

Joint Committee Report submitted to Hon'ble National Green Tribunal with respect to order dated 15/07/2020 in O.A.No.191 of 2015 (SZ) filed by Thiru S.P. Muthuraman tagged with Original Application No.178/2014 filed by Thiru. T. Rajamanickam, before Hon'ble National Green Tribunal (SZ).

It is submitted that Hon'ble National Green Tribunal(SZ) in its order dated 15/07/2020 in O.A.No.191 of 2015 (SZ) with O.A. No.178 of 2014 of (SZ) has stated in para No.4,5& 6 that the joint committee report dated 16/03/2020 filed before the tribunal in O.A.No.191 of 2015 (SZ) does not show the time line within which the temporary measures suggested by the committee will be implemented by the Corporation. It was also stated that there are some allegations regarding illegal sand mining on the banks of Thamirabarani River and also illegal discharge of trade effluents and other effluents into the river by the nearby industries and workshops etc., apart from pollution caused on account of discharge of untreated sewage into the river which is revealed from the allegation in the Original Application No.178/2014."

The Hon'ble National Green Tribunal has directed the Joint Committee appointed by the Tribunal in Original Application No.191/2015 to go into the question regarding the allegations made in Original Application No.178/2014 and submit a factual as well as action taken report if there is any further violation found on the basis of the allegations made in Original Application No.178/2014."

A. Directions issued by Hon'ble National Green Tribunal (SZ) in its order dated 15/07/2020 pertaining to O.A.No.191 of 2015.

As directed by the Hon'ble NGT (SZ), the **Tirunelveli Municipal Corporation** has furnished the time schedule for completion of the permanent and temporary measures proposed to control the direct discharge of sewage into river Thamirabarani.

The Tirunelveli Municipal Corporation is operating a STP comprising of Waste Stabilization Pond (WSP) of capacity 24.2 MLD capacity. Presently city sewage of 10 MLD collected through underground sewerage system is being treated in the above said WSP. Remaining city sewage from unsewered area is partly discharged into **River Thamirabarani** at 7 major locations, sewage from Pettai area discharged into **Kodagan channel**, Sewage from Melapalayam, Kulavanikarpuram area and etc., discharged into **Palayamkal channel** and Sewage generated from Tirunelveli Town discharged into **Tirunelveli channel**.

Permanent Action Plan proposed by Tirunelveli Municipal Corporation:

The Tirunelveli Municipal Corporation has proposed the UGSS Scheme for the remaining unsewered area. The present ongoing underground sewerage system for the left out area Tirunelveli Corporation is divided with respect to the River Tamirabarani flowing from south to north of the city. The West of Tamirabarani is covered under **Phase II** and East of Tamirabarani is covered under **Phase III**.

Area covered under Phase II	Status of work and Time schedule for completion as furnished by Tirunelveli Municipal Corporation.
The West of River Tamirabarani covers Tirunelveli administrative zone (full), Melapalayam administrative zone (partial) and Thachanallur administrative zone (partial).	The UGSS work is carried out by M/s. L & T Constructions at cost of Rs.291.81 Crores Date of Commencement: 26.07.2018 Date of Completion: 25.01.2022 Work Under Progress : 44% Completed
Area covered under Phase-III:	
East of River Tamirabarani covers Palayamkottai administrative zone (full), Melapalayam administrative zone (partial) and Thachanallur administrative zone (partial).	The UGSS work is carried out by M/s. Simplex Infrastructure Limited at a cost of 421.54 Crores. Date of Commencement: 23.01.2019 Date of Completion: 22.07.2022 Work Under Progress : 4% Completed It was informed that the delay in execution was due to the contractor's poor mobilization of resources. For the delay in progress of work, BG's were encashed by the Corporation equivalent to 10% of contract value. Moreover, final showcause notice sent to the Contractor for termination of contract on 14.08.2020 and reply awaited.

Mode of treatment and disposal of sewage:

- Present quantity of sewage treated in existing WSP treatment- 10 MLD
- Total quantity of sewage collected and transported from Phase-II and III - 58 MLD.
- Proposed to provide 58 MLD SBR (Sequential Batch Reactor) treatment systems under Smart City Mission.
- Cost of the Treatment – 98.5 crores
- Envisaging the possibility of using treated sewage for the industrial use at SIPCOT area at Gangaikondan.

Temporary Action Plan proposed by Tirunelveli Municipal Corporation:

The Tirunelveli Municipal Corporation has informed the following:

- The point sources of sewage entering into the river Thamirabarani are intercepted and a localized treatment system employing **DEWATS** technology at 8 locations are proposed.

- In this process floated materials are retained, and the sewage is allowed for Sedimentation and further treated with anaerobic process and the processed water is filtered using Pebble Media.
- Three layers of filter media from bottom of chamber is provided such as first layer 40mm jelly for 30 cm. thick laid, over to this layer 20 mm. jelly for 30 cm. thick laid and over to this layer coarse sand 30 cm. thick laid.
- It is also planned to plant green plants on the downstream side of treatment which will facilitate further removal of contaminant found in the waste water.
- Plantations will be completed by October'2020.
- Finally, filtered water let into the river after the same is utilized for vegetation.
- DEWATS technologies are constructed on experimental basis.
- The improvement on the system will be carried out based on the quality of treated water assessed and coliform removal will be studied in due course of time.

Status of work and time schedule for completion

S. No.	Location	Quantity of Waste water generation in KL/day	Status of completion	Time schedule for completion
1	Kailasapuram	35	Incomplete*	In operation
2	Sindhupoondhurai	120	Incomplete*	In operation
3	Kokkirakulam (opp. to Collectorate)	5	Incomplete*	In operation
	Kokkirakulam Mariamman Kovil Street	20	Under progress	30/09/2020
4	Meenakshipuram	40	Incomplete*	In operation
	Meenakshipuram Anna Street	30	Under progress	30/09/2020
5	Kurukkuthurai	3	Work not started	31/12/2020
6	Vannarapettai Ramalingar Street	5	Work not started	31/12/2020
7	Valaiyapathi Street	4	Work not started	31/12/2020
8	Udayarpatti	2	Work not started	31/12/2020

* DEWATS technology includes specific vegetation to reduce pollution load, so work is incomplete.

Photograph showing the Temporary Treatment units proposed by Tirunelveli Municipal Corporation

Completed

KAILASAPURAM





MEENAKSHIPURAM



KOKKIRAKULAM (opposite to Collectorate)



SINDHUPOONTHURAI

UNDER CONSTRUCTION



MEENAKSHIPURAM (ANNA NAGAR)



KOKKIRAKULAM-Mariamman Kovil

Time schedule for completion of the Permanent Action Plan by other Urban Local Bodies located along the river stretch for the control of sewage let into irrigation channel:

1. **Vickramasingapuram Municipality:** (Sewage let into North Kodaimelalagian channel)

Action plan proposed:

- To provide in-situ treatment methodology at a cost of Rs.120 lakhs comprising of Screen, Grit followed by Horizontal planted gravel filter.
 - The insitu treatment is proposed for grey water.
 - 12 locations were identified where grey water is generated and accordingly 12 treatment units were proposed.

- The number of houses from where grey water is collected, quantity of grey water and capacity for which treatment is proposed is yet to be assessed.
- Preparation of Detailed Project Report is done by the TWIC, Chennai is in progress

➤ **Implementation of Faecal Sludge Treatment Plant (FSTP) of capacity 30 KLD at a cost of Rs. 315.00 Lakhs**

- The design is based on the census population anticipated during the year 2041. The sludge generation is taken as 230 litre/head and total sludge to be treated per day amounts to 22.18 KLD.
- 90% of work Completed.
- The Balance work will be completed on or before 31.10.2020



Photograph showing the status of construction of FSTP by Vickramasingapuram Municipality

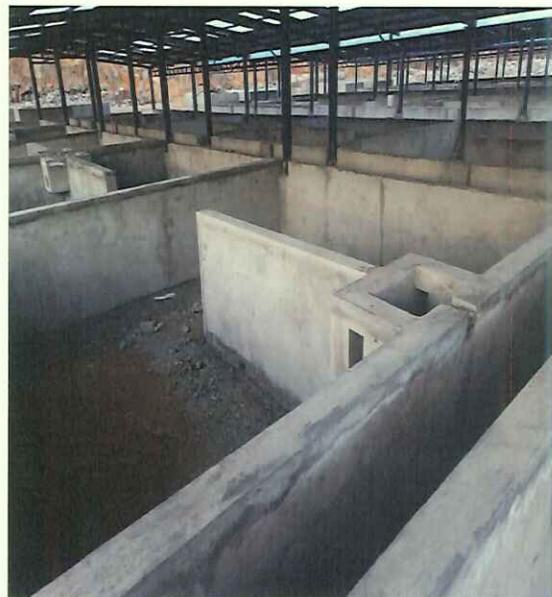
2. Ambasamudram Municipality: (Sewage let into Nathiyunni Channel)

Action plan proposed:

- **To provide in-situ treatment methodology at a cost of Rs.77 lakhs comprising of Screen, Grit followed by Horizontal planted gravel filter.**
- The insitu treatment is proposed for grey water.
 - 8 locations were identified where grey water is generated and accordingly 8 treatment units were proposed.
 - The number of houses from where grey water is collected, quantity of grey water and capacity for which treatment is proposed is yet to be assessed.
 - Preparation of Detailed Project Report is done by TWIC, Chennai is in progress

➤ **Implementation of Faecal Sludge Treatment Plant (FSTP) of capacity 30KLD at a cost of Rs. 315.00 Lakhs.**

- The design is based on the census population anticipated during the year 2041. The sludge generation is taken as 230 litre/head and total sludge to be treated per day amounts to 25.73 KLD.
- Work under progress
- The work will be completed before 31.10.2020



Photograph showing the status of construction of FSTP by Ambasamudram Municipality

3. Kallidaikurichi Town Panchayat: (Sewage let into Kannadian channel)

Action plan proposed:

- **Proposed Liquid Waste Management system by providing Horizontal filter method at cost of Rs.20.00 Lakhs at 20 Places in Kallidaikurichi Town Panchayat.**
- The insitu treatment is proposed for grey water.
 - 20 locations were identified where grey water is discharged and accordingly 20 number of treatment units proposed.
 - Grey water is collected from 1931 number of houses of total quantity 432 KLD and proposed to provide treatment units of capacity 464 KLD altogether ranging from 5 KLD to 52 KLD.
 - Detailed Project Report Proposal submitted to Assistant Director of Town Panchayats, Tirunelveli Zone, for according Administration Sanction.
 - The work will be executed and completed before 31.12.2020.
 - Domestic sewage from toilets are treated through septic tanks.

4. Veeravanallur Town Panchayat: (Sewage let into Kannadian channel)

Action plan proposed:

- **Proposed Liquid Waste Management system by providing Horizontal filter method at a cost of Rs.10.00 lakhs at 5 locations** at 4th North street, Sattupala street, Renganathasamy sannathi Street, Subramaniasamy sannathi street and Elavady colony in Veeravanallur Town Panchayat
- The insitu treatment is proposed for grey water.
 - 5 locations were identified where grey water is discharged and accordingly 5 number of treatment units proposed.
 - Grey water is collected from 480 numbers of houses of total quantity 217 KLD and proposed to provide treatment units of capacity 220 KLD altogether ranging from 15 KLD to 70 KLD.
 - Detailed Project Report Proposal submitted to Assistant Director of Town Panchayats, Tirunelveli Zone, for according Administration Sanction.
 - The work will be executed and completed before 31.12.2020.
 - Domestic sewage from toilets are treated through septic tanks

5. Mukkudal Town Panchayat: (Sewage let into drainage Channel)

Action plan proposed:

- **Proposed Liquid Waste Management system by providing treatment unit at a cost of 3.00 Lakhs at 1 location at Muthumalaiamman Kovil Street in Mukkudal Town Panchayat.**
- The insitu treatment is proposed for grey water.
 - 1 location was identified where grey water is discharged and accordingly 1 number of treatment unit proposed.
 - Grey water is collected from 56 numbers of houses of total quantity 13 KLD and proposed to provide treatment units of capacity 15 KLD altogether.
 - Detailed Project Report Proposal submitted to Assistant Director of Town Panchayats, Tirunelveli Zone, for according Administration Sanction.
 - The work will be executed and completed before 31.12.2020.
 - Domestic sewage from toilets are treated through septic tanks

6. Cheranmahadevi Town Panchayat: (Sewage let into Kannadian channel)

Action plan proposed:

- **Proposed Liquid waste Management system by providing Vertical filter method at cost of Rs.11.50 Lakhs at 13 Places in Cheranmahadevi Town Panchayat.**
 - The insitu treatment is proposed for grey water.
 - 13 locations were identified where grey water is discharged and accordingly 13 number of treatment units proposed.
 - Grey water is collected from 703 numbers of houses of total quantity 158 KLD and proposed to provide treatment units of capacity 195 KLD altogether ranging from 10 KLD to 20 KLD.
 - Detailed Project Report Proposal submitted to Assistant Director of Town Panchayats, Tirunelveli Zone, for according Administration Sanction.
 - The work will be executed and completed before 31.12.2020.
 - Domestic sewage from toilets are treated through septic tanks

7. Pathamadai Town Panchayat: (Sewage let into Kannadian channel)

Action plan proposed:

- **Proposed Liquid Waste Management system by providing treatment units at a cost of Rs.9.00 lakhs at 3 locations at Gopalan Street, Bharathidasan Street and Marudhupandiyar Street in Pathamadai Town Panchayat**
 - The insitu treatment is proposed for grey water.
 - 3 locations were identified where grey water is discharged and accordingly 3 number of treatment units proposed.
 - Grey water is collected from 598 numbers of houses of total quantity 134 KLD and proposed to provide treatment units of capacity 143 KLD altogether ranging from 20 KLD to 80 KLD.
 - Detailed Project Report Proposal submitted to Assistant Director of Town Panchayats, Tirunelveli Zone, for according Administration Sanction.
 - The work will be executed and completed before 31.12.2020.
 - Domestic sewage from toilets are treated through septic tanks

8. Gopalamudram Town Panchayat: (Sewage let into Palayamkal channel)

Action plan proposed:

- **Proposed Liquid Waste Management system by providing treatment units at a cost of 3.00 lakhs at Vadakkur Perumal Sannathi street**

- The insitu treatment is proposed for grey water.
- 1 location was identified where grey water is discharged and accordingly 1 number of treatment unit proposed.
- Grey water is collected from 153 numbers of houses of total quantity 30 KLD and proposed to provide treatment units of capacity 40 KLD.
- Detailed Project Report Proposal submitted to Assistant Director of Town Panchayats, Tirunelveli Zone, for according Administration Sanction.
- The work will be executed and completed before 31.12.2020.
- Domestic sewage from toilets are treated through septic tanks

9. Melasevel Town Panchayat: (Sewage let into Kannadian channel)

Action plan proposed:

- **Proposed Liquid Waste Management system by providing treatment unit at Keelarathaveethi street at the estimate cost of Rs.3.00 lakhs in Melaseval Town Panchayat**

- The insitu treatment is proposed for grey water.
- 1 location were identified where grey water is discharged and accordingly 1 number of treatment unit proposed.
- Grey water is collected from 163 numbers of houses of total quantity 37 KLD and proposed to provide treatment units of capacity 40 KLD.
- Detailed Project Report Proposal submitted to Assistant Director of Town Panchayats, Tirunelveli Zone, for according Administration Sanction.
- The work will be executed and completed before 31.12.2020.
- Domestic sewage from toilets are treated through septic tanks

10. Naranammal puram Town Panchayat

Kuruchikulam main road sewage let into Kuruchikulamchannel, Ram Nagar sewage let into Alangulam Pond and Anandakrishnapuram Main street sewage let into River Thamirabarani.

Action plan proposed:

- **Proposed Liquid Waste Management system by providing treatment unit at 3 locations at cost of 9.00 lakhs at Kuruchikulam main road, Ram Nagar and Anandakrishnapuram Main street.**

- The insitu treatment is proposed for grey water.
- 3 locations were identified where grey water is discharged and accordingly 3 number of treatment units proposed.
- Grey water is collected from 649 number of houses of total quantity 146 KLD and proposed to provide treatment units of capacity 150 KLD altogether ranging from 30 KLD to 80 KLD.
- Detailed Project Report Proposal submitted to Assistant Director of Town Panchayats, Tirunelveli Zone, for according Administration Sanction.
- The work will be executed and completed before 31.12.2020.
- Domestic sewage from toilets are treated through septic tanks

B. Directions issued by Hon'ble National Green Tribunal (SZ) in its order dated 15/07/2020 pertaining to O.A.No.178 of 2014

It is submitted that O.A. No. 178 of 2014 (SZ) was filed by Thiru. T. Rajamanickam before Hon'ble NGT (SZ) wherein it was stated that River Thamirabarani lost its mineral and resources due to illegal sand mining caused by the sand mining mafia gang and also pollution is caused to the River by way of three modes.

1. Washing of old sarees and old dress material with the use of poisonous acids (The said incident takes place adjacent to the ancient and holy Kurukkuthurai Murugan Temple in the early hours.)
2. Cleaning of vehicles at the river side (Tourists vehicles van drivers and owners including heavy vehicle are used to wash at the river side and the waste water mixed with the river water and causing pollution to the river.)
3. Mixing of septic tank wastes (The waste of the septic tank is also dumped and brought to the river through pipes and channels are also dumped into the river.)

The action taken against the above issues are as follows:

1. Illegal Sand Mining in River Thamirabarani.

- The Assistant Director, Geology and Mining, Tirunelveli has informed that stringent action being taken by Revenue, Police and Mines department. Flying Squad of Department of Geology and Mining conducts raids to curb illegal sand, stock and movement of sand. Taluk level Task Force headed by Tahsildhar and District level Task Force headed by District Collector has been formed and meetings were conducted regularly during fortnight and monthly respectively.

- The details of action taken are tabulated as below.

S. No.	Year	No. of Vehicles Seized	Amount of penalty Collected Rs.in lakhs	No. of Criminal Case/ FIR filed	No. of Cases booked under Goondas Act
1	2014-15	501	18.47	410	-
2	2015-16	307	17.35	387	-
3	2016-17	274	16.63	289	7
4	2017-18	549	23.80	635	7
5	2018-19	401	13.79	418	-
6	2019-20	282	68.83	283	-
7	2020-21 (up to July 2020)	147	6.35	361	-

- The Executive Engineer, PWD/WRD, Thamirabarani basin Division, Tirunelveli has informed that the value of the sand seized is given to Police Department.

2. Washing of old sarees and old dress material with the use of poisonous acids:

- The Commissioner, Tirunelveli Municipal Corporation has informed that it has proposed to construct Dhobi Khana in three locations to prevent washing of clothes by washermannamely at Karupandhurai, Vannarapettai – Thirukkuriippu Street and Vannarapettai Salai Street.
- The type of laundering allowed in the Dhobi Ghana is wet wash so normal detergents and soaps will be used.
- Effluent coming out of the Dhobi Ghana will be having Soap oil substance and some suspended and dissolved solids with slight demand for COD and BOD.
- Oil water separator is proposed which will eventually remove the soap oil, suspended solids.
- Treated water is discharged into the Thamirabarani River, dilution factor of treated water into the river is high which helps in aerating and low maintenance.
- Oil Water Separator is proposed at all three sites according to the effluent discharge which will take care of the effluent treatment.
- The above said three units will be completed by 30.09.2021.

3. Cleaning of vehicles at the river side

- The Commissioner, Tirunelveli Municipal Corporation has informed that it has proposed to erect vertical stones to prevent the vehicles entry.

- The Municipal Commissioners, Vickramasingapuram Municipality and Ambasamudram Municipality has informed that vehicles are not washed near river side in their jurisdiction.

The Executive officers, Kallidaikurichi Town Panchayat, and Cheranmahadevi Town Panchayat have informed that strict instructions were given to avoid cleaning of vehicles at the Tamirabarani River Bank and field staffs were engaged to monitor. Also warning sign Board were provided in this regard.(Copy of photograph enclosed).



**Tirunelveli District – Kallidaikurichi Town Panchayat
Warning display sign board at Tamirabarani River Bank**

- The Executive officers, Mukkudal Town Panchayat, Pathamadai Town Panchayat and Melasevel Town Panchayat has informed that cleaning of vehicles are not possible at river side as the stretch leading to the river bed is very narrow and further there is no accessibility for the vehicles to reach near the river bed.

4. Mixing of septic tank wastes:

- The Tirunelveli Municipal Corporation has informed that to prevent mixing of final effluent from the outlet of the Septic tank in river Thamirabarani, UGSS schemes are being executed in Phase-II and Phase-III. The Phase-II work has been commenced on 26.07.2018 at a project cost of Rs. 291.81 crores, 44% of work Completed and expected to be completed by 25.01.2022. The Phase –III work has been commenced on 23.01.2019 at a project cost of Rs. 421.54 Crores, 4% of work Completed and expected to be completed by 22.07.2022.

- The Tirunelveli Municipal Corporation has also informed that DEWATS Technology is being implemented at 8 locations namely [Kailasapuram, Meenakshipuram, Sindhupondhurai, Kokkirakulam (opp. to Collectorate) and Mariamman Koil Street and Meenakshipuram (Anna Nagar)] as temporary measures to treat the domestic sewage discharged in to river.

Action taken by TNPCB:

1. Directions were issued to the Commissioner, Tirunelveli Municipal Corporation vide Board's Proc.No.T1/TNPCB/F.10807/TNV/2020 dated 25/06/2020 as stated therein which includes.
 - a. The Tirunelveli Municipal Corporation shall complete the underground sewerage system for the unsewered city area and to ensure that the untreated city sewage presently let into River Thamirabarani, Kodagan channel, Tirunelveli channel and Palayamkal channel is stopped and to ensure 100% treatment of sewage.
 - b. The Tirunelveli Municipal Corporation shall be liable to pay compensation as already directed by Hon'ble NGT (PB) vide order dated 28.08.2019 in O.A. No.593/2017 from 01/04/2020 for disposal of Municipal sewage into River Thamirabarani.
 - c. The Tirunelveli Municipal Corporation shall furnish proposal on the underground sewerage system (UGSS Phase-2 & 3) and STP along with time bound schedule of completion.
2. Consent to Establish was issued to the establishment of Fecal Sludge Treatment Plant (FSTP) to The Commissioner, Vickramasingapuram Municipality vide Proc.No. F.2618TNV/RS/DEE/TNPCB/TNV/W&A/2020 Dated 02/01/2020 valid for 5 years.
3. Consent to Establish was issued to the establishment of Fecal Sludge Treatment Plant (FSTP) to The Commissioner, Ambasamudram Municipality vide Proc. No. F.2973TNV/RS/DEE/TNPCB/TNV/W&A/2020 Dated 31/01/2020 valid for 5 years.
4. The filter bed arrangements provided by Tirunelveli Municipal Corporation was inspected on 12/08/2020 and noticed that the system was put into operation at 4 Samples of sewage before and after treatment was collected on 12/08/2020 at 4 locations where the filter beds were put into operations.(copy of photograph enclosed).

5. The Report of analysis of the treated sewage collected at the inlet and outlet of filter bed reveals that 60 to 72 % of TSS reduction and 12 – 25 % of BOD reduction was noticed in the above filter bed treatment. The capacity of filter bed provided at Kokkirakulam (opp. to Collectorate) is found to be not adequate to treat the flow received.

S. No	Location	pH		TSS mg/L			BOD mg/L		
		Inlet of filter bed	Outlet of filter bed	Inlet of filter bed	Outlet of filter bed	% reduction	Inlet of filter bed	Outlet of filter bed	% reduction
1	Kailasapuram	6.76	6.85	88	26	70	99	81	18.18
2	Meenakshipuram	6.73	6.72	94	26	72	75	66	12
3	Sindhupoondhurai	7.08	6.96	56	22	60.7	64	48	25
4	Kokkirakulam (opp. to Collectorate)	7.18	7.28	212	338	-	125	130	-

6. Also as instructed by the District Collector, Tirunelveli river water samples were collected on 22/05/2020 at 8 locations at the pump house / infiltration wells as noted below supplying drinking water for public to ensure safe drinking water supply along with officials TWAD Board and got analysed through TWAD Board for drinking water parameters.

S. No	Location	S. No	Location
1	Outlet of TWAD Board combined water supply scheme pump house at Cheranmahadevi	5	Outlet of TWAD Board combined water supply scheme pump house at Patthamadai
2	Outlet of TWAD Board combined water supply scheme pump house at Mukkudal	6	Outlet of Tirunelveli Corporation water supply scheme pump house at Palayamkottai Manapadaiveedu)
3	Outlet of V.K. Puram Municipality water supply scheme pump house at Papanasam	7	Outlet of TWAD Board combined water supply scheme pump house at Thirumalaikozhunthupuram
4	Outlet of Ambasamuthiram Municipality water supply scheme pump house at Subramaniapuram Potthai	8	Outlet of TWAD Board combined water supply scheme pump house at Seevalaperi

TWAD Board vide letter dated 26/05/2020 has informed that the above water samples as analyzed are potable for drinking water purpose chemically and physically.(Copy enclosed).

Consolidated Action Plan:

S. No.	Name of Corporation/ Municipality/ Town Panchayat	Estimated Quantity of wastewater generation (in KL / day)	Present Treatment Technology & Capacity	Proposed Action Plan (Proposed Treatment Technology & Capacity)		Time Target		Budget Allocated	
				Temporary	Permanent	Temporary	Permanent	Temporary In lakh	Permanent
1	Tirunelveli Corporation – Presently Treated 10 MLD in WSP. Estimated Generation in Phase II & III – 58 MLD								
a	SEWAGE								
1	Kailasapuram	35	-	DEWATS – 2 KL/hr	1) UGSS – Phase II & III is proposed for the unsewered area in the Corporation area to collect the city sewage let into River Thamirabarani, Kodagan Channel, Palayamkal Channel, Tirunelveli Channel.	Completed	UGSS Phase – II 25.01.2022 & UGSS Phase – III 22.07.2022	4.95	UGSS Phase – II 291.81 Crores
2	Sindhuppoondhurai	120	-	DEWATS } – 4 KL/hr DEWATS }		Completed		1.98	
3	Kokkirakulam (opp. to Collectorate)	5	-	DEWATS – 0.5 KL/hr		Completed		2.45	
	Kokkirakulam Mariamman Kovil Street	20	-	DEWATS – 1 KL/hr		30/09/2020		0.70	UGSS Phase – III 421.54 Crores
4	Meenakshipuram	40	-	DEWATS – 2 KL/hr		Completed		1.50	
	Meenakshipuram Anna Street	30	-	DEWATS – 2 KL/hr		30/09/2020		5.00	
5	Kurukkuthurai	3	-	DEWATS – 2 KL/hr	2) Sequential Batch Reactor (SBR) is proposed to treat the collected sewage from Phase II & III.	31/12/2020	SBR STP - 30.07.2022	5.00	SBR STP - 98.50 Crores
6	Vannarapettai Ramalingar Street	5	-	DEWATS – 2 KL/hr		31/12/2020		4.00	
7	Valayapathi Street	4	-	DEWATS – 2 KL/hr		31/12/2020		4.00	
8	Udayarpatti	2	-	DEWATS – 2 KL/hr		31/12/2020		5.00	
b	Dhobi wash water	To be assessed	-	-	Oil water separator machine	-	30.09.2021	-	4.20 Crores

S. No.	Name of Corporation/ Municipality/ Town Panchayat	Estimated Quantity of wastewater generation (in KL / day)	Present Treatment Technology & Capacity	Proposed Action Plan (Proposed Treatment Technology & Capacity)		Time Target		Budget Allocated	
				Temporary	Permanent	Temporary	Permanent	Temporary In lakh	Permanent
2	Vickramasingapuram Municipality - Sewage 12 locations	To be assessed	-	-	Grey Water • Insitu treatment units (12 Nos.) Sewage • Faecal Sludge Treatment Plant (FSTP) – 30 KLD	-	31/10/2020	120	315 lakhs
3	Ambasamudram Municipality - Sewage 8 locations	To be assessed	-	-	Grey Water • Insitu treatment units (8 Nos.) Sewage • Faecal Sludge Treatment Plant (FSTP) – 30 KLD	-	31/10/2020	77	315 lakhs
4	Kallidaikurichi Town Panchayat - sewage 20 locations	432	-	-	Grey Water • Horizontal/Vertical Filter Treatment – (20 Nos)-464 KLD	-	31/12/2020	-	20 lakhs
5	Veeravanallur Town Panchayat – sewage 5 locations	217	-	-	Grey Water • Horizontal/vertical Filter Treatment – (5 Nos)- 220 KLD	-	31/12/2020	-	10 lakhs
6	Mukkudal Town Panchayat - sewage 1 location	13	-	-	Grey Water • Horizontal/vertical Filter Treatment – (1No)- 15 KLD	-	31/12/2020	-	3 lakhs
7	Cheranmahadevi Town Panchayat – sewage 13 locations	158	-	-	Grey Water • Horizontal/vertical Filter Treatment – (13Nos.)-195 KLD	-	31/12/2020	-	11.5 lakhs

S. No.	Name of Corporation/ Municipality/ Town Panchayat	Estimated Quantity of wastewater generation (in KL / day)	Present Treatment Technology & Capacity	Proposed Action Plan (Proposed Technology & Capacity)		Time Target		Budget Allocated	
				Temporary	Permanent	Temporary	Permanent	Temporary In lakh	Permanent
8	Pathamadai Town Panchayat – sewage								
	3 locations	134	-	-	Grey Water • Horizontal/vertical Filter Treatment –(3Nos)-143 KLD	-	31/12/2020	-	9 lakhs
9	Gopalamudram Town Panchayat – sewage								
	1 location	30	-	-	Grey Water • Horizontal/vertical Filter Treatment – (1No)-40 KLD	-	31/12/2020	-	3 lakhs
10	Melasevel Town Panchayat – sewage								
	1 location	37	-	-	Grey Water • Horizontal/vertical Filter Treatment – (1No)-40 KLD	-	31/12/2020	-	3 lakhs
11	Naranammal puram Town Panchayat – sewage								
	3 locations	146	-	-	Grey Water • Horizontal/vertical Filter Treatment – (3Nos)-150 KLD	-	31/12/2020	-	9 lakhs

Joint Committee Suggestions:

Based on the information obtained by TNPCB from respective stake holders departments the committee suggests the following;

1. The Tirunelveli Municipal Corporation has submitted action plan for temporary treatment of sewage is 0.26 MLD only, whereas estimated generation is 58 MLD. So the corporation shall submit modified action plan for the identified gap for temporary treatment of untreated sewage discharge until providing full fledged treatment system.
2. The Tirunelveli Municipal Corporation has submitted the action plan for commission of STP by 2022 based on the present sewage generation, so corporation shall submit modified action plan with projection of sewage generation (projection may be made based on population, urban development etc.).
3. The Tirunelveli Municipal Corporation shall expedite the UGSS Phase-II and III and to ensure that the time schedule for completion Phase-II (25.01.2022) and Phase-III (22.07.2022) to be adhered to.
4. The Tirunelveli Municipal Corporation shall monitor the septic tank cleaning process carried out in the Corporation area and only dedicated septic tank cleaning vehicles to be utilised with GPS tracking mechanism to ensure that the same is not disposed into any water bodies and may be disposed in the existing waste stabilisation pond after conducting necessary studies.
5. The Tirunelveli Municipal Corporation shall explore the possibility of providing a full-fledged STP with ultra-filtration system for the total capacity of sewage collected from the existing underground sewerage system presently treated in the WSP and from the proposed UGSS phase II & III under implementation.
6. The Tirunelveli Municipal Corporation shall utilise the treated sewage for further beneficial use and a proposal shall be prepared and to be implemented.
7. Since DEWAT system is a temporary arrangement for treating wastewater until full fledge STP being provided by Tirunelveli Corporation. The objective is to reduce the load to river until providing full- fledged treatment and hence study by reputed institute is not required. However, treatment technology proposed by other Municipality/Town Panchayats shall be studied by reputed institute, since it is permanent treatment technology going to be adopted.
8. Expedite to complete plantation proposed in DEWAT treatment system, so that further pollution load will be reduced before discharge to river.

9. The temporary insitu treatment systems proposed by Tirunelveli Corporation for the treatment of sewage directly let into river Thamirabarani is located in the river bed within the river boundary and in flood plain zone. The activity will be affected during heavy floods.
10. The Tirunelveli Municipal Corporation shall expedite the action in providing dhobikana arrangements with ETP for the treatment of trade effluent generated to satisfy the disposal standards prescribed by the Board and there by avoid washing of clothes by washer man in River Thamirabarani. The treatment system shall be provided after assessment of effluent generation.
11. Vickramasingapuram and Ambasamudram Municipalities has submitted action plan without assessing the quantum of sewage generation. Both municipalities shall submit modified action plan after assessing the quantum of generation/
12. The Local bodies shall expedite the completion of Faecal Sludge Treatment Plant (FSTP) and the treatment system proposed for grey water treatment to avoid contamination of River Water flowing in the irrigational channel.
13. The Local bodies shall provide warning sign board at all accessible locations to River Thamirabarani which should carry the fine to be paid by the offender who carries washing of vehicles and also seizure of such vehicles as per prevailing regulations.
14. The District Administration shall continue to monitor the illegal sand mining in River Thamirabarani.

Shri. R. Rajkumar,

[Scientist 'D', CPCB,
Regional Directorate, Chennai
Member, Joint Committee

Shri G. Kannan,

[Commissioner, Tirunelveli
Municipal Corporation]
Member, Joint Committee

Shri. T. Annadurai

[Executive Engineer,
PWD/WRD Thamirabarani
Basin Division]
Member, Joint Committee

Shri. A. Romant Terric Pinto Fdo,
[District Environmental Engineer,
TNPCB, Tirunelveli]
Member, Joint Committee

Tmt. Shilpa Prabhakar Satish, I.A.S
[District Collector, Tirunelveli District]
Chairman, Joint Committee