7.92	7.58	7.74	7.52	7.94	7.88										
	4346	7.99	8.31	8.29	7.74	8.43	7.63										
	4347	8.04	7.65	8.15	8.14	8.41	7.51										
DO	4351	7.0	6.9	6.5	5.3	5.2	6.4								6.0	5.0	4.0
	1448	8.2	5.6	7.3	6.2	6.4	6.5										
	4346	7.0	7.5	6.8	4.6	6.8	6.6										
	4347	6.8	6.5	8.0	6.8	7.2	7.4										
BOD	4351	1.3	1.7	2.5	2.0	1.4	2.2								2.0	3.0	3.0
	1448	1.4	2.0	2.0	1.4	2.3	2.3										
	4346	2.1	1.7	2.1	2.9	2.2	2.1										
	4347	1.7	1.9	3.0	2.6	2.4	2.2										
Total Coliform	4351	120	150	120	75	93	120								50	500	5000
	1448	150	120	150	120	93	75										
	4346	150	120	120	93	93	75										
	4347	210	150	210	150	120	120										
Fecal Coliform	4351	4	7	4	3	4	3								----	500	----
	1448	7	4	7	7	4	4										
	4346	4	3	4	3	<3	3										
	4347	9	7	7	4	3	4										
TDS	4351	172	204	224	248	232	200								500-2000		
	1448	188	220	256	264	264	216										
	4346	204	236	264	288	244	272										
	4347	210	240	288	296	276	240										

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, 2024 is as follows:

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

Month-wise data of water quality of river Kundu, 2024

Parameters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
													Class A	Class B	Class C
pH	7.3	7.5	Dried	Dried	Dried	Dried							6.0 – 8.5		6.0 – 9.0
DO	5.7	5.3	Dried	Dried	Dried	Dried							6.0	5.0	4.0
BOD	2.3	2.5	Dried	Dried	Dried	Dried							2.0	3.0	3.0
Total Coliform	921	980	Dried	Dried	Dried	Dried							50	500	5000
Fecal Coliform	298	344	Dried	Dried	Dried	Dried							---	500	---
TDS	792	902	Dried	Dried	Dried	Dried							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.															

**CPCB identified three (3 No's) new rivers based on BOD value during year 2019 & 2021 (BOD > 3mg/L)
In Andhra Pradesh identified following polluted river stretches.**

S NO	ANDHRA PRADESH STATE	RIVER NAME	NWMP STN CODE	LOCATION	MAX BOD OBSERVED (mg/L)
1	Priority IV (BOD between 6.1 and 10.0 mg/L)	GOSTANI	4372	RIVER GOSTANI SAMPLE BEFORE CONFLUENCE WITH M/S DELTA PAPER MILL EFFLUENTS, VENDRA, PALAKODERU	8.6
2	Priority V (BOD between 3.1 and 6.0 mg/L)	UPPUTERU	4379	RIVER UPPUTERU BEFORE CONFLUENCE WITH SEA, AT CHINAGOLLAPALEM VILLAGE, KRUTHIVENNU (M)	3.4
3	Priority I (BOD more than 30.0 mg/L)	VASISHTA	4365	RIVER VASISHTA (GODAVARI) UPSTREAM OF NARASAPURAM TOWN BEFORE CONFLUENCE OF TOWN SEWAGE	5.9
4			4366	RIVER VASISHTA (GODAVARI) DOWNSTREAM OF NARASAPURAM TOWN AFTER CONFLUENCE OF TOWN SEWAGE	58.0

6. River Gostani:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Gostani at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2024 is as follows:

S. No.	Code	Location point
1	4372	River Gostani Sample before confluence with M/s Delta Paper Mill Effluents, Vendra, Palakoderu.

Month-wise data of water quality of river Gostani, 2024

Parameters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
													Class A	Class B	Class C
pH	7.75	7.41	7.57	7.24	7.34	7.33							6.0 – 8.5		6.0 – 9.0
DO	2.1	2.3	0.8	Nil	Nil	2.0							6.0	5.0	4.0
BOD	4.2	4.0	4.2	4.0	3.8	3.6							2.0	3.0	3.0
Total Coliform	460	150	120	93	120	93							50	500	5000
Fecal Coliform	9	4	3	4	3	4							---	500	---
TDS	630	845	1156	1688	1756	1924							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: Fecal Coliform values found to be within the standard limits stipulated for bathing.															

7. River Upputeru:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Upputeru at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2024 is as follows:

S. No.	Code	Location point
1	4379	River Upputeru before confluence with Sea at Chinnagollapalem (V), Kruthivenu (M)

Month-wise data of water quality of river Upputeru, 2024

Parameters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
													Class A	Class B	Class C
pH	7.49	7.16	7.34	7.29	7.38	7.62							6.0 – 8.5		6.0 – 9.0
DO	6.4	6.2	6.5	6.3	5.9	2.5							6.0	5.0	4.0
BOD	2.7	2.5	2.7	2.9	2.7	2.8							2.0	3.0	3.0
Total Coliform	64	75	93	75	120	75							50	500	5000
Fecal Coliform	15	9	9	11	11	9							---	500	---
TDS	24700	30780	24500	28600	29430	30140							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. High TDS values at River Upputeru before confluence with Sea at Chinnagollapalem (V), Kruthivenu (M) could be attributed due to the intrusion of backwaters of Bay of Bengal.

8. River Vasishta:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Vasishta at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Total Coliform, Fecal Coliform and TDS for the year, 2024 is as follows:

S. No.	Code	Location point
1	4365	Upstream of Narasapuram town before confluence with sewage, West Godavari Dist.
2	4366	Downstream of Narasapuram town after confluence with town sewage, West Godavari Dist.

Month-wise data of water quality of river Vasishta, 2024

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
pH	4365	8.20	7.44	7.80	7.64	7.70	7.15							6.0 – 8.5	6.0 – 9.0	
	4366	7.90	7.51	7.71	7.59	7.58	7.15									
DO	4365	6.5	5.0	5.7	7.8	6.8	5.4							6.0	5.0	4.0
	4366	6.4	7.0	4.0	5.8	5.6	6.0									
BOD	4365	2.0	1.9	2.4	2.6	2.2	2.0							2.0	3.0	3.0
	4366	1.8	2.2	2.7	2.5	2.4	2.2									
Total Coliform	4365	150	120	93	75	93	75							50	500	5000
	4366	240	210	150	120	120	93									
Fecal Coliform	4365	4	7	4	4	3	4							----	500	----
	4366	7	9	7	11	7	7									
TDS	4365	9856	16100	18624	19225	21348	17100							500-2000		
	4366	14684	19820	24576	19336	25248	22336									

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.

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.

Water Quality Status of CPCB identified Polluted river stretches in Andhra Pradesh - 2021

Water quality of rivers, like Godavari, Krishna, Tungabhadra, Nagavali, Kundu of Andhra Pradesh is monitored regularly on monthly basis under National Water Quality Monitoring project (NWMP) by Andhra Pradesh Pollution Control Board. Among them few locations are identified as Polluted river stretches by CPCB during the year 2016 & 2017 for exceeding the prescribed BOD standard limit 3.0 mg/L. Keeping in view of that APPCB is monitoring Water quality of the above said major rivers, Godavari, Krishna, Tungabhadra, Nagavali & Kundu. The Water quality status of the above said rivers is as follows.

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, 2021 is as follows:

S No.	Code	Location
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

Water quality data of river Godavari – 2021

Month-wise data of water quality of river Godavari, 2021

Parameters	Code	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
BOD	4367	1.8	2.2	2.0	1.8	--	--	2.1	2.4	2.2	2.0	1.1	1.8	2.0	3.0	3.0
	4359	1.5	1.5	2.2	1.8	--	--	1.0	1.2	1.2	1.0	2.0	2.0			
	0014	1.8	2.2	1.9	1.8	1.7	2.2	1.5	1.5	1.8	1.2	1.4	1.8			
	1218	2.0	1.0	2.0	1.5	1.7	1.8	1.7	1.6	1.6	1.6	1.8	1.5			
	2370	1.4	1.4	2.6	2.2	2.0	1.8	2.0	2.0	2.0	2.2	2.2	2.2			
	2371	1.8	2.2	2.8	2.6	2.2	2.0	2.2	2.2	2.2	2.4	2.6	2.4			
	1219	2.0	1.6	1.4	1.8	1.6	1.8	1.6	2.2	2.0	2.0	1.8	2.0			
	4365	2.0	2.0	1.5	1.5	1.8	1.5	2.0	1.8	2.0	1.4	2.1	2.0			
	4366	2.6	2.3	2.0	2.0	2.4	2.2	2.4	2.2	2.5	2.0	2.4	2.5			
	4358	2.4	1.6	1.5	2.2	1.4	1.2	1.4	1.2	1.4	1.2	1.6	2.0			
Note:: All values are expressed in mg/L except pH & Total Coliform value. Total.Colform is expressed in MPN count / 100 ml. *Note : Code No's 4359 & 4367 sample was not collected due to COVID-19																
Remarks: BOD & fecal coliform values found to be within the standard limits stipulated for bathing at all the locations. High TDS values at Narsapuram & GMC Balayogi bridge, Govalanka could be attributed to the intrusion of backwaters of Bay of Bengal.																

Water Quality Status of CPCB identified Polluted river stretches in Andhra Pradesh - 2022

Water quality of rivers, like Godavari, Krishna, Tungabhadra, Nagavali, Kundu of Andhra Pradesh is monitored regularly on monthly basis under National Water Quality Monitoring project (NWMP) by Andhra Pradesh Pollution Control Board. Among them few locations are identified as Polluted river stretches by CPCB during the year 2016 & 2017 for exceeding the prescribed BOD standard limit 3.0 mg/L. Keeping in view of that APPCB is monitoring Water quality of the above said major rivers, Godavari, Krishna, Tungabhadra, Nagavali & Kundu. The Water quality status of the above said rivers is as follows.

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
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

Water quality data of river Godavari – 2022

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

Parameters	Code	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
BOD	4367	2.0	2.3	2.2	1.9	2.0	1.9	1.9	1.8	1.8	2.6	1.6	2.4	2.0	3.0	3.0
	4359	2.0	2.0	2.0	2.0	1.8	1.6	----	2.0	2.0	2.0	2.0	1.8			
	0014	1.8	1.7	2.0	1.8	1.0	2.2	2.0	2.0	2.1	2.1	1.8	2.4			
	1218	1.6	2.0	1.8	1.5	1.1	1.3	2.2	2.1	2.3	2.4	2	2.5			
	2370	2.4	1.4	1.8	2.0	1.9	2.4	2.2	2.2	2.0	2.0	2.2	2.1			
	2371	2.4	1.5	1.8	2.2	2.3	2.6	2.4	2.4	2.4	2.4	2.2	2.2			
	1219	2.0	2.2	2.0	2.0	2.2	2.4	2.4	2.2	2.2	2.2	2.4	3.2			
	4365	2.0	2.1	2.1	2.0	2.4	2.0	1.4	2.2	2.4	2.2	2.1	2.4			
	4366	2.4	2.5	2.3	2.2	2.6	2.2	1.3	2.4	2.6	2.8	2.4	2.6			
	4358	2.6	2.1	2.2	2.0	2.4	2.8	2.6	2.4	2.2	2.8	2.8	2.6			

Water Quality Status of Polluted River Stretches in Andhra Pradesh - 2023

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, 2023 is as follows:

S No.	Code	Location
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

Water quality data of river Godavari – 2023

Month-wise data of water quality of river Godavari, 2023

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
BOD	4367	2	2.1	1.4	1.1	2	2.2	2.1	Rain	1.3	2.6	1.3	2.0	2.0	3.0	3.0
	4359	1.8	1.8	2.0	2.0	1.3	2.1	1.9	2.3	2.0	2.0	2.0	1.4			
	0014	1.6	2.0	2.4	1.2	2.0	1.4	2.2	2.4	2.6	2.1	1.6	2.0			
	1218	1.8	2.1	2.2	2.2	2	2	2.2	2	1.6	2.4	2.0	2.0			
	2370	2	2	2.2	2.2	2.2	2.2	2.2	2.4	1.8	2.0	2.0	2.2			
	2371	2.2	2.2	2.4	2.2	2.2	2.4	2.2	2.3	2.0	2.4	2.2	2.2			
	1219	2.2	2.2	2.2	2.2	2.4	2.2	2.0	2.2	2.0	2.2	2.0	2.2			
	4365	2	1.8	2.1	2.4	2.2	2.1	2.6	2.5	2.0	2.2	1.2	2.0			
	4366	2.2	2	2.6	2.1	2.3	2.4	2.9	2.8	2.1	2.8	1.0	1.9			
	4358	2.4	2.2	2.4	2.0	2.2	2.2	2.0	2.2	2.2	2.8	2.2	2.2			

Water Quality Status of Polluted River Stretches in Andhra Pradesh - 2024

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, 2024 is as follows:

S No.	Code	Location
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

Water quality data of river Godavari – 2024

Month-wise data of water quality of river Godavari, 2024

Parameters	Code	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	*Standard		
														Class A	Class B	Class C
BOD	4367	2.1	2.3	1.9	2.4	2.4	2.2							2.0	3.0	3.0
	4359	1.5	2.4	2.0	2.5	2.8	2.1									
	0014	2.2	2.1	2.3	2.2	2.5	2.5									
	1218	2.0	2.0	2.0	1.9	1.9	1.8									
	2370	2.0	2.0	2.1	2.0	1.9	1.9									
	2371	2.2	2.2	2.1	2.2	2.0	1.9									
	1219	2.2	2.2	2.1	2.0	2.0	2.0									
	4365	2.0	1.9	2.4	2.6	2.2	2.0									
	4366	1.8	2.2	2.7	2.5	2.4	2.2									
	4358	2.4	2.2	2.3	2.2	2.1	2.0									