

No. 6836/NGT/SLMC/SCI/2022/ 497
GOVERNMENT OF PUDUCHERRY
DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT
PUDUCHERRY POLLUTION CONTROL COMMITTEE
3rd Floor, I-Housing Board Complex, Anna Nagar, Puducherry-5.
Telephone: (0413) 2201256; Telefax: (0413) 2203494

Puducherry, the

21 APR 2022

To

Shri.D.P.Mathuria ✓
Executive Director (Tech)
National Mission for Clean Ganga
Ministry of Jai Shakti,
Pth Floor, Major Dhyan Chand National Stadium,
India Gate, New Delhi — 110 002.

O/o ED (T), NMCG

Dy. No. 90

Date 02/5/22

10/10/22

6
04.5

Sir,

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

Ref: Your Letter No. Legal/OA No. 673/2013/NMCG/2019 date 08.10.2020.

With reference to the above mentioned subject, Progress Report for the period February - March, 2022 is enclosed for kind perusal.

Yours sincerely,



(SMITHA. R, IAS)
Member Secretary

Puducherry Pollution Control Committee

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. 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

Overall status of the State:

- I. Total Population: 1244464
 Urban Population: 850123
 Rural Population: 394341
- II. Estimated Sewage Generation (MLD): 92 MLD (URBAN)

III. Details of Sewage Treatment Plant:

1.	Existing no. of STPs and Treatment Capacity (in MLD): at Puducherry (68.5MLD)	3 Nos. of SBR – 51 MLD 2 Nos. of UASB – 5 MLD Oxidation Ponds – 12.5 MLD
2.	Capacity Utilization of existing STPs:	51.6 MLD (75.3%)
3.	MLD of sewage being treated through Alternate technology:	36.5 MLD (on site sanitation like septic tank and soak pit etc.,)
4.	Gap in Treatment Capacity in MLD:	23.5 MLD (92 MLD-68.5 MLD)
5.	No. of Operational STPs:	4 Nos. including oxidation ponds
6.	No. of Complying STPs:	3
7.	No. of Non-complying STPs:	1 No.

Details of each existing STP in the State

Sl. No.	Location	Existing STP Capacity	Capacity being Utilized	Operational Status of STP	Compliance Status of STP
1.	Puducherry	68.5 MLD	75.3 %	4	3

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 Time Line
Nil					

Details of proposed STPs in the State

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 (Abating river pollution at Sankarabarani River)	M/s.WAPCOS, Chennai had submitted the DPR for River Sankaraparani in Villianur, Puducherry on 04.02.2022 and DPR for the River Arasalar in Karaikal on 09.02.2022. After getting necessary approval from Competent Authority, tenders will be called for. Site has been identified and soil test will be started in third week of April, 2022.	Could be furnished only after finalizing the tender based on DPR
2.	Karaikal	3 MLD (Abating river pollution at Arasalar River)		
3.	Puducherry (Left out areas)	“EOI” for Selection of Consultant for Formulation of Detailed Project Report for the Underground Sewerage scheme including Sewage Treatment Plant for the left out Urban and Peri Urban areas of Puducherry and New Project for the entire region of Karaikal, Mahe and Yanam of U.T. of Puducherry”- 1 st call cancelled and invitation for 2 nd EOI to be made after getting approval from the Government.		-
4.	Karaikal (URBAN)			
5.	Mahe			
6.	Yanam			

IV. Details of Industrial Pollution:

1.	No. of industries in the State:	3271
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:	92
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	4746.2KLD	92 ETPs are complying with standards. 5 ETPs are not meeting the discharge standards.	Nil

V. Solid Waste Management:

1.	Total number of Urban Local Bodies and their Population.	Annexure I	
2.	Current Municipal Solid Waste Generation.	406 TPD	
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.	Composting	36 TPD
		Vermi Composting	1 TPD
		Bio-gas	2 TPD
		Material recovered/Recycled	34 TPD
4.	Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%).	Proposed to have Energy recovery plant. Issued Letter of Award (LOA) on 26 th October, 2021 for Integrated Municipal Solid Waste Processing Project at Yanam Municipality, Yanam.	
5.	No. and capacity of C&D waste processing Plants in TPD (existing, proposed and under construction).	There is no processing plant of C&D Waste. At present C&D waste is being collected and stored in earmarked area. C&D waste Generation – 29.35 TPD. A DPR is completed for setting up of C & D waste processing plant at Puducherry on DBFOOT basis.	
6.	Total no. of wards, no. of wards having door to door collection service, no. of wards practicing segregation at source.	Door to Door collection in all wards. Source segregation in 14 wards.	
7.	Details of MSW treatment facilities proposed and under construction (no. capacity and technology).	2	
8.	No. and area (in acres) of uncontrolled Garbage dumpsites and Sanitary Landfills.	3 Nos. of controlled Landfills Puducherry :23.0 Karaikal :8.32 Yanam :0.618 Total 31.938Acres	
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.	All the drains that reaches the Sankaraparan and Arasalar rivers were identified and in-situ remediation of providing grill gratings and bar screen are completed in all the 172 drains.	

Action has been initiated for disposal of legacy waste from the existing Kurumbapet dumping site, through Bio-remediation & Bio-mining with complete reclamation of the dumpsite land in compliance with Solid waste Management Rules, 2016, M/s Zigma Global Environ Solutions Private Limited., Erode. PPCC has issued authorization for processing of legacy waste under SWM Rules, 2016 on 07.01.2022.

- DPR is completed for setting up of daily garbage Processing unit in Kurumbapet for Puducherry urban agglomeration area.
- Implementation of Setting up of Material Recovery facility (MRF) for Non-recyclable waste of 4 TPD in Dubrayapet for the coastal wards of Pondicherry Municipality has been completed.
- DPR is completed for Setting up Material Recovery Facility (MRF) for 10 TPD Recyclable Plastic waste from Pondicherry and Oulgaret Municipality.

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	406	73 TPD	3	18 %	6 months

VI. Bio-medical Waste Management:

1	Total Bio-medical generation:	4430 kg/day
2	No. of Hospitals and Health Care Facilities:	295
3	Status of Treatment Facility/CBMWTF:	One Common Bio-Medical Waste Treatment Facility functional.

VII. Hazardous Waste Management:

1	Total Hazardous Waste generation:	33483 TPA
2	No. of Industries generating Hazardous waste	139 industries obtained authorisation.
3	Treatment Capacity of all TSDFs	-
4	Avg. Quantity of Hazardous waste reaching the TSDFs and Treated.	TSDF: Land fillable Waste reached- M/s. Mother Earth Enviro Tech, Bangalore 198.45 MT during February 172.21MT during March.
5	Details of on-going or proposed TSDF	The TSDF located in neighboring states is being shared.

VIII. Plastic Waste Management:

1	Total Plastic Waste generation:	11753TPA
2	Treatment/Measures adopted for reduction or management of plastic waste:	Government of Puducherry has imposed total ban on single use plastics with effect from 02/08/2019. Surprise inspections are being carried out. 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). As per the order of Hon'ble NGT, Bahour Commune Panchayat (BCP) has been declared as Single Use Plastic Free Commune. Public notice has been issued on 22.02.2022 in Local dailies for elimination of Single Use Plastics in English and vernacular language. A circular dated 24.02.2022 has been issued in all colleges to declare their campus as SUP free campus as per the direction of CPCB, Delhi. 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.

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 gratings and bar screen are completed in all the 172 drains.
XI	Details of Nodal Officer appointed by Chief Secretary in the State/UT:	Secretary (Env't.) DSTE
XII	Details of meetings carried under the Chairmanship of Chief Secretary in the State/UT:	4th State Level Monitoring Committee on Solid Waste Management was held on 08.02.2022.
XIII	Latest water quality of polluted river, its tributaries, drains with flow details and groundwater quality in the catchment of polluted river;	Common STP Water Quality Data and River water quality data of Chunnambar and Arasalar are given in Annexure-II .
XIV	Ground water regulation:	Pondicherry Ground Water Authority had closed 6Nos. of tube wells in Puducherry region and 2 Nos. of tubewells in Karaikal Region during the past 5 years due to illegal extraction of groundwater.
XV	Good irrigation practices being adopted by the State:	Annexure- III
XVI	Rain Water Harvesting:	Annexure-IV
XVII	Demarcation of Flood plain and removal of Illegal encroachments:	Annexure – V
XVIII	Maintaining minimum –flow of river:	Illegal sand mining affect e-flow in the rivers. Hence, DCR(South) has imposed Prohibitory order u/s 144 of CrPc on 1st April, 2019 prohibiting lorries, vans, two wheelers, bullock carts and any similar load carrying vehicles. Check dams were constructed to regulate the flow.

XIX	Plantation activities along the rivers:	Forest Department has planted 80,300 trees in and around Puducherry.
XX	Development of bio-diversity park:	Fencing around Bio-diversity Park and Name board have been provided. Biodiversity Assessment in the Mangrove Forest of Karaikal is carried out between July 2021 and December 2021. It is proposed to extend the study in the Mangrove Forest of Karaikal for further six month period to cover the entire season.
XXI	Reuse of Treated Water:	Annexure-VI
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 submitted to .CPCB dt.24.02.2020.
XXIV	Regulation of Mining Activities in the State/UT:	DCR(South) has imposed Prohibitory order u/s 144 of CrPc on 1 st April, 2019 prohibiting lorries, vans, two wheelers, bullock carts and any similar load carrying vehicles.
XXV	Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring.	-

Details of Solid Waste Generation in Urban Local Bodies (Municipalities)

Sl. No	Name of the Municipality	Total Population as per census 2011	Total Quantity of waste generation in TPD
1.	Puducherry	2,44,700	170
2.	Oulgaret	3,00,104	170
3.	Karaikal	86,838	40
4.	Mahe	41,816	10
5.	Yanam	55,628	16
Total			406

Chunnambar River Water Quality Data			
S.No	Parameters	Mar-22	Standard limit as per the Primary Water Quality Criteria for bathing water - Class of Water B
1	Date of sampling	14.03.2022	
2	Time	04.30 P.M	
3	Temp°C	31.0	
4	pH	8.44	6.5-8.5
5	DO (mg/l)	7.4	5 or more
6	BOD (mg/l)	2.5	3 or less
7	Total Coliform MPN/100 ml	280	
8	Faecal Coliform MPN/100ml	BDL (DL: <1.8)	500 (Desirable) and 2500 (Max. Permissible)
9	Faecal Streptococci MPN/100ml	BDL (DL: <1.8)	100 (Desirable) and 500 (Max. Permissible)

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

Water sample was not collected in Arasalar River due to insufficient water (no flow of water).

Chunnambar River Water Quality Data			
S.No	Parameters	Feb-22	Standard limit as per the Primary Water Quality Criteria for bathing water - Class of Water B
1	Date of sampling	21.02.2022	
2	Time	10.30 A.M	
3	Temp°C	30.0	
4	pH	8.91	6.5-8.5
5	DO (mg/l)	10.0	5 or more
6	BOD (mg/l)	2.8	3 or less
7	Total Coliform MPN/100 ml	94	
8	Faecal Coliform MPN/100ml	BDL (DL: <1.8)	500 (Desirable) and 2500 (Max. Permissible)
9	Faecal Streptococci MPN/100ml	BDL (DL: <1.8)	100 (Desirable) and 500 (Max. Permissible)

Arasalar River Water Quality Data			
S.No	Parameters	Feb-22	Standard limit as per the Primary Water Quality Criteria for bathing water - Class of Water B
1	Date of sampling	10.02.2022	
2	Time	7.00 A.M	
3	Temp°C	27.0	
4	pH	7.82	6.5-8.5
5	DO (mg/l)	6.0	5 or more
6	BOD (mg/l)	2.3	3 or less
7	Total Coliform MPN/100 ml	1600	
8	Faecal Coliform MPN/100ml	< 2	500 (Desirable) and 2500 (Max. Permissible)
9	Faecal Streptococci MPN/100ml	< 2	100 (Desirable) and 500 (Max. Permissible)

BDL - Below Detectable Limit; DL - Detection Limit

MPN- Most Probable Number

ENVIRONMENTAL ANALYTICAL LABORATORY
DEPARTMENT OF SCIENCE, TECHNOLOGY & ENVIRONMENT
PUDUCHERRY POLLUTION CONTROL COMMITTEE

Common Sewage Treatment Plant
Water Quality Data

Location	PWD-STP Near Kanagan Lake	Dubrayapet	Karuvadikuppam				Effluent Discharge Standard
Sample Description	STP - SBR Outlet	STP - SBR Outlet	STP - SBR-2 Outlet	Final Outlet	Stream (Sewage discharge point)		
Date of Sampling	03.03.2022	03.03.2022	03.03.2022	03.03.2022	03.03.2022		
Time of Sampling	10.20 A.M	11.05 A.M	12.15 P.M	12.30 P.M	01.15 P.M		
Parameters							
Temperature °C	30.0	30.0	30.0	29.0	30.0	--	
pH	6.58	7.36	7.58	7.55	7.73	5.5-9.0	
BOD (mg/l)	2.5	4.0	4.0	14.5	15.0	10	
TSS (mg/l)	11.0	19.0	14.0	13.0	14.0	20	
COD (mg/l)	8.0	36.0	40.0	60.0	68.0	50	
Nitrogen - Total (mg/l)	24	10	15	28	30	10	
Phosphorous - Total (mg/l).	0.18	0.45	1.1	4.2	3.9	1.0	
Faecal Coliform (MPN/100 ml)	84	220	170	79	220	100	

Standard limit: As prescribed by Central Pollution Control Board (CPCB) in Hon'ble NGT order in O.A. No. 1069/2018 dated 30.04.2019.

(G. Rukmani)
Scientist-II

**GOVERNMENT OF PUDUCHERRY
OFFICE OF THE BIOCHEMIST
WATER TESTING LABORATORY
P.H.D., P.W.D., PUDUCHERRY
(An ISO/IEC 17025: 2017 NABL Accredited Laboratory)**



Report No.: IR/WTL/PHD/PWD/PDY/2022/W-0080
ULR-TG7580220000085F

Date: 25.02.2022

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub-division, PHD, PWD, Puducherry.
Customer Reference : Test requested dt. 15.02.2022

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2022/W-0080	Sampled by	: Customer
Sample Name	: Waste water	Sampled on	: -
Sample Description	: Waste water	Sampling Location	: Kanagan Eri, Outlet
Temperature	: 28.6°C	Sampling Procedure	: -
Identification by Customer	: Sample 2	Sample Received on	: 15.02.2022
Sample Condition	: Fit for analysis	Test Completed on	: 25.02.2022
Test Started on	: 15.02.2022		

TEST RESULTS

Sl.NO	Test Parameter	Test Method	Units	Results
1	pH @ 25°C	APHA, 23rd Edition, 2017, 4500-H+B	-	7.55
2	Electrical Conductivity @ 25°C	APHA, 23rd Edition, 2017, 2510 B	µmhos/cm	1800
3	Total Dissolved Solids @ 180°C	APHA, 23rd Edition, 2017, 2540 C	mg/L	1080
4	Total Suspended Solids @ 103 - 105°C	APHA, 23rd Edition, 2017, 2540 D	mg/L	BDL (DL:10.0)
5	Settleable Solids	APHA, 23rd Edition, 2017, 2540 F	mL/L	BDL (DL:1.0)
6	Dissolved Oxygen	APHA, 23rd Edition, 2017, 4500 O-B	mg/L	5.2
7	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220 B	mg/L	8.9
8	Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 Part 14, (1994), BA2014	mg/L	3.0
9	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P B, C	mg/L	0.78

Note: BDL : Below Detection Limit, DL : Detection Limit

Authorized Signatory

Anita Ben
Anita Ben
BIOCHEMIST
WATER TESTING LAB
PUBLIC HEALTH DIVISION
P.W.D. PONDICHERRY

Copy Submitted to:

The Executive Engineer,
P.H.D., P.W.D., 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-PHDPWD.
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
OFFICE OF THE BIOCHEMIST
WATER TESTING LABORATORY
P.H.D., P.W.D., PUDUCHERRY

Report No.: TR/WTL/PHD/PWD/PDY/2022/W-0080 (Annexe)

Date: 25.02.2022

TEST REPORT

Customer Name & Address: The Assistant Engineer,

Drainage Sub-division, PHD, PWD, Puducherry.

Customer Reference

Test requested dt. 15.02.2022

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2022/W-0080	Sampled by	: Customer
Sample Name	: Waste water	Sampled on	: -
Sample Description	: Waste water	Sampling Location	: Kanagan Eri, Outlet
Temperature	: 28.6°C	Sampling Procedure	: -
Identification by Customer	: Sample-2	Sample Received on	: 15.02.2022
Sample Condition	: Fit for analysis	Test Completed on	: 25.02.2022
Test Started on	: 15.02.2022		

TEST RESULTS

Sl. NO	Test Parameter	Test Method	Units	Results
1	Phosphorus as P	APHA, 23rd Edn, 2017, 4500-P/B, C	mg/L	0.26
2	Nitrate as NO ₃	APHA, 23rd Edn, 2017, 4500-NO ₃ B	mg/L	12.89

Authorized Signatory

L. Anita Ben
L. Anita Ben
BIOCHEMIST
WATER TESTING LAB
PUBLIC HEALTH DIVISION
P.W.D. PONDICHERRY

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ANNEXURE - II

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

Report No.: TR/WTL/PHD/PWD/PDY/2022/W-0082 (Annexe)

Date: 25.02.2022

TEST REPORT

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

Customer Reference : Test requested dt: 15.02.2022

Page 1 of 1

SAMPLE DETAILS

Sample Code	2022/W-0082	Sampled by	Customer
Sample Name	Waste water	Sampled on	
Sample Description	Waste water	Sampling Location	Lawspet, Outlet
Temperature	28.4°C		
Identification by Customer	Sample 4	Sampling Procedure	
Sample Condition	Fit for analysis	Sample Received on	15.02.2022
Test Started on	15.02.2022	Test Completed on	25.02.2022

TEST RESULTS

Sl.NO	Test Parameter	Test Method	Units	Results
1.	Phosphorus as P	APHA, 23rd Edn, 2017, 4500-P-B-G	mg/L	2.89
2.	Nitrate as NO ₃	APHA, 23rd Edn, 2017, 4500-NO ₃ -B	mg/L	18.12

Authorized Signatory

Anita Ben
Anita Ben
BIOCHEMIST
WATER TESTING LAB
PUBLIC HEALTH DIVISION
P.W.D. PONDICHERRY

Copy Submitted to:

The Executive Engineer,
P.H.D., P.W.D., Puducherry.

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(An ISO/IEC 17025: 2017 NABL Accredited Laboratory)



Report No.: TR/WTL/PHD/PWD/PDY/2022/W-0082
ULR-TC75802200000087E

Date: 25.02.2022

TEST REPORT

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

Customer Reference : Test requested dt: 15.02.2022

Page 1 of 1.

SAMPLE DETAILS

Sample Code:	2022/W-0082	Sampled by:	Customer
Sample Name:	Waste water	Sampled on:	
Sample Description:	Waste water	Sampling Location:	Lawspet, Outlet
Temperature:	28.4°C		
Identification by Customer:	Sample 4	Sampling Procedure:	
Sample Condition:	Fit for analysis	Sample Received on:	15.02.2022
Test Started on:	15.02.2022	Test Completed on:	25.02.2022

TEST RESULTS

Sl.NO	Test Parameter	Test Method	Units	Results
1	pH @ 25°C	APHA, 23rd Edition, 2017, 4500-H+B		6.85
2	Electrical Conductivity @ 25°C	APHA, 23rd Edition, 2017, 2510-B	µmhos/cm	1949
3	Total Dissolved Solids @ 180°C	APHA, 23rd Edition, 2017, 2540-C	mg/L	1168
4	Total Suspended Solids @ 103 - 105°C	APHA, 23rd Edition, 2017, 2540-D	mg/L	BDL (DL 100)
5	Settleable Solids	APHA, 23rd Edition, 2017, 2540-F	mL/L	BDL (DL 1.0)
6	Dissolved Oxygen	APHA, 23rd Edition, 2017, 4500-O-B	mg/L	4.8
7	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220-B	mg/L	16.9
8	Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 Part 44, (1994), RA2014	mg/L	10.0
9	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P B, C	mg/L	8.67

Note: BDL : Below Detection Limit, DL : Detection Limit

Authorized Signatory
L. Anita Ben
L. Anita Ben
BIOCHEMIST
WATER TESTING LAB
PUBLIC HEALTH DIVISION
P.W.D. PONDICHERRY

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ANNEXURE

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

Report No.: TR/WTL/PHD/PWD/PDY/2022/W-0084 (Annexe)

Date: 25.02.2022

TEST REPORT

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

Customer Reference : Test requested dt. 15.02.2022

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2022/W-0084	Sampled by	: Customer
Sample Name	: Waste water	Sampled on	: -
Sample Description	: Waste water	Sampling Location	: Dubrayapet, Outlet
Temperature	: 28.5°C	Sampling Procedure	: -
Identification by Customer	: Sample 6	Sample Received on	: 15.02.2022
Sample Condition	: Fit for analysis	Test Completed on	: 25.02.2022
Test Started on	: 15.02.2022		

TEST RESULTS

Sl.NO	Test Parameter	Test Method	Units	Results
1	Phosphorus as P	APHA, 23rd Edn, 2017, 4500-P-B, C	mg/L	0.54
2	Nitrate as NO ₃	APHA, 23rd Edn, 2017, 4500-NO ₃ B	mg/L	14.62

Authorized Signatory

L. Anita Ben
L. Anita Ben
BIOCHEMIST
WATER TESTING LAB
PUBLIC HEALTH DIVISION
P.W.D. PONDICHERRY

Copy Submitted to:

The Executive Engineer,
P.H.D., P.W.D., Puducherry.

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OFFICE OF THE BIOCHEMIST
WATER TESTING LABORATORY
P.H.D., P.W.D., PUDUCHERRY
 (An ISO/IEC 17025: 2017 NAAL Accredited Laboratory)



Report No. : TR/WT/PWD/PWD/PDY/2022/W-0084
 ULR-TC75802200000089F

Date: 25.02.2022

TEST REPORT

Customer Name & Address : The Assistant Engineer,
 Drainage Sub-division, PHD, PWD, Puducherry.
Customer Reference : Test requested dt. 15.02.2022

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2022/W-0084	Sampled by	: Customer
Sample Name	: Waste water	Sampled on	: --
Sample Description	: Waste water	Sampling Location	: Dubrayapet, Outlet
Temperature	: 28.5°C		
Identification by Customer	: Sample 6	Sampling Procedure	: --
Sample Condition	: Fit for analysis	Sample Received on	: 15.02.2022
Test Started on	: 15.02.2022	Test Completed on	: 25.02.2022

TEST RESULTS

Sl.NO	Test Parameter	Test Method	Units	Results
1	pH @ 25°C	APHA, 23rd Edition, 2017, 4500-H+B	--	6.93
2	Electrical Conductivity @ 25°C	APHA, 23rd Edition, 2017, 2510 B	µmhos/cm	2318
3	Total Dissolved Solids @ 180°C	APHA, 23rd Edition, 2017, 2540 C	mg/L	1388
4	Total Suspended Solids @ 103 - 105°C	APHA, 23rd Edition, 2017, 2540 D	mg/L	BDL (DL=10.0)
5	Settleable Solids	APHA, 23rd Edition, 2017, 2540 F	mL/L	BDL (DL=1.0)
6	Dissolved Oxygen	APHA, 23rd Edition, 2017, 4500 O-B	mg/L	4.2
7	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220 B	mg/L	10.9
8	Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 Part 4: (1994), RA2014	mg/L	6
9	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P B, C	mg/L	1.63

Note: BDL : Below Detection Limit, DL : Detection Limit

Authorized Signatory

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

Report No.: TR/WTL/PHD/PWD/PDY/2022/W-0101 (Annexe)

Date: 05.03.2022

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub-division, PHD, PWD, Puducherry.
Customer Reference : Test requested dt. 22.02.2022

Page 1 of 1

SAMPLE DETAILS

Sample Code	2022/W-0101	Sampled by	Customer
Sample Name	Waste water	Sampled on	
Sample Description	Waste water	Sampling Location	Oxidation pond Outlet, Lawspet
Temperature	28.4°C		
Identification by Customer	Sample 1	Sampling Procedure	
Sample Condition	Fit for analysis	Sample Received on	22.02.2022
Test Started on	22.02.2022	Test Completed on	04.03.2022

TEST RESULTS

Sl.NO	Test Parameter	Test Method	Units	Results
1.	Phosphorus as P	APHA, 23rd Edn, 2017, 4500-P B, C	mg/L	4.61
2.	Nitrate as NO ₃	APHA, 23rd Edn, 2017, 4500-NO ₃ B	mg/L	17.24

Authorized Signatory

V. Vimala

Vimala Venkatachalam

BIOCHEMIST

WATER TESTING LABORATORY

PUBLIC HEALTH DIVISION

P.W.D., PUDUCHERRY

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(An ISO/IEC 17025: 2017 NABL Accredited Laboratory)**



Report No. : TR/WTL/PHD/PWD/PDY/2022/W-0101
ULR-TC7580220000099F

Date: 05.03.2022

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub-division, PHD, PWD, Puducherry.
Customer Reference : Test requested dt. 22.02.2022

Page 1 of 1

SAMPLE DETAILS

Sample Code	2022/W-0101	Sampled by	Customer
Sample Name	Waste water	Sampled on	-
Sample Description	Waste water	Sampling Location	Oxidation pond Outlet, Lawspet
Temperature	28.4°C	Sampling Procedure	-
Identification by Customer	Sample 1	Sample Received on	22.02.2022
Sample Condition	Fit for analysis	Test Completed on	04.03.2022
Test Started on	22.02.2022		

TEST RESULTS

Sl.NO	Test Parameter	Test Method	Units	Results
1	pH @ 25°C	APHA, 23rd Edition, 2017, 4500-H+B	-	6.68
2	Electrical Conductivity @ 25°C	APHA, 23rd Edition, 2017, 2510 B	µmhos/cm	2959
3	Total Dissolved Solids @ 180°C	APHA, 23rd Edition, 2017, 2540 C	mg/L	1776
4	Total Suspended Solids @ 103-105°C	APHA, 23rd Edition, 2017, 2540 D	mg/L	14
5	Settleable Solids	APHA, 23rd Edition, 2017, 2540 E	mL/L	BDL (DL:1.0)
6	Dissolved Oxygen	APHA, 23rd Edition, 2017, 4500 O-B	mg/L	BDL (DL:0.5)
7	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220 B	mg/L	27.9
8	Biochemical Oxygen Demand (3 days at 27°C)	IS:3025 Part 44, (1994); RA2014	mg/L	17.7
9	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P-B, C	mg/L	13.83

Note: BDL : Below Detection Limit; DL : Detection Limit

Authorized Signatory

V. Venkatachalam
Vimala Venkatachalam
BIOCHEMIST

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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.

Ground Water Recharge/ Rain Water Harvesting

Government of Puducherry is taking continuous efforts to protect and restore the ground water resources and fulfill the water requirement of present without compromising the needs of future generation. The details of the various actions taken by the Government of Puducherry on Ground Water Recharge and Rain Water Harvesting are stated below:

1. U.T of Puducherry prepared a separate Water Policy in 2016 to develop, conserve and manage the water resources in the region in a sustainable manner guided by the national perspective. The policy encourages taking all efforts to store the surplus rainwater in the canals, ravines and rivers by way of constructing small bed dams or regulators. Traditional water conservation practices of rain water harvesting including roof top rain water harvesting is also promoted through appropriate legislative measures.
2. The Puducherry Building By-laws and Zoning Regulations mandates the building owners to take effective measures for rain water harvesting and necessary conditions are incorporated in the Building Permits. 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.
3. The Puducherry Ground Water Authority has been constituted under the Pondicherry Ground Water (Control & Regulation) Act, 2002 to effectively and efficiently control and regulate the extraction of Ground water in the Union Territory. The Puducherry Ground Water Authority does not issues fresh permits/renews permits to any industries / institutions unless it is installing the Rain Water Harvesting System in their respective buildings. This is put as a precondition and insisted upon while granting clearance to the industries.
4. Rain water harvesting structures have been provided in all Government buildings at Government cost wherever feasible. The Department of Agriculture constructed 30 roof top rain water harvesting structures in Government buildings. Public Works Department, Puducherry constructed 165 roof top rainwater harvesting structures in Government schools and Colleges. Further, Rain Water Harvesting Structures have been constructed in 121 industries in Puducherry.

5. To augment ground water recharge in the river basins the Public Works Department has constructed 26 bed dams in Puducherry and Karaikal region another 8 bed dams are proposed to be newly constructed. The construction of bed dam has considerably helped in the raising of ground water level.
6. Recharge structures are constructed in the desilted ponds for recharge of ground water aquifer since 1990 onwards.
7. Attractive Subsidy assistance is being extended for renovation of unused dug-cum-bore wells for harvesting rainwater.
8. Recharge shafts are being constructed across the river courses/ channels / river beds near the water holding area for better recharging of groundwater.
9. Construction of Farm Ponds is promoted for harvesting Rain Water and reuses it for critical wilting of crops in Karaikal region. The ponds are also used for fish culture by which the farmers are realizing additional income by extending attractive subsidy assistance.
10. Agriculture Department and Department of Science, Technology and Environment conducts awareness programmes to the Publics, Farmers, Students and industrialist on conservation of water and harvesting rain water.
11. Tanks and ponds play a vital role in recharging ground water resources. The task of rehabilitation of tanks was taken up by the Government of Puducherry under Tank Rehabilitation Project, Puducherry (TRPP) with the financial assistance of European Union in the year 1998 which lasted for 6 years till 2004. Under this project all the 84 numbers of tanks located in Puducherry have been desilted and their water holding capacity has been increased from 46 MCM to 75 MCM which has given a good impact in the ground water regime of Puducherry. Subsequently in 2016, rejuvenation of 25 tanks and 32 village ponds in Puducherry have been taken up with funding from the Ministry of Environment Forests and Climate Change, Govt. of India under the National Adaptation fund for Climate Change and the project is under progress. Also, the U.T. Government has taken up desilting of urban drains, rural canals and village ponds with the cooperation of the general public and donor institutions under various projects initiated by the U.T. Government. The Industries and Institutions are encouraged to take up the restoration works under CSR. Public Participation and Student Participation are encouraged to strengthen the community ownership. To make the restoration initiative sustainable, a team is formed for each pond in a combination of SHG of the own Village, NSS students of the own Villages and Self Interest Groups like Lion Club, Rotary Club etc., for future maintenance.

PROTECTION AND MANAGEMENT OF FLOOD PLAIN ZONES (FPZ)

SL No.	Key components of proposed action plans for restoration of identified polluted river stretches in States/UTs	Proposed Achievable Target	Proposed Time Targets for Compliance	Present status and or Pendency in terms of %	Remarks
1.	Flood Plain Zone protection and its management	Proposal submitted for approval of 50.00Crore.	2020-2025	The Karaikal Region is receiving water from the Seven Cauvery distributaries from Tamilnadu. The flood / excess water due to rainfall run off will be released and regulated by Tamilnadu Irrigation Division from the upper reaches through these seven distributaries. The river banks and the inspection tracks are almost strengthened to receive the flood water from upper reaches in Tamilnadu and to dispose safely to the Ocean (Bay of Bengal). However flood protection scheme works has been included under Flood Management and Border Area Program for an amount of Rs. 50 Crore in the proposal for the period from 2020-2025 for getting approval from Government. The details are enclosed, in which for protecting the Arasalar river bank an estimate for an amount of Rs.10.00 Crore is earmarked to protect the Left Bank of Arasalar river above tail end regulator at Melaoduthurai.	After getting approval of works under Flood Management and Border Area Programme, DPR will be submitted

Reuse of Treated Water

Station	Purpose	Quantity
Lawspet STP	Industrial usage	0.8 MLD
	Fodder Grass raising	6 MLD
	Coconut Plantation	
	Silk cotton trees	
	Natural recharging through impounding reservoir	9 MLD
Dubrayapet STP	Watering the road side plantation by PWD and Municipality	0.015 MLD
	Construction activities	
	Total	15.815 MLD