

No. 6836/NGT/SLMC/SCI/2021/1532
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 03 DEC 2021

To

✓ Shri.D.P.Mathuria
Executive Director (Tech)
National Mission for Clean Ganga
Ministry of Jai Shakti,
P' Floor, Major Dhyani 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: Your Letter 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
October 2021 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: | 57 MLD (83%) |
| 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 Nos. |
| 7. | No. of Non-complying STPs: | 1 No. * |

*BOD in oxidation pond (17 mg/l) is slightly higher than the standard limit (10 mg/l). In order to reduce the BOD level in the oxidation ponds, Bio-Remediation is proposed.

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 | 83% | 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

| 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) | Work order issued to M/s.WAPCOS, Chennai on 21.06.2021 for preparation of DPR for installation of STPs at Sankarabarani River in Villianur, Puducherry and near Arasalar River, Karaikal. Surveying works are in progress. The firm has submitted interim report on 07.09.2021. The firm was asked to submit the DPR immediately. | Will be Informed 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: | 98 |
| 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 | Existing-97 | 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%). | <p>Proposed to have Energy recovery plant. **</p> <p>Issued Letter of Award (LOA) on 26th October, 2021 for Integrated Municipal Solid Waste Processing Project at Yanam Municipality, Yanam.</p> | |
| 5. | No. and capacity of C&D waste processing Plants in TPD (existing, proposed and under construction). | <p>There is no processing plant of C&D Waste.</p> <p>At present C&D waste is being collected and stored in earmarked area.</p> <p>C&D waste Generation – 29.35 TPD.</p> <p>A DPR is completed for setting up of C & D waste processing plant at Puducherry on DBFOOT basis.</p> | |
| 6. | Total no. of wards, no. of wards having door to door collection service, no. of wards practicing segregation at source. | In all 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. | <p>3 Nos. of controlled Landfills</p> <p>Puducherry :23.0</p> <p>Karaikal :8.32</p> <p>Yanam :0.618</p> <p>Total 31.938Acres</p> | |

| | | |
|-----|--|---|
| 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 Sankaraparani and Arasalar rivers were identified and in-situ remediation of providing grill gratings and bar screen are completed in all the 172 drains. |

- The Oulgaret Municipality had submitted a report stating that the bidder M/s Zigma Global Environ Solutions Private Limited., Chennai has been selected as the agency for disposing the existing legacy waste under the Project titled “Disposal of Legacy Waste from the exiting Kurumbapet dumping site, through Bio-remediation & Bio-mining means with complete reclamation of the dumpsite land in compliance with Solid waste Management Rules, 2016, on DBFOO model”. LOA issued and contract Agreement signed.
- 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 inTPD | 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: | 4421 kg/day |
| 2 | No. of Hospitals and Health Care Facilities: | 277 |
| 3 | Status of Treatment Facility/CBMWTF: | One Common Bio-Medical Waste Treatment Facility functional. |

VII. Hazardous Waste Management:

| | | |
|---|--|--|
| 1 | Total Hazardous Waste generation: | 33483TPA |
| 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 –84.76 Tons |
| 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: | <p>Government of Puducherry has imposed total ban on single use plastics with effect from 02/08/2019.</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>Bahour Commune Panchayat (BCP) has been declared as Single Use Plastic Free Commune.</p> <p>Closure direction was issued to M/s Kuberan Plastics on 15.10.2021.</p> |
| 3 | Details of Alternate Treatment Technology being adopted by the State/UT | Nil |
| 4 | 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. |
| 5 | Details of Nodal Officer appointed by Chief Secretary in the State/UT: | Secretary (Env't.) DSTE |
| 6 | Details of meetings carried under the Chairmanship of Chief Secretary in the State/UT: | 3 rd State Level Monitoring Committee was held on 04.02.2020. |

| | | |
|----|---|--|
| 7 | 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 are given in Annexure-II . |
| 8 | 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. |
| 9 | Good irrigation practices being adopted by the State: | Annexure- III |
| 10 | Rain Water Harvesting: | Annexure-IV |
| 11 | Demarcation of Flood plain and removal of Illegal encroachments: | Annexure – V |
| 12 | 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. |
| 13 | Plantation activities along the rivers: | Forest Department has planted 80,300 trees in and around Puducherry. |
| 14 | Development of bio-diversity park: | Fencing around Bio-diversity Park and Name board have been provided. |
| 15 | Reuse of Treated Water: | Annexure-VI |
| 16 | Model River being adopted by the State & Action Proposed for achieving the bathing quality standards: | Chunnambar River -Sankarabarani |
| 17 | Status of Preparation of Action Plan by the 13 Coastal States: | Action plan submitted to .CPCB dt.24.02.2020. It is proposed to carry out Marine water quality |

| | | |
|----|--|--|
| | | assessment within 5km of Sea after the monsoon. |
| 18 | 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. |
| 19 | 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 |

WATER TESTING LABORATORY
PUBLIC HEALTH DIVISION
P.W.D., PUDUCHERRY
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Report No. : TR/WTL/PHD/PWD/PDY/2021/S-0153
ULR-TC75802100000456F

Date: 22.10.2021

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub-division, PHD, PWD, Puducherry.
Customer Reference : Test requested dt. 06.10.2021

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SAMPLE DETAILS

| | | | |
|----------------------------|--------------------|--------------------|----------------------|
| Sample Code | : 2021/S-0153 | Sampled by | : Customer |
| Sample Name | : Waste water | Sampled on | : -- |
| Sample Description | : Waste water | Sampling Location | : Lawspet STP outlet |
| Temperature | : 31.2°C | Sampling Procedure | : -- |
| Identification by Customer | : Sample 2 | Sample Received on | : 06.10.2021 |
| Sample Condition | : Fit for analysis | Test Completed on | : 22.10.2021 |
| Test Started on | : 06.10.2021 | | |

TEST RESULTS

| Sl.NO | Test Parameter | Test Method | Units | Results |
|-------|---|--|----------|---------------|
| 1 | pH @ 25°C | APHA, 23rd Edition, 2017, 4500-H+B | -- | 7.06 |
| 2 | Electrical Conductivity @ 25°C | APHA, 23rd Edition, 2017, 2510 B | µmhos/cm | 2440 |
| 3 | Total Dissolved Solids @180°C | APHA, 23rd Edition, 2017, 2540 C | mg/L | 1464 |
| 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 | 3.1 |
| 7 | Chemical Oxygen Demand | APHA, 23rd Edition, 2017, 5220 B | mg/L | 12.9 |
| 8 | Biochemical Oxygen Demand (3 days at 27°C) | IS 3025 Part44; (1994); RA2014 | mg/L | 3.0 |
| 9 | Phosphorus as P | APHA, 23rd Edn, 2017, 4500-P B, C | mg/L | 2.27 |
| 10 | Nitrate as NO ₃ | APHA, 23rd Edn, 2017, 4500-NO ₃ B | mg/L | 10.27 |

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

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

Authorized Signatory

Vimala Venkatachalam

Vimala Venkatachalam
BIOCHEMIST

WATER TESTING LABORATORY
PUBLIC HEALTH DIVISION
P.W.D., PUDUCHERRY.

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Report No. : TR/WTL/PHD/PWD/PDY/2021/S-0155
 ULR-TC75802100000458F

Date: 22.10.2021

TEST REPORT

Customer Name & Address : The Assistant Engineer,
 Drainage Sub-division, PHD, PWD, Puducherry.
Customer Reference : Test requested dt. 06.10.2021

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SAMPLE DETAILS

| | | | |
|----------------------------|--------------------|--------------------|--------------------------|
| Sample Code | : 2021/S-0155 | Sampled by | : Customer |
| Sample Name | : Waste water | Sampled on | : -- |
| Sample Description | : Waste water | Sampling Location | : Kanagan Eri STP outlet |
| Temperature | : 30.9°C | Sampling Procedure | : -- |
| Identification by Customer | : Sample 4 | Sample Received on | : 06.10.2021 |
| Sample Condition | : Fit for analysis | Test Completed on | : 22.10.2021 |
| Test Started on | : 06.10.2021 | | |

TEST RESULTS

| Sl.NO | Test Parameter | Test Method | Units | Results |
|-------|---|--|----------|---------------|
| 1 | pH @ 25°C | APHA, 23rd Edition, 2017, 4500-H+B | -- | 7.13 |
| 2 | Electrical Conductivity @ 25°C | APHA, 23rd Edition, 2017, 2510 B | µmhos/cm | 2470 |
| 3 | Total Dissolved Solids @180°C | APHA, 23rd Edition, 2017, 2540 C | mg/L | 1480 |
| 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 | 3.4 |
| 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 Part44; (1994); RA2014 | mg/L | 2.0 |
| 9 | Phosphorus as P | APHA, 23rd Edn, 2017, 4500-P B, C | mg/L | 1.06 |
| 10 | Nitrate as NO ₃ | APHA, 23rd Edn, 2017, 4500-NO ₃ B | mg/L | 11.58 |

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

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

Authorized Signatory

V. Venkatachalam

Vimala Venkatachalam
 BIOCHEMIST
 WATER TESTING LABORATORY
 PUBLIC HEALTH DIVISION
 P.W.D., PUDUCHERRY.

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Report No. : TR/WTL/PHD/PWD/PDY/2021/S-0157
ULR-TC75802100000460F

Date: 22.10.2021

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub-division, PHD, PWD, Puducherry.
Customer Reference : Test requested dt. 06.10.2021

Page 1 of 1

SAMPLE DETAILS

| | | | |
|----------------------------|--------------------|--------------------|-------------------------|
| Sample Code | : 2021/S-0157 | Sampled by | : Customer |
| Sample Name | : Waste water | Sampled on | : -- |
| Sample Description | : Waste water | | |
| Temperature | : 31.4°C | Sampling Location | : Dubrayapet STP outlet |
| Identification by Customer | : Sample 6 | Sampling Procedure | : -- |
| Sample Condition | : Fit for analysis | Sample Received on | : 06.10.2021 |
| Test Started on | : 06.10.2021 | Test Completed on | : 22.10.2021 |

TEST RESULTS

| Sl.NO | Test Parameter | Test Method | Units | Results |
|-------|--|--|----------|---------------|
| 1 | pH @ 25°C | APHA, 23rd Edition, 2017, 4500-H+B | -- | 7.20 |
| 2 | Electrical Conductivity @ 25°C | APHA, 23rd Edition, 2017, 2510 B | µmhos/cm | 2220 |
| 3 | Total Dissolved Solids @180°C | APHA, 23rd Edition, 2017, 2540 C | mg/L | 1328 |
| 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 | 2.9 |
| 7 | Chemical Oxygen Demand | APHA, 23rd Edition, 2017, 5220 B | mg/L | 18.9 |
| 8 | Biochemical Oxygen Demand (3 days at 27°C) | IS 3025 Part44; (1994); RA2014 | mg/L | 5.0 |
| 9 | Phosphorus as P | APHA, 23rd Edn, 2017, 4500-P B, C | mg/L | 2.07 |
| 10 | Nitrate as NO ₃ | APHA, 23rd Edn, 2017, 4500-NO ₃ B | mg/L | 12.46 |

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

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

Authorized Signatory

Vimala Venkatachalam

Vimala Venkatachalam
BIOCHEMIST
WATER TESTING LABORATORY
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Report No. : TR/WTL/PHD/PWD/PDY/2021/S-0159
ULR-TC75802100000534F

Date: 02.11.2021

TC-7580

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub-division, PHD, PWD, Puducherry.
Customer Reference : Test requested dt. 21.10.2021

Page 1 of 1

SAMPLE DETAILS

| | | | |
|----------------------------|--------------------|--------------------|------------------------|
| Sample Code | : 2021/S-0159 | Sampled by | : Customer |
| Sample Name | : Waste water | Sampled on | : -- |
| Sample Description | : Waste water | Sampling Location | : Karuvadikuppam drain |
| Temperature | : -- | | |
| Identification by Customer | : Sample 2 | Sampling Procedure | : -- |
| Sample Condition | : Fit for analysis | Sample Received on | : 21.10.2021 |
| Test Started on | : 21.10.2021 | Test Completed on | : 02.11.2021 |

TEST RESULTS

| Sl.NO | Test Parameter | Test Method | Units | Results |
|-------|---|--|----------|---------------|
| 1 | pH @ 25°C | APHA, 23rd Edition, 2017, 4500-H+B | -- | 7.01 |
| 2 | Electrical Conductivity @ 25°C | APHA, 23rd Edition, 2017, 2510 B | µmhos/cm | 2612 |
| 3 | Total Dissolved Solids @180°C | APHA, 23rd Edition, 2017, 2540 C | mg/L | 1567 |
| 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 | BDL (DL:0.5) |
| 7 | Chemical Oxygen Demand | APHA, 23rd Edition, 2017, 5220 B | mg/L | 29 |
| 8 | Biochemical Oxygen Demand (3 days at 27°C) | IS 3025 Part44; (1994); RA2014 | mg/L | 17 |
| 9 | Phosphorus as P | APHA, 23rd Edn, 2017, 4500-P B, C | mg/L | 3.40 |
| 10 | Nitrate as NO ₃ | APHA, 23rd Edn, 2017, 4500-NO ₃ B | mg/L | 11.48 |

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

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

Authorized Signatory

Anita Ben
Anita Ben
BIOCHEMIST
WATER TESTING LAB
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P.W.D PONDICHERRY

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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 |