

No. 6836/NGT/SLMC/SCI/2021/921
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

To

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

Puducherry, the

30 AUG 2021

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 dated 08.10.2020.

With reference to the above mentioned subject, Progress Report for the period
April – July 2021 is enclosed for kind perusal.

Yours sincerely,

S. Dinesh Kannan

(Dr. S. DINESH KANNAN, IFS)
Member Secretary
Puducherry Pollution Control Committee

%c

Encl: 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.

S. Dinesh Kannan
30/8/2021
DESPATCHED

**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: 1247953
Urban Population: 852753
Rural Population: 395200
- 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:	55.5 MLD (81%)
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 (92-68.5)
5.	No. of Operational STPs:	4 Nos.
6.	No. of Complying STPs:	3 Nos.
7.	No. of Non-complying STPs:	1 No. *

***In order to reduce the BOD level in the Oxidation Ponds, Bio-Remediation is proposed to be taken up**

Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
	Puducherry	68.5 MLD	81%	4	3
	Karaikal	-	-	-	-
	Mahe	-	-	-	-
	Yanam	-	-	-	-

Details of proposed STPs in the State

S. 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 Chunnambar (Sankarabarani) River in Villianur, Puducherry and near Arasalar River, Karaikal. Surveying works are in progress.	by March 2022
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 2 nd call to be made.		-
4.	Karaikal (URBAN)			
5.	Mahe			
6.	Yanam			

II. Details of Industrial Pollution:

1.	No. of industries in the State:	3271
2.	No. of water polluting industries in the State:	98
3.	Quantity of effluent generated from the industries in MLD:	4.74 MLD
4.	Quantity of Hazardous Sludge generated from the Industries in TPD:	3.43 TPD
5.	Number of industrial units having ETPs:	96
6.	Number of industrial units connected to CETP:	Nil
7.	Number and total capacity of ETPs (details of existing/ under construction/ proposed)	Existing – 96 Capacity – 4.74 MLD
8.	Compliance status of the ETPs:	85
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	All are functional	Nil

III. Solid Waste Management:

1.	Total number of Urban Local Bodies and their Population.	Annexure I	
2.	Current Municipal Solid Waste Generation.	395.72 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	22 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. A proposal for waste processing has been sent to GOI for financial Assistance for Yanam Municipality.	
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 & stored in earmarked area. C & D waste Generation – 65.38 TPD Oulgaret Municipality has prepared RFP document in consultation with IL&FS for collection, Transportation and setting up of a Construction and Demolition Processing plant” at Truck terminal Mettupalayam on DF Boot basis. The project area earmarked totally is 1.4493 Hectares. The capacity of the plant is 50 TPD up scalable up to 100 TPD and the project cost being 6.52 Crores. The concession period is 15 years and may be extended for another 5 years based on plant performance.	

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.	3Nos. Puducherry :23.0 Karaikal :8.32 Yanam :0.618 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.	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.

Note: 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”. Issued Letter of Award to the bidder and is under process.

It is also stated that, Action is being taken for the processing of fresh garbage with the following steps viz.

- i) Source segregation
- ii) Transportation of Dry waste as Refuse Derived Fuel (RDF)
- iii) Establishment of separate storage space for silt and Construction and Demolition waste
- iv) Setting up of Domestic Hazardous waste storage unit
- v) Setting up of Incinerator 5 TPD capacity
- vi) Bio-Methanation plant

The local bodies are under process for remediation of Legacy waste dumpsites and processing of fresh garbage.

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 Timeline
5	395.72	61 TPD	3	15%	6 months

IV. Bio-medical Waste Management:

1	Total Bio-medical generation:	4360 kg/day
2	No. of Hospitals and Health Care Facilities:	267
3	Status of Treatment Facility/CBMWTF:	One Common Bio-Medical Waste Treatment Facility functional.

V. Hazardous Waste Management:

1	Total Hazardous Waste generation:	34052 TPA
2	No. of Industries generating Hazardous waste	140 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- (i) M/s. Mother Earth Enviro Tech, Bangalore. April 2021 – 233.93 Tons May 2021 – 244.95 Tons June 2021 – 178.28 Tons July 2021 – 237.35 Tons
5	Details of on-going or proposed TSDF	The TSDF located in neighboring states is being shared.

VI. **Plastic Waste Management:**

1	Total Plastic Waste generation:	12754 TPA
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. Action Plan for Phasing out of Single Use Plastic has been prepared and circulated to Head of all Departments for implementation. Standard Operating Procedure (SOP) for implementation of Action Plan for Phasing out of SUP in the U.T. of Puducherry has been framed. During 2020, 675 MT of Plastic waste and MLP were disposed through CO-processing and recycling. <u>Plastic Waste Management:</u> In this regard, a meeting was convened on 12.02.2021, with implementing officers. So far, during 2020, 943 MT of Plastic waste and MLP were disposed through Co-processing and recycling. Government of Puducherry has constituted the “Special Task Force” under the Chairmanship of the Chief Secretary, for taking measures to eliminate Single Use Plastic and also to prepare a comprehensive Action Plan for implementation of Plastic Waste Management Rules, 2016 in the U.T. of Puducherry on 08.07.2021.

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 sand 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:	3 rd State Level Monitoring Committee was held on 04.02.2020.

XIII	Latest water quality of pollute driver, its tributaries, drains with flow details and ground water quality in the catchment of pollute driver;	Common STP Water Quality Data, River Water Quality Data for April 2021 and Drain Water Quality Data are given in Annexure-II . Water was not available in Chunnambar and Arasalar River during the month of May – July 2021. Hence water sample could not be collected.												
XIV	Ground water regulation:	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.												
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 4000 man groves plant on the bank of Chunnambar River bed. No. of Trees planted on the Arasalar River Bank <table border="1"> <thead> <tr> <th>Sl.No</th><th>Year</th><th>Nos</th></tr> </thead> <tbody> <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> </tbody> </table>	Sl.No	Year	Nos	1	2017	2023	2	2018	7859	3	2019	7362
Sl.No	Year	Nos												
1	2017	2023												
2	2018	7859												
3	2019	7362												
XX	Development of bio-diversity park:	Bio-diversity park has been demarked on the bank of Arasalar River, Karaikal. Issue of notification in this regard is under process.												
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 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.	-

ANNEXURE-I**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	165.72
3.	Karaikal	86,838	40
4.	Mahe	41,816	04
5.	Yanam	55,628	16
Total			395.72

ANNEXURE-II

Chunnambar River Water Quality Data			
S.No	Parameters	Apr-21	Standard limit as per the Primary Water Quality Criteria for bathing water - Class of Water B
1	Date of sampling	12.04.2021	
2	Time	12.45 P.M	
3	Temp °C	33.0	
4	pH	7.89	6.5-8.5
5	DO (mg/l)	5.6	5 or more
6	BOD (mg/l)	2.5	3 or less
7	Total Coliform MPN/100 ml	500	500 or less
8	Faecal Coliform MPN/100ml	<2	500 (Desirable) and 2500 (Max. Permissible)
9	Faecal Streptococci MPN/100ml	140	100 (Desirable) and 500 (Max. Permissible)

Arasalar River Water Quality Data			
S.No	Parameters	Apr-21	Standard limit as per the Primary Water Quality Criteria for bathing water - Class of Water B
1	Date of sampling	15.04.2021	
2	Time	08.00 A.M	
3	Temp °C	26.8	
4	pH	7.30	6.5-8.5
5	DO (mg/l)	6.1	5 or more
6	BOD (mg/l)	1.3	3 or less

MPN-Most Probable Number

Drainage Water Quality Data - Puducherry

S.No.	Parameters	Vaithikuppam	Kurusukuppam	Grand Canal Near Pallivasal	Uppanar Near Water Tank	Thengaithittu Lagoon
1	Sample ID	1286	1287	1288	1289	1290
2	Date of Sampling	21.06.2021	21.06.2021	21.06.2021	21.06.2021	21.06.2021
3	Date of Time	10.20 A.M	10.30 A.M	10.45 A.M	11.15 A.M	11.30 A.M
4	Temp °C	32.0	32.0	30.0	33.0	33.0
5	pH	7.16	7.53	7.68	7.78	7.73
6	TSS (mg/l)	42.0	11.0	27.0	18.0	18.0
7	BOD (mg/l)	73.0	16.0	17.0	22.0	25.0
8	COD (mg/l)	112.0	48.0	48.0	72.0	76.0
9	NO ₃ -N (mg/l)	2.47	1.65	1.26	1.64	2.09
10	NO ₂ -N (mg/l)	BDL (DL - 0.02)	0.03	BDL (DL - 0.02)		
11	NH ₃ -N (mg/l)	19.77	20.45	14.60	19.86	20.25
12	Nitrate as NO ₃ (mg/l)	10.95	7.31	5.58	7.26	9.25
13	Phosphate as PO ₄ (mg/l)	2.97	0.40	0.46	1.16	0.84
14	Sulphate (mg/l)	93.46	52.77	67.98	73.40	85.16
15	Total Coliform MPN/100ml	350	220	280	300	170
16	Faecal Coliform MPN/100ml	70	23	22	40	21
17	Faecal Streptococci MPN/100ml	<2	<2	<2	<2	<2

BDL – Below Detectable Limit; DL – Detection Limit

WATER TESTING LABORATORY
PUBLIC HEALTH DIVISION
P.W.D., PUDUCHERRY
(An ISO/IEC 17025 : 2017 NABL Accredited Laboratory)



Report No. : TR/WTL/PHD/PWD/PDY/2021/S-0101

Date: 04.08.2021

TEST REPORT

Customer Name & Address : The Assistant Engineer,
Drainage Sub-Division, PHD, PWD., Puducherry.
Customer Reference : Test requested No. Nil dt.20.07.2021

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2021/S-0101	Sampled by	: Customer
Sample Name	: Waste water	Sampled on	: --
Sample Description	: Waste water	Sampling Location	: Karuvadikuppam SBR outlet, Lawspet
Temperature	: 30.7°C		
Identification by Customer	: Sample 1	Sampling Procedure	: --
Sample Condition	: Fit for analysis	Sample Received on	: 20.07.2021
Test Started on	: 20.07.2021	Test Completed on	: 04.08.2021

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	2600
3	Total Dissolved Solids @ 180°C	APHA, 23rd Edition, 2017, 2540 C	mg/L	1560
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	3.2
7	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220 B	mg/L	28.6
8	Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 Part44; (1994); RA2014	mg/L	10.9
9	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P B, C	mg/L	3.37

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

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

Authorized Signatory

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

Copy Submitted to:
The Executive Engineer,
P.H.D., P.W.D., Puducherry.

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**WATER TESTING LABORATORY
PUBLIC HEALTH DIVISION
P.W.D., PUDUCHERRY**
(An ISO/IEC 17025 : 2017 NABL Accredited Laboratory)



Report No. : TR/WTL/PHD/PWD/PDY/2021/S-0103

Date: 04.08.2021

TEST REPORT

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

Customer Reference : Test requested No. Nil dt.20.07.2021

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2021/S-0103	Sampled by	: Customer
Sample Name	: Waste water	Sampled on	: --
Sample Description	: Waste water	Sampling Location	: SBR outlet, Dubrayapet
Temperature	: 30.8°C	Sampling Procedure	: --
Identification by Customer	: Sample 2	Sample Received on	: 20.07.2021
Sample Condition	: Fit for analysis	Test Completed on	: 04.08.2021
Test Started on	: 20.07.2021		

TEST RESULTS

Sl.NO	Test Parameter	Test Method	Units	Results
1	pH @ 25°C	APHA, 23rd Edition, 2017, 4500-H+B	--	7.38
2	Electrical Conductivity @ 25°C	APHA, 23rd Edition, 2017, 2510 B	µmhos/cm	2420
3	Total Dissolved Solids @180°C	APHA, 23rd Edition, 2017, 2540 C	mg/L	1452
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	3.8
7	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220 B	mg/L	23.7
8	Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 Part44; (1994); RA2014	mg/L	4.9
9	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P B, C	mg/L	1.96

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

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

Authorized Signatory

Vimala Venkatachalam
BIOCHEMIST

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

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P.W.D., PUDUCHERRY
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Report No. : TR/WTL/PHD/PWD/PDY/2021/S-0105

Date: 04.08.2021

TEST REPORT

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

Customer Reference : Test requested No. Nil dt.20.07.2021

Page 1 of 1

SAMPLE DETAILS

Sample Code	: 2021/S-0105	Sampled by	: Customer
Sample Name	: Waste water	Sampled on	: --
Sample Description	: Waste water	Sampling Location	: SBR outlet, Kanaga Eri
Temperature	: 31.6°C	Sampling Procedure	: --
Identification by Customer	: Sample 3	Sample Received on	: 20.07.2021
Sample Condition	: Fit for analysis	Test Completed on	: 04.08.2021
Test Started on	: 20.07.2021		

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	2090
3	Total Dissolved Solids @180°C	APHA, 23rd Edition, 2017, 2540 C	mg/L	1254
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	2.4
7	Chemical Oxygen Demand	APHA, 23rd Edition, 2017, 5220 B	mg/L	17.7
8	Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 Part44; (1994); RA2014	mg/L	9.9
9	Total Phosphate as PO ₄	APHA, 23rd Edn, 2017, 4500-P B, C	mg/L	2.89

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

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

Authorized Signatory

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

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ANNEXURE-III**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.
-

ANNEXURE-IV**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 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 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 create awareness 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 50.00 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 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

ANNEXURE-VI**Reuse of Treated Water**

Station	Purpose	Quantity
Lawsipet 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