

Puducherry, the

16 FEB 2024

To

✓ Shri. Anup Kumar Srivastava
Executive Director (Tech)
National Mission for Clean Ganga
Ministry of Jai Shakti,
1st Floor, Major Dhyan Chand National Stadium,
India Gate, New Delhi — 110 002.

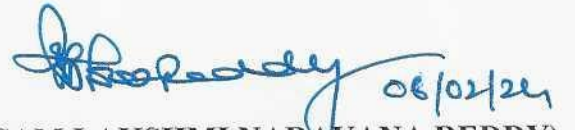
Sir,

Sub: DSTE/PPCC-Submission of Progress Report on Restoration of Polluted River
Stretches-Reg.

Ref: Letter received from MoJS, GOI vide No. Legal/OA No. 673/2018/NMCG/2019
date 08.10.2020.

With reference to the above mentioned subject, Progress Report for the month
of December, 2023 is enclosed for kind perusal.

Yours sincerely,



(YASAM LAKSHMI NARAYANA REDDY)
DIRECTOR
(DSTE)

Enc1: as stated above

Copy to:

1. The Member Secretary,
Central Pollution Control Board,
Parivesh Bhawan, C.B.D. Cum-Office Complex,
East Arjun Nagar, Delhi — 110 032.
2. Standing Guard File

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

For the State of Puducherry

I. Overall status of the State (2011)

Total Puducherry Population : 1247953
Puducherry District Population : 950289
Puducherry Urban Population : 657600 (950289x69.20%)
Puducherry Rural Population : 292689 (950289x30.80%)

II. Estimated Sewage Generation (MLD): 71 MLD (URBAN)

III. Details of Sewage Treatment Plants: Puducherry District

1.	Existing no. of STPs and Treatment Capacity (in MLD) Net Treatment capacity of STP's	3 Nos. of SBR – 51 MLD 2 Nos. of UASB – 5 MLD 2.5 MLD capacity STP at Dubrayapet is in operation (on trial) and the other one at Lawspet is to be renovated. Total - 56 MLD 56 – 5 = 51 MLD
2.	Capacity Utilization of existing STPs: (15.42+16.30+15.51)=47.23 MLD 47.23/51=92.61%	47.23 MLD (92.61%)
3.	MLD of sewage being treated through Alternate technology: (71-56=15 MLD)	15 MLD (on site sanitation like septic tank and soak pit etc.)
4.	Gap in Treatment Capacity in MLD: (71-56 =15MLD)	15 MLD Basic Engineering Plan was approved by NIT, Karaikal. The work was started on 27.07.2023. Soil stabilization test completed. Further mobilizing the rig for piling work is in progress. The likely date of completion of work is 01.07.2024.
5.	No. of Operational STPs:	3 Nos.
6.	No. of Complying STPs with respect to pH, TSS, COD & BOD	2 Nos. Kanaganeri STP was not meeting the prescribed standard. Direction was issued to PWD on 27.12.2023.

Details of existing STPs in the State

Sl. No.	Location	Existing STP Capacity	Capacity being Utilized	Operational Status of STP	Compliance Status of STP
1	Puducherry	51 MLD	92.61%	3	2
2	Karaikal	-	-	-	-
3	Mahe	-	-	-	-
4	Yanam	-	-	-	-

Details of under construction STPs in the State

Sl. No.	Location	Capacity of the plant in KLD	Physical Progress in%	Status of I & D or House sewer connections	Completion TimeLine
Nil					

Details of proposed STPs in the State

Sl. No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/under Tendering/Work to be Awarded)	Likely Date of Completion
1.	Puducherry	3 MLD	The comprehensive tender for 3 MLD STP and FSTP (Fecal Sludge Treatment Plant) at the same site funded by SBM (Gramin) is likely to be floated before 31 st January 2024.	Can be furnished only after finalizing the tender.
2.	Karaikal	11 MLD	Installation of 11 MLD STP in Karaikal has been commenced and will be completed as per the timeline of LOA.	
3.	Mahe	Tender for construction of 0.5MLD was opened and it is under process.		
4.	Yanam	The land for processing of solid waste was identified and handed over to concessionaire on 08.12.2023.		

IV. Details of Industrial Pollution:

1.	No. of industries in the State:	3595
2.	No. of Effluent generating industries in the State:	97
3.	Quantity of effluent generated from the industries in MLD:	4.75 MLD
4.	Quantity of Hazardous Sludge generated from the Industries in TPD:	10 TPD
5.	Number of industrial units having ETPs:	97
6.	Number of industrial units connected to CETP:	Nil
7.	Number and total capacity of ETPs (details of existing/ under construction/ proposed)	Existing-97 Capacity-4.75MLD
8.	Compliance status of the ETPs:	89
9.	Number and total capacity of CETPs (details of existing / under construction /proposed)	Nil
10.	Status of compliance and operation of the CETPs	Nil

Town	No.of industries	Industrial discharge	Status of ETPs	Status of CETPs(existing, under construction & proposed)
Puducherry	3271	4746.2 KLD	Existing-97	Nil

V. Solid Waste Management:

1.	Total number of Urban Local Bodies and their Population.	5 ULB's (7,28,761, Census 2011)								
2.	Current Municipal Solid Waste Generation.	Total solid waste generation - 382.5 TPD								
		Sl. No.	ULB	Total waste generated (TPD)						
		1	PM	155						
		2	OM	155						
		3	KM	40						
		4	MM	12.5						
		5	YM	20						
			Total	382.5						
3.	Number, Installed capacity and utilization of existing MSW processing facilities in TPD (bifurcated by type of processing eg., -Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, decentralized pit composting),bio-methanation, MRF etc	Integrated MSWM is being taken up for all types of waste by the ULBs.								
		As on 30.09.2023								
		S.No	ULB	Processing	Bio methanation	MRF	MRF through formal sectors	MRF through informal sectors	Total	Percentage of processing
		1	PM	-	-	4	-	3.05	7.05	4.54%
		2	OM	-	1	-	0.5	2.47	3.97	2.38%
		3	KM	40 (Bio composting, vermi, MRF)	-	-	-	-	40	100%
		4	MM	8.5 (Inhouse pipe composting)	-	2	2	-	12.5	100%
		5	YM	-	-	-	-	1	1	5%
			Total	48.5	1	6	2.5	6.52	64.52	16.86%
		Composting technologies like Windrows method and other aerobic technologies have been adopted by the new concessionaire in communes of Puducherry and Karaikal.								
4.	Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap> 20%).	Integrated Municipal Solid Waste Management projects including the scope of collection, transportation, processing and disposal are being implemented to handle all the types of waste generated in the ULBs – 610 MTs of waste from entire UT of Puducherry (urban local bodies and commune panchayats together) 1. Agreement to be executed before 18.01.2024 for IMSWM in Pondicherry and Oulgaret Municipalities. Preliminary works on going. Processing is to be started on 26.01.2024. In Puducherry Commune Panchayats, MRF shed & platform, compost platform completed. Erecting of machineries, conveyors, trommels to be completed on 20.01.2024. 2. 100% processing of solid waste happening in Karaikal Municipality and Commune Panchayats 3. In Yanam region, land has been handed over to concessionaire on 08.12.2023. 4. Mahe is practicing in-house pipe composting wet waste management and the current concessionaire is taking care of Door to door, segregation and dry waste to MRF separately.								
5.	No. and capacity of C&D waste processing Plants in TPD (existing, proposed and under construction).	Municipalities and commune panchayats in Puducherry and Karaikal includes C&D waste management in their scope of the work.								
6.	Total no. of wards, no. of wards having door to door collection service, no. of wards practicing segregation at source.	ULB	Number of Wards	Door to Door collection (DTDC)		Ground Status on Source Segregation				
		PM	42	100%		43 % (15 wards by Recity)				
		OM	37	100%		5.4 % (20 wards by OM)				
		KM	18	100%		50%				
		YM	14	100%		0%				
		MM	15	100%		Weekly basis in commercial area and monthly basis in residential area				
		(100% segregation is reported in all 5 ULB's Swaththam SBM portal)								

7.	<p>Details of MSW treatment facilities proposed and under construction (no. capacity and technology).</p> <p>PM – Puducherry Municipality OM – Oulgaret Municipality</p> <p>KM – Karaikal Municipality</p> <p>YM – Yanam Municipality</p> <p>MM – Mahe Municipality</p> <p>Pdy CP's – Puducherry Commune Panchayat</p> <p>Kkl CP's – Karaikal Commune Panchayat</p>	ULB	MSW treatment facilities proposed	Capacity proposed	Status
		PM	Integrated SWM	350 TPD	Work order issued on 29.09.2023. Setting up of the processing plant has commenced.
		OM			
		KM	Integrated SWM (Bio-methanation, BSF and Windrows composting)	40 TPD	Work order issued on 22.11.2022 and the work has been commenced. 100% processing in progress.
		YM	Integrated SWM (Bio-methanation, BSF and Windrows composting)	20 TPD	Work order was issued on 10.11.2021. Land handed over to the concessionaire in Dec, 2023. Setting up of the processing plant is ongoing.
		MM	Mahe Municipality is practising in-house pipe composting by individual households. For processing dry waste, the agency M/s Labour Co.op Society Ltd., was engaged for door-to-door collection. The dry waste has been sent to MRF near Pallor.		
		Pdy CP's	Integrated Municipal Solid Waste Processing Project at Puducherry commune panchayat	150 TPD	Work order was issued on 22.11.2022 and work has been commenced.
		Kkl CP's	Integrated Municipal Solid Waste Processing Project at Puducherry commune panchayat	80 TPD	Work order issued on 22.11.2022 and work has been commenced. Processing is ongoing in Karaikal municipality.
8.	No. and area (in acres) of uncontrolled	3Nos. of controlled Landfills			
	Garbage dumpsites and Sanitary Landfills.	Puducherry		:23.0 acre	
		Karaikal		:8.32 acre	
		Yanam		:0.618 acre	
		Total		31.938 acres	
9.	No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers.	Nil			
10.	No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers.	<p>No. of drains: 172</p> <p>All the drains that reaches the Sankaraparani and Arasalar rivers were identified and in-situ remediation of providing Grill gratings and Bar screen are completed in all the 172 drains.</p>			

Status of ULB wise Management of Solid Waste

ULB	Total MSW generation in TPD	Total MSW being processed in TPD	Existing MSW facilities	Utilization Capacity of the existing MSW facilities	Proposed MSW Facilities & Completion Time line
5	382.5	64.52 TPD	3	20.46 %	Work order issued on 29.09.2023 for ISWM for PM and OM only. Other local bodies have already commenced processing solid waste.

Status of Legacy Waste Management:

Sl. No	Region	Accumulated Quantity in MT	Processed in MT	Balance in MT	Timeline for completion
1	Puducherry	(Phase – II) 3.48989 MT commenced on 13.10.2023	70147	278842	June 2024
2	Karaikal	85350 commenced on 01.06.2023	39920	45430	April 2024
3	Yanam	21600	Erecting of Machineries started on 03.01.2024	Nil	31 st March 2024

Mahe Municipality:

- No legacy waste in Mahe Municipality is reported.

VI. Bio-medical Waste Management:

1	Total Bio-medical generation:	4706.4kg/day
2	No. of Hospitals and Health Care Facilities:	390
3	Status of Treatment Facility/CBMWTF:	One Common Bio-Medical Waste Treatment Facility functional.

VII. Hazardous Waste Management:

1	Total Hazardous Waste generation:	29740 TPA
2	No.of Industries generating Hazardous waste	134 industries obtained authorization.
3	Treatment Capacity of all TSDFs	-
4	Avg. Quantity of Hazardous waste reaching the TSDF and Treated.	TSDF: Land fillable Waste reached – 102.05 MT to M/s. Kalyana Karnataka Waste Management Project Private Limited, Karnataka
5	Detail so for-going or proposed TSDF	The TSDF located in neighboring states is being shared.

VIII. Plastic Waste Management:

1	Total Plastic Waste generation:	31087 TPA
2	Treatment/Measures adopted for reduction or management of plastic waste:	<p>Government of Puducherry has imposed total ban on single use plastics with effect from 02/08/2019.</p> <p>As per the Government of India Notification Addendum has been notified by the Government of Puducherry for imposing additional SUP items like</p> <p>(i) Ear buds with plastic sticks, plastic sticks for balloons, candy sticks and ice cream sticks;</p> <p>(ii) Polystyrene [Thermocol] for decoration;</p> <p>(iii) Plates, cups, glasses, cutlery such as forks, spoons, knives, trays, stirrers, wrapping or packing films around sweet boxes, invitation cards and cigarette packets</p> <p>(iv) Plastics or PVC banners less than 100 micron;</p> <p>(v) Non-woven plastic carry bags less than 60 Gram per Square Meter (GSM).</p> <p>Standard Operating Procedure (SOP) for making SUP free Government office has been prepared and circulated to all the Government Departments and Industries.</p> <p>Surprise inspections are being carried out.</p> <p>As per the direction of MoEF & CC, GOI, “Action Plan on Elimination of Single Use Plastic (SUP)” in the Union Territory of Puducherry has been prepared with the approval of Special Task Force (STF).</p> <p>As per the order of Hon’ble NGT, Bahour Commune Panchayat (BCP) has been declared as Single Use Plastic Free Commune.</p>

		<p>Public notice has been issued on 22.02.2022 in Local dailies for elimination of Single Use Plastics in English and vernacular language.</p> <p>A circular dated 24.02.2022 has been issued to all colleges to declare their campus as SUP free campus as per the direction of CPCB, Delhi.</p> <p>A consultation meeting on “Elimination of single use plastics’ with Local Authorities like District Magistrate, Director, LAD, Supdt. of Police and Commissioners of all Local Bodies was convened on 11.04.2022.</p> <p>Conducted a Technical session on laying of road using waste plastics on 18.04.2022.</p> <p>A pilot scale road was laid on 19.04.2022 for about 200mts at Edayarpalayam, Ariyankuppam Commune Panchayat in co-ordination with Prof. Dr.Vasudevaiah, Thiagarajar College of Engineering, Madurai.</p> <p>Road making using waste plastics at Korkumedu, Ariyankuppam Commune Panchayat.</p> <p>Hon’ble Chief Minister Inaugurated the LED van on 05.06.2022 for creating awareness on PWM.</p> <p>111 drives were conducted and 1834.2 kg of SUP items have been seized by Local bodies. Rs.29,500/- was levied as fine.</p> <p>Implementation of Single Use Plastic (SUP) as per the notification of MoEF &CC, GOI is being strictly implemented by Local bodies and monitored by PPCC.</p> <p>Interaction meeting with the Local bodies</p>
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		<p>of Puducherry, Karaikal, Mahe and Yanam and demo of SUP Portal and Apps of CPCB was held on 13.07.2022.</p> <p>Interaction meeting with the Local bodies of Puducherry, Karaikal, Mahe and Yanam and demo of SUP Portal and APPS of CPCB was held on 13.07.2022.</p> <p>Interaction meeting with the Local bodies of Karaikal for demo of SUP Portal and Apps of CPCB was held on 10.08.2022 under the Chairmanship of the Collector, Karaikal.</p> <p>For Setting up Material Recovery Facility (MRF) for 20 TPD Recyclable Plastic waste from Pondicherry and Oulgaret Municipality, MoU is under process.</p> <p>5 th meeting of Special Task Force (STF) on elimination of Single use Plastic in the U.T of Puducherry under the Chairmanship of the Chief Secretary was held on 10.11.2023. Minutes of the meeting communicated to the concerned line Department.</p>
IX	Details of Alternate Treatment Technology being adopted by the State/UT	Nil
X	Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment:	All the drains that reaches the Sankaraparani and Arasalar rivers were identified and in-situ remediation of providing grill grating, sandbar screen are completed in all the 172drains.
XI	Details of Nodal Officer appointed by Chief Secretary in the State/UT:	The Development Commissioner-cum-Senior Nodal Officer, Government of Puducherry
XII	Details of meetings carried under the Chairmanship of Chief Secretary in the State/UT:	Development Commissioner cum Senior Nodal Officer reviewed the status of the Compliance of the order of the Hon'ble

		NGT in the matter of O.A.No.606 of 2018 dated 27.09.2023.
XIII	Latest water quality of polluted river, distributaries, drains with flow details and ground water quality in the catchment of polluted river;	Common STP Water Quality Data and Chunnambar and Arasalar River water quality data are given in Annexure-I .
XIV	Ground water regulation:	Pondicherry Ground Water Authority had closed 6 Nos. of tube wells in Puducherry region and 2Nos.of tube wells in Karaikal Region during the past 5years due to illegal extraction of ground water.
XV	Good irrigation practices being adopted by the State:	Annexure- II
XVI	Rain Water Harvesting:	<p>The planning authorities while issuing occupancy certificate ascertain that the conditions stipulated in the building permits regarding rain water harvesting measures have been complied with.</p> <p>The Puducherry Ground Water Authority does not issues fresh permits/renews permits to any industries/ institutions unless Rain Water Harvesting System is installed in their respective buildings.</p> <p>882 Rain Water Harvesting structure are constructed in the U.T of Puducherry by Department of Agriculture.</p> <p>No. of Rain Water Harvesting structure by PWD - 262.</p>
XVII	Demarcation of Flood plain and removal of Illegal encroachments:	Demarcation of flood plain and removal of illegal encroachments in Karaikal region is to be prepared under FMBAP. The expert team from Central Water Commission, New Delhi has inspected the sites on 02.02.2023 for conducting field survey for sustainable water management in Karaikal Region. After getting necessary expert advice/recommendation from the expert team CWC, New Delhi necessary DPR will be prepared.

XVIII	Maintaining minimum e-flow of river:	Illegal sand mining affect e-flow in the rivers. Hence, orders u/s 144 of CrPc were issued on 1 st April, 2019 prohibiting lorries, vans, two wheelers, bullock carts and any similar sand carrying vehicles. Check dams were constructed to regulate the flow.
XIX	Plantation activities along the rivers:	For the development of green belt along Chunnambar, Forest Department has planted 4000 trees.
XX	Development of bio-diversity park:	The mangrove area in Karaikal to an extent of 11-09-30 Hectares belongs to the Government and the rest of the area to an extent of 10-39-00 Hectares belongs to private owners. Deputy Collector (Revenue), Karaikal informed that as the matter is presently under court case, notification of Mangrove Forest area as Bio-diversity park will not be feasible till the outcome of the judgement.
XXI	Reuse of Treated Water:	Annexure-III
XXII	Model River being adopted by the State& Action Proposed for achieving the bathing quality standards:	Chunnambar River -Sankarabarani
XXIII	Status of Preparation of Action Plan by the 13 Coastal States:	Action plan was submitted to CPCB dt.24.02.2020. NCCR was requested to carry out marine sampling in the first consultative meeting held on 05.07.2022 and subsequently reminded vide mail dt. 11.10.2022.
XXIV	Regulation of Mining Activities in the State/UT:	Illegal sand mining affect e-flow in the rivers. Hence, orders u/s 144 of CrPc were issued on 1 st April, 2019 prohibiting lorries, vans, two wheelers, bullock carts and any similar sand carrying vehicles. Check dams were constructed to regulate the flow.
XXV	Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring.	-

Chunnambar River Water Quality Data - 2023			
S.No	Parameters	Dec-23	Standard limit as per the Primary Water Quality Criteria for bathing water - Class of Water B (Water Used for Organised Outdoor Bathing) as per Environment (Protection) Rules, 1986
1	Date of sampling	07.12.2023	
2	Time	10.30 AM	
3	Temp°C	30.0	
4	pH	8.14	6.5-8.5
5	DO (mg/l)	9.5	5 or more
6	BOD (mg/l)	3.7	3 or less
Arasalar River Water Quality Data - 2023			
S.No	Parameters	Dec-23	Standard limit as per the Primary Water Quality Criteria for bathing water - Class of Water B (Water Used for Organised Outdoor Bathing) as per Environment (Protection) Rules, 1986
1	Date of sampling	11.12.2023	
2	Time	6.20 A.M	
3	Temp°C	28.0	
4	pH	7.65	6.5-8.5
5	DO (mg/l)	5.3	5 or more
6	BOD (mg/l)	BDL (DL:1.0)	3 or less
7	Total Coliform MPN/100 ml	540.00	
8	Faecal Coliform MPN/100ml	220.00	500 (Desirable) and 2500 (Max. Permissible)
9	Faecal Streptococci MPN/100ml	<1.8	100 (Desirable) and 500 (Max. Permissible)

BDL - Below Detectable Limit; DL - Detection Limit
MPN- Most Probable Number

**GOVERNMENT OF PUDUCHERRY
WATER TESTING LABORATORY
P.H.D., P.W.D., PUDUCHERRY**



Report No. : TR/WTL/PHD/PWD/PDY/2023/W-1804
ULR-TC758022000001433F

Date: 21.12.2023

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub Division, PHD, PWD, Puducherry.
Customer Reference : Letter dated:14.12.2023

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2023/W-1804	Information provided by the Customer	
Product Category	: Pollution & Environment		
Sample Name	: Waste Water	Sampled by	: Customer
Temperature at the time of Receipt	: 28.9°C	Sampling Procedure	: --
Sample Condition	: Fit for analysis	Sample Description	: Waste Water (Outlet)
Sample Received on	: 14.12.2023	Sampling Location	: Dubrayapet STP Outlet
Test Started on	: 14.12.2023	Date of Sampling	: 14.12.2023
Test Completed on	: 21.12.2023	Identification by Customer	: Sample 2

TEST RESULTS

Sl.No.	Test Parameter	Test Method	Units	Results	NGT Standards for treated Sewage for discharge into surface water
1	pH @ 25°C	APHA, 23rd Edition, 2017, 4500-H+B	--	7.23	5.5 to 9
2	Total Suspended Solids @ 103 - 105°C	APHA, 23rd Edition, 2017, 2540 D	mg/L	<10	Less than 10
3	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220 B	mg/L	7.96	Not more than 50
4	Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 Part44, (1994), RA2014	mg/L	4.8	Less than 10
5	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P B,C	mg/L	2.14	--

.....End of Report.....

Authorized Signatory

V. Vimala

Vimala Venkatachalam

BIOCHEMIST

**WATER TESTING LABORATORY
PUBLIC HEALTH DIVISION**

Copy submitted to:

The Executive Engineer,
PHD., PWD., Puducherry.

Terms and Conditions

1. The test result relevant only to the item tested
2. The tested report shall not be reproduced in full or part without written approval of WTL-PHD/PWD.
3. The laboratory is not responsible for the authenticity of photocopied test report.
4. The test item will not be retained for more than 15 days from the date of issue of test report except in case as required by applicable regulations.
5. The laboratory is not responsible for any legal dispute that may arise in future if the sample was not drawn by the laboratory personnel.

**GOVERNMENT OF PUDUCHERRY
WATER TESTING LABORATORY
P.H.D., P.W.D., PUDUCHERRY**

Report No. : TR/WTL/PHD/PWD/PDY/2023/W-1804(Annexe)

Date: 21.12.2023

TEST REPORT

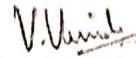
Customer Name & Address : The Assistant Engineer,
Drainage Sub Division, PHD, PWD, Puducherry.
Customer Reference : Letter dated:14.12.2023

Page 1 of 1

SAMPLE DETAILS				
Sample Code	: 2023/W-1804	Information provided by the Customer		
Product Category	: Pollution & Environment	Sampled by	: Customer	
Sample Name	: Waste Water	Sampling Procedure	: --	
Temperature at the time of Receipt	: 28.9°C	Sample Description	: Waste Water (Outlet)	
Sample Condition	: Fit for analysis	Sampling Location	: Dubrayapet STP Outlet	
Sample Received on	: 14.12.2023	Date of Sampling	: 14.12.2023	
Test Started on	: 14.12.2023	Identification by Customer	: Sample 2	
Test Completed on	: 21.12.2023			
TEST RESULTS				
Sl.No.	Test Parameter	Test Method	Units	Results
1	Phosphorus as P	APHA, 23rd Edition, 2017, 4500-P B, C	mg/L	0.71
2	Faecal Coliforms	WHO Guidelines for drinking water Quality - Vol3	MPN/100 ml	<200 MPN/100ml

.....End of Report.....

Authorized Signatory



Vimala Venkatachalam

BIOCHEMIST

WATER TESTING LABORATORY

PUBLIC HEALTH DIVISION

Copy submitted to:

The Executive Engineer,
PHD., PWD., Puducherry.

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GOVERNMENT OF PUDUCHERRY
WATER TESTING LABORATORY
P.H.D., P.W.D., PUDUCHERRY



Report No. : TR/WTL/PHD/PWD/PDY/2023/W-1809
ULR-TC758022000001438F

Date: 21.12.2023

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub Division, PHD, PWD, Puducherry.
Customer Reference : Letter dated:14.12.2023

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2023/W-1809	Information provided by the Customer
Product Category	: Pollution & Environment	Sampled by : Customer
Sample Name	: Waste Water	Sampling Procedure : --
Temperature at the time of Receipt	: 28.9°C	Sample Description : Waste Water (Outlet)
Sample Condition	: Fit for analysis	Sampling Location : Kanaganeri STP Outlet
Sample Received on	: 14.12.2023	Date of Sampling : 14.12.2023
Test Started on	: 14.12.2023	Identification by Customer : Sample 7
Test Completed on	: 21.12.2023	

TEST RESULTS

Sl.No.	Test Parameter	Test Method	Units	Results	NGT Standards for treated Sewage for discharge into surface water
1	pH @ 25°C	APHA, 23rd Edition, 2017, 4500-H+B	--	7.18	5.5 to 9
2	Total Suspended Solids @ 103 - 105°C	APHA, 23rd Edition, 2017, 2540 D	mg/L	16	Less than 10
3	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220 B	mg/L	95.6	Not more than 50
4	Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 Part44; (1994); RA2014	mg/L	52	Less than 10
5	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P B,C	mg/L	12.1	--

.....End of Report.....

Authorized Signatory

Vimala Venkatachalam

BIOCHEMIST

WATER TESTING LABORATORY
PUBLIC HEALTH DIVISION

Copy submitted to:

The Executive Engineer,
PHD., PWD., Puducherry.

Terms and Conditions:

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**GOVERNMENT OF PUDUCHERRY
WATER TESTING LABORATORY
P.H.D., P.W.D., PUDUCHERRY**

Report No. : TR/WTL/PHD/PWD/PDY/2023/W-1809(Annexe)

Date: 21.12.2023

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub Division, PHD, PWD, Puducherry.

Page 1 of 1

Customer Reference : Letter dated:14.12.2023

SAMPLE DETAILS

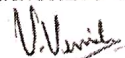
Sample Code	: 2023/W-1809	Information provided by the Customer		
Product Category	: Pollution & Environment	Sampled by	:	Customer
Sample Name	: Waste Water	Sampling Procedure	:	—
Temperature at the time of Receipt	: 28.9°C	Sample Description	:	Waste Water (Outlet)
Sample Condition	: Fit for analysis	Sampling Location	:	Kanaganeri STP Outlet
Sample Received on	: 14.12.2023	Date of Sampling	:	14.12.2023
Test Started on	: 14.12.2023	Identification by Customer	:	Sample 7
Test Completed on	: 21.12.2023			

TEST RESULTS

Sl.No.	Test Parameter	Test Method	Units	Results
1	Phosphorus as P	APHA, 23rd Edition, 2017, 4500-P B, C	mg/L	4.00
2	Faecal Coliforms	WHO Guideliness for drinking water Quality - Vol3	MPN/100 ml	>24x10 ⁷ MPN/100ml

.....End of Report.....

Authorized Signatory



Vimala Venkatachalam
BIOCHEMIST
WATER TESTING LABORATORY
PUBLIC HEALTH DIVISION

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GOVERNMENT OF PUDUCHERRY
WATER TESTING LABORATORY
P.H.D., P.W.D., PUDUCHERRY



Report No. : TR/WTL/PHD/PWD/PDY/2023/W-1806
ULR-TC758022000001435F

Date: 21.12.2023

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub Division, PHD, PWD, Puducherry.
Customer Reference : Letter dated: 14.12.2023

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2023/W-1806	Information provided by the Customer			
Product Category	: Pollution & Environment	Sampled by	:	Customer	
Sample Name	: Waste Water	Sampling Procedure	:	--	
Temperature at the time of Receipt	: 29.6°C	Sample Description	:	Waste Water (Outlet)	
Sample Condition	: Fit for analysis	Sampling Location	:	Lawspet STP Outlet	
Sample Received on	: 14.12.2023	Date of Sampling	:	14.12.2023	
Test Started on	: 14.12.2023	Identification by Customer	:	Sample 4	
Test Completed on	: 21.12.2023				

TEST RESULTS

Sl.No.	Test Parameter	Test Method	Units	Results	NGT Standards for treated Sewage for discharge into surface water
1	pH @ 25°C	APHA, 23rd Edition, 2017, 4500-H+B	--	7.06	5.5 to 9
2	Total Suspended Solids @ 103 - 105°C	APHA, 23rd Edition, 2017, 2540 D	mg/L	<10	Less than 10
3	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220 B	mg/L	11.9	Not more than 50
4	Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 Part44, (1994), RA2014	mg/L	8.7	Less than 10
5	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P B,C	mg/L	2.96	--

.....End of Report.....

Authorized Signatory

Vimala Venkatachalam

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WATER TESTING LABORATORY
PUBLIC HEALTH DIVISION

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**GOVERNMENT OF PUDUCHERRY
WATER TESTING LABORATORY
P.H.D., P.W.D., PUDUCHERRY**

Report No. : TR/WTL/PHD/PWD/PDY/2023/W-1806(Annexe)

Date: 21.12.2023

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub Division, PHD, PWD, Puducherry.
Customer Reference : Letter dated:14.12.2023

Page 1 of 1

SAMPLE DETAILS

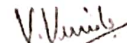
Sample Code	: 2023/W-1806	Information provided by the Customer	
Product Category	: Pollution & Environment	Sampled by	: Customer
Sample Name	: Waste Water	Sampling Procedure	: --
Temperature at the time of Receipt	: 29.6°C	Sample Description	: Waste Water (Outlet)
Sample Condition	: Fit for analysis	Sampling Location	: Lawspet STP Outlet
Sample Received on	: 14.12.2023	Date of Sampling	: 14.12.2023
Test Started on	: 14.12.2023	Identification by Customer	: Sample 4
Test Completed on	: 21.12.2023		

TEST RESULTS

Sl.No.	Test Parameter	Test Method	Units	Results
1	Phosphorus as P	APHA, 23rd Edition, 2017, 4500-P B, C	mg/L	0.98
2	Faecal Coliforms	WHO Guideliness for drinking water Quality - Vol3	MPN/100 ml	<200 MPN/100ml

.....End of Report.....

Authorized Signatory



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PUBLIC HEALTH DIVISION

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ADOPTION OF GOOD IRRIGATION PRACTICE

1. It is proposed to cover more area under precision farming.
2. System of Rice Intensification (SRI) is popularized among the farming community as a water saving measure.
3. Sustainable Sugarcane Initiative (SSI) for reducing water consumption in sugarcane crops is also being popularized.
4. Attractive subsidy assistance is being extended to farmers for installation of Drip/Sprinkler irrigation devices.
5. Attractive subsidy assistance is being extended to farmers for laying underground pipelines for conveyance of irrigation water.

Reuse of Treated Water

Station	Purpose	Quantity
Lawspet STP	Industrial usage	1.0 MLD
	Fodder Grass raising	6.0 MLD
	Coconut Plantation	
	Silk cotton trees	
	Natural recharging through impounding reservoir	9 MLD
Dubrayapet STP	To Pondy Marina Hotel	0.3 MLD
	Total	16.3 MLD

Proposed Reuse of Treated Used Water in Future

Region	Purpose	Qty.	Remarks
Puducherry	Conveying treated used water to Chemfab Alkalies for industrial use to a distance of 11 Km	5.00 MLD	Necessary proposal for CRZ clearance had been applied through PARIVEZH portal on 06.12.2023 MoEFCC.
	Supplying tertiary treated used water to Botanical Garden & Bharathi park	0.50 MLD	The Commissioner, Puducherry Municipality is utilizing the tertiary treated effluent water at Bharathi park utilizing the pumping main laid from Dubrayapet STP to Bharathy park. A pumping main has already been laid and kept for conveying the treated effluent from Dubrayapet STP to Botanical Garden and collection well (Sump) had been constructed trail run is under progress. The Director Agriculture Department is making internal arrangements within the Botanical Garden for effective utilization of treated sewage water.
	Providing pumping main from STP at Lawspet to resue STEW for adjoining agricultural Lands for an amounting to Rs.12.70 lakh	2.00 MLD	Work is in progress
	Providing pumping main for conveying treated sewage water to the Puducherry Airport Campus towards horticulture and fire fighting purpose.		Proposal submitted for Rs.47 lakh and tender is under scrutiny on receipt of Expenditure sanction work order will be issued.

Region	Purpose	Qty.	Remarks
	Supply of treated used water to PIPDIC / other industries	2.50	<p>The requirement from the water intensive industries are being assessed for their usage.</p> <p>Necessary letter has been addressed to the Railway Department towards reuse of treated sewage in non-potable areas vide No.344/PW/CE/EE(P)/AE(P).No.980/23-24 DT. 21.09.2023</p> <p>Perunthalaivar Kamarajar Krishi Vigyan Kendra(PKKVK) has requested for about 2 MLD for utilization of STEW for their forming activities. Hence, necessary route towards laying of pumping main from Kanaganeri STP to PKKVK is being studied for preparation of DPR.</p> <p>Puducherry university have been addressed to provide their requirement and utilized treated sewage vide Ir.6234 dt.02.03.2023 and reminder email sent in this regard on 21.03.2023 and 27.04.2023.</p> <p>The Puducherry Technological University had replied that they are proposing to use their own treated sewage in their campus itself.</p> <p>All the Executive Engineers of PWD has been addressed to use the treated sewage in road side gardening and construction purposed vide no. 6428 dt.10.03.2023. Necessary conditions in the agreement had been included for mandatory use of STEW by the contractors maintaining the centre medians</p> <p>The Puducherry Planning Authority had issued a circular for utilizing treated sewage water in construction activities for buildings above 5000 Sqm. Vide No.3732/PPA/Circular/2023/2946 dt. 31.08.2023 so as to minimize drawal of ground water</p>
	Total	10.00 MLD	