No. 6836/NGT/SLMC/SEE/2020/1251

GOVERNMENT OF PUDUCHERRY
DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT
PUDUCHERRY POLLUTION CONTROL COMMITTEE
3rd Floor, Housing Board Complex, Anna Nagar, Puducherry – 5.
Phone: (0413) 2201256 Fax: (0413) 2203494

Puducherry, dt. 10 FEB 2020

To

Shri. D.P. Mathura
Executive Director (Tech)
National Mission for Clean Ganga
Ministry of Jal Shakti,
1st Floor, Major Dhyan Chand National Stadium,
India Gate, New Delhi – 110 002

Sir,

Sub: DSTE – Submission of Monthly Progressive Report on Restoration of Polluted River Stretches- Reg.

Ref: Your Letter No. L-34/2014-15/Legal/2019 (Part) dt. 22.01.2020.

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With reference to the above mentioned subject, Monthly Progressive Report for the Month of January is enclosed for perusal.

Yours Sincerely,

(SMITHA. R)
Member Secretary
Puducherry Pollution Control Committee

Copy to:

1. The Member Secretary,
   Central Pollution Control Board,
   PariveshBhawan, C.B.D. Cum-Office Complex,
   East Arjun Nagar, Delhi – 110 032.

2. Guard File.

MONTHLY PROGRESS REPORT – JANUARY, 2020

Sl.No	Activity to be monitored	Timeline	Status
1	Ensure 100% treatment of sewage at least in-situ remediation. Rs. 5 lakhs per month per drain for default in in-situ remediation.	31.03.2020	Direction was issued to PWD, LAD to provide insitu treatment on 07.02.2020.
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured. Rs. 5 lakhs for STP for default in Commencement of setting up of STPs .	31.03.2020	PWD and LAD have been directed to provide STP before March, 2021
2	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning.	31.03.2021	
3	Chief Secretaries may set up appropriate monitoring mechanism at State level • Specifying accountability of nodal authorities not below the Secretary level Chief Secretaries may have an accountable person attached in their office for this purpose • Monitoring at State level must take place	22.01.2020 22.01.2020	State Level Monitoring Committee (SLMC) has been constituted on 08.01.2020. Secretary (Environment), Government of Puducherry First meeting of SLMC was convened on 29.01.2020.
4	Progress report may be furnished by the States/UTs to • Secretary, Ministry of Jal Shakthi • Member Secretary, CPCB	Monthly (preferably before 20th of every month)	Progressive report was submitted on 10.02.2020.

4.1	Source of Pollution including drains have been identified	31.03.2020	Source of Pollution including major drains have been identified. Details are provide in **Annexure – II.**
4.2	<u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline	2025	100% coverage of sewerage network has been provide for Puducherry urban area. Sufficient capacity of STP to treat sewage generated in the urban area is available. Tender for providing 3 MLD STP at Villianur, (for Chunnambar) and at Karaikal (for Arasalar) was floated on 23.01.2020. It will be opened on 21.02.2020.
4.3	<u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status		No CETP is exists in the U.T. of Puducherry Since no homogeneous industrial cluster is located in the U.T. of Puducherry, installing CETP is not technically and economically viable.
4.4	Status of Solid Waste Management & Details of Processing Facilities	6 months	i. Door to Door collection of solid waste is being carried out in Villianur and Ariyankuppam town where Sankaraparani river is passing through. ii. Processing will be initiated.
4.4 (a)	Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline	6 Months	i. ULBs in which segregation and transportation of waste is proposed to implement in 1 Municipality (Yanam)

		6 Months 6 Months 6 Months 9 Months 6 Months	ii. Recycling of 27.7 Tons in One ULB viz. Yanam Municipality. iii. Composting of 176.35 Tons in One ULB. iv. Bio-methanation of 1 Ton in One ULB. v. RDF 90.45 Tons in Two ULB. vi. Landfilling is proposed in Three ULBs of Quantity 54.50.
4.5	Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river.		**Annexure I-IV**
4.6	Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams, etc.	1 month	**<u>Bio-medical Waste Management</u>** i) U.T of Puducherry is having one Common Bio-medical Waste Treatment Facility viz. M/s. Pondicherry Solid Waste Management (P) Ltd., at Thuthipet. All Health Care Facilities (HCFs) located in Puducherry & Karaikal are disposing through them. ii) The HCFs located in Yanam is disposing through M/s. EVB Technologies (P) Ltd., Rajamundry, which is in the neighbouring state. iii) In Mahe the HCFs are disposing them Bio-medical Waste through an incinerator available in General Hospital, Mahe. iv) Bar-coding is proposed to implement.

			<u>Plastic Waste Management</u> i. Single use Plastic has been banned in the U.T of Puducherry since 2nd August 2019, irrespective of thickness for manufacture, store and use of the same. ii. Plastic Registration is being issued to Plastic manufacturers, Recyclers, Brand Owners and Plastic granule manufacturers as per PWM Rules, 2016. iii. The Brand owners and Manufacturers of MCP are submitting the EPR for Collection & Disposal of Plastic Waste as per guidelines of CPCB. iv. The manufacturers are collecting the Plastic Waste and sending it for registered recyclers/co-processing in cement kiln.
4.7	Ground water regulation	Already in force	Pondicherry Ground Water Authority had closed 6 Nos. of tubewells in Puducherry region and 2 Nos. of tubewells in Karaikal Region during the past 5 years due to illegal extraction of ground water.

<table>
<tr><td>4.8</td><td>Adopting good irrigation practices</td><td>Already in force</td><td>Annexure- V</td></tr>
<tr><td>4.9</td><td>Protection and management of Flood Plain Zones (FPZ)</td><td>1 year</td><td>Annexure – VI</td></tr>
<tr><td>4.10</td><td>Rain water harvesting</td><td>Already in force</td><td>Annexure – VII</td></tr>
<tr><td>4.11</td><td>Maintaining minimum environmental flow of river</td><td>Already in force</td><td>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.</td></tr>
<tr><td>4.12</td><td>Plantation on both sides of the river</td><td>Already in force</td><td>Forest Department has planted 4000 mangroves plant on the bank of Chunnambar river bed.

No. of Trees planted on the Arasalar River Bank

<table><tr><th>Sl.No</th><th>Year</th><th>Nos</th></tr><tr><td>1</td><td>2017</td><td>2023</td></tr><tr><td>2</td><td>2018</td><td>7859</td></tr><tr><td>3</td><td>2019</td><td>7362</td></tr></table></td></tr>
<tr><td>4.13</td><td>Setting up biodiversity parks on flood plains by removing encroachment</td><td>6 months</td><td>Mangrove plantation of 25 acre has been identified for developing biodiversity park.</td></tr>
</table>

ANNEXURE - I

Chunnambar River Water Quality Data - DEC' 2019			
S.No	**Parameters**	**Dec-19**	**Standard limit as per the Primary Water Quality Criteria for bathing water - Class of Water B**
1	Temp°C	28.0	
2	pH	7.76	6.5-8.5
3	DO (mg/l)	4.0	5 or more
4	BOD (mg/l)	2.8	3 or less
5	Faecal Coliform MPN/100ml	240	500 (Desirable) and 2500 (Max. Permissible)
6	Faecal Streptococci MPN/100ml	<1.8	100 (Desirable) and 500 (Max. Permissible)

Arasalar River Water Quality Data - DEC' 2019			
S.No	**Parameters**	**Dec-19**	**Standard limit as per the Primary Water Quality Criteria for bathing water - Class of Water B**
1	Temp°C	29.5	
2	pH	7.52	6.5-8.5
3	DO (mg/l)	4	5 or more
4	BOD (mg/l)	BDL	3 or less

MPN- Most Probable Number
BDL- Below Detectable Limit

ANNEXURE – II

Drains to Chunnambar River

S.No	Parameters	Drainage - I (Kanuvapet)	Drainage - II (Odianpet)
1	Date	04.11.2019	04.11.2019
3	Temp°C	30	32
4	pH	7.14	7.42
5	COD (mg/l)	204	96
6	BOD (mg/l)	45	15
7	TSS (mg/l)	40	8
8	Faecal Coliform MPN/100ml	240	220
9	Faecal Streptococci MPN/100ml	<1.8	<1.8

Drains to Arasalar River

S.No	Parameters	Drainage - I (Puthurai)
1	Date	04.02.2020
2	Temp°C	27
3	pH	7.38
4	COD (mg/l)	16
5	TSS (mg/l)	15

ANNEXURE – III

WATER QUALITY DATA NEAR CHUNNAMBAR RIVER

Sl.No	Parameters	Odaiveli Borewell
1	Dt.of Sampling	04.11.2019
2	Time	03.45 P.M
3	Temperature ℃	32
4	pH	6.26
5	Conductivity µmho/cm	525
6	COD (mg/l)	Nil
7	BOD (mg/l)	BDL
8	Turbidity NTU	5.9
9	Nitrate -N (mg/l)	BDL(0.0018)
10	Nitrite-N (mg/l)	BDL (0.0003)
11	Nitrate (mg/l)	BDL (0.0079)
12	Bi- Carbonate as $CaCO_3$ (mg/l)	198
13	Carbonate (mg/l)	Nil
14	Chloride (mg/l)	46.6
15	Total Hardness (mg/l)	168
16	Calcium hardness (mg/l)	102
17	Magnesium hardness (mg/l)	66
18	Calcium as Ca++ (mg/l)	40.8
19	Magnesium as Mg++ (mg/l)	16
20	TDS (mg/l)	284
21	TSS (mg/l)	5
22	FDS /TFS (mg/l)	209
23	Sodium (mg/l)	41.7
24	Potassium (mg/l)	3.1
25	Sulphate (mg/l)	27.8
27	% Sodium	34.4
28	SAR	1.4
29	Cr6+ mg/l	BDL
30	Phosphate (mg/l)	0.06

ANNEXURE – IV

GROUND WATER QUALITY DATA NEAR ARASALAR RIVER

Sl.No	Parameters	Vadamattam	Vanjore	Acceptable Limit	Permisable limit
	Station Code	**2014**	**2013**		
1	Dt.of Sampling	16.09.19	16.09.19		
2	Time	06.30 P.M	07.00 P.M		
3	Temperature °C	28.5	29.0		
4	pH	8.13	8.09	6.5-8.5	NR
5	Conductivity µmho/cm	1598	2260		
6	COD (mg/l)	Nil	Nil		
7	BOD (mg/l)	BDL	BDL		
8	Turbidity NTU	0.5	0.5	1	5
9	Nitrate -N (mg/l)	1.02	0.66		
10	Nitrite-N (mg/l)	0.16	0.03		
11	Nitrate (mg/l)	4.52	2.93	45	NR
12	Hexavalent Chromium (mg/l)	BDL	BDL		
13	Bi- Carbonate as $CaCO_3$ (mg/l)	325.9	344.4	200	600
14	Carbonate (mg/l)	22.5	24.6		
15	Chloride (mg/l)	297.8	500.3	250	1000
16	Total Hardness (mg/l)	32.0	114.0	200	600
17	Calcium Hardness (mg/l)	24.0	62.0		

18	Magnesium Hardness (mg/l)	8.0	52.0		
19	Calcium as Ca++ (mg/l)	9.6	24.8	75	200
20	Magnesium as Mg++ (mg/l)	1.9	12.6	30	100
21	TDS (mg/l)	806.0	1580.0	500	2000
22	TSS (mg/l)	BDL	BDL		
23	FDS /TFS (mg/l)	775.0	1148.0		
24	Sodium (mg/l)	382.9	503.8		
25	Potassium (mg/l)	4.3	4.3		
26	Ortho Phosphate (mg/l)	0.20	0.15		
27	% Sodium	95.7	90.1		
28	SAR	29.5	20.5		
29	Copper mg/L	BDL	BDL	0.05	1.5
30	Nickel mg/L	BDL	BDL	0.02	NR
31	Cadmium mg/L	BDL	BDL	0.003	NR
32	Lead mg/L	BDL	BDL	0.01	NR
33	Total Chromium mg/L	BDL	BDL	0.05	NR
34	Iron mg/L	0.1	0.07	0.3	NR
35	Zinc mg/L	BDL	BDL	5	15
36	Arsenic mg/L	BDL	BDL	0.01	0.05
37	Mercury mg/L	BDL	BDL	0.001	NR

ANNEXURE – V

ADOPTION OF GOOD IRRIGATION PRACTICE

1. In the present budget a subsidy of Rs. 5000/- has been proposed for cultivation of Millets / Minor Millets which would help in reducing water usage.
2. It is proposed to cover more area under precision farming.
3. System of Rice Intensification (SRI) is popularized among the farming community as a water saving measure.
4. Sustainable Sugarcane Initiative (SSI) for reducing water consumption in sugarcane crops is also being popularized.
5. Attractive subsidy assistance is being extended to farmers for installation of Drip / Sprinkler irrigation devices.
6. Attractive subsidy assistance is being extended to farmers for laying underground pipelines for conveyance of irrigation water.

ANNEXURE - VI

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 50.00 Crore	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 Programe 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 Programe, DPR will be submitted

ANNEXURE – VII

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 to take all efforts to store the surplus rain water 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 rain water 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 26bed 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 are being extended for renovation of unused dug-cum-bore wells for harvesting rain water.

8. Recharge shafts are being constructed across the river courses/ channels / river beds near the water holding area for better recharging of ground water.

9. Construction of Farm Ponds is promoted for harvesting Rain Water and reuse 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 to create awareness about the 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 since 2017 viz. Water Rich Puducherry program initiated by the Hon'ble Lieutenant Governor of Puducherry, Neerum Oorum Program and Nam Neer Program initiated by the District Collectors of Puducherry and Karaikal Districts respectively. Under these programs Government Employees are motivated by the administration to contribute for the desilting of water bodies through Employee Social Responsibility (ESR) Fund as a pioneer initiative which received an overwhelming response. The Industries and Institutions are also 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, Rotract Club, etc., for future maintenance.