

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE BENCH, CHENNAI**

**ORIGINAL APPLICATION NO. 14 OF 2025 (SZ)
[EARLIER ORIGINAL APPLICATION NO. 1374 OF 2024 (PB)]**

IN THE MATTER OF:

Suo Motu matter in respect of news item appearing in NDTV.com dated 05.12.2024 titled "Sea of Toxic Foam In Tamil Nadu's Hosur after Dam Discharges Surplus Water"

Vs

Tamil Nadu Pollution Control Board (TNPCB)
Through its Member Secretary,
Chennai and Ors.

..... Respondent(s)

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Place: Chennai

Date: 01.04.2025



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Regional Directorate (Chennai)
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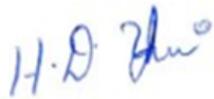
Tamil Nadu Pollution Control Board (TNPCB)
Through its Member Secretary,
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..... Respondent(s)

**REPLY FILED ON BEHALF OF RESPONDENT NO. 2,
CENTRAL POLLUTION CONTROL BOARD (CPCB)**

1. That, Hon'ble NGT (PB) vide order dated 18.12.2024 in case of Original Application No. 1374 of 2024 (PB), impleaded Central Pollution Control Board (hereinafter referred to as CPCB) as Respondent No. 2 and sought the response in the instant matter. Thereby, the reply is made in this instant Original Application (hereinafter referred to as O.A) in succeeding paragraphs.




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2. That, CPCB is constituted under Section 3 of the Water (Prevention and Control of Pollution) Act, 1974. It performs the functions under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986.

REPLY

1. That, it is humbly submitted that, a News article was published in Times of India dated 25.10.2024 titled 'Toxic Foam in Thenpennai River raises concern'. The News article reported that the foam piled up on a low level bridge for a height of about 2 m, blocking traffic at Kelavarapalli.
2. That, the matter is related to foam crisis that emerged in a stretch of South Pennai river near Hosur, Tamil Nadu, as the Kelavarapalli Dam released surplus water following heavy rains. As per the article, this foam, raising up to 10 feet high in some areas, is attributed to industrial effluents and untreated sewage from Bengaluru entering the Thenpennai River, which feeds the dam. The article highlights that the chemical pollutants, including detergents and phosphates, create froth when agitated by turbulence in the water, especially during high inflows from rainfall. The article also highlights that this foam reduces dissolved oxygen levels in the water, leading to the death of fish and the destruction of algae, which are critical to the river's health. Furthermore, the foam also presents risks of waterborne diseases for nearby communities that rely on groundwater linked to the river system. The article also alleges that this is not the first time toxic foam has plagued Hosur. In October, heavy rain and reservoir discharges led to a similar incident, with five-foot-high froth spilling onto roads, disrupting traffic, and sparking clean-up efforts by emergency teams.
3. That, it is humbly submitted that the Hon'ble NGT (PB) vide order dated 18.12.2024 directed all the respondents to file their responses before the appropriate bench of the Hon'ble Tribunal and transferred the case to Hon'ble NGT Southern Zone, Chennai. Subsequently, the case was re-numbered as O.A No. 14 of 2025 (SZ).




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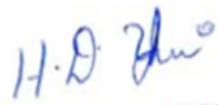
4. That, it is humbly submitted that, Hon'ble NGT Southern Zone vide Order dated 10.02.2025 impleaded Chief Secretary to Government of Tamil Nadu, Chief Secretary to Government of Karnataka and the Additional Chief Secretary to Government - Water Resources Department, State of Tamil Nadu as additional Respondents No. 5, 6 and 7 and directed Additional Chief Secretary to Government - Water Resources Department, State of Tamil Nadu, Tamil Nadu Pollution Control Board (TNPCB) and the District Collector to make an inspection and file their respective reports.
5. That it is humbly submitted that, Thenpennai River, also known as Dakshina Pinakini in Karnataka, is an interstate River. The River originates on the south eastern slopes of Chennakesava Hills, northwest of Nandidurga (Nandi Hills) of Chikkaballapur district in Karnataka State at an altitude of 1000 m above mean sea level, which flows in the southern direction through Chikkaballapur, Bengaluru Rural and Bengaluru Urban districts in Karnataka state and descends to Tamilnadu near Hosur. According to the report of CPCB for identification of polluted river stretches in the country titled "Polluted River Stretches for Restoration of Water Quality - 2022", the "Dakshina Pinakini along Mugaluru" stretch is identified as one of the Polluted River Stretch (PRS) along Mugaluru under Priority I, as the maximum BOD observed as 111 mg/L during the period 2019 & 2021. The location is downstream of Bengaluru city in Karnataka
6. That, CPCB - RD, Bengaluru monitors water quality at Karnataka-Tamilnadu inter-state location at river Thenpennaiyar at Chokkarasanapalli Bridge under National Water Quality Monitoring Programme (NWMP) on quarterly basis. The location is further downstream of Bengaluru city in Karnataka. The assessment of water quality data for the year **2024** indicates that Dissolved Oxygen (DO) is observed as BDL (less than 0.3 mg/L), pH in the range of 7.24 - 8.1, Bio-chemical Oxygen Demand (BOD) in the range of 17 - 52.4 mg/L, Fecal Coliform in the range of 2,80,000 - 79,00,000 MPN/100 ml and Total Coliform in the range of 16,00,000 - 35,000,000 MPN/100 ml.



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7. That in this regard, the officials of CPCB, Regional Directorate, Bengaluru along with officials of Regional Office, Karnataka State Pollution Control Board (herein referred as KSPCB), Sarjapura, Karnataka and Regional Office, Tamil Nadu State Pollution Control Board (herein referred as TNPCB), Hosur, Tamilnadu carried out sampling of six locations at River Thenpennai, namely, Channasandra bridge (01), Mugaluru bridge (01) in Karnataka State, Chokkarasanapalli (01), Kelavarapalli dam (dam water/upstream, downfall near gate/downstream, Mitteganahalli bridge/ Marasandra) (03) in Tamil Nadu State on 28.10.2024. The analysis results reveal that water quality of river Thenpennai is not complying with Primary Water Quality Criteria for Bathing waters notified under the Environment (Protection) Amendment Rules, 2000 at all the 06 locations. A copy of the same is attached as **Annexure-1**.
8. That, it is humbly submitted that CPCB has pursued with TNPCB vide letter dated **07.01.2025** to submit Report in the said matter. A copy of the letter addressed to TNPCB is annexed as **Annexure -2**. The Report submitted by TNPCB vide Letter No. T5/TNPCB/F.004258/NGT/2025 dated **04.03.2025** is attached as **Annexure -3**. It is humbly submitted that, as per the report received from TNPCB, the key observations made by TNPCB and action taken by TNPCB is reproduced below for ready reference:
- a. Earlier, a Suo Motu case numbered as OA No. 111 of 2020 (SZ) was registered by the Hon'ble National Green Tribunal (SZ), Chennai based on news published in Dinamalar, Chennai City Supplement Edition dated 13.07.2020 under the caption of ***"Frothing of Chemical Foam in the River Thenpennai"***.
- b. Further, Hon'ble National Green Tribunal (SZ), Chennai vide Order dated 20.07.2020 in the aforesaid matter, constituted a Joint Committee to study the area and submit a detailed report with recommendations including an action plan and remedial measures.




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- c. TNPCB has stated that, as per the Joint Committee report, most of the action plans and remedial measures were suggested to the stakeholders of Karnataka state since the prime sources of pollution are located in Bangalore, Karnataka; and the sewage from Bangalore metro city, both treated and untreated is being discharged into the lakes of Bellandur, Agara and Varthur and the overflow from the lakes flow into the River Thenpennai, and that only the following action points were suggested to the TNPCB by the joint committee:
- i. Sewage and Solid Waste Management in the villages adjoining River Thenpennai up to Kelavarapalli.
 - ii. Regular Water Quality Monitoring at important locations.
 - iii. Random verification of grossly polluting (water polluting) industries located in the River Basin and Assessment of wastewater management and discharge mode. The action taken by TNPCB for the above said action points was submitted vide **Annexure I & II of Report**.
- d. In compliance with the Hon'ble NGT (SZ) Order dated 10.02.2025, in the instant matter, the officials from TNPCB, Hosur inspected the Kelavarapalli Dam and River Thenpennai on 19.02.2025 and observed that no frothing was found in the river stream discharged from the Kelavarapalli dam. TNPCB informed that frothing had occurred in the river stretch during the monsoon/heavy rainfall days due to the high levels of coliform and BOD in the untreated sewage discharged into the River Thenpennai from the State of Karnataka.
- e. TNPCB collects and analyses the water samples from River Thenpennai every month at Chokarasanapalli Village (interstate border) to monitor the quality of water. TNPCB submitted that from the analysis of water samples collected every month for the years 2022-2023 & 2023-2024; it was observed that **BOD** varies from **32 mg/L to 134 mg/L**, **Total coliform** varies from **1200 MPN/100ml to 20050 MPN/100ml** and **Fecal coliform** varies from **840 MPN/100ml to 16520 MPN/100 ml** which reveals that there is a discharge of sewage/wastewater in the Thenpennai River from the Karnataka state.




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- f. TNPCB, once again collected the water samples at Chokarasanapalli Village on 26.12.2024 (after the publishing of news in NDTV.com); **BOD, Total coliform and Faecal coliform** were observed as **134 mg/L, 20050 MPN/100 ml and 16520 MPN/100 ml** respectively, which reveals that there is a discharge of sewage/wastewater in the Thenpennai River from the Karnataka State thereby formation of frothing in the stretch of River Thenpennai.
9. That consequent the communication received from TNPCB requesting CPCB to take up the matter of sewage discharge from Bangalore city, CPCB is asking Karnataka SPCB vide letter dated 28.03.2025 to address the issues. Copy of the letter dated 28.03.2025 sent by CPCB to Karnataka SPCB is attached as **Annexure -4**.
10. That, the answering respondent herein craves leave of the Hon'ble Tribunal for filing additional reply, if required, in future.
11. That, in light of the above submission, it is respectfully submitted that this Answering Respondent No. 2, i.e. CPCB, shall abide by any order(s) or direction(s) passed by this Hon'ble Tribunal in the instant OA.



H.D. Varalaxmi

H. D. Varalaxmi
Scientist E & Regional Director
CPCB, Chennai

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AFFIDAVIT

I, H. D. Varalaxmi, D/o Shri H.S. Devaiah, Hindu, aged about 55 years and having office at the Regional Directorate - Chennai, Central Pollution Control Board, 40-E, 2nd Floor, BSNL Building, TVK Industrial Estate, CIPET Road, Chennai - 600 032, do hereby solemnly affirm and sincerely state as follows:

1. That I, the deponent herein is competent to represent the Respondent CPCB in the present case, and as such, I am well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, and hence, I am competent to verify, sign and swear this affidavit on behalf of the Respondent CPCB.
2. That the accompanying reply may be read part and parcel of the present affidavit as I am competent to swear this affidavit.



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3. That the accompanying reply has been drafted and filed under my instructions and authority the contents thereof of are true and correct on the basis of the record maintained during ordinary course of business of CPCB and available records and documents and the contents of the same are read over and explained to me and are not repeated herein for the sake of brevity.



H.D. Varalaxmi

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VERIFICATION

Verified at Chennai on this the First day of April ,2025 that the contents of the above reply are correct and true on the basis of the record of the cases as maintained in the day to day affairs of the CPCB. Nothing has been concealed or suppressed therefrom or mis-stated.

Verified at Chennai on this the First day of April, 2025.

H.D. Varalaxmi

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REPORT ON FROTHING AT KELAVARAPALLI DAM - RIVER THENPENNAI

1.0 BACKGROUND

Times of India News article dated 25th Oct 2024 titled 'Toxic Foam in Thenpennai River raises concern' reported that the foam piled up on a low level bridge for a height of about 2 m, blocking traffic at Kelavarapalli. In this regard, Regional Directorate, Bengaluru along with officials of Regional Office, Karnataka State Pollution Control Board, Sarjapura, Karnataka and Regional Office, Tamil Nadu State Pollution Control Board, Hosur, Tamilnadu carried out sampling of locations at River Thenpennai to ascertain the root cause of frothing and foam formation at Thenpennai including Kelavarapalli Dam. Also the sources of pollution levels and action plan for remedial measures to avoid recurrence of such incidents in future to be ensured.

2.0 MONITORING OF RIVER DAKSHINA PINAKINI (KARNATAKA)/ THENPENNAI (TAMILNADU)

In reference to the aforesaid news article and as per the instructions of 'Member Secretary, CPCB', following officials of CPCB, RD Bengaluru, Karnataka SPCB and TNPCB jointly visited the River stretch covering sampling locations at Channasandra bridge (01), Mugalur bridge (01) in Karnataka, Chokkarasanapalli (01), Kelavarapalli (03) Tamilnadu on 28.10.2024.

SL. NO.	NAME	DESIGNATION
OFFICIALS OF CPCB RD - BENGALURU		
1	Smt P K Selvi	Scientist 'E'
2	Ms Nisarga K Gowda	Scientist 'B'
3	Sh Seenivelraj S	SSA
OFFICIALS OF KSPCB		
4	Dr Puttaraju H.R.	Environmental Officer - Sarjapura
5	Sh Rajesh Patil	Senior Field Assistant
OFFICIALS OF TNPCB		
6	Er. V Deenadayalan	AEE, Hosur
7	Dr Rajaram	Senior Scientist & Incharge Lab, Hosur

3.0. ABOUT RIVER DAKSHINA PINAKINI

Thenpennai River also known as Dakshina Pinakini in Karnataka is an interstate River. The River originates on the south eastern slopes of Chennakesava Hills, northwest of Nandidurga (Nandi Hills) of Chikkaballapur district in Karnataka State at an altitude of 1000 m above mean sea level, which flows in the southern direction through Chikkaballapura, Bengaluru Rural and Bengaluru Urban districts in Karnataka state and descends to Tamilnadu near Hosur. Thenpennai river basin is one of the largest rivers of the state of Tamil Nadu. The river has supported many a civilization of peninsular India in supplying precious water for drinking, irrigation and industry to the people of the states of Karnataka, Tamil Nadu and Pondicherry. The total length of Thenpennai River is 432 km, of which 112 km lies in Karnataka state, 180 km in Dharmapuri and Krishnagiri, 34 km in Thiruvannamalai and 106 km in Cuddalore, Kallakurichi and Villupuram districts of Tamil Nadu before joining Bay of Bengal. En route, its tributaries are Chinnar, Markandeyanahi, Vaniar and Pampan rivers in Tamilnadu. With a total catchment of approximately 16,019 km², it is dry for the most part of the year but swells during the north east monsoon season. In Karnataka, the river traverses through series of zilla panchayat tanks and also minor irrigation tanks namely Nandi tank, Kuppalli tank, Chadalapura tank, Kothanuru tank, Kolavanahalli tank, Chikkadigenahalli tank, Bommanahalli tank, Kanithahalli tank, Muthur tank, Malluru tank, Amani Bhadrana kere tank in Chikkaballapur district, Hosakote Doddakere tank in Bengaluru Rural district, and Yelemallappa Chetty tank in Bengaluru Urban District. Drainage basin of River Thenpennai flowing in Karnataka & Tamilnadu is given as **Figure 1**.

3.1 IDENTIFIED POLLUTED RIVER STRETCH

According to the report of CPCB titled “Polluted River Stretches for Restoration of Water Quality-2022”, the Dakshina Pinakini is identified as one of the Polluted River Stretch (PRS) along Mugalur under **Priority I**, as the maximum BOD observed as **111 mg/L** during the period 2019 & 2021. The Polluted River along the Mugalur bridge of Dakshina Pinakini comes under Karnataka State (Mugalur village, Sarjapura, Karnataka), and beyond Mugalur the same river Dakshina Pinakini is known as Thenpennai River and flows in Tamil Nadu State before joining the Bay of Bengal. It was observed that the Chokkarasanapalli (along Kodiyalam) is 5 KM from Mugalur bridge within the State of Tamil Nadu and it is also monitored by TNPCB as it is located within the revenue State of Tamil Nadu.

3.2 Excerpts of OA No 111 of 2020

In the matter of O.A No. 111 of 2020 regarding “Frothing of Chemical Foam in the River Thenpennai”, Hon’ble National Green Tribunal, Southern Zone, Chennai vide its order dated 20.07.2020 constituted a Joint Committee comprising of Representatives of District Collectorate, Krishnagiri, Tamilnadu State Pollution Control Board, District Collectorate, Bangalore (Urban), Superintending Engineer of PWD & WRDO and Senior Official, CPCB, RD, Bangalore. The joint committee investigated the matter in light of the directions of Hon’ble NGT in O.A No. 125/2017 and Hon’ble Supreme Court in O.S No. 02 of 2015. The causes and sources of pollution have been

assessed by the joint committee based on the samples collected from 12 locations in River Thenpennai. It has been ascertained that, the water quality of River Thenpennai falls under the Category E (Irrigation, Industrial Cooling, Controlled Waste Disposal) of the Designated Best Use Criteria stipulated by CPCB. Therefore, an Action Plan (Long term and short term with timelines) for restoring the quality of River Thenpennai has been devised by the joint committee for compliance by the concerned departments in Government of Karnataka. The joint committee submitted its final report on 'Frothing of Chemical Foam in River Thenpennai' in November, 2020.

In compliance to the Hon'ble NGT Order dated 28.06.2021, CPCB, Regional Directorate, Bengaluru prepared two Joint Progress Reports (Trimonthly) along with Regional Directorate, Chennai and submitted in September 2021 and January, 2022. Hon'ble NGT vide Order dated 17.02.2022 accepted CPCB progress reports and directed that Pollution Control Board as well as the other official respondents, who are expected to carry out necessary actions on the basis of the recommendations made by the joint committee including BBMP, PWD, Karnataka Pollution Control Board, are hereby directed to submit their respective compliance report on or before 23.03.2022.

Subsequent to the Hon'ble NGT Order dated 17.02.2022 and in view of non-compliances observed with respect to the above action points, CPCB issued directions to KSPCB under section 18(1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 for necessary compliance (CPCB directions dated 22.03.2022 be referred).

In compliance to NGT Order dated 17.02.2022, CPCB submitted progress report in July 2022. Hon'ble Tribunal, SZ, Chennai vide final order dated 13.07.2022, mentioned that;

"But it is also seen from the report submitted by the Central Pollution Control Board that still there is a necessity for the Chief Secretary to Government, State of Karnataka to take a lead role in implementation of the directions of this Tribunal. It is also seen that some more improvements are required in the progress of the work to be undertaken by Bangalore Water Supply and Sewerage Board and also Bruhat Bengaluru Mahanagara Palike and Karnataka State Pollution Control Board."

The Hon'ble Tribunal vide aforesaid order dated 13.07.2022 disposed of the application with following directions:-

"i) The Central Pollution Control Board, the Karnataka State Pollution Control Board and the Tamil Nadu State Pollution Control Board are directed to monitor the implementation of the directions issued by this Tribunal while disposing the matter and if there is any violation found, then they are directed to take appropriate action against those stake holders who are committing the violation in accordance with law.

ii) The Bangalore Water Supply and Sewerage Board and Bruhat Bengaluru Mahanagara Palike are directed to carry out the directions issued by the Tribunal on the basis of the recommendations made by the Joint Committee to resolve the issue permanently, within the time frame as undertaken by them and see that no untreated sewage or effluent are being discharged into any of the drains which ultimately reaches the lake or other water bodies.

iii) The Bruhat Bengaluru Mahanagara Palike is also directed to strictly implement the Solid Waste Management Rules, 2016 and also the directions given by the Principal Bench of National Green Tribunal in O.A. No. 606 of 2018 and also by this Tribunal in several cases dealing with waste management in the State of Karnataka in its letter and spirit.

iv) *The Chief Secretary, State of Karnataka, Additional Chief Secretary to Government for Environment, Forests and Climate Change are directed to monitor the implementation of the directions by conducting periodical review meetings at least once in two (2) months and if there is any gap found in the implementation, then they are directed to provide solutions both technical and financial to fill up the gap and the directions are fully complied with and the unpolluted water is delivered the river to the neighbouring States from Kelavarapalli Reservoir.*

v) *The Chief Secretary to Government, State of Tamil Nadu, the Additional Chief Secretary to Government for Environment, Forests and Climate Change, Additional Chief Secretary for Municipal Administration and Water Supply Department, Director for Rural Development and Panchayat Raj of State of Tamil Nadu are directed to monitor the implementation of the directions by the respective stake holders to protect the Thenpennai river free from pollution, so as to provide clean water to the people residing by the side of the river.*

vi) *The Registry is directed to communicate this order to the Chairman-Tamil Nadu Pollution Control Board and Karnataka State Pollution Control Board, District Collector- Krishnagiri District, Bangalore Water Supply and Sewerage Board, Bruhat Bengaluru Mahanagara Palike, the Additional Chief Secretary to Government for Environment, Forests and Climate Change, Additional Chief Secretary for Municipal Administration and Water Supply Department, Director for Rural Development and Panchayat Raj of State of Tamil Nadu and also to the Chief Secretary to Government, State of Tamil Nadu for their information and compliance of direction.”*

Copy of Hon’ble NGT Order attached as **Annexure 1**.

With reference to Hon’ble NGT Order dated 13.07.2022, the status of waste water management through STPs in Bengaluru (K&C and Hebbal Valley) was obtained from BWSSB. Also, sewage and trade effluent management of industrial areas in the six regions of karnataka (Hoskote, Anekal, Yelahanka, Bommanahalli, Mahadevapura and Sarjapura) were reviewed with Karnataka SPCB on 05.11.2024 and 14.11.2024 which may be referred at **Annexure 2**. KSPCB informed that, the treated water from STPs are being monitored and non-compliances are sent to BWSSB for necessary action and compliance. The lake water samples are also monitored by KSPCB and non-compliances are sent to the concerned agency (lake authority) for necessary action and compliance. Information related to control measures, sources of pollution, discharge from Automobile Service stations, Dobhi Ghats in Bengaluru along river Thenpennai and a policy for reuse of treated water within the unit (automobile service stations), were also deliberated with KSPCB during the aforesaid meetings.

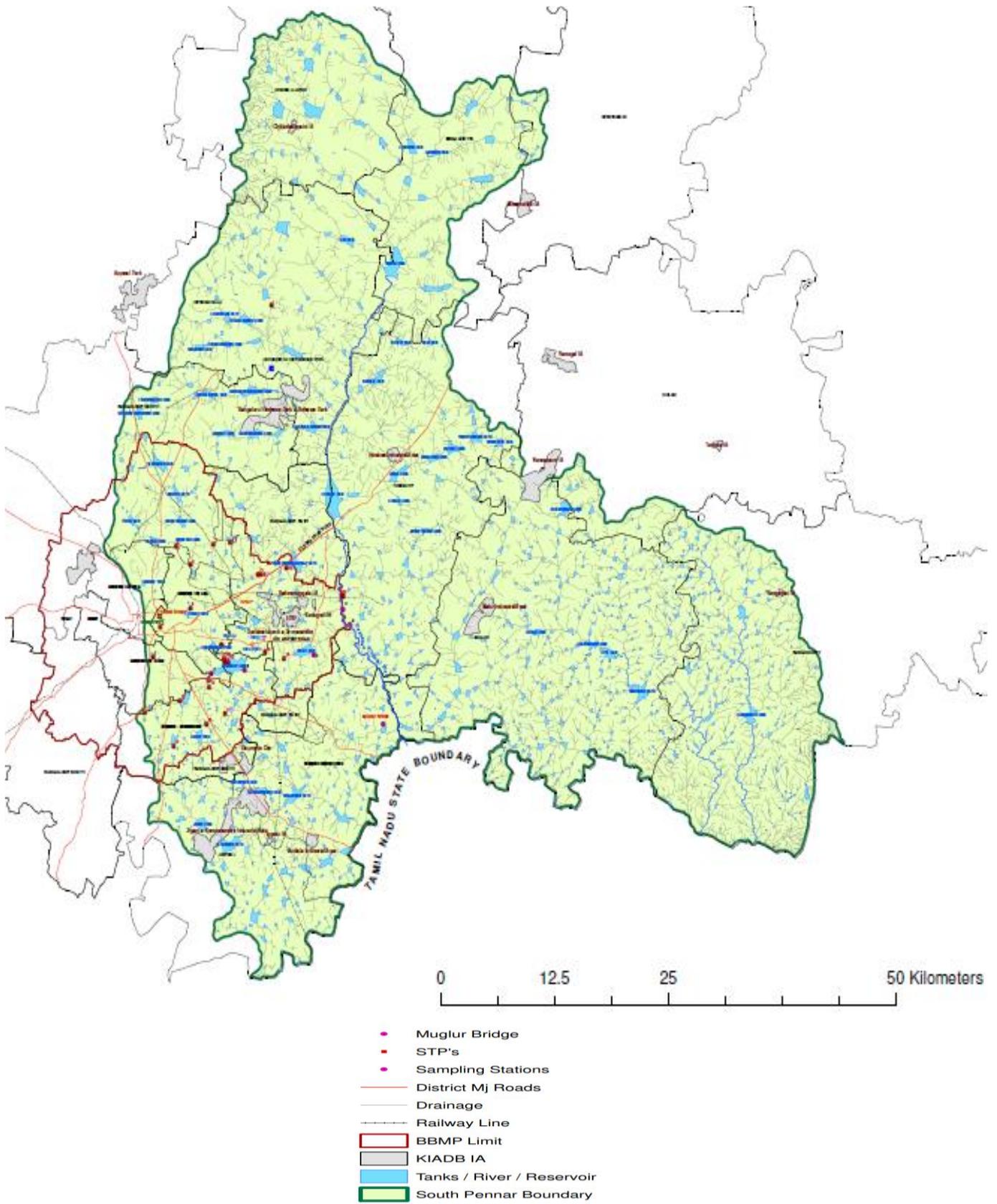


Figure 1. Drainage River Basin of Thennpennai

4.0 SAMPLING LOCATIONS

Sampling points (six) were identified with reference to the drainage river basin of River Thenpennai for collecting water samples on 28th October, 2024 over a stretch of 34.8 KM. The distance between the Channasandra Bridge and Mugalur bridge is 13.8 KM, Mugalur bridge to Chokkarasanapalli is 5 Km and distance between Chokkarasanapalli to Kelavarapalli is approximately 16 KM. Details of six sampling locations from where samples collected on 28.10.2024 by the Joint Team are given in the **Figure 2 to 5**.

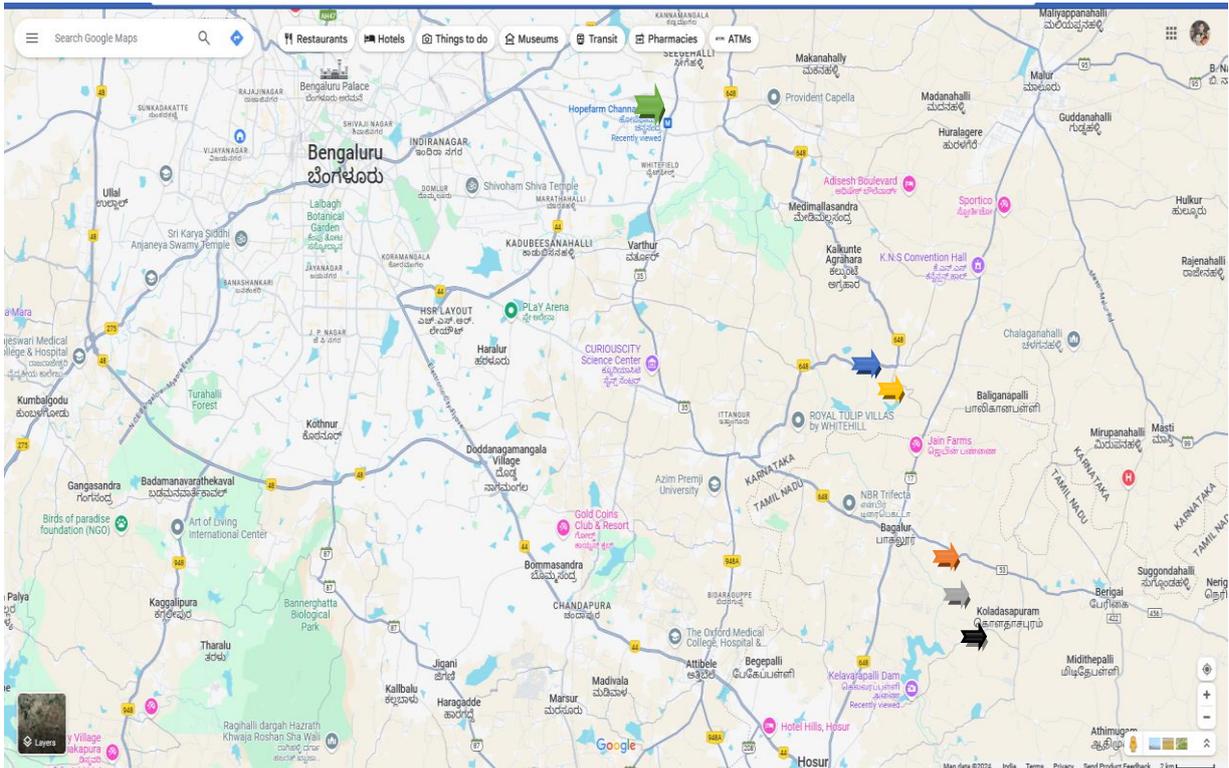


Figure 2. Google Map of Sampling Locations

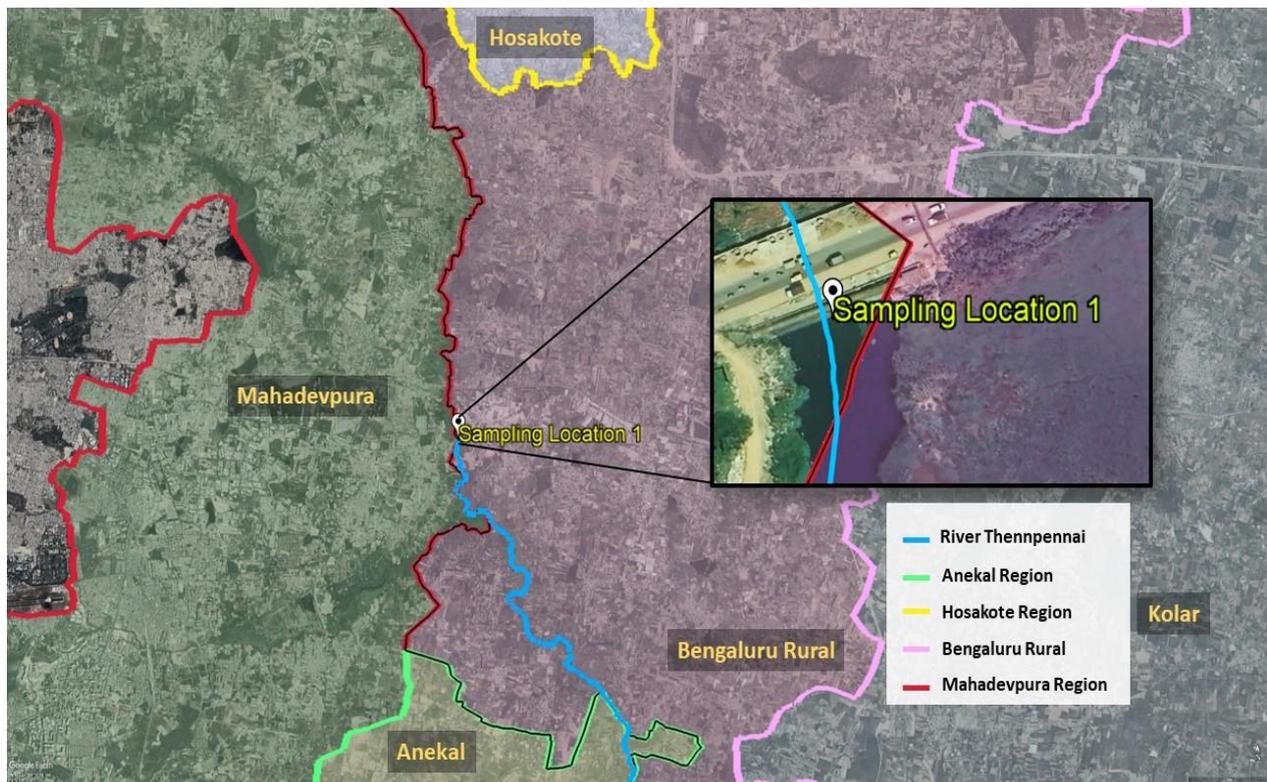


Figure 3. Google Earth Map Sampling Locations (Point 1. Channasandra Bridge,

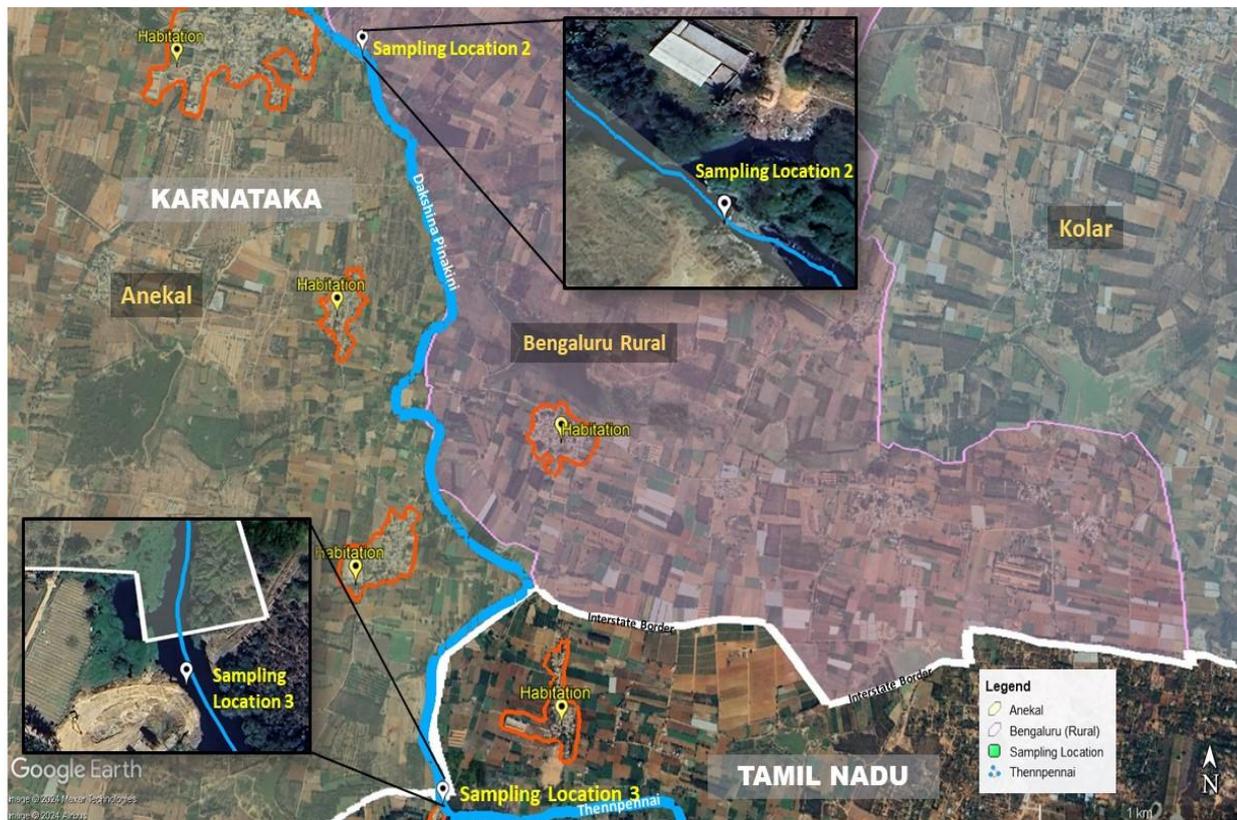


Figure 4. Google Earth Map Sampling Locations (Point 2. Mugalur bridge, Point 3. Chokkarasanapalli) at Karnataka and Interstate point



Figure 5. Google Earth view of Kelavarapalli Dam (River flow through Sluice gate and Mitteganahalli bridge) [Point 3. Chokkarasanapalli, Point 4. Kelavarapalli dam upstream, Point 5. Kelavarapalli dam near gate / downstream, Point 6. Mitteganahalli / marasandiram bridge]

5.0 Analysis Results

The analysis results pertaining to the water quality samples collected at Channasandra bridge, Mugalur Bridge in the Karnataka jurisdiction and those collected along the river stretch near Chokkarasanapalli Village, Kelavarapalli dam (dam water / upstream, downfall near gate / downstream, mitteganahalli bridge/Marasandra) in Tamil Nadu are tabulated below as **Table 1** and attached as **Annexure 3**.

Table 1. Analysis Results of River Thenpennai at Six sampling locations

Sl No.	Name of the Parameter with unit	Sampling Locations, Karnataka		Sampling locations, Tamilnadu			
		Channasandra	Mugalur	Chokkarasanapalli	Kelavarapalli dam upstream	Kelavarapalli downstream	Mitteganahalli bridge/Marasandra
1	pH at 25° C	7.52	7.76	7.41	7.38	7.27	7.48
2	EC at 25° C μ s/cm	745	834	855	555	631	641
3	TSS at 103-105° C, mg/L	BDL	BDL	BDL	BDL	BDL	5.3
4	TDS at 180° C, mg/L	442	474	469	355	380	377
5	COD, mg/L	34.3	49	37	33.5	34.7	35.1
6	BOD 3d.27°c, mg/L	9.5	10.7	12	3.1	7.6	4.9
7	Dissolved Oxygen, mg/L	BDL	BDL	BDL	4.2	6.5	6.5
8	Alkalinity, mg/L CaCO ₃	162.14	186.26	218.36	128.34	135.24	136.56

Sl No.	Name of the Parameter with unit	Sampling Locations, Karnataka		Sampling locations, Tamilnadu			
		Channasandra	Mugalur	Chokkarasanapalli	Kelavarapalli dam upstream	Kelavarapalli downstream	Mitteganahalli bridge/Marasandra
9	Total Hardness, mg /L as CaCO ₃	186.2	197.8	205.4	142.1	165.1	172.8
10	Calcium mg/L as Ca	70.8	63.9	62.3	45.4	55.4	50.8
11	Magnesium mg/L as Mg	2.3	9.3	12.1	7	6.5	11.2
12	O-Phosphate mg/L	1.3	1.86	1.83	0.77	0.95	0.91
13	Sodium mg/L as Na	64.92	73.09	71.44	47.69	53.76	53.42
14	Potassium mg/L as K	17.19	16.72	16.72	11.43	13.77	13.79
15	Nitrate mg/L as N	9.8	13.7	12.6	7.6	8.6	7.9
16	Nitrite mg/L as N	0.028	0.034	0.616	0.021	0.064	0.28
17	Ammoniacal Nitrogen mg/L as N	2.1	3.1	5.3	BDL	BDL	2.2
17	TKN mg/L	BDL	BDL	5.55	BDL	BDL	BDL
19	SAR, m equiv/L	2.1	2.3	2.2	1.7	1.8	1.8
20	Anionic Surfactants mg/L	BDL	<0.1	<0.1	<0.1	<0.1	<0.1

S. No	Metals & TC/FC	Channasandra	Mugalur	Chokkarasanapalli	Kelavarapalli dam	Kelavarapalli downstream	Mitteganahalli bridge / Marasandra
1	Copper, mg/L	0.0004	0.006	0.006	0.0213	0.0127	ND
2	Cadmium, mg/L	ND	ND	ND	ND	ND	ND
3	Total chromium, mg/L	0.0035	0.0022	0.0065	0.0042	0.0012	ND
4	Iron, mg/L	0.5932	0.2865	2.6695	0.8685	0.8012	0.6072
5	Manganese, mg/L	0.3677	0.2297	0.4093	0.3293	0.243	0.3083
6	Nickel, mg/L	0.004	0.002	0.005	0.0033	0.0037	0.002
7	Lead, mg/L	ND	ND	ND	0	ND	ND
8	Zinc, mg/L	ND	ND	0.0085	0.0085	0.0092	ND
9	Arsenic, mg/L	ND	ND	ND	ND	0	ND
10	Cobalt, mg/L	0.001	0.001	0.002	0.001	0.0017	0.001
11	Total Coliform (MPN/100ml)	92 x 10 ⁴	92 x 10 ⁵	16 x 10 ⁶	920	92 x 10 ³	35 x 10 ³
12	Fecal Coliform (MPN/100ml)	22 x 10 ⁴	17 x 10 ⁵	12 x 10 ⁵	94	11 x 10 ³	33 x 10 ²

The plots of the parameters pH, BOD, COD, FC were given as figures 6,7, 8 & 9.

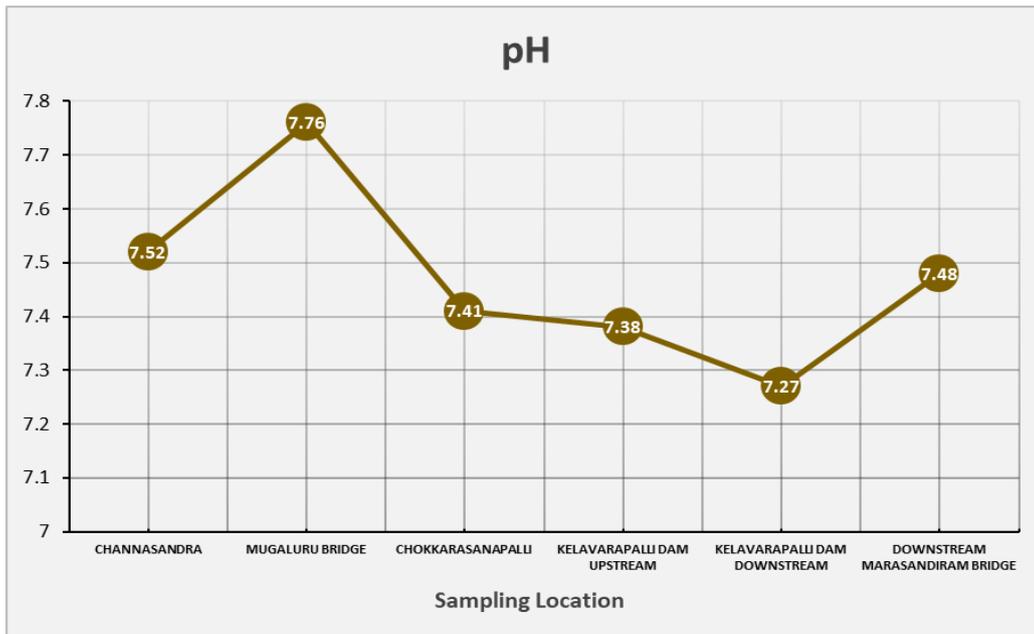


Figure 6. Analysis results of pH in the sampling locations

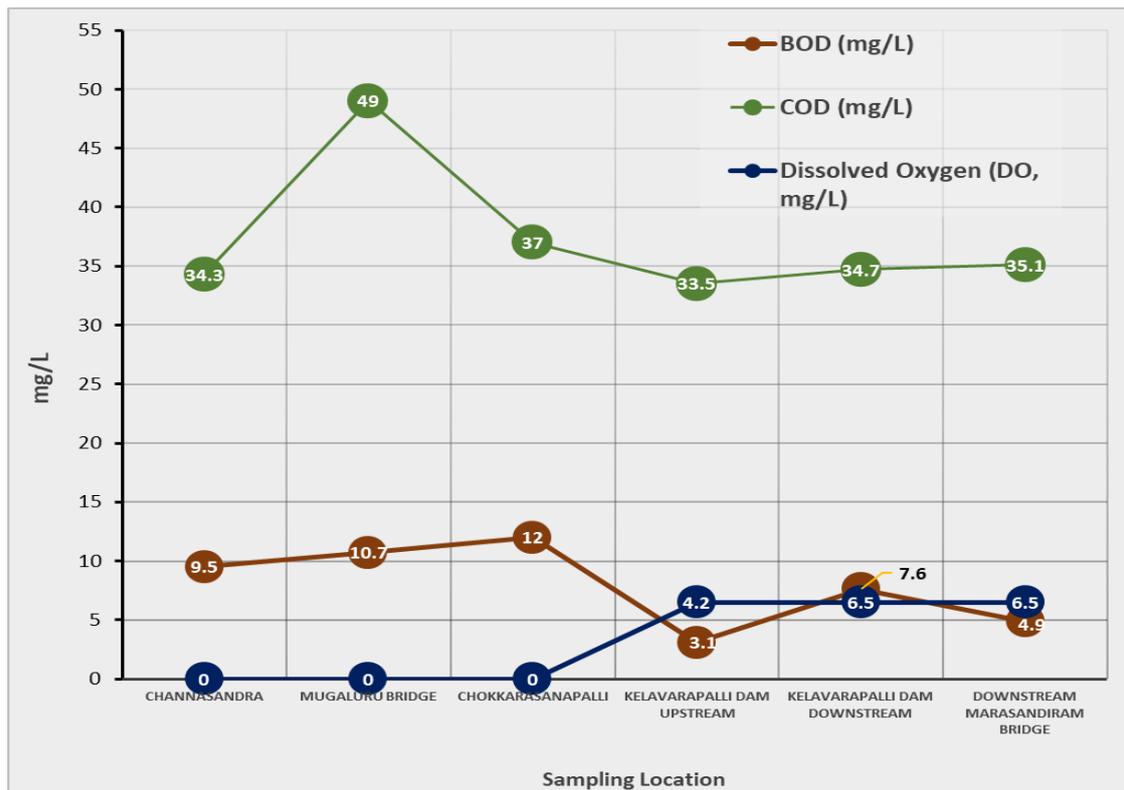


Figure 7. Plot Diagram of Organic & Inorganic Load in the Sampling Locations

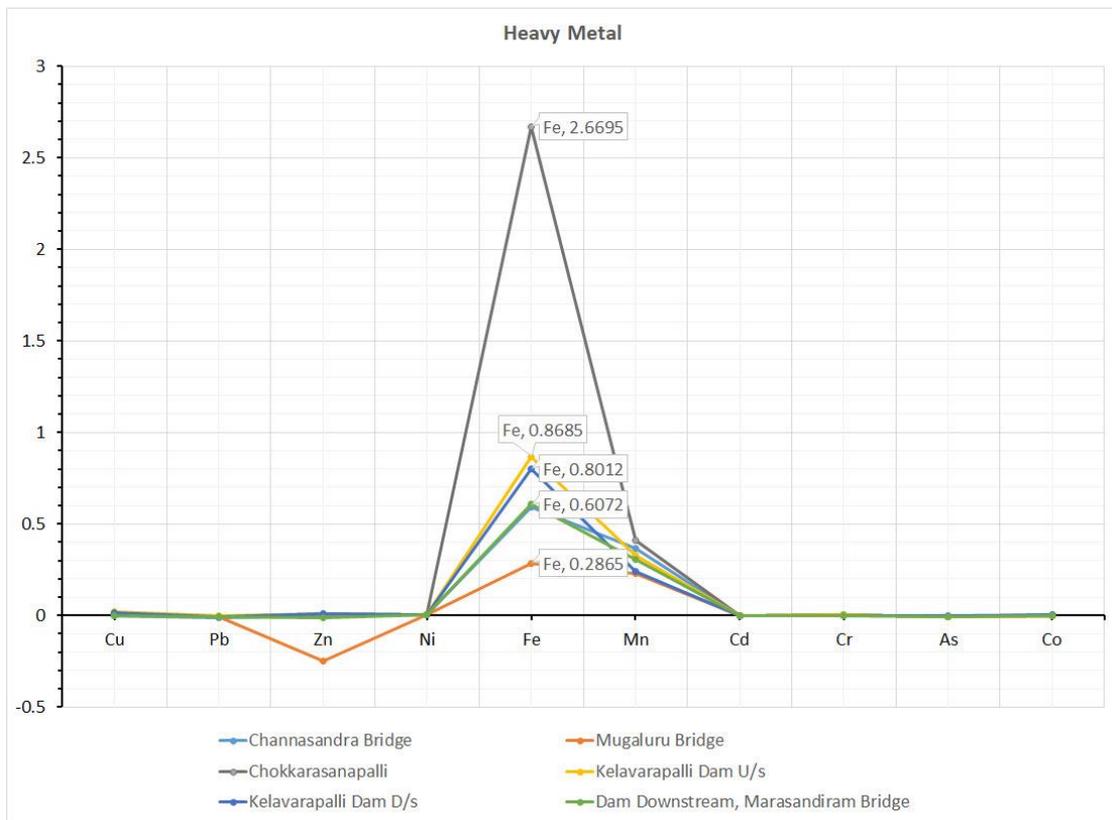


Figure 8. Analysis results of Metals in the sampling locations

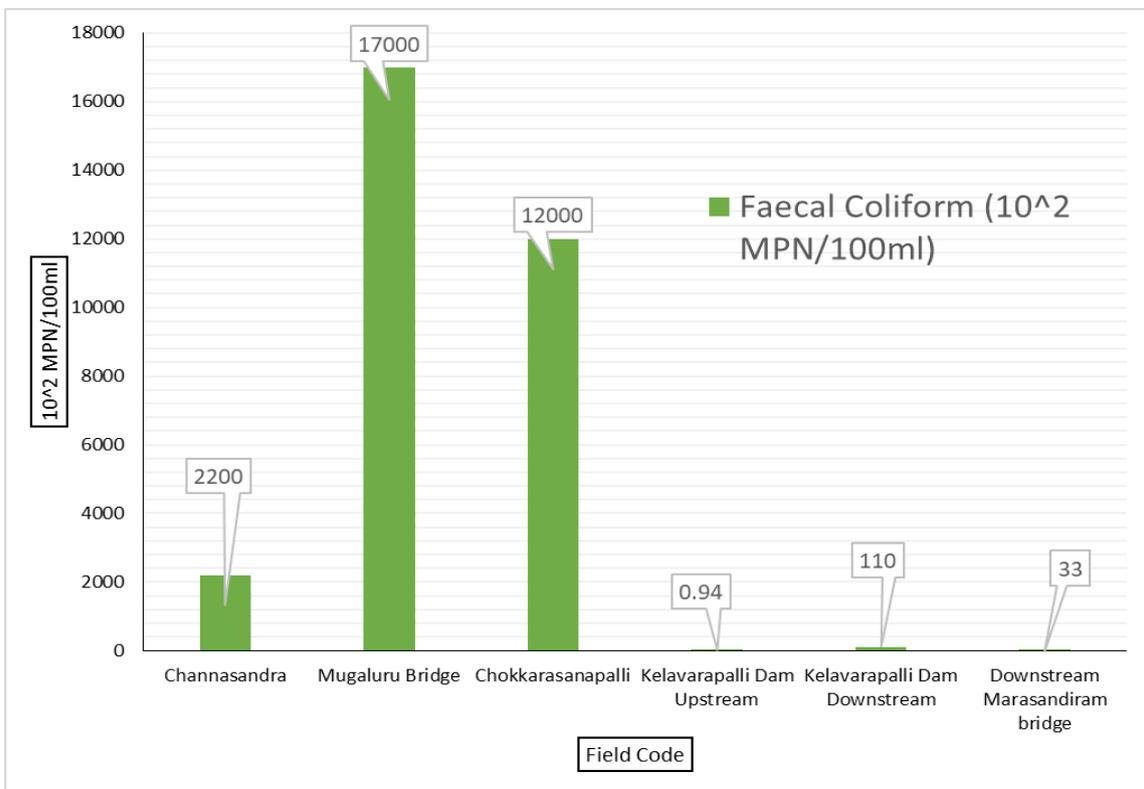


Figure 9. Analysis results of faecal coliform in the sampling locations

6.0 Observations and Findings:

The analysis results of the six river samples collected on 28.10.2024 reveal the following:

Organic & Inorganic Pollution: COD, a measure of organic and inorganic pollutants, is observed to have increased from Channasandra (exit point of Bengaluru) towards Mugalur bridge (border of Karnataka). However, it has reduced at Chokkarasanapalli (37 mg/L) compared to Mugalur (49 mg/L). This is attributed to organic load entering the Karnataka – Tamil Nadu border at Mugalur and Chokkarasanapalli. Subsequently there is reduction as it reaches Kelavarapalli dam (33.5 mg/L) due to oxygenation combined with rainfall dilution at Kelavarapalli dam. BOD (biological oxygen demand), showed a mixed trend, with higher BOD at Chokkarasanapalli (12 mg/L) and Mugalur (10.7 mg/L).

Microbial Contamination: Table 1 reveals extremely high levels of total and fecal coliform bacteria at both locations, exceeding acceptable limits by a significant margin. Mugalur has a total coliform count of 92×10^5 MPN/100ml and a fecal coliform count of 17×10^5 MPN/100ml. Chokkarasanapalli has a total coliform count of 16×10^6 MPN/100ml and a fecal coliform count of 12×10^5 MPN/100ml. This indicates fecal contamination beyond the permissible levels (2500 MPN/100 ml) of Primary Water Quality Criteria for Bathing Waters notified under Environment (Protection) Amendment Rules, 2000.

Dissolved Oxygen: DO levels were Below Detectable Limits 'BDL' up to Chokkarasanapalli and showed an increasing trend towards Kelavarapalli dam and downstream at Mitteganahalli /Marasandiram (4.2 to 6.5 mg/L).

Metals: The concentration of iron was found to be 0.5932 mg/L at Channasandra, 0.8685 mg/L at Kelavarapalli dam, 0.8012 mg/L at Kelavarapalli downstream. Concentration of Cadmium, lead, zinc, arsenic, were Below Detectable Limits (BDL) at all the sampling points.

Surfactants: It has been found that the concentration of anionic surfactants was <0.1 mg/L in all the sampling locations except Channasandra, where it was Below Detectable Limit (Annex K of IS 13428). As per APHA 5540 method, most domestic wastewater surfactants are dissolved in equilibrium with proportional amounts adsorbed on particulates. In environmental waters, the surfactant concentration generally is less than 0.1 mg/l except in the vicinity of an outfall or other point source of entry as stipulated in APHA5540 method. Acceptable limits of Anionic detergents (as MBAS) in drinking water standards IS 10500:2012 is 0.2 mg/L. Ortho Phosphate was observed as Channasandra (1.3 mg/L), Mugalur (1.86 mg/L), Chokkarasanapalli (1.83 mg/L), Kelavarapalli Dam Upstream (0.77 mg/L), Kelavarapalli Dam Downstream (0.95 mg/L) and Mitteganahalli bridge/Marasandra (0.91 mg/L)

Kelavarapalli Dam: In specific reference to dam, Organic & inorganic load in terms of BOD, COD was (i) 3.1 mg/L and 33.5 mg/L at Kelavarapalli dam (upstream), (ii) 7.6 mg/L and 34.7 mg/L at Kelavarapalli downstream / downfall near gate which might be attributed to dilution due to heavy downpour in the isolated parts of Karnataka during 17th to 25th October, 2024. From **Table 1**, it can be inferred that water quality profile at Kelavarapalli downfall location near gate where frothing was

observed shows (i) parameters namely, Electrical Conductivity (EC) (631 $\mu\text{S}/\text{cm}$ at Kelavarapalli downfall and 641 $\mu\text{S}/\text{cm}$ at Mitteganahalli/Marasandram), Total Hardness (165.1 mg/L as CaCO_3 at Kelavarapalli downfall and 172.8 mg/L at Mitteganahalli/Marasandram), Calcium (55.4 & 50.8 mg/L as Ca at both locations resp.), Magnesium (6.5 mg/L as Mg at Kelavarapalli downfall and 11.2 mg/L as Mg at Mitteganahalli/Marasandram), Sodium (53.76 mg/L as Na at Kelavarapalli downfall and 53.42 mg/L at Mitteganahalli/Marasandram), Potassium (13.77 mg/L as K at Kelavarapalli downfall and 13.79 mg/L as K at Mitteganahalli/Marasandram), Nitrate (8.6 mg/L as N at Kelavarapalli downfall and 7.9 mg/L as N at Mitteganahalli/Marasandram), and Anionic Detergents as < 0.1 mg/L at both locations. Presence of Iron in the concentration of 0.8685 mg/L and 0.8012 mg/L was found in the river water.

The observations made during joint monitoring at the sampling locations along with analysis results are given below;

I. Upstream of Interstate Border: Karnataka Region

(i) Channasandra Bridge

- Channasandra Bridge located on Hope Farm Junction towards Chikka Tirupathi Road. River flows in Southern direction in order to further confluence with the out flow of Varthur Lake (K & C Valley).
- Over flow through the outflow weir of Yelamalapa Chetty Lake (YMC) joins the South Pennar River at about 4.9 Km South East of YMC Lake and flows in southern direction to join Channasandra bridge.
- At Channasandra bridge, the flow of water was found greyish with no frothing. However, solid waste (kitchen waste, old furniture, poultry waste etc.) was found dumped near the bridge causing foul rotten odour.
- Discharge of domestic sewage from housing complexes located adjacent to the river, vehicle washing of service stations and community centres were observed. Dead eutrophic zones were also found in the Channasandra bridge. Dissolved Oxygen level was found to be 'BDL'.
- No froth formation was observed at this location.
- The organic/inorganic load in the form of BOD and COD in the sample collected from this location was found to be 9.5 mg/L and 34.3 mg/L. The FC values were 22×10^4 MPN/100 ml. pH was found to be 7.52.

(ii) Mugalur Bridge:

- Mugalur is identified as Water quality monitoring location of Karnataka SPCB under Polluted River Stretches and interstate border.
- Wastewater from a piggery located near to the Mugaluru Bridge was found discharged into the river and solid waste found dumped near to the Mugaluru bridge was observed.

- At Mugalur, water flow was normal, however the flow was dark greyish with rotten / foul odour. Dissolved Oxygen level was found to be BDL.
- No Froth formation was observed in this location.
- The organic/inorganic load in the form of BOD and COD in the sample collected from this location was found to be 10.7 mg/L and 49 mg/L. The FC value was 17×10^5 MPN/100 ml. pH was found to be 7.76.

II. Downstream of Interstate Border: Tamil Nadu Region

(iii) Chokkarasanapalli Interstate Water Sampling Location:

- Chokkarasanapalli is identified as an interstate water sampling location under NWMP. Dissolved Oxygen was found to be 0.504 mg/L. The analysis results of Chokkarasanapalli water sampling location reveal that there is no presence of DO.
- Kodiyalam Hosur taluk of Tamil Nadu governed by Sevganapalli Gram Panchayat area located along the river stretch was also reported to have frothing of the river water on the day of monitoring.
- Slight frothing was observed near the bridge area.
- The organic/inorganic load in the form of BOD and COD in the sample collected from this location was found to be 12 mg/L and 37 mg/L. The FC value was 12×10^5 MPN/100 ml. pH was found to be 7.41.

(iv) Kelavarapalli dam upstream:

- The water stored in the dam was found to have hyacinth growth in patches.
- Dissolved Oxygen was found to be 4.2 mg/L, which may be attributed to heavy rainfall during 17th to 25th October, 2024 causing dilution. Photograph at **Annexure 5** (Fig IV)
- No froth Formation observed.
- The organic/inorganic load in the form of BOD and COD in the sample collected from this location was found to be 3.1 mg/L and 33.5 mg/L. The FC value was 94 MPN/100 ml. pH was found to be 7.38.

(v) Kelavarapalli dam outfall / downstream:

- Water sample was collected after the dam gate outfall, where frothing was also found with pungent odour.
- Dissolved Oxygen was found to be 6.5 mg/L which may be attributed to turbulence/mixing caused during waterfall from dam.

- Frothing observed as captured in photograph (**Annexure 5**, Fig. V)
- The organic/inorganic load in the form of BOD and COD in the sample collected from this location was found to be 7.6 mg/L and 34.7 mg/L. The FC value was 11×10^3 MPN/100 ml. pH was found to be 7.27.

(vi) **Mitteganahalli bridge / Marasandiram:**

- Water sample was collected after downstream of the dam at Mitteganahalli bridge / Marasandiram, where frothing was also found.
- Dissolved Oxygen was found to be 6.5 mg/L.
- The organic/inorganic load in the form of BOD and COD in the sample collected from this location was found to be 4.9 mg/L and 35.1 mg/L. The FC value was 35×10^3 MPN/100 ml.
- Slight frothing observed near the bridge as captured in photograph (Annexure 5, Fig. VI). pH was found to be 7.48.

Hence, the water quality was not complying with Primary Water Quality Criteria for Bathing waters notified under the Environment (Protection) Amendment Rules, 2000.

Status of Froth formation as observed on 28.10.2024 along with DO levels at the sampling locations **Table 2** represents the

Table 2. Status of Froth formation and as observed on 28.10.2024 at the sampling locations

S. No	State	Sampling Points (No. of samples)	Distance in KM (from previous point)	Geo-Coordinates		Froth formation	Observed DO levels in mg/L
1.	Karnataka	i. Channasandra bridge	-	12.985 °N	77.776 °E	No	BDL
2.	Inter State Boundary	ii. Mugalur bridge (Karnataka)	13.8	12.893067 °N	77.827606 °E	No	BDL
		iii. Sokkarasanapalli (Tamilnadu)	5	12.861443 °N	77.832338 °E	Yes	0.50 mg/L
3.	Tamilnadu	iv. Kelavarapalli reservoir (upstream)	16	12.769627 °N	77.874894 °E	No	4.23 mg/L
		v. Kelavarapalli outfall		12.769538 °N	77.875117 °E	Yes	6.55 mg/L
		vi. Mitteganahalli bridge / Marasandiram (Hosur – Nandimangalam Road)		12.768519 °N	77.876822°E	Yes	6.45 mg/L

In addition to above, textile industry located at the river catchment near Bagalur bridge was also visited by the team and observations are given below;

(vii) **Visit to Textile Industry-Premier SPG and WVG Mills Pvt. Ltd., Bagalur, Tamilnadu:**

- Textile Industry in River Thennpennai Catchment Area: The team inspected a textile unit located 0.5–0.6 km from the bagalur bridge (river thenpennai flows to kelavarapalli dam) to assess its ETP process.
- Process and ETP Details: The unit’s representative outlined the ETP processes, which treats wastewater generated in their process through chemical, biological, and advanced filtration steps.
- The plant is a ZLD facility, the plant fully recycles treated water, ensuring no discharge outside the premises.

7.0 Causes for frothing in River Thenpennai

7.1 Rainfall data: It was noted that, as per IMD forecast isolated heavy rainfall over many parts of Central and South Peninsular India (Maharashtra, Karnataka, Tamilnadu and Kerala) during many days of the week (17th to 23rd October 2024). Very Heavy Rainfall was observed at isolated places over Tamil Nadu, Puducherry & Karaikal on 24th and 25th October; Coastal Karnataka, Tamil Nadu, Puducherry on 26th October; Tamil Nadu on 30th October. [Heavy Rain: 64.5 to 115.5 mm, Very Heavy Rain: 115.6 to 204.4 mm, Extremely Heavy Rain > 204.4 mm]. Heavy downpour from Karnataka attributes to the increased flow into Kelavarapalli dam in Tamilnadu in the week of October, 2024 (17th to 25th October). The rainfall data of krishnagiri (includes hosur) (+61 % is L.Excess) is provided as figure 10. Heavy Rainfall combined with run off cause turbulence followed by froth formation in the river due to presence of soaps, detergents or surfactants.

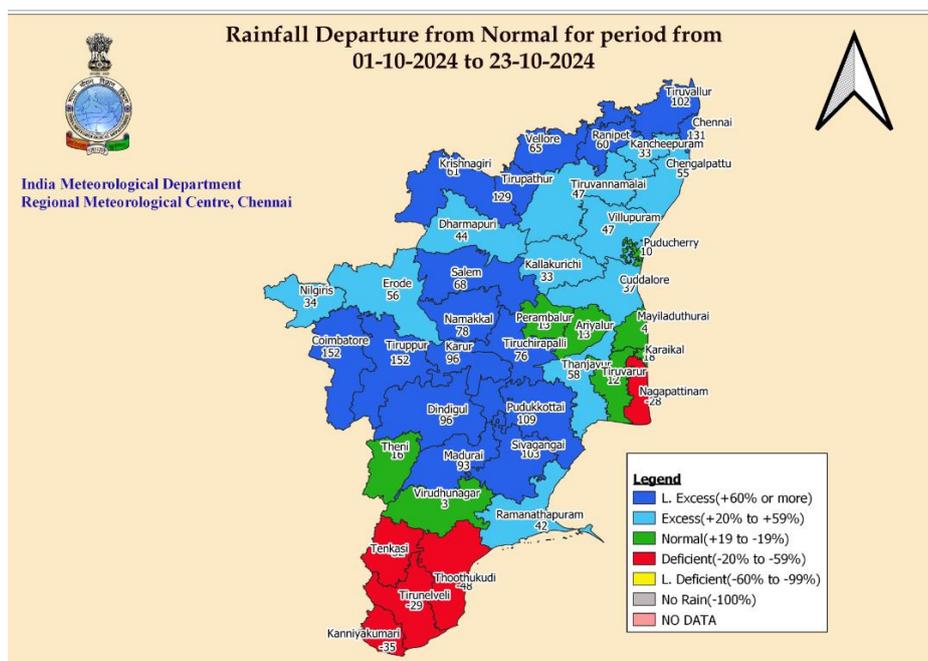


Figure 10. Rainfall data of Tamilnadu during 01st to 23rd Oct, 2024

7.2 Gap in Sewage Management:

Untreated or partially treated sewage from Bengaluru significantly pollutes the River Thenpennai, with domestic sewage generation estimated as **2120 MLD** due to rapid urbanization and population growth. This sewage also deteriorates Bengaluru's lakes and water bodies, impacting water quality and harming human health and aquatic ecosystems. Table 3 represents the status of Domestic & Industrial Sewage Management in Bengaluru and districts of Karnataka in the catchment of River Thenpennai as per data available with BWSSB. List of STPs in K&C Valley and Hebbal valley is attached as **Annexure 4**.

Table 3: Status of Domestic & Industrial Sewage Management in Bengaluru as per data available with BWSSB

Domestic Sewage Management as of Oct 2024 (as provided by BWSSB, Bengaluru)	
Sewage Generation in Bengaluru (MLD) – 2120 MLD	Water Consumption per capita – 135 LPCD Water Consumption in Bengaluru – 2650 MLD
Quantity of sewage generated in K&C valley and Hebbal Valley	1272 MLD
No. of STPs in two valleys	26 Nos (operational)
Additional no of STPs in Bengaluru & its treatment/operational capacity	11 STPs under Construction in two valleys (220 MLD) 10 STPs proposed DPR for approval (300 MLD)
Quantity of sewage treated in 26 STPs in two valleys (on an average)	Installed capacity = 959 MLD Operational capacity = 825.81 MLD
Quantity of treated wastewater diverted for irrigation to Kolar and Chikkaballapur district	550 MLD
Total gap in treatment of waste water in two valleys of Bangalore	421.5 MLD (313 + 133.18 MLD)
Total Enhancement of Sewage treatment capacity of STPs in two valleys, Bangalore estimated by BWSSB	220 MLD
Enhancement of sewage treatment capacity of STPs in entire Bengaluru (covering both the valleys) estimated by BWSSB	470 MLD
Proposed plan for sewerage lines/UGDs in the Bengaluru urban and rural	Proposed for sewerage line in V.Valley of Bengaluru
Remarks	The gap in sewage treatment is proposed to be covered with the upcoming STP projects by 2025.

As per the information provided by BWSSB, 26 STPs are operational in K&C and Hebbal Valley to treat domestic sewage generated (1272 MLD) from Bengaluru. About 421.5 MLD gap in treatment exists and the same would be met by additional 11 STPs (capacity 220 MLD) to be constructed by 2025.

7.3 Other Sources

Apart from above, other sources include waste water discharge from vehicle washings of automobile service stations, Dobhi Ghats in Bengaluru along the river Thenpennai and application of fertilisers for farming / agriculture in the catchment of the river.

One of the main reasons for development of foam in the kelavarapalli dam is agitation of water falling over a height and due to surfactants in sewage.

In view of above, it is suggested that Pollutant profiling with respect to surfactants may be carried out for ascertaining the trend of anionic surfactants, cationic surfactants along with water quality parameters on a quarterly basis (pre-monsoon, monsoon and post-monsoon) in the confluence points of River Thenpennai in both the states and Kelavarapalli dam in Tamilnadu for one year.

Photographs taken during the monitoring is annexed as **Annexure-5**.

8.0 Recommendations and Action Plan for Restoration of River Thenpennai

The analysis results reveal organic load and absence of DO in River Thenpennai at the Karnataka-Tamilnadu border and the water quality was not complying with Primary Water Quality Criteria for Bathing waters notified under the Environment (Protection) Amendment Rules, 2000. It may also be noted from table 3 that, there is a gap of about 421.5 MLD of untreated sewage (K&C and Hebbal valley) from Bengaluru. Also, it may be possible that, illegal discharges from few industries into river catchment area may occur during monsoon.

With reference to the joint committee report, 2020 in OA NO 111 of 2020, the 17 actions points viz., (i) Estimation of flow of water in River Thenpennai; (ii) Study of Performance evaluation of Sewage Treatment Plants in Bangalore by engaging a CSIR institute; (iii) Random Verification of grossly polluting (water polluting) industries located in the River Basin and Assessment of wastewater management and discharge mode; (iv) Rejuvenation of lakes to remediate the pollution caused in River Thenpennai; (v) Environmental Compensation be imposed by SPCBs after evaluating performance of STPs and identification of defaulters upon Random Verification; (vi) Sewage and Solid Waste Management in the villages (13) adjoining River Thenpennai up till Kelavarapalli; (vii) Regular Water Quality Monitoring at important locations to be implemented by the respective states of Karnataka and Tamilnadu, were already circulated to KSPCB and TNPCB for follow up and necessary compliance.

In addition to above, the following action plan are proposed to mitigate the pollution sources (industrial and domestic sewage) and thereby restoring river Thenpennai towards kelavarapalli dam;

ACTION PLAN FOR RESTORATION OF RIVER THENPENNAI	Implementing Agency	Timeline / Remarks
1. Pollutant Profiling of major confluence points of River Thenpennai (pH, DO, BOD, COD, TC/FC, TDS, TSS, Conductivity, Surfactants) to ascertain the water quality as per Primary Water Quality Criteria for Bathing under E(P) Rules, 1986 on monthly / quarterly basis	KSPCB and TNPCB	One Year
2. Mapping and River Networking of Thenpennai using GIS based tools and remote sensing for identification of outfall from major drains, lakes and other industrial/non-industrial discharges	CPCB	One Year
3. Commissioning of Online Continuous monitoring station at Mugalur Bridge and along Kodiyalam / Bagalur for Water Quality assessment (COD, TDS, pH and TSS)	KSPCB and TNPCB	Six months
4. Construction of wetlands, feasibility for Bio-diversity park in case adequate land is available in the vicinity of ponds or lakes.	KSPCB and Lake Authority	Six Months
5. Detailed gap analysis to be made w.r.t municipal sewage, industrial effluent and waste management with a projection of at least 15 to 20 years, existing infrastructure for management of municipal sewage, industrial effluents and waste management in the catchment area of the water body.	KSPCB	One Year

6. Adopting In-situ available technological options for restoration of ponds or lakes (such as aeration, bio-remediation) in lakes or ponds	KSPCB & Lake Authority, Karnataka	Six months
7. Performance of STPs located in K&C and Hebbal valleys to be assessed and monitored by KSPCB annually (viz., there are 32 STPs in Bangalore including 26 STPs in Koramangla & Challaghatta and Hebbal Valleys)	KSPCB	Six months
8. Strengthening of major UGDs to be taken up on priority basis by BWSSB.	BWSSB	One year
9. Preparation of Detailed Project Report (DPR) for interception and diversion (I & D) of drains to sewage treatment plant (STP) for which suitable site to be identified and plan for utilization of treated sewage along kodiyaalam to Kelavarapalli dam.	TNPCB	One year
10. To conduct an in-depth study to establish regulatory standards for allowable surfactant concentrations in treated domestic sewage discharge to surface waters (Agency: CPCB)	CPCB	One year
11. To introduce oil skimming techniques at carwash centers to remove oil contaminants before wastewater discharge into drainage systems. (Red and Orange categories) (Agency: KSPCB)	KSPCB	Three months
12. Dedicated Provision of infrastructure for Dhobhi Ghats including Wastewater Treatment on the bank of River Thenpennai	BWSSB	One Year
13. Prohibition of vehicle washing in River Thenpennai	BBMP, Police Department	Within a month

9.0 Concluding Remarks:

It has been ascertained from the sampling and analysis of water at locations of River Thenpennai that, water quality do not comply with the Primary Water Quality Criteria for Bathing Waters notified under Environment (Protection) Amendment Rules, 2000 which may be attributed to the gap in sewage management in Bengaluru (K& C Valley and Hebbal Valley), illegal industrial discharges, automobile service stations in the catchment of river Thenpennai in Karnataka. The episode of frothing at Kelavarapalli dam was observed on 23rd and 24th Oct, 2024 following heavy downpour during 17th to 25th Oct, 2024. One of the main reasons for development of foam in the kelavarapalli dam is agitation of water falling over a height and due to surfactants in sewage. The presence of anionic surfactants was analysed and reported as <0.1 mg/l in all the locations except Channasandra bridge which may be attributed to domestic waste water and application of fertilisers for farming / agriculture in the banks of the river.

In this regard, it is submitted that the Chief Secretary, Government of Karnataka is required to take lead and hold responsibility and also direct to ensure compliance by the concerned departments as per the provisions of the Karnataka Lake Conservation and Development Authority Act, 2014 which stipulates function of the authority under Section 5.

It is humbly submitted that, necessary steps may be taken by all the concerned departments in Government of Karnataka including Karnataka State Pollution Control Board (KSPCB), Bengaluru Development Authority (BDA), Lakes Department, Minor Irrigation, BBMP and BWSSB under the able guidance of the Chief Secretary, Government of Karnataka to ensure the water quality at the exit point of Inter-State Border in Karnataka to be pristine in compliance with the NGT Final Order dated 13.07.2022 in OA No 111 of 2020.

Item No.03:

Court No.1:

BEFORE THE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE, CHENNAI

Original Application No.111 of 2020 (SZ)

(Through Video Conference)

IN THE MATTER OF:

Tribunal on its own motion SUO MOTU
Based on the News Item in Tamil Newspaper Dinamalar
Chennai Edition dated 13.07.2020, "Frothing of
Chemical foam in the River Thenpennai.

With

- 1. The Principal Secretary to Government,**
Public Works Department,
Secretariat, Fort St. George,
Chennai - 600 009.
- 2. The Secretary to Govt. of Tamil Nadu,**
Department of Environment,
Govt. Secretariat, Fort St. George,
Chennai, Tamil Nadu - 600 009.
- 3. The Secretary to Government of Karnataka**
Department of Forest Environment & Ecology,
Room No. 708, Gate 2, Multi Storied Building,
Dr. Ambedkar Veedhi, Bangalore 560 001.
- 4. Engineer -in - Chief (Water Resources Organisation),**
And Chief Engineer (General),
Public Works Department,
Chepauk, Chennai 600 005.
- 5. The Chairman,**
Tamil Nadu Pollution Control Board
No. 76, Anna Salai, Guindy,
Chennai, Tamil Nadu - 600 032.
- 6. The Chairman,**
Karnataka State Pollution Control Board,
"Parisara Bhavn" No. 49 4th & 5th Floor,
Church Street, Bangalore 560 001.

7. The District Collector,
Krishnagiri District,
Ist Floor Collectorate,
Krishnagiri 635 001.

...Respondent(s)

Date of Judgment: 13.07.2022.

CORAM:

HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

HON'BLE DR. SATYAGOPAL KORLAPATI, EXPERT MEMBER

For Applicant(s)

By Court

For Respondent(s):

Dr. D. Snahmuganathan for R1, R2, R4, R5 & R 7
Ms. Amritha Sharma represented
Mr. K.M. Darpan for R3
Mr. M.R. Gokul Krishnan for R6
Mr. Thirunavukarasu for CPCB

JUDGMENT

1. The above was Suo - Motu registered by this Tribunal on the basis of the news paper report published in Dinamalar, Chennai City Supplement Edition dated, 13.07.2020 under the caption “*தென் பெண்ணை ஆற்றில் தேங்கிய ரசாயன நுரை*” “*Frothing of Chemical Foam in the River Thenpennai*” based on that this Tribunal had appointed a Joint Committee called for the reports and after verifying various reports submitted by the regulators and the undertakings given by the stake holders to implement the recommendations made by the Joint Committee for betterment of the situation, by Judgment dated 28.06.2021 with following directions:-

- i) *The Joint Committee report dated 20.11.2020 and further report of November, 2020 and subsequent progress report of the Joint Committee dated 02.06.2021 which are extracted above are recorded and accepted.*
- ii) *The concerned Departments mentioned in the Joint Committee report are directed to implement the directions issued by the Joint Committee, so as to resolve the issue permanently within a time frame provided by them.*
- iii) *Chairman, Karnataka Pollution Control Board and Chairman, Tamil Nadu Pollution Control Board are directed to monitor the implementation of the recommendations made by the Joint Committee by the respective Departments and also assess the improvement of the water quality in their respective areas and if any, further action is to be taken, they are directed to take further action against those who are not complying with the directions issued by the Joint Committee, which results in further pollution to the Thenpennai River and*

also the connecting rivers which reaches the Kelavarapalli reservoir from where the water is released to Thenpennai River from State of Karnataka.

- iv) The Central Pollution Control Board, Regional Office, Bangalore as well as Regional Office Chennai are also directed to monitor the implementation of the recommendations made by the Joint Committee and if there is any violation or non-implementation of the directions, then they are also directed to issue necessary direction to the defaulting Department to comply with the same and on their failure, take appropriate action against them in accordance with law.*
- v) The Chief Secretary, State of Karnataka is directed to review the action taken by the respective department and if there is any gap found, then issue necessary direction to the concerned departments for implementing the directions within their State and if any support is required from the Government level then provide both technical as well as financial support in this regard.*
- vi) The Chief Secretary, State of Tamil Nadu is also directed to monitor the directions issued by the Joint Committee as far as State of Tamil Nadu is concerned and also the timeline provided by the Tamil Nadu Pollution Control Board in implementation of the Solid Waste Management Rules, 2016 in these areas which also causes some sort of pollution to water quality in Thenpennai River.*
- vii) The Chief Secretary, State of Karnataka, Chief Secretary, State of Tamil Nadu, Central Pollution Control Board, Regional Office, Bangalore and Chennai and respective Chairman of the Pollution Control Boards are directed to file periodical progress report to this Tribunal, once in three months along with the water quality analysis so as ascertain the improvement caused on account of the implementation of the recommendations made by the respective departments and if they found any gap in spite of the implementation of the recommendations, they are also directed to submit their further remedial measures to be taken by the respective department to resolve the issue permanently when they are filing their progress report, once in three months.*
- viii) The Registry is directed to communicate this order to the Chief Secretary, State of Karnataka, Chief Secretary, State of Tamil Nadu, Chairman of both the State Pollution Control Board and also to the Regional Directors of Central Pollution Control Board, Bangalore as well as Chennai for information and compliance of the directions as directed above.*
- ix) The office is directed to place the reports as and when received before this Tribunal for consideration.*

With the above observations and directions, the application is disposed of.

2. There was a direction given by this Tribunal to submit a periodical report regarding the implementation of the directions once in three (3) months. Since the reports were not filed, the matter was taken up for consideration of compliance on 14.12.2021 and thereafter, the matter was adjourned for the purpose of filing the reports. On 17.02.2022, this Tribunal had considered the joint progress report submitted by the Central Pollution Control Board dated 29.09.2021, e-filed on 21.12.2021 extracted in Para (3) of the order, thereafter, this Tribunal also considered another report submitted by the

Central Pollution Control Board dated 21.01.2022, e-filed on the same dated extracted in Para (4) of the order and also this Tribunal also considered the report submitted by the Tamil Nadu Pollution Control Board e-filed on 03.01.2022 extracted in Para (5) of the order and also this Tribunal had considered the report submitted by the Bruhat Bengaluru Mahanagara Palike (BBMP).

3. Thereafter, this Tribunal had directed the other stake holders to file their respective compliance reports. Thereafter, the matter was again taken up on 27.05.2022, on that day this Tribunal had considered the report submitted by the Karnataka State Pollution Control Board dated nil, e-filed on 21.03.2022 extracted in Para (2) of the order and then passed the following order:-

“7. Though it was mentioned that certain annexure were produced, no such annexure is seen produced. They had only given the water quality and the action taken for recovery of compensation against the violators. Though, the learned counsel appearing for State of Karnataka submitted that certain steps have been taken for installing real time monitor of the water quality before its crosses the State boundary, no such report is seen filed. Even on the last hearing date, we directed the Chief Secretary and the principal Secretary for Environment, State of Karnataka to file the report otherwise they will have to face the consequences as contemplated under Section 25, 26 & 28 of the National Green Tribunal Act, 2010.

8. The counsel appearing for the Central Pollution Control Board (CPCB) submitted that they have already issued a direction to the State Pollution Control Board to implement the directions issued by them against the erring units.

9. The Central Pollution Control Board is also expected to file a report regarding the implementation of the directions issued on the basis of the Joint Committee report to be carried out by the State of Karnataka and if not, what is the nature of action taken by them as it is seen from the report that the water coming from the reservoir is mixed with contaminated water before it reaches the boundary of Tamil Nadu and in order to monitor the water quality at the boundary before it is being released as suggested by the committee, we directed the State of Karnataka to provide a real time monitoring system to ensure the water quality before it is being discharged and crossing the boundary of the State, so that the menace that has been raised can be remedied.

10. In the mean time, the other departments, namely, Bruhat Bengaluru Mahanagara Palike (BBMP) and Bangalore Water Supply & Sewerage Board (BWSSB) are also directed to file their further report regarding the implementation of the Waste Management Rules and Liquid Waste Management Rules, etc.

11. The Chief Secretary, State of Karnataka, the Principal Secretary for Environment and also the Central Pollution Control Board to file a report to this Tribunal on or before **13.07.2022** by e-filing in the form of searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per rules.

12. The Registry is directed to communicate this order to the official respondents including the Chairman of Both the State Pollution Control Board, Bruhat Bengaluru Mahanagara Palike (BBMP), Bangalore Water Supply and Sewerage Board (BWSSB), Principal Secretary for Environment, State of Karnataka, Additional Chief Secretary for Environment, State of Tamil Nadu Chief Secretary to Government, State of Karnataka, Chief Secretary to Government, State of Tamil Nadu for their information and also for compliance of the direction.

4. The case was posted to today for consideration of further compliance report.
5. The Karnataka State Pollution Control Board had filed a report in the form an affidavit dated 12.07.2022, e-filed on 13.07.2022 where in they have stated about the work undertaken by Bangalore Water Supply and Sewerage Board (BWSSB) as follows:-

The sewage network and STP's in the newly added 110 villages are not yet provided. Hence, the sewage generated in those areas is entering storm water drains. However, the sewage pipeline laying is in progress and is estimated to be completed in all villages by 2024.

BWSSB had planned to link the sewage lines to the STPs to increase the flow to the plants to its designed capacities. Accordingly, BWSSB has taken up and completed linking works to stop the sewage, entering the lakes. The completion of STP's has enabled BWSSB to arrest wastewater directly flowing to lakes.

Apart from sewage generated from 110 villages area, around 5% of the sewage is not possible to arrest which is entering the lake diversion channel due to Site constraints and non-availability of buffer zones for carrying out the routine desilting works of the sewer lines which are running in the SWDs. In view of difficulties and practical problems and more site constraints and in such places the competent authority shall have to provide any alternative land for carrying out the works of shifting of sewer lines on either side of the drains in the buffer zones.

In this regard several meetings were conducted with the engineers of BWSSB, BBMP, BDA and Consultants and it was decided to highlight the issue to other stakeholders and to government for further directions.

The sewers which were laid inside the SWDs in K&C Valley is 50.37 kms. V Valley is 84 Km and Hebbal Valley is 18 Km BWSSB will take up similar Projects such as K100 or DTSS, etc. in phased manner to arrest the remaining sewage flowing in SWD.

Upgradation of STPs: The BWSSB has taken up upgradation work as per the orders of Hon'ble Tribunal. The work of Design, Upgradation and Rehabilitation of existing 248 MLD Used Water Treatment Plants capacity at K&C Valley, Bengaluru including Commissioning,

Operation & Maintenance for a period of 5 years along with O&M during Design, Upgradation and Rehabilitation period has been entrusted to M/s. SUEZ India Pvt Ltd on tender basis with awarded cost of INR 610.50 Crore (Work Value INR 494.37 + 2 year O&M cost INR 14.36 Crore plus 5 year O&M NR101.76 Crore) with the date of commencement and date of completion as 27- 04-2022 and 26-04-2024 (24 Months duration) respectively. The project is having 24 Months O&M during Construction and 60 Months O&M post construction.

In the upgradation works the plant will be complied to BNR Removal and effluent parameters will be complied as per the directions of the Hon'ble NGT. Further, sludge handling structures will be added to treat the generated sludge. The total capital cost for upgradation of all these 20 plants will be Rs.141 1.00 crore which includes physical contingencies, provisional sum, PMC and escalation charges. In the Budget speech of Hon'ble Chief Minister for the year 2022-23 in the Joint session it was mentioned that Rs.1500.00 crore have been allotted for the upgradation works of wastewater treatment plants of the city. The Proposal have been submitted to Govt. of Karnataka for approval and seeking funds.

It is most humbly submitted that on the Joint Committee had suggested a performance study of the STPs to the Monitoring Committee constituted under O.A.No. 125/2017. However, the Monitoring Committee constituted under the OA referred is not of existence anymore as the case was closed on 12.03.2021. However, the jurisdictional offices of KSPCB have inspected the catchment area of the Thenpennai River. They have inspected 10 Red Category, 7 Orange Category and collected samples. The results of the tests conducted on the samples is attached with the Action Taken Report as Annexure – II. 3 areas are non-conforming to the standards, the jurisdictional offices have been notified and action is being taken. The non-conforming areas are:

- (a) Goodrich Aerospace Services 066. Pvt Ltd., Sy No. 14/1, 14/2 & 15/1 Maruthi Hoody Village, 3 Indl Estate LR K.R.Puram, Bangalore East Taluk – 48.
- (b) Molex India Limited., Plot No. 6A, Sadaramangala Indl. Area, Kadugodi Post, Bengaluru – 560 067
- (c) Reliance Jio Infocomm Ltd., No. 1155, 3rd Wing, Block – C, HM Tech Park, Hope Farm Circle, Whitefield, Bengaluru.

It is humbly submitted that KSPCB has imposed EC of Rs. 288.80 Cr. on 496 Apartment/Commercial Establishments and Rs. 1,40,00,000/- has been collected so far. KSPCB has issued Memo to ROs in this regard 1895, dated: 14.06.2022. As a result Rs. 48.076 Cr EC has been levied on vide No. various BWSSB STPs. The list has been enclosed Annexure-3

It is humbly submitted that KSPCB has installed continuous online water quality monitoring system at the border of Karnataka and Tamil Nadu near Mugulur Bridge for monitoring quality of water flowing in River Thenpennai. The water quality report for the months April – June, 2022 is enclosed herein as Annexure IV.

6. The Karnataka State Pollution Control Board also given the action take report in a tabular column which reads as follows:-

**Action Taken Report for the Quarter Ended on 30.06.2022
(Period 01.04.2022 to 30.06.2022) as per the Honorable NGT Order dated 27.05.2022.**

Sl No.	Action points	Present status	Proposed action by the Joint committee	Actions taken by KSPCB
1	Study of Performance of the STPs located in Koramangla and Challaghatta, Hebbal Valleys are being assessed based on its capacity utilized and characteristics by BWSSB. However, the treated waste water quality needs to be ascertained. Further, Water quality of water (treated water by BWSSB) diverted for irrigation to Chikkaballapura and Kolar Districts through Minor irrigation Department is required to be assessed. Therefore, there is need to conduct audit of the data of quantity of sewage generation, Sewage treatment capacity installed vs actually operated and treated wastewater characteristics.	The performance of the STPs located in Koramangla and Challaghatta, Hebbal Valleys are being assessed based on its capacity utilized and characteristics by BWSSB. However, the treated waste water quality needs to be ascertained. Further, Water quality of water (treated water by BWSSB) diverted for irrigation to Chikkaballapura and Kolar Districts through Minor irrigation Department is required to be assessed. Therefore, there is need to conduct audit of the data of quantity of sewage generation, Sewage treatment capacity installed vs actually operated and treated wastewater characteristics.	BWSSB may engage a CSIR Institute like CLRI or NEERI or others for evaluating performance of STPs located in K&C and Hebbal Valleys. (viz., there are 32 STPs in Bangalore including 21 STPs in Koramangla & Challaghatta and Hebbal Valleys). The same may be supervised by KSPCB. The final report may be submitted to KSPCB for review.	KSPCB had addressed letter to BWSSB on 14.06.2022, requesting them furnish action taken by them in improving the performance of their STPs located in Hebbal valley and K & C valley, as per evaluation report submitted by IISc to them. As a response BWSSB has submitted their reply letter dated: 22.06.2022 delineating action taken by them in this regard. Copies of the KSPCB & BWSSB letters are enclosed as Annexure-1
2			The outcome of the performance study of STPs may be submitted as Status of Compliance of the State Functionaries of Karnataka to the Monitoring Committee constituted in the matter of O.A 123/2017, for review and reporting. Among the industries those that are Red/Orange category (small, medium and large) with treated effluent discharge option as surface water/sewer	The Monitoring Committee constituted in the matters related to OA No. 123/2017 is no more existing with quashing of the case on 12.03.2021. The Jurisdictional Offices of KSPCB having Thenpennai River catchment area have inspected 10 red category industries and 7 orange category industries. 08 number of effluent

			drain/others (which includes industries having ZLD) in River basin of Thenpennai be monitored for effluent characteristics by concerned SPCBs, so as to ascertain the quality of treated effluent discharge as per the Consent Conditions of SPCBs. The details of the compliance status and action taken report be placed in public domain (TNPCB and KSPCB website).	samples have been collected out of which 3 are non conforming and notices were issued to such organizations by the concerned Jurisdictional Regional Offices. Annexure -2
3	Environmental Compensation be imposed by SPCBs after evaluating performance of STPs and identification of defaulters upon Random verification.	Performance evaluation of STPs by BWSSB and random inspection industries is required to be carried out by KSPCB/TNPCB with specific reference to River Thenpennai.	EC be calculated and imposed based on the Performance Evaluation of STPs and Random Verification of Grossly Polluting Industries. Calculation of EC by the three member Committee comprising of CPCB, TNPCB and KSPCB, after submission of Reports by the concerned authorities (BWSSB, KSPCB, TNPCB)	KSPCB has imposed EC of Rs. 288.80 Cr. On 496 Nos of Apartment/Commercial establishment and Rs. 1.40 Cr. has been collected so far. Joint Committee has been constituted by KSPCB on 25.04.2022 for Calculating Environmental Compensation in respect of Defaulting BWSSB STPs. Further, KSPCB has issued Memo to ROs in this regard vide No. 1895, dated: 14.06.2022. As a result Rs. 48.076 Cr EC has been levied on various BWSSB STPs. List enclosed as Annexure-3

4	Regular Water Quality Monitoring at important locations.	Water Quality is being monitored by KSPCB by installing real time monitoring stations in Bellanur and Varthur. Further, Mugulur Bridge and Sokkarasanapalli is being monitored under National Water Quality Monitoring Programme.	The trend of water quality and its improvement at major confluence points may be monitored for the year 2021-22 on a monthly basis and a report be submitted to CPCB to ensure the quality of water flowing in River Thenpennai.	KSPCB has installed continuous online water quality monitoring system at the border of Karnataka & Tamilnadu near Mugulur Bridge for monitoring quality of water flowing in River Thenpennai. The water quality report for the months of April, May and June 2022 is enclosed herewith (Annexure-4).
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7. The Central Pollution Control Board also filed a detailed progress report dated 11.07.2022, e-filed on the same date showing the status of compliance and their conclusions as follows:-

3. "STATUS OF COMPLIANCE AND PROGRESS MADE

The Joint Committee Action Plan in its Report submitted before Hon'ble NGT in November 2020 comprises of 17 action points which includes (i) Estimation of flow of water in River Thenpennai; (ii) Study of Performance evaluation of Sewage Treatment Plants in

Bangalore by engaging a CSIR institute;

(iii) Random Verification of grossly polluting (water polluting) industries located in the River Basin and Assessment of wastewater management and discharge mode; (iv) Rejuvenation of lakes to remediate the pollution caused in River Thenpennai; (v) Environmental Compensation be imposed by SPCBs after evaluating performance of STPs and identification of defaulters upon Random Verification; (vi) Sewage and Solid Waste Management in the villages (13) adjoining River Thenpennai up till Kelavarapalli; (vii) Regular Water Quality Monitoring at important locations.

In view of non-compliances observed with respect to the above action points, CPCB directions dated 22.03.2022 under section 18(1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 were issued to KSPCB for necessary compliance. The point wise reply to CPCB directions and ATR provided by KSPCB is enclosed as **Annexure IV**.

Also, the point-wise compliance status of the recommendations made in the Joint Committee Report, 2020 as provided by the concerned departments of Government of Karnataka is provided in the table below:

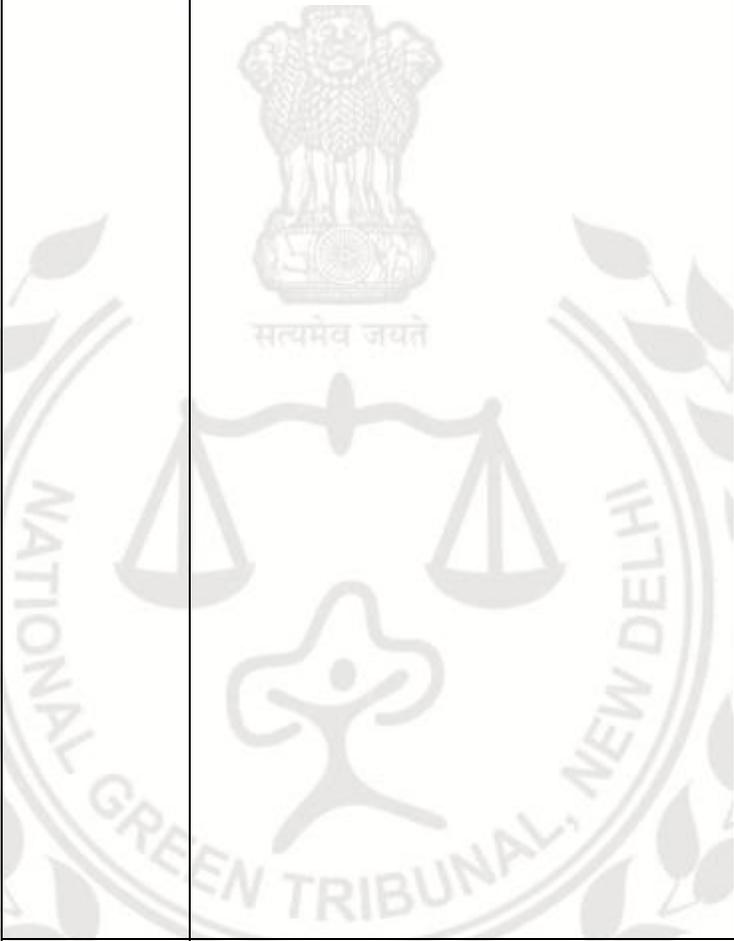
S. No	Recommendations of the Joint Committee	Agency Responsible for ensuring compliance	Compliance Status as on July 2022	Remarks
I.	With respect to flow measurements of major tanks, storm water drains and major confluence points on River Thenpennai, the same has not been carried out completely by BWSSB and Minor Irrigation. BWSSB and Minor Irrigation has informed the joint committee that flow measurements of tanks/lakes, storm water drains and major confluence points are not covered under the purview of their departments.	BWSSB	(a) Adverting to the flow measurements of major tanks, storm water drains and major confluence points in River Thenpennai, it is to inform that the flow measurements of tanks/lakes, storm water drains and major confluence points at two locations chosen from Joint Committee: 1. Thirumala Shettihalli Koraluru, Bengaluru & 2. Harohalli Bridge is not covered under the purview of departments (BBMP limits and 110 village limits). Therefore, it is requested to entrust the role and responsibilities to the concerned department(s) and the duties for the same, may be earmarked by the Government of Karnataka.	The flow of River Thenpennai can be measured from the upstream confluence point of major lakes (Bellandur and Varthur). Further, the flow of River Thenpennai be measured at the Online Monitoring Station installed at Mugalur. Final Action Taken Report is yet to be submitted by BWSSB.

<p>Therefore, the joint committee requests Government of Karnataka to entrust the role and responsibilities to</p>	KSPCB	<p>(b) KSPCB is coordinating with BWSSB & Lake Conservation and Development Authority, BBMP for compliance with regard to flow measurement and monitoring water quality in order to maintain or restore water quality in lakes and tanks associated with river Pinakini (Thenpennai).</p> <p>(c) Directions under Section 33 (A) of the</p>	<p>Action Taken Report on the directions issued by KSPCB yet to be submitted by BBMP and BWSSB respectively.</p>
<p>the concerned department(s) and the duties for the same may be earmarked by the Government of Karnataka.</p> <p>(BWSSB, Lakes Department, BBMP and KSPCB)</p>		<p>Water (Prevention and Control of Pollution) Act, 1974, read with Rule 34 (4) of Karnataka State Board for the Prevention and Control of Water Pollution (Procedure for Transaction of Business) and the Water (Prevention and Control of Pollution) Rules, 1976 were issued to BWSSB vide letter No. 886 dated 10.05.2022 and to BBMP vide letter No. 887 dated 10.05.2022. Copy of ATR submitted by KSPCB is enclosed as Annexure IV.</p>	
<p>With regard to Study of Performance evaluation of Sewage Treatment Plants in Bangalore, BWSSB may expedite the study awarded to IISC, Bangalore. The outcome of the study and the final report be shared with KSPCB for review before assessment of</p>	<p>Minor Irrigation</p>	<p>(d) Regarding flow measurements, it was informed that all the tanks in Bangalore Urban district are in the control of BBMP. Also it was mentioned that minor irrigation department has not installed any flow measuring devices for any minor irrigation tanks.</p> <p>(e) At present, 190 tanks in Kolar (126) and Chikkaballapur (64) have been filled with about 12.01 TMC of treated wastewater from BWSSB STPs.</p> <p>(f) Storm water drains and main river course is not in the jurisdiction of minor irrigation department.</p>	<p>-</p>
		<p>(a) Final Report: Revision (BWSSB STP upgradation Project) prepared by IISC and finalized by BWSSB.</p> <p>(b) 17 STPs namely, K & C Valley, Bellandur Amani Kere, Horamavu Agara, Nagasandra phase-2, Chikkabanavara, Doddabele, Rajacanal P-I, Rajacanal P-II, Mailasandra phase- I, Kempabudhi, Kadugodi, Halasuru, Yelemallappa Chettikere, Mallathahalli, Kaubeesanahalli, Nagasandra P-I, K R Puram P-I were covered in the study.</p> <p>(c) Process modifications for both the marginally performing and poorly performing STPs based on simultaneous nitrification and denitrification principle have been recommended by the IISC team as a</p>	<p>The outcome and recommendation of the final report (IISC) yet to be reviewed by Karnataka SPCB for technical inputs and improvement for implementation of the same. Based on the performance evaluation of STPs, KSPCB is yet to levy Environment</p>

<p><i>Environmental Compensation in case of non-compliances. The final report and outcome of the study has to be made online in public domain.</i></p> <p>(BWSSB and KSPCB)</p>		<p><i>short-term measure. Also, the IISc team has recommended long-term measures to ensure compliance of discharge effluents from all these STPs.</i></p> <p>(d) <i>Maintenance of chlorine contact tanks is an issue across all STPs, and it is decreasing the quality of effluent. Effective chlorination and dichlorination cycles for each of the STPs should be implemented.</i></p> <p>(e) <i>Continuous monitoring for the 17 STPs is necessary to ensure long-term compliance with NGT standards.</i></p> <p>(f) <i>BWSSB adopted the short term measures at STPs and as per the Hon'ble NGT directions, BWSSB have taken up upgradation of 248 MLD STP at K&C valley B Nagasandra and the work order is issued to M/s SUEZ India Pvt. Ltd. The firm has started work and is in Design Phase. Further, new 150 MLD STP is commissioned on 31.03.2021 and the plant is running to its full capacity.</i></p> <p>(g) <i>Further, there are probabilities of deteriorating results of the effluent parameters, in case the influent parameters are above parity or equivalent to the design requirement & also due to ageing of the plant. Thus, IISc have recommended that it is realistically feasible to propose upgradation of STPs with BNR Removal System as long-term measure and also to upgrade Electro-mechanical equipment accordingly.</i></p> <p>(h) <i>A detailed project report for twenty (20) STPs upgradation under BWSSB amounting Rs. 1411 Cr has been prepared and submitted to Government of Karnataka for funding and in process vide UDD/96/MNI/202. After obtaining clearance for funds from GoK, further necessary action will be taken from BWSSB to invite tenders.</i></p>	<p><i>Compensation on the defaulting STPs.</i></p> <p><i>Time bound action plans for meeting the standards in case of those defaulting STPs is yet to be prepared jointly by KSPCB and BWSSB.</i></p> <p><i>The final report and the outcome of BWSSB are yet to be made online.</i></p>
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			<p>(i) Detailed Project Report for STPs upgradation under BWSSB has been prepared and submitted to Government of Karnataka for funding and in process vide UDD/96/MNI/2020. After obtaining clearance for funds from GOK, further necessary action will be taken from BWSSB to invite tenders.</p> <p>(j) Further, the final report and outcome of the IISc study has been submitted to Competent Authority vide ref No. BWSSB/ESH/SH2/AE/1508/2021-22 dated 14/02/2022 and it is requested to forward the same to KSPCB and also requested to make online in the public domain through BWSSB website as per the recommendations in the joint committee report in the matter of OA111 of 2020.</p>	
		KSPCB	<p>(k) KSPCB constituted a Committee involving the representatives of the Organizations viz., KSPCB, BWSSB and IISc for calculating Environmental Compensation in respect of defaulting BWSSB STPs as per the Report of the Joint Committee submitted during November 2020. Copy of the Office Memorandum dated 25.04.2022 is enclosed as Annexure IV.</p>	The final report and the outcome of BWSSB are yet to be made online.
III.	With regard to completion of sewerage network for the villages in Koramangla & Challaghatta and Hebbal Valleys (of 110 villages identified by BBMP) for tapping the sewage generated, and strengthening of	BWSSB	<p>(a) As per the details furnished the work titled "Design, Engineering, Construction and Commissioning of Sewage Treatment Plants and Intermediate Sewage Pumping Stations with Operation & Maintenance thereof for Seven Years [Works A] and Procurement and Construction of Main Sewers including Manholes in Bytrayanapura Zone (Hebbal Catchment) [Works - B]" under JICA Loan ID - P266" awarded to M/s Passavant Energy & Environment India Pvt Ltd & M/s Passavant Energy & Environment GMBH (JV) Unit, Gurgaon, Haryana was to commence on</p>	To be complied.

<p>STP conveyance system to improve sewage</p> <p>getting completely tapped and treated, BWSSB</p> <p>shall ensure no sewage is discharged into River Thenpennai through continuous monitoring on a regular basis and taking stringent actions on the defaulters.</p> <p>(BWSSB and BBMP)</p>		<p>07.07.2021. The work is expected to be completed by 06.01.2024. The Operation & Maintenance of the Sewage Treatment Plants (STPs) and Intermediate Sewage Pumping Stations will commence on 08.01.2024 and complete by 07.01.2031.</p> <p>(b) Further, to arrest any sewage entering from the Core areas and for maintenance of sewer lines, sufficient buffer space to be provided on both sides of Storm water drain/River streams from BBMP in order to avoid sewage flowing in the Storm water drains through Core areas.</p>	
	BBMP	<p>(c) BBMP informed that, with regard to sewerage networking, it is being managed exclusively by BWSSB. Copy of ATR submitted by BBMP is appended as Annexure VI.</p>	-
<p>With respect to Water Quality of the water flowing in River Thenpennai be maintained pristine and tested for its characteristics in the respective jurisdictions, the joint committee could not identify the departments in Karnataka responsible for maintaining/restoring the water quality in</p>	KSPCB	<p>(a) KSPCB is monitoring the water quality of 79 lakes located in Dakshina Pinakini River Catchment area. The different lake water quality carried out from 01.04.2021 to 31.01.2022 is enclosed as a part of Annexure IV which conforms to Class D category.</p> <p>(b) KSPCB is monitoring the water quality of Dakshina Pinakini River near Mugalur bridge which is conforming to D/E category of Primary Water Quality Criteria as per the water quality analysis carried out from 01.04.2021 to 31.01.2022.</p>	<p>The authority comprising of members viz., Forest, Ecology and Environment Department, Finance Department, Urban Development Department, Minor Irrigation Department, Animal Husbandry or Fisheries Department, Revenue Department,</p>

<p><i>lakes/tanks. BWSSB, BBMP, BDA and Minor Irrigation have informed the joint committee that monitoring and restoration of water quality of tanks/lakes are not covered under their purview. Therefore, it is submitted that the concerned department in Karnataka be identified by Government of Karnataka and ensure compliance accordingly.</i></p> <p><i>(KSPCB, Minor Irrigation, Lakes Department, BWSSB Bangalore Water Supply and Sewerage Board (BWSSB), Bangalore Development Authority (BDA), Bruhat Bangalore Mahanagara Palike (BBMP)).</i></p>			<p><i>Karnataka State Pollution Control Board, Bengaluru, Bangalore Water Supply and Sewerage Board, Bengaluru, Bangalore Development Authority, Bengaluru, Bruhat Bangalore Mahanagara Palike, Bengaluru are duly responsible for the functions stipulated under the Karnataka Lake Conservation and Development Authority Act, 2014 for improving and monitoring water quality, conserving lake ecology on need basis and to protect them against domestic and industrial pollution.</i></p>
	TNPCB	(c) <i>The water quality of River Thenpennai is being monitored on monthly basis at interstate border i.e., at Chokkarasanapalli Village and the report of analysis for the period from September 2017 to May 2022 is enclosed. Copy of ATR submitted by TNPCB is enclosed as Annexure V.</i>	Monitoring Water Quality on a continual basis by TNPCB.
	Minor Irrigation	(d) <i>Water quality analysis of river does not come under the scope of Minor irrigation department and also there is no separate section for analyzing water quality.</i>	Water Quality being monitored by KSPCB.

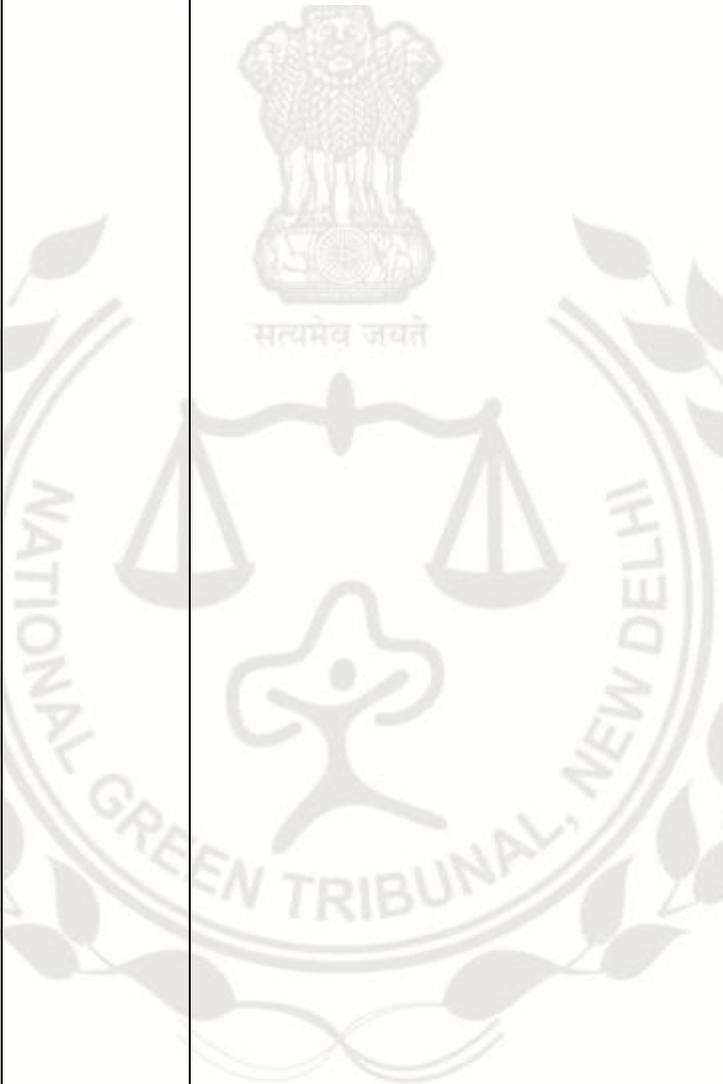
<p>BWSSB, Lakes Department, BBMP, BDA</p>	<p>(e) Water quality analysis reports are yet to be submitted by the concerned departments.</p> <p>(f) BWSSB informed that the treated water is being pumped to 65 tanks of Chikkaballapur and surrounding areas through Minor Irrigation and the treated water is also being tested from Minor Irrigation through NABL Accredited Lab before pumping the treated water to filling up of lakes.</p> <p>(g) Also, BWSSB informed that, Water Quality of outlet of the Sewage Treatment Plants (STPs) in Hebbal Valley are being monitoring on regular basis through in-house laboratories and through labs of NABL Accredited from KSPCB. Further, the effluents has been tested from IISc during the performance study of STPs under Hebbal Valley, which reveals, that the parameters of the treated outlet is complying with the limits notified in General Standards for discharge of Environmental Pollutants.</p> <p>(h) BBMP informed that, State Government has transferred 202 lakes to BBMP for development and maintenance. Out of which, 19 lakes are DISUSED lakes that have lost the lake character. In the remaining 183 lakes, 89 lakes have been developed comprehensively by diverting the sewage inflow and maintaining the water quality, 39 lakes are being under development from CM's Nagarothana grants. Once these lakes were rejuvenated comprehensively the water qualities will be maintained without inflow of sewage into the lakebed. The remaining 27 lakes will be taken in the coming financial year based on the priority and availability of funds.</p>	<p>Action Taken Report with regard to Water Quality of STPs is yet to be submitted by BWSSB.</p> <p>To be complied.</p>
	<p>Copy of ATR submitted by BBMP is appended as Annexure VI.</p>	

<p><i>With respect to Random Verification of grossly polluting (water polluting) industries located in the River Basin and Assessment of wastewater management and discharge mode, KSPCB and TNPCB may continue to do such random inspections regularly to curb the pollution caused to River Thenpennai and ensure no illegal activities are carried out thereof.</i></p> <p><i>Regarding random verifications of industries discharging effluents into the storm water drains, KSPCB informed the committee that they would continue to inspect a minimum of 60 industries to ensure that the industries do not discharge the</i></p>	KSPCB	<p>(a) The jurisdictional offices of KSPCB having Thenpennai River Catchment area have inspected 10 Red Category and 07 Orange category industries. 08 number of effluent samples have been collected, out of which 03 are non-conforming and notices were issued to such organizations by the concerned jurisdictional Regional Offices.</p> <p>(b) Besides, industries located at the catchment area of KC valley, Hebbal valley, Hosakote, Kolar and Chikkaballapur are periodical inspected by respective ROs. The industries are located in the catchment areas are periodically inspected by the Regional Officers and the defaulters industries are dealt in accordance with law.</p> <p>(c) KSPCB has issued closure directions to 72 nos. of defaulting industries during 2018 - 2022. Out of which 29 No's of closure directions were revoked after compliance.</p> <p>(d) KSPCB has filed cases against 16 defaulting Apartments.</p> <p>(e) KSPCB has engaged 12 Marshals with Emergency Response Vehicles to identify illegal discharges. 4 Nos. of vehicles have been purchased for this purpose.</p>	<p><i>The monitoring and verification of industries is required to be carried out on a continual basis and action to be taken against defaulting units.</i></p>
<p><i>effluent into the storm water drain. On identifying such instances, action will be initiated under section 33A of Water Act.</i></p> <p><i>(KSPCB and TNPCB)</i></p>	TNPCB	<p>(f) TNPCB informed that the industries located in the area covered under the investigation in Thenpennai River Basin are being closely monitored by TNPCB to ensure Zero Liquid Discharge. Copy of ATR submitted by TNPCB is enclosed as Annexure V.</p>	<p><i>The monitoring and verification of industries is required to be carried out on a continual basis and action to be taken against defaulting units.</i></p>

<p>With regard to Environmental Compensation be imposed by SPCBs after evaluating performance of STPs and identification of defaulters upon Random Verification, EC has to be imposed on any defaulters or violators causing pollution into the River Thenpennai by KSPCB and TNPCB for the year 2021-22.</p> <p>(KSPCB and TNPCB)</p>	<p>KSPCB</p>	<p>(a) KSPCB has imposed EC of Rs. 288.8 Cr on 496 Nos' Apartment/Commercial establishment and Rs. 1.85 Cr was collected.</p> <p>(b) A Joint Committee has been constituted by KSPCB on 25.04.2022 for calculating Environmental Compensation in case of BWSSB defaulting STPs.</p> <p>(c) Further, KSPCB has issued memo to ROs in this regard vide letter no. 1895 dated 14.06.2022. As a result, Rs. 48.072 Cr EC has been levied on various BWSSB STPs. Copy of ATR submitted by KSPCB is appended as Annexure IV.</p>
	<p>TNPCB</p>	<p>(d) TNPCB informed that no violating / defaulting industries are identified.</p>
<p>With regard to Sewage and Solid Waste Management in the villages (13) adjoining River Thenpennai up till Kelavarapalli, Block</p>	<p>TNPCB</p>	<p>(a) TNPCB has provided the same status of the Sewage and Solid Waste Management in the villages (13) adjoining River Thenpennai up till Kelavarapalli and informed that the same is under progress. Additional time requested by the local body due to COVID pandemic situation.</p> <p>(b) In view of above, TNPCB had issued</p>

<p><i>Development Officer (monitored by TNPCB) may ensure the completion of the activities related to sewage and solid waste management as per timelines.</i></p> <p><i>(TNPCB)</i></p>		<p><i>direction to the BDO Hosur Panchayat Union, Hosur, Krishnagiri District vide Proc No. T1/TNPCBd/LAW/LAIINGT/F.13038/2021/1 dated 03.02.2022 to comply with the provisions of the Solid Waste Management Rules, 2016.</i></p> <p><i>(c) Also, TNPCB also issued direction to the Executive Engineer, WRO, PWD, Upper Pennaiyar Basin Division, Dharmapuri vide Proc No. T1/TNPCBd/LAW/LAIINGT/F.13038/2021/1 dated 04.02.2022 to ensure that no solid wastes are permitted to be dump on either sides of River Stretches.</i></p> <p><i>(d) The local body of Hosur panchayat Union has constructed the micro compost centre to process segregated biodegradable municipal solid wastes.</i></p> <p><i>(e) The non-biodegradable wastes are burnt through the solid waste disposal incinerator.</i></p> <p><i>(f) Under Central Government Scheme of National Urban Mission Project, a plastic shredding unit is proposed at a cost of Rs. 20 lakhs to handle the plastic wastes and the shredded plastic wastes will be used for road laying works.</i></p> <p><i>(g) With regard to sewage management, Construction of Horizontal filter bed work has been commenced and will be completed.</i></p> <p><i>Copy of ATR of TNPCB is enclosed as Annexure V.</i></p>	
<p><i>With regard to action point on monitoring trend of water quality and its</i></p>	<p><i>KSPCB</i></p>	<p><i>Online water quality monitoring station near Mugular Bridge to measure the water quality parameters of River South Pinakini has already been installed on 19.03.2022.</i></p> <p><i>The work related to displaying water</i></p>	<p><i>The online monitoring data of the station installed at Mugalur to be</i></p>

<p><i>improvement at major confluence points for the year 2021-22 on a monthly basis, water quality of major confluence points have to be monitored on a regular basis by KSPCB and TNPCB to ensure pollution is under check.</i></p> <p><i>KSPCB has proposed to install online monitoring to monitor the key parameters at the river Thenpennai at the State border before it leaves Karnataka.</i></p> <p><i>These results will be synced with the Integrated Command Control Centre of KSPCB and made available online in the public domain.</i></p> <p><i>Periodically the result will be monitored and the graph will be plotted. This would help the KSPCB and CPCB to assess</i></p>		<p><i>quality data acquired, on the websites of CPCB, TNPCB & KSPCB in public domain is under progress. Copy of ATR by KSPCB is enclosed as Annexure IV.</i></p> <p><i>linked to SPCBs (TNPCB/KSPCB) and CPCB servers, at the earliest possible.</i></p>
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<p><i>water quality and initiate action whenever there are violations.</i></p> <p><i>Feasibility for installation of Continuous Online Water Quality Monitoring Station be workedout at the inter-state river boundary by KSPCB in Karnataka to ensure that improved quality of water reaches Tamil Nadu.</i></p> <p><i>After the waste water is treated by the primary STP's situated in the area under the jurisdiction of Bruhat Bengaluru Mahanagar Palike (BBMP), the water flows along various villages situated on the down stream before entering Tamil Nadu. Therefore, it is opined that, a separate STP could be installed at a suitable</i></p>		
<p><i>location in Karnataka border, wherein waste water treated by the primary STP's will be treated once again before it flows to Tamil Nadu.</i></p> <p><i>(KSPCB)</i></p>		

<p><i>BBMP has not provided status of compliance and action taken report with respect to Water Quality of the water flowing in River Thenpennai be maintained pristine and tested for its characteristics in the respective jurisdictions.</i></p> <p>(Lakes Dept, BBMP)</p>	<p>Lakes Department, BBMP</p>	<p>(a) Lakes Department, BBMP has not provided status of compliance and action taken report with respect to Water Quality of the water flowing in River Thenpennai be maintained pristine and tested for its characteristics in the respective jurisdictions.</p> <p>(b) However, BMP informed that, water quality monitoring and analysis is being exclusively managed by KSPCB. Hence the required information is to be collected from the concerned department. Copy of ATR submitted by BBMP is appended as Annexure VI.</p>
<p><i>With respect to construction of wetlands by Bangalore Development Authority (BDA), the activity needs to be completed within the stipulated timelines and the outcomes are to be provided to the</i></p>	<p>BDA</p>	<p>(a) The status of development of construction of wetlands provided by Bangalore Development Authority (BDA) was submitted earlier to Hon'ble NGT in the Joint Progress Report (Trimonthly), September 2021. It has been informed that the desilting work in Bellandur and Varthur lakes are underway and will be completed.</p> <p>(b) However, Compliance status report vide No. BDA/Com/EM/T-139/2022-23 dated 05/07/2022, as received by CPCB, RD, Bengaluru on 07/07/2022 is</p>
<p><i>Joint Committee.</i></p> <p>(BDA)</p>		<p><i>attached as Annexure VII.</i></p>

4. CONCLUDING REMARKS

Upon reviewing the progress made on the recommendations of the Joint Committee Report, it is observed that, with regard to flow measurements of the major confluence points in the upstream and downstream of the river catchment area, flow measurements of major tanks, storm water drains and maintenance of Water Quality of the water flowing into River Thenpennai to be pristine and testing its characteristics in the respective jurisdictions, no constructive efforts have been made by the concerned departments of Government of Karnataka, except for progress made w.r.t installation of Continuous Online Water Quality Monitoring Station at the inter-state river boundary by KSPCB in Karnataka. KSPCB has installed continuous online water quality monitoring system at the border of Karnataka and Tamil Nadu near Mugalur bridge for monitoring of water flowing in River Thenpennai. However, the work related to displaying water quality data acquired in public domain, on the websites of CPCB, TNPCB & KSPCB is under progress.

The Chief Secretary, Government of Karnataka is required to take lead

and hold responsibility and also direct to ensure compliance by the concerned departments as per the provisions of the Karnataka Lake Conservation and Development Authority Act, 2014 which stipulates function of the authority under Section 5.

With regard to performance evaluation of STPs in Bengaluru, BWSSB submitted Final Report: BWSSB STP up gradation project and informed that Detailed Project Report for Twenty (20) STPs up gradation under BWSSB amounting to Rs 1411.00 Crore has been prepared and submitted to Government of Karnataka for funding and is in process. Understanding the need for implementation of recommendations for Continuous monitoring of STPs to ensure long term compliance of NGT standards, a time bound action plan for meeting the standards in case of those defaulting STPs be prepared by BWSSB. The outcome and recommendations of the final report (IISc) are yet to be reviewed by Karnataka SPCB for technical inputs and improvement for implementation of the same. A Joint Committee has been constituted by KSPCB

for calculating Environmental Compensation in respect of defaulting BWSSB STPs. Based on the performance evaluation of STPs, KSPCB is yet to levy Environment Compensation on the defaulting STPs. The final report and outcome of the IISc study are yet to placed on public domain on KSPCB and BWSSB website.

Water quality analysis result of Mugalur, Karnataka provided by Karnataka SPCB, which is important to ascertain the water quality at the exit point of Inter State Border in Karnataka reveal that there is no much improvement of water quality in terms of dissolved oxygen. Further, water quality analysis of River Thenpennai at the interstate location Sokkarasanapalli in Tamilnadu was provided by TNPCB. In sokkarasanapalli, Tamilnadu the water quality analysis results (as on May 2022) reveal that the water quality falls under Class E as per Designated Best Use Criteria. Upon reviewing the reports of analysis of water quality of River Thenpennai, the water quality analysis results (as on May 2022) reveal that the water quality falls under Class E as per Designated Best Use Criteria.

As regard to Solid Waste Management, Regional Officer, Krishnagiri TNPCB apprised that the local body of Hosur Panchayat Union has constructed the micro compost centre to process segregated biodegradable municipal solid wastes. The non-biodegradable wastes are incinerated through the solid waste disposal incinerator. Under Central Government Scheme of National Urban Mission Project, a plastic shredding unit is proposed at a cost of Rs. 20 lakhs to handle the plastic wastes and the shredded plastic wastes will be used for road laying works. With regard to sewage treatment, construction of Horizontal filter bed work has been commenced an expected to be completed shortly.

It is humbly submitted that compliance on the above points may be ensured in a time bound manner by all the concerned departments in Government of Karnataka including Karnataka State Pollution Control Board (KSPCB), Bengaluru Development Authority (BDA), Lakes Department, BBMP and BWSSB under the able guidance of the Chief Secretary, Government of Karnataka.

8. It is also seen from the report that progress has been shown in the implementations of the directions issued by this Tribunal. But it is also seen from the report submitted by the Central Pollution Control Board that still there is a necessity for the Chief Secretary to Government, State of Karnataka to take a lead role in implementation of the directions of this Tribunal. It is also seen that some more improvements are required in the progress of the work to be undertaken by Bangalore Water Supply and Sewerage Board and also Bruhat Bengaluru Mahanagara Palike and Karnataka State Pollution Control Board.
9. Since some work has already been started regarding the monitoring of the quality of the water released at the border before it is being released from the lake which passes through Thenpennai River and it is not possible for the Tribunal to monitor the implementation perpetually, as it is for the regulators to take a role in implementation of the directions given by this Tribunal. Further in several decisions related to protection of water body and also implementation of Waste Management Rules. The Principal Bench of National Green Tribunal as well as this Tribunal had directed the Chief Secretary of the States to conduct a review meetings of implementation of the directions and if there is any gap found to provide necessary assistance to rectify the gap and to take all sincere initiatives to protect environment as there is a constitutional mandate on the State and its machineries to protect environment as mandated under Article 48 (A) of the Constitution of India as providing clean environment as part of Right to Life enshrined under Article 21 of the Constitution of India is also a primary responsibility of the State.

10. The grievance in this case was discharge of polluted water from Kelavarapalli Reservoir in the State of Karnataka to Thenpennai River in Tamil Nadu. The State which is providing water was also having a responsibility to provide a clean water to the receiving State as that water will have to be used by the people in the neighbouring State for all their purposes including domestic, agriculture and other purposes and the polluted water is being given, then it is likely to affect the people who receives the polluted water. So State was delivering the water of the responsibility to see that unpolluted water is being provided to the neighbouring State while discharging their constitutional obligation of providing clean water and also considering the fact that some work is being undertaken by the respective stake holders to implement the directions of this Tribunal.

11. This Tribunal feel that the application can be finally disposed of with following directions:-

- i) The Central Pollution Control Board, the Karnataka State Pollution Control Board and the Tamil Nadu State Pollution Control Board are directed to monitor the implementation of the directions issued by this Tribunal while disposing the matter and if there is any violation found, then they are directed to take appropriate action against those stake holders who are committing the violation in accordance with law.
- ii) The Bangalore Water Supply and Sewerage Board and Bruhat Bengaluru Mahanagara Palike are directed to carry out the directions issued by the Tribunal on the basis of the recommendations made by the Joint Committee to resolve the issue permanently, within the time frame as undertaken by

them and see that no untreated sewage or effluent are being discharged into any of the drains which ultimately reaches the lake or other water bodies.

- iii) The Bruhat Bengaluru Mahanagara Palike is also directed to strictly implement the Solid Waste Management Rules, 2016 and also the directions given by the Principal Bench of National Green Tribunal in O.A. No. 606 of 2018 and also by this Tribunal in several cases dealing with waste management in the State of Karnataka in its letter and spirit.
- iv) The Chief Secretary, State of Karnataka, Additional Chief Secretary to Government for Environment, Forests and Climate Change are directed to monitor the implementation of the directions by conducting periodical review meetings at least once in two (2) months and if there is any gap found in the implementation , then they are directed to provide solutions both technical and financial to fill up the gap and the directions are fully complied with and the unpolluted water is delivered the river to the neighbouring States from Kelavarapalli Reservoir.
- v) The Chief Secretary to Government, State of Tamil Nadu, the Additional Chief Secretary to Government for Environment, Forests and Climate Change, Additional Chief Secretary for Municipal Administration and Water Supply Department, Director for Rural Development and Panchayat Raj of State of Tamil Nadu are directed to monitor the implementation of the directions by the respective stake holders to protect the Thenpennai river free from pollution, so as to provide clean

water to the people residing by the side of the river.

- vi) The Registry is directed to communicate this order to the Chairman-Tamil Nadu Pollution Control Board and Karnataka State Pollution Control Board, District Collector-Krishnagiri District, Bangalore Water Supply and Sewerage Board, Bruhat Bengaluru Mahanagara Palike, the Additional Chief Secretary to Government for Environment, Forests and Climate Change, Additional Chief Secretary for Municipal Administration and Water Supply Department, Director for Rural Development and Panchayat Raj of State of Tamil Nadu and also to the Chief Secretary to Government, State of Tamil Nadu for their information and compliance of direction.

12. With the above observations and directions, the Original Application is finally disposed off.

SD/-

.....J.M.
(Justice K. Ramakrishnan)

Sd/-

.....E.M.
(Dr. Satyagopal Korlapati)

O. A. No. 111/2020(SZ)
13.07.2022. Sr.

District wise sewage generation and management provided by Karnataka SPCB:

District wise sewage generation, STP treatment capacity, gap in waste water treatment and actions taken by Karnataka SPCB are given below;

I. HOSKOTE

I. REGION	HOSKOTE [Polluted River Stretches are Venkatagiri Kote Kere Lake (Devanahalli Taluk) to Madappanahalli River Bund (Anekal Taluk)] Major drains are K & C Valley and Hebbal Valley						
1. Major Towns on the banks of the river with population	Name of Town/Area/villages		Population (As per 2011 Census)				
	Devanahalli Taluk, Vijayapura Town - TMC contains 23-Wards and some Villages		34,866				
	Hoskote Taluk, Hoskote Town – CMC contains 31-Wards and some Villages		56,980				
a. Total water consumption and sewage generation in MLD	Name of Town/Area/villages	Water consumption in MLD	Waste water generation in MLD				
	Vijayapura Town	5.69	3.20				
	Hoskote Town	3.48	1.10				
	Total	9.17	4.30				
b. Total no. of existing STPs and the total capacities in MLD	BWSSB STPs – 01 No.						
	Name of Town/Area/villages	Waste water generation in MLD	STP capacity in MLD		STP operational Status		Gap in treatment
			Existing	Proposed	Existing	Proposed	
	BWSSB STP of 6 MLD capacity at Koraluru Village,	6.0	6.0	-	6.0	-	0
	Total	6.0	6.0	-	6.0	-	0
	* 6.0 MLD waste water generation is estimated based on the design criteria by BWSSB						
	BWSSB has provided STP of capacity 6 MLD at Koraluru Village, Hoskote Taluk, Bangalore Rural District, which is located at the bank of Dakshina pinakini River						

		<p>stream. This BWSSB STP was established for the treatment of waste water generates from the BBMP area of Bangalore namely, mahadevapura, kadugodi (and not from Bengaluru (rural) i.e. Hoskote), which enters in to Dakshina pinakini stream at Koraluru Village of Hoskote Taluk. Presently, BWSSB is lifting waste water from upstream of Dakshina pinakini River and the treated water of about 0.5 – 07 MLD is being utilized by M/s. HPCL, Devanagonthi, Hoskote Taluk for secondary purpose through pipeline and the remaining treated water is being discharged back in to the downstream of Dakshina pinakini River.</p> <p>* There is no Board programme for monitoring of Dakshina Pinakini River (Pennar) water quality. However, this office jurisdiction is monitoring quality of treated and untreated effluent of Dakshina Pinakini River (Pennar) every month from BWSSB STP, Koraluru, as per Hon'ble NGT OA No.111/ 2020.</p>
2.	Gaps in sewage treatment in MLD and no. of towns not having STPs	<p>There is no polluted River stretch flows in the Bengaluru (rural) of this region (Devanahalli and Hoskote Talukas).</p> <p>The Dakshina Pinakini River (Pennar) that, originates in the Nandi Hills forms 3 streams and the main stream of the River from Chikkaballapura District border enters Devanahalli Taluk through Venkatagirikote Kere lake, then joins Vijayapura Lake followed by Ghatamatanahalli Lake (Shidlaghatta Taluk, Chikkaballapura District). Further, the River stream runs dry in most of the stretch till Hasigala Village of Hoskote Taluk, wherein the dead stream collects waste water from the overflow of Budigere Lake (13.13820 N 77.7199 E) (which collects wastewater from the BBMP area of Bangalore Town (under yelahanka region) by cascading through Bagaluru lake, Gummanahalli lake and Manchappanahosahalli lake), then river stream merges into the Hoskote lake at Hoskote. Further, the Dakshina pinakini River takes lean flow with wastewater generates from the adjacent Villages of the River stream and joins the Koraluru Lake. At, downstream, huge stream of wastewater from Kadugodi limit BBMP area i.e.; from K & C and Hebbal Valleys of Bengaluru City (under Mahadevapura region), entering into Koraluru lake at Kadugodi Road Bridge (13.00129N 77.76832E). From Koraluru lake the Dakshin Pinakini River stream enters in to Tamil Nadu after passing through Mugalur Bridge (12.89453 N 77.82567E) of Anekal Taluk.</p> <p>The paramount reason for pollution of Dakshina Pinakini River is sewage/sullage flowing in the storm water drains, rapid and large scale urbanization, change in land use pattern, under capacity of sewers, encroachment of sewers, damages to sewerage system and direct discharges from unauthorized residential apartments from the BBMP area. Hence, BWSSB is the responsible organization to submit the action plan for the whole catchment area of Bengaluru.</p>
3.	Major industrial estates located with total no. of industries	<p>There is no industrial estates/industrial area located in the polluted River stretch. However, there are 102 industries located in the area away from the catchment (>10 KM), out of which only 40 industries are generating trade effluent which is being treated in in-house ETP/disposed to CETP (through tankers).</p>

a. Total water consumption and total industrial effluent generation in MLD	:	<p>Details of industries falling under the Dakshina Pinakini River catchment area is given below;</p> <p style="text-align: center;"><u>Details of 102 industries:</u></p> <table border="1" data-bbox="477 349 1509 797"> <tr> <td>Total no. of operating Industries - 102</td> </tr> <tr> <td>No. of Industries closed - 13</td> </tr> <tr> <td>Total Trade effluent generating Industries - 40 Nos.</td> </tr> <tr> <td>Total trade generation in KLD – 1608.395</td> </tr> <tr> <td>Total sewage generation in KLD – 4156.358</td> </tr> <tr> <td>Total water consumption for domestic in KLD – 4966.880</td> </tr> <tr> <td>Total water consumption for trade in KLD – 2089.678</td> </tr> <tr> <td>Total STP capacities of Industries in KLD – 4175</td> </tr> <tr> <td>Total ETP capacities of Industries in KLD - 2502</td> </tr> </table>	Total no. of operating Industries - 102	No. of Industries closed - 13	Total Trade effluent generating Industries - 40 Nos.	Total trade generation in KLD – 1608.395	Total sewage generation in KLD – 4156.358	Total water consumption for domestic in KLD – 4966.880	Total water consumption for trade in KLD – 2089.678	Total STP capacities of Industries in KLD – 4175	Total ETP capacities of Industries in KLD - 2502
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Total STP capacities of Industries in KLD – 4175											
Total ETP capacities of Industries in KLD - 2502											
b. No. of industries having captive ETPs and their treatment capacity in MLD	:	40 units.									
c. No of CETP's and their treatment capacity	:	There is no CETP in this region.									
4. Action Taken		<p>Dakshina Pinakini River (Pennar) that, originates in the Nandi Hills runs dry at upstream and the dead stream collects waste water by cascading of Bangalore lakes and merges into Hoskote lake. Further, at the border of Hoskote Taluk ie; from BBMP area of Kadugodi limit, a huge stream of wastewater from K & C and Hebbal Valleys of Bengaluru City joins the river stream at Koraluru village (13.00129N 77.76832E), from this point Dakshina Pinakini River stream start flowing in good flow and after crossing the check dam (12.97072 N 77.78355 E) located near Samethanahalli Village, finally enter to Tamil Nadu after passing through Mugalur Bridge (12.89453 N 77.82567E) of Anekal Taluk. Since, this office jurisdiction falling under Bangalore Rural District and the major contribution of waste water is from the Bangalore Urban District limit BBMP area (Mahadevapura, Varthur, Kadugodi and Channasandra). The main reason for pollution of Dakshina Pinakini river is sewage/sullage flowing in the storm water drains of BBMP area. Hence, BWSSB is the responsible organization to submit the action plan for the whole catchment area of Bengaluru.</p> <p>In the matter of polluted river stretches, it is to be brought to your kind notice that, there is one BWSSB STP of 6MLD capacity (Kadugodi STP) is operating in this office jurisdiction, which was established to treat the waste water generating from the BBMP area via Kadugodi, which are covered under K&C Valley & Hebbal Valleys of Bengaluru City. The said STP is being monitored regularly on monthly basis. The treated sewage samples from the said STP is being collected and analyzed every month.</p>									

However, as the results are non-conforming to the Board prescribed standards, this office is issuing notice to BWSSB along with demand notes. Also, in the matter of Hon'ble National Green Tribunal OA.No.111/2020 pertaining to South Pinakini River, Environmental compensation (EC) has been calculated for the BWSSB STP and the details along with consent status are as below:

Regarding information on Environmental Compensation levied so far by this office:

As per the proceedings of meeting held on 18.05.2022 by RO-Sarjapura (Member Convener), wherein it was directed to calculate Environmental compensation for each defaulting BWSSB STPs, **Environmental compensation** was calculated by considering discharges in violation of consent conditions **mainly prescribed STP standards**, which fall under South-Pinakini river catchment. The details were in-turn forwarded by RO-Sarjapura on 20.06.2022. However, the said EC calculated amount has not yet been imposed on BWSSB. The detail is as below:-

Sl. No.	Name and address	STP Capacity	Consent status	EC amount to be levied
1	BWSSB STP at Koraluru Village, Hoskote Taluk, Bangalore Rural District - 562114	6MLD	CFO vide No.AW-334115 dated:29.10.2022 and valid up to 30.06.2026	Rs. 2,34,37,500/-

Further, this office is monitoring Dakshina Pinakini river water samples at two stations i.e., at outlet of 6MLD BWSSB STP, wherein the treated sewage water is joining Dakshina Pinakini river stream and Check Dam near Samethanahalli village on monthly basis (water quality falls under class D/E). The water quality of the samples collected from lakes falls under the category category D/E.

The “**Special Environment Surveillances Task Force**” Committee had been constituted in Bangalore Rural District on 17.10.2023 (RO-Hoskote), as per the directions of GOK vide GO No.FEE214EPC2018, dtd:03.01.2019 w.r.t Hon'ble NGT OA No.673 of 2018. For rejuvenation of Dakshina pinakini, in OA No. 673/2018, Karnataka Government has constituted State Level River Rejuvenation Committee and District Level Special Environment Task Force for preparation action plan. Bengaluru urban constituted the committee and conducted the meeting for the same.

II. ANEKAL

II.	REGION	Anekal [No polluted river stretches and tributaries in the jurisdiction of Anekal region] 19 lakes are being monitored under Anekal region.
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2. Gaps in sewage treatment in MLD and no. of towns not having STPs	<p data-bbox="496 1395 1525 1507">Jigani TMC: Jigani TMC is having 23 wards. The sewage from these wards is treated in Septic Tank and Soak pits. Two private STPs has been taken up and maintained by Jigani TMC with capacity of 120 KLD & 250 KLD.</p> <p data-bbox="496 1552 1525 1619">In Hennagara Gram panchayath limits, the authorities have provided two STPs of capacities 0.5 MLD each whose details are as below.</p> <p data-bbox="496 1664 703 1709"><u>At R.K Township:</u></p> <ol data-bbox="496 1709 1525 1865" style="list-style-type: none"> The STP of capacity 0.5 MLD has been constructed to treat the sewage generated from Yarandahalli, Kachanayakanahalli, & Hosahalli villages. Completed Civil work of STP and informed that, it is still under the custody of Zillapanchayath. <p data-bbox="496 1899 986 1944"><u>At Sy. No. 63 & 64 of Hennagara village:</u></p> <ol data-bbox="496 1944 1525 2018" style="list-style-type: none"> Hennagara Gram Panchayath has constructed Sewage Treatment Plant of capacity 0.5 MLD at Government land bearing Sy. No. 63 & 64 of Hennagara Village to treat 																																		

		<p>the sewage generated from Hennagara, Masthenahalli, & Hennagara-Amanikere villages.</p> <p>2. STP was not under operation as there is ongoing case bearing no. O.S 238/2023 & 240/2023 at the court of Hon'ble JMFC, Aneka Taluk, the court has ordered temporary injunction.</p> <p>Due to non-availability of adequate STPs and UGDs in Gram Panchayath limits, the sewage from the establishments/organizations which are not covered under consent mechanism is joining storm water drains and passing through the down streams located in RO-sarjapura office jurisdiction. As per the Dishank app, this office jurisdiction is at a distance of about 19 km from Mugaluru Bridge sampling point of said river stretch. The sewage over flow from this region is not joining directly to Thenpennai river stretch.</p>								
3.	Major industrial estates located with total no. of industries	<p>This region is having Jigani Industrial area (phase I and Phase II), 4th phase Bommasandra Industrial area and KSSIDC estates. 32 number of Grossly polluting industries including 17 category industries are operating.</p> <p>As per the google map, the distance between boundary of Bommasandra Industrial area and Dakshinapinakini river stretch at Mugaluru bridge (falling under RO-Sarjapura jurisdiction) is about 15.9 Km. Also, the industrial area is not located in the catchment area of river Dakshinapinakini.</p>								
	a. Total water consumption and total industrial effluent generation in MLD	<table border="1"> <thead> <tr> <th rowspan="2">Total No. of industries (GPIs and 17 category)</th> <th colspan="2">Generation of effluent in KLD</th> </tr> <tr> <th>Sewage</th> <th>Trade effluent</th> </tr> </thead> <tbody> <tr> <td>32</td> <td>923.28 KLD</td> <td>4472.05 KLD</td> </tr> </tbody> </table>	Total No. of industries (GPIs and 17 category)	Generation of effluent in KLD		Sewage	Trade effluent	32	923.28 KLD	4472.05 KLD
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	c. No of CETP's and their treatment capacity	<p>There is no Operating Common ETPs in this region.</p>								
4.	Action Taken	<p>RO-Anekal is monitoring the industries located in Jigani –Bommasandra Industrial area as per the direction issued under various Hon'ble NGT cases. Apart from the above, this office has levied Environmental Compensation to 30 number of industries under CEPI and Chandapura NGT cases for past five-year violation.</p> <p>Since the TMC STPs are not operational on 24x7 basis, this office is unable to collect the treated sewage samples on monthly basis. Action (including legal actions) has been taken on TMCs for the said non-compliances. Further, water quality of 19 no.of lakes is monitored in Anekal region on monthly basis, which falls under the class D/E under the Designated Best Use Criteria of CPCB.</p>								

III. BOMMANAHALLI

Sr. No.	DESCRIPTION OF ITEM	Details																																																							
1.	Name of the identified polluted river and its tributaries	<p>River: Dakshina Pinakini;</p> <p>[No polluted river stretches and tributaries in the jurisdiction of Bommanhalli region]</p> <p>33 lakes are being monitored under Bommanhalli region.</p> <p>Total No of drains: 2</p> <p>Name of Drains (Location): K&C Valley and V valley</p>																																																							
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c. Gaps in sewage treatment in MLD and no. of towns not having STPs	<p>Gap in treatment = Nil</p> <p>The missing links is joined to storm water drain wherein the sewage flow flowing through the diversion canals/storm water drains.</p> <p>The paramount reason for pollution of Dakshina Pinakini river is sewage/sullage flowing in the storm water drains, rapid and large scale urbanization, change in land use pattern, under capacity of sewers, encroachment of sewers, damages to sewerage system and direct discharges from unauthorized layouts formed in BBMP Limits and 2 gram panchayath etc., leading to substantial quantity of sewage flowing in the storm water drains. Further, due to this, Bengaluru lakes are being polluted and two no. of Hon'ble NGT cases have been registered w.r.t Bellandur Lake vide OA No. 125 of 2017. In respect of said NGT cases, the BWSSB has submitted their action plan with time-lines w.r.t covering the unauthorized layouts formed in BBMP Limits and 2 gram panchayath under their UGD network & completion of their proposed STPs. Hence, BWSSB is the responsible organization to submit the action plan for the whole catchment area of Bengaluru.</p>																												

3.	Major industrial estates located with total no. of industries	: There are no major industrial estates in the polluted river stretch. However, there are 72 industries located in the catchment area, out of which 69 industries are generating trade effluent which is being treated in in-house ETP/disposed to CETP. 3 nos of industries are closed.												
	a. Total water consumption and total industrial effluent generation in MLD	: The details pertaining to 72 industries of this office jurisdiction falling under the dakshina pinakini river catchment area; Abstract of 72 industries: <u>Abstract of 72 major industries (Red and Orange Category) which are generating trade effluent in the jurisdiction of RO, Bommanahalli are as below.,</u> <table border="1" data-bbox="491 629 1527 1176"> <tr> <td>Total no. of operating Industries - 69</td> </tr> <tr> <td>No. of Industries closed - 03</td> </tr> <tr> <td>Total Sewage/Trade effluent generating Industries - 72 Nos.</td> </tr> <tr> <td>Total water Consumption in KLD-5337.472</td> </tr> <tr> <td>Total sewage water generation in KLD – 1869.82</td> </tr> <tr> <td>Total trade effluent generation in KLD – 3467.65</td> </tr> <tr> <td>Disposal status</td> </tr> <tr> <td>Septic tank & Soak pit (Only Sewage) in KLD: 66.552</td> </tr> <tr> <td>UGD –in KLD : 30.73</td> </tr> <tr> <td>CETP -in KLD : 24.32</td> </tr> <tr> <td>Reuse in KLD : 5215.87</td> </tr> <tr> <td>Total in KLD : 5337.472</td> </tr> </table> <p>Hence there is no Gap in the trade effluent treatment for the industrial sector (Red and Orange Category) which are generating trade effluent in the Bommanahalli region.</p> <p>Remaining 24.32 KLD (from 40 industries) is sending to CETP through tankers for treatment and further disposal.</p>	Total no. of operating Industries - 69	No. of Industries closed - 03	Total Sewage/Trade effluent generating Industries - 72 Nos.	Total water Consumption in KLD-5337.472	Total sewage water generation in KLD – 1869.82	Total trade effluent generation in KLD – 3467.65	Disposal status	Septic tank & Soak pit (Only Sewage) in KLD: 66.552	UGD –in KLD : 30.73	CETP -in KLD : 24.32	Reuse in KLD : 5215.87	Total in KLD : 5337.472
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	b. No. of industries having captive ETPs and their treatment capacity in MLD	: No of industries having captive ETPs = 45												
	c. No of CETP's and their treatment capacity	: There is no CETP in this region.												
4	Total estimated budget in crores towards implementation of proposed action plans with break up (e.g. No. of STPs, capacity, total cost, No. of CETP's, Total capacity, cost towards interception and diversion of sewage/effluent to STP's / CETP etc.)	CETP Details: There is no CETP in this region and hence same is not applicable.												

5	ACTION TAKEN	The paramount reason for pollution of Dakshina Pinakini river is sewage/sullage flowing in the storm water drains, rapid and large scale urbanization, change in land use pattern, under capacity of sewers, encroachment of sewers, damages to sewerage system and direct discharges from unauthorized layouts in newly formed unauthorized layouts formed in BBMP Limits and 2 gram panchayath etc., leading to substantial quantity of sewage flowing in the storm water drains. Further, due to this, Bengaluru lakes are being polluted and two no. of Hon'ble NGT cases have been registered w.r.t Bellandur Lake vide OA No. 125 of 2017. The Joint Committee had been constituted as per the directions of Hon'ble NGT w.r.t OA no.125 of 2017 pertaining to Bellandur lake. In respect of said NGT case, the BWSSB has submitted their action plan with time-lines w.r.t covering the unauthorized layouts formed in BBMP Limits and 2 gram panchayath under their UGD network & completion of their proposed STPs. Hence, BWSSB is the responsible organization to submit the action plan for the whole catchment area of Bengaluru.
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IV. YELAHANKA

IV.	REGION	<p>YELAHANKA [Total No of drains:- One</p> <p>Name of Drains (Location): Hebbal Valley which is on an average of 10 to 15 KM from the Dakshina Pinakini river stretch.]</p> <p>The drain does not directly discharge into river Dakshinapinakini. However, the overflow from the lakes in hebbal valley flows into Mahadevapura region which is located near the catchment of the river. 30 lakes fall under Yelahanka region.</p>																				
1.	Major Towns on the banks of the river with population	<table border="1"> <thead> <tr> <th data-bbox="544 1122 1254 1205">Name of Town/Area/villages</th> <th data-bbox="1254 1122 1522 1205">Population as per Census 2011</th> </tr> </thead> <tbody> <tr> <td data-bbox="544 1205 1254 1288">BBMP ward number 1 to 11 and 24 & 25 Jala hobli and kasaba hobli.</td> <td data-bbox="1254 1205 1522 1288">793574</td> </tr> <tr> <td data-bbox="544 1288 1254 1330">Hunasemarenahalli TMC</td> <td data-bbox="1254 1288 1522 1330">24359</td> </tr> <tr> <td data-bbox="544 1330 1254 1373">Bagaluru Village</td> <td data-bbox="1254 1330 1522 1373">26000</td> </tr> <tr> <td data-bbox="544 1373 1254 1415">Satnur village</td> <td data-bbox="1254 1373 1522 1415">4200</td> </tr> <tr> <td data-bbox="544 1415 1254 1464" style="text-align: center;">Total</td> <td data-bbox="1254 1415 1522 1464" style="text-align: center;">848133</td> </tr> </tbody> </table>			Name of Town/Area/villages	Population as per Census 2011	BBMP ward number 1 to 11 and 24 & 25 Jala hobli and kasaba hobli.	793574	Hunasemarenahalli TMC	24359	Bagaluru Village	26000	Satnur village	4200	Total	848133						
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b.Total no. of existing STPs and the total capacities in MLD and as per the information provided by BWSSB Authorities & PDO of respective villages.	<table border="1"> <thead> <tr> <th rowspan="2">Name of Town/Area/villages</th> <th rowspan="2">Sewage generation in MLD</th> <th colspan="2">STP capacity in MLD</th> <th colspan="2">STP operational Status</th> <th rowspan="2">Gap in treatment</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Existing</th> <th>Proposed</th> </tr> </thead> <tbody> <tr> <td>M/s. BWSSB, Raja Canal Sewage Treatment Plant,(Old Hennur Main road, Rajacanal. Bangalore-560077.</td> <td>40MLD</td> <td>40</td> <td>---</td> <td>Yes</td> <td>---</td> <td>--</td> </tr> <tr> <td>M/s BWSSB, Raja Canal Sewage Treatment Plant (New) ,Geddalahalli, Bangalore-560077.</td> <td>40MLD</td> <td>40</td> <td>---</td> <td>Yes</td> <td>----</td> <td>---</td> </tr> <tr> <td>M/s BWSSB, Hebbal Sewage Treatment Plantopp to Nagawara lake, BDA ring road, Bangalore – 560024.</td> <td>100 MLD</td> <td>100</td> <td>--</td> <td>Yes</td> <td>---</td> <td>--</td> </tr> <tr> <td>M/s BWSSB, Sewage treatment Plant Jakkur, Yelahanka Bangalore.</td> <td>15 MLD</td> <td>15</td> <td>---</td> <td>Yes</td> <td>---</td> <td>----</td> </tr> <tr> <td>M/s BWSSB Tertiary treatment plant, KIADB Industrial Area, Devanahalli Park, Bengaluru.</td> <td>40 MLD</td> <td>40</td> <td>---</td> <td>Yes</td> <td>---</td> <td>--</td> </tr> <tr> <td>M/s BWSSB, Sewage treatment Plant, Allalsandra, Yelahanka,</td> <td>10 MLD</td> <td>10</td> <td>---</td> <td>Yes</td> <td>---</td> <td>----</td> </tr> </tbody> </table>	Name of Town/Area/villages	Sewage generation in MLD	STP capacity in MLD		STP operational Status		Gap in treatment	Existing	Proposed	Existing	Proposed	M/s. BWSSB, Raja Canal Sewage Treatment Plant,(Old Hennur Main road, Rajacanal. Bangalore-560077.	40MLD	40	---	Yes	---	--	M/s BWSSB, Raja Canal Sewage Treatment Plant (New) ,Geddalahalli, Bangalore-560077.	40MLD	40	---	Yes	----	---	M/s BWSSB, Hebbal Sewage Treatment Plantopp to Nagawara lake, BDA ring road, Bangalore – 560024.	100 MLD	100	--	Yes	---	--	M/s BWSSB, Sewage treatment Plant Jakkur, Yelahanka Bangalore.	15 MLD	15	---	Yes	---	----	M/s BWSSB Tertiary treatment plant, KIADB Industrial Area, Devanahalli Park, Bengaluru.	40 MLD	40	---	Yes	---	--	M/s BWSSB, Sewage treatment Plant, Allalsandra, Yelahanka,	10 MLD	10	---	Yes	---	----
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		Bangalore Urban District.						
		M/s BWSSB, STP, Horamavu Agra, K. R. Puram , Bengaluru.	20 MLD	20	---	Yes	---	----
		M/s BWSSB, STP, Doddabommasandra Lake STP, operated by BEL, Jalahalli Post, Bengaluru.	10 MLD	10	---	Yes	---	----
		M/s BWSSB Sewage treatment Plant., KHB Colony, Puttenahalli, Yelahanka, Bangalore North Taluk, Bangalore	7 MLD	---	7	---	Yes	7MLD (CFE issued Valid up to 19.06.2027)
		M/s BWSSB, Doddabettahalli, Attur Lake, Bangalore-560064.	7 MLD	---	7	---	Yes	7MLD (CFE - Forwarded to HO on 11.04.2023)
		M/s BWSSB, Surabhi layout, Jakkur main road, Yelahanaka old town, Raithra Santhe, Jakkur, Banglaore-560064.	7 MLD	---	7	---	No	7MLD (CFE- Forwarded to HO on 27.01.2023)
		M/s BWSSB, Puttenahalli village, Doddaballapura road, Yelahanka-560064.	6.5 MLD	---	6.5	---	No	6.5MLD (CFE- Forwarded to HO on 14.06.2023) (presently joining

							near by BWSSB drain and enters into rajacanal)
		M/s BWSSB, KHB Yelahanka Puttenahalli village, Doddaballapura road, Yelahanka- 560064.	6.5 MLD	---	6.5	---	No 6.5KLD (Yet to apply for CFO)
		M/s BWSSB, Hebbal Sewage Treatment Plant, opp to Nagawara lake, BDA ring road, Bangalore – 560024.	60 MLD	--	60 MLD	--	No ----- (Yet to apply for CFE)
		M/s BWSSB, Rachenahalli Lake inside the premises of Mahatma Gandhi Institute of Rural Energy & Development. Rachenahalli lake, Jakkur, Bangalore- 560064	10 MLD	--	10 MLD	--	No ---- (Applied for CFE)
		Hunasemarenaha Ili TMC	3.89 MLD	--	3.89 MLD	--	No ---- (Yet to apply for CFE)
		<p>Note: 8 BWSSB STP's (Total Capacity 275 MLD) Installed and under Operation. 8 No's BWSSB STP's (Total Capacity 107.89 MLD) proposed for installation for meeting additional sewage treatment.</p>					
2.	Gaps in sewage treatment in MLD and no. of towns not having STPs	The paramount reason for pollution of Dakshina Pinakini river is sewage/sullage flowing in the storm water drains, rapid and large scale urbanization, change in land use pattern, under capacity of sewers, encroachment of sewers, damages to sewerage system and direct discharges from some of the unauthorized layouts in newly formed 110 villages etc., leading to substantial quantity of sewage flowing in the storm water drains. Further, due to this, Bengaluru lakes are being polluted and five No's of Hon'ble Lokayuktha cases have been registered w.r.t Puttenahallilake vide case No. 2413/2018,					

		<p>Doddabommasandra Lake Case No:522/2020, Horamavu Agara Lake Case No:2529/2018, Horamavu Jayanathinagar Lake Case No:2520/2018, Singapura Lake Case No:2522/2018.</p> <ol style="list-style-type: none"> i. Sewage generation = 89.7016 MLD as per 2011 census (needs up gradation by concerned agency) ii. Total STP capacity = 275 MLD iii. Upgradation in STP treatment is 107.89 (by 2025) iv. Total sewage management with the proposed capacity (by 2025) = 382.89 MLD <p>Number of towns / villages not having STPs : 1 (Hunasemarenahalli submitted proposal to install STP of capacity 3.89 MLD which is under progress)</p> <p>The Village panchayaths like bagalur, Satnuru and Hunasemarenahalli and Jalahobli villages don't have full fledged UGD. Sewage from missing links might be entering into near Lake/Water body/Nalas.</p> <p><u>Abstract of 97 infrastructure projects (Red and Orange Category) which are generating sewage (generation >200 KLD) in the jurisdiction of RO, Yelahanka are as below;</u></p> <table border="1" data-bbox="536 1048 1546 1317"> <tr> <td>Total no. of operating infrastructure projects - 97</td> </tr> <tr> <td>No. of projects closed - Nil</td> </tr> <tr> <td>Total domestic sewage generating infrastructure projects - 97 Nos.</td> </tr> <tr> <td>Total water consumption for domestic in KLD - 45784.7</td> </tr> <tr> <td>Total sewage generation in KLD – 38074.4</td> </tr> <tr> <td>Total STP capacities of infrastructure projects in KLD - 38538</td> </tr> </table> <p>Hence, there is no Gap in the sewage treatment for the above infrastructure projects (Red and Orange Category) which are generating sewage in Yelahanka.</p>	Total no. of operating infrastructure projects - 97	No. of projects closed - Nil	Total domestic sewage generating infrastructure projects - 97 Nos.	Total water consumption for domestic in KLD - 45784.7	Total sewage generation in KLD – 38074.4	Total STP capacities of infrastructure projects in KLD - 38538
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3.	a. Major industrial estates located with a total no. of industries	<p>Yelahanka Jurisdiction contains mainly 3 industrial areas Yelahanka Industrial Area, Aero Space (KIADB) Industrial area and KHB Industrial Area. There are no major industrial estates in the Dakshina Pinakini polluted river stretch causing potential water pollution and discharge. However, there are 58 industries located in Yelahanka Jurisdiction out of which only 38 industries are having potential to generate trade effluent of qty 6319.93 KLD which is being treated in in-house ETP and remaining 20 No's of industries are disposing the trade effluent after primary treatment to CETP for further treatment and disposal. The said industries are treating the sewage and trade effluents in their own captive treatment facilities and there is no discharge of either sewage/ trade effluent from the industries into Dakshina Pinakini river stretch. This office is continuously monitoring the industry to comply the conditions stipulated in CFO and necessary action is being taken for the non complying industries. There are no discharge of effluent/sewage from the industries into the Dakshina Pinakini river were noticed.</p>						

b. Total water consumption and total industrial effluent generation in MLD	<p>Total water consumption for the 58 major industries of this office is: 16381.4KLD.</p> <p>Total trade effluent generation from the 58 major industries of this office is: 6723.42 KLD</p>									
c. No. of industries having captive ETPs and their treatment capacity in MLD	<p>No. of industries having captive ETP : 38 ETP's and their treatment capacity in KLD: 8929 KLD</p> <p><u>Abstract of 58 major industries (Red and Orange Category) which are generating trade effluent in the jurisdiction of RO, Yelahanka are as below.,</u></p> <table border="1" data-bbox="536 551 1525 1010"> <tr> <td>Total no. of operating Industries –58 (Red and Orange Category)</td> </tr> <tr> <td>No. of Industries closed - Nil</td> </tr> <tr> <td>Total Trade effluent generating Industries - 58 Nos.</td> </tr> <tr> <td>Total water consumption for domestic in KLD – 1170.37</td> </tr> <tr> <td>Total water consumption for trade in KLD – 16381.40</td> </tr> <tr> <td>Total sewage generation in KLD – 914.43KLD</td> </tr> <tr> <td>Total trade effluent generation in KLD – 6723.42KLD</td> </tr> <tr> <td>Total STP capacities installed & operating at Industries in KLD - 1075</td> </tr> <tr> <td>Total ETP capacity installed & operating at Industries in KLD – 8929 (From 38 Industries treated in house ETP)</td> </tr> </table> <p>Hence there is no Gap in the trade effluent treatment for the industrial sector (Red and Orange Category) which are generating trade effluent in the jurisdiction of RO Yelahanka. Remaining 403.94 KLD (from 20 industries) is sending to CETP through tankers for treatment and further disposal.</p>	Total no. of operating Industries –58 (Red and Orange Category)	No. of Industries closed - Nil	Total Trade effluent generating Industries - 58 Nos.	Total water consumption for domestic in KLD – 1170.37	Total water consumption for trade in KLD – 16381.40	Total sewage generation in KLD – 914.43KLD	Total trade effluent generation in KLD – 6723.42KLD	Total STP capacities installed & operating at Industries in KLD - 1075	Total ETP capacity installed & operating at Industries in KLD – 8929 (From 38 Industries treated in house ETP)
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d. No of CETP's and their treatment capacity	<p>In reference to column 3(a) remaining 20 (58 – 38) industries at Yelahanka are disposing the trade effluent into CETP after primary treatment in their premises and there is no CETP in the Yelahanka region.</p>									
4. Remarks	<p>In the matter of Dhakshina Pinakini polluted river stretches, it is submitted that, There is no direct discharge to Dhakshina Pinakini polluted river stretches. This office has HN valley in Yelahanka. Further, there are 8 No's of BWSSB STPs installed and operating in this area. All the STPs are monitored regularly on monthly basis by collecting STP treated water samples and the water quality analysis results are sent to BWSSB for necessary compliance. Water quality of 30 lakes monitored by Karnataka SPCB on monthly basis falls under the class D/E under the Designated Best Use Criteria of CPCB. Lake water quality analysis results are sent to respective custodian namely BBMP/ BDA/ minor irrigation/Panchayat/ Lake Authority for necessary compliance.</p>									

V. MAHADEVAPURA

V.	REGION	<p>MAHADEVAPURA <u>[Budigere to Channasandra (Left Side) is the jurisdiction of the region]</u> Name of Drains (Location): nil 40 lakes fall under the jurisdiction of this region.</p>
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1. Major Towns on the banks of the river with population	<table border="1"> <tr> <th data-bbox="528 194 1107 241">Name of Town/Area/villages</th> <th data-bbox="1107 194 1465 241">Population at present</th> </tr> <tr> <td data-bbox="528 241 1107 322">Mahadevapura – BBMP contains 16-Wards and some villages</td> <td data-bbox="1107 241 1465 322">6,07,255 (2023)</td> </tr> </table>	Name of Town/Area/villages	Population at present	Mahadevapura – BBMP contains 16-Wards and some villages	6,07,255 (2023)																					
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Total	-	145	17	145	17*	-																				

		them. Treated wastewater is being reused for secondary urban purposes (toilet flushing, gardening etc.) within the and not discharged.									
2.	Gaps in sewage treatment in MLD and no. of towns not having STPs	To be assessed based on information collated from local authority and BWSSB.									
3.	Major industrial estates located with total no. of industries	: There are no major industrial estates in the polluted river stretch. However, there are 109 industries located in the catchment area out of which only 67 industries are generating trade effluent which is being treated in in-house ETP/disposed to CETP through tankers.									
	a. Total water consumption and total industrial effluent generation in MLD	: The details pertaining to 109 industries of this office jurisdiction falling under the dakshina pinakini river catchment area is given below; <u>109 industries:</u> <table border="1" data-bbox="486 813 1516 1220"> <tr> <td>Total no. of operating Industries - 109</td> </tr> <tr> <td>No. of Industries closed - 05</td> </tr> <tr> <td>Total Trade effluent generating Industries - 67 Nos.</td> </tr> <tr> <td>Total trade generation in KLD - 1796.8586</td> </tr> <tr> <td>Total sewage generation in KLD - 4934.645</td> </tr> <tr> <td>Total water consumption for domestic in KLD - 5720.295</td> </tr> <tr> <td>Total water consumption for trade in KLD - 2743.9786</td> </tr> <tr> <td>Total STP capacities of Industries in KLD – 16135** (to be confirmed by KSPCB)</td> </tr> <tr> <td>Total ETP capacities of Industries in KLD - 2634.80</td> </tr> </table>	Total no. of operating Industries - 109	No. of Industries closed - 05	Total Trade effluent generating Industries - 67 Nos.	Total trade generation in KLD - 1796.8586	Total sewage generation in KLD - 4934.645	Total water consumption for domestic in KLD - 5720.295	Total water consumption for trade in KLD - 2743.9786	Total STP capacities of Industries in KLD – 16135** (to be confirmed by KSPCB)	Total ETP capacities of Industries in KLD - 2634.80
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Total STP capacities of Industries in KLD – 16135** (to be confirmed by KSPCB)											
Total ETP capacities of Industries in KLD - 2634.80											
	b. No. of industries having captive ETPs and their treatment capacity in MLD	: --									
	c. No of CETP's and their treatment capacity	: There are no CETP's in this region.									
4.	Action Taken	The paramount reason for pollution of Dakshina Pinakini river is sewage/sullage flowing in the storm water drains, rapid and large scale urbanization, change in land use pattern, under capacity of sewers, encroachment of sewers, damages to sewerage system and direct discharges from some unauthorized layouts in newly formed 110 villages etc., leading to substantial quantity of sewage flowing in the storm water drains. Further, due to this, Bengaluru lakes are being polluted and two no. of Hon'ble NGT cases have been registered w.r.t Yelemallappa Chetty lake & K.R. Puram Lake vide OA No. 195 of 2021 (SZ) & MA no. 13 of 2022 and OA No. 222 of 2021 respectively. In respect of said NGT cases, the BWSSB has submitted their action plan with time-lines w.r.t covering the 110 villages under their UGD network & completion of their proposed STPs. Hence, BWSSB is the responsible organization to submit the action plan for the whole catchment area of Bengaluru.									

In the matter of polluted river stretches, it is to be brought to your kind notice that, there are 4 no. of BWSSB STPs operating in this office jurisdiction which are covered under K&C Valley. The said STPs are being monitored regularly on monthly basis. The treated sewage samples from the said STPs are being collected and analysed every month. However, as the results are non-conforming to the Board prescribed standards, this office is issuing notice to BWSSB along with demand notes. Also, in the matter of Hon'ble National Green Tribunal OA. No. 111/2020 pertaining to South Pinakini River, Environmental compensation (EC) has been calculated on 3 no. of BWSSB STPs and the details along with consent status are as below:

Regarding information on Environmental Compensation levied so far by this office:

As per the proceedings of meeting held on 18.05.2022 by RO-Sarjapura (Member Convener), wherein it was directed to calculate Environmental compensation for each defaulting BWSSB STPs, **Environmental compensation** was calculated by considering discharges in violation of consent conditions **mainly prescribed standards** for 3 no's of BWSSB STPs operating in this office jurisdiction which fall under South-Pinakini river catchment. The details were in-turn forwarded by RO-Sarjapura to Board Office on 05.07.2022. However, the said EC calculated amount has not yet been imposed on BWSSB. The details are as below:-

1. 90 MLD STP at Bellandur Ammanikane Village, Varthur Hobli, Bangalore East Taluk, Bangalore - obtained CFO vide no.AW-322699 dated 04.01.2021 and is valid upto 30.06.2025 with an EC levied amount of Rs. 2,59,20,000/-.
2. 20 MLD (Old) STP at Sy. No.114/2, Thambu Chetty Palya, K R Puram, Bengaluru East Taluk, Bangalore Urban District. CFO obtained vide no.AW-333283 dated 16.09.2022 is valid upto 30.06.2026 with an EC levied amount of Rs.2,01,15,000/-.
3. 15 MLD STP at Sy. No.63, 64 & 65 of Medahalli Village, near Yelemallappachetty lake, Bidarahalli Hobli, Bengaluru East Taluk, Bangalore Urban District. CFO obtained vide no.AW-321842 dated 25.11.2020 was valid upto 30.06.2023 with an EC amount of Rs.1,86,30,000/- . Now, they have applied for CFO renewal.
4. 20 MLD (New) STP at Sy. No.114/1, Thambu Chetty Palya, K R Puram, Bengaluru East Taluk, Bangalore Urban District. CFO obtained vide no.AW-335145 dated 26.12.2022 is valid upto 30.06.2027. As this STP was recently commissioned, EC had not been calculated.

Further, this office is monitoring samples at two stations w.r.t Hon'ble NGT OA No. 111/2020 i.e., at Channasandra Bridge and Varthur Lake on monthly basis.

In connection to all the above, it is to be informed here that, in the matter of Hon'ble NGT OA No.125/2017, Environmental compensation has been levied on 131 no.

	<p>of projects pertaining to this office jurisdiction of Rs. 96.95 crores. Out of this, till date 25 no. of projects have paid EC of Rs.1.173 crores only.</p> <p>All the STPs are monitored regularly on monthly basis by collecting STP treated water samples and the water quality analysis results are sent to BWSSB for necessary compliance. Water quality of 40 lakes monitored by</p> <p>Karnataka SPCB on monthly basis, which fall under the class D/E under the Designated Best Use Criteria of CPCB. Lake water quality analysis results are sent to respective custodian namely BBMP/ BDA/ minor irrigation/ Panchayat/ Lake Authority for necessary compliance.</p>
--	---

VI. SARJAPURA

VI. REGION	<p>SARJAPURA [Mugaluru village (Mugaluru Bridge)] is in the catchment (River thenpennai is flowing for about 3 to 4 KM in this region) 16 lakes falls under region</p>																				
1. Major Towns on the banks of the river with population	<p>Regional office Sarjapura is located outside the BBMP area. This office jurisdiction having Four (4) Local Bodies namely – Hebbagodi, Chandapura, Bommasandra and Attibele and also few gram panchayaths. This river is located on the border of this office jurisdiction and Mugaluru village is located on the bank of the river.</p>	<p>Hebbagodi – 1,08,604 (as of 2024) Chandapura – 32,598 Bommasandra – 38,105 Attibele - 27,594</p> <p>(As per the information given by the local body authority, 2011 census)</p>																			
a. Total water consumption and sewage generation in MLD	<table border="1"> <thead> <tr> <th>Name of Town/Area/villages</th> <th>Water consumption in MLD</th> <th>Waste water generation in MLD</th> </tr> </thead> <tbody> <tr> <td>Bommasandra</td> <td>2.223</td> <td>1.71</td> </tr> <tr> <td>Hebbagodi</td> <td>12.48</td> <td>9.6</td> </tr> <tr> <td>Chandapura</td> <td>1.56</td> <td>1.2</td> </tr> <tr> <td>Attibele</td> <td>2.86</td> <td>2.2</td> </tr> <tr> <td>Total</td> <td>19.123</td> <td>14.71</td> </tr> </tbody> </table> <p>As per the information provided by the local body authority.</p>	Name of Town/Area/villages	Water consumption in MLD	Waste water generation in MLD	Bommasandra	2.223	1.71	Hebbagodi	12.48	9.6	Chandapura	1.56	1.2	Attibele	2.86	2.2	Total	19.123	14.71		
Name of Town/Area/villages	Water consumption in MLD	Waste water generation in MLD																			
Bommasandra	2.223	1.71																			
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Name of Town/Area/villages	Water consumption in MLD	Waste water generation in MLD																			

		<table border="1"> <tr> <td>Residential Apartment, commercial building, hotel, hospital, educational institution</td> <td>17.50 MLD</td> <td>14.47 MLD</td> </tr> <tr> <td style="text-align: right;">Total</td> <td>17.50 MLD</td> <td>14.47 MLD</td> </tr> </table> <p>*Waste water generated from above said category is treated by in-house STPs.</p> <p>Information of waste water generation for the entire Sarjapura region to be assessed after obtaining data from the Urban Development and CEO of Zilla Panchayath.</p>	Residential Apartment, commercial building, hotel, hospital, educational institution	17.50 MLD	14.47 MLD	Total	17.50 MLD	14.47 MLD												
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Total	17.50 MLD	14.47 MLD																		
b. Total no. of existing STPs and the total capacities in MLD	<table border="1"> <thead> <tr> <th rowspan="2">Name of Town/Area/villages</th> <th rowspan="2">Waste water generation in MLD</th> <th colspan="2">STP capacity in MLD</th> <th colspan="2">STP operational Status</th> <th rowspan="2">Gap in treatment</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Existing</th> <th>Proposed</th> </tr> </thead> <tbody> <tr> <td>Bommasandra TMC</td> <td>1.71</td> <td>250 KLD</td> <td>---</td> <td>Working</td> <td>---</td> <td>1.68 MLD</td> </tr> </tbody> </table> <p>*No STPs available in Hebbagodi, Chandapura and Attibele (gap in treatment is 13 MLD in addition to 1.68 MLD)</p>	Name of Town/Area/villages	Waste water generation in MLD	STP capacity in MLD		STP operational Status		Gap in treatment	Existing	Proposed	Existing	Proposed	Bommasandra TMC	1.71	250 KLD	---	Working	---	1.68 MLD	
Name of Town/Area/villages	Waste water generation in MLD			STP capacity in MLD		STP operational Status			Gap in treatment											
		Existing	Proposed	Existing	Proposed															
Bommasandra TMC	1.71	250 KLD	---	Working	---	1.68 MLD														
2. Gaps in sewage treatment in MLD and no. of towns not having STPs	<p>Gap in treatment is 13 MLD in addition to 1.68 MLD.</p> <p>The gap may be attributed to Sewage/Sullage effluent generated from the residential area of the above mentioned local bodies/gram panchayath are connected to septic tank and soak pit and local bodies are having partial UGD system. The sewage/sullage effluent/water during rainy season are connected to storm water drain. Presently, government has rejuvenated the Veerasandra, Hebbagodi, Kammasandra, Bommasandra, Kittaganahalli, Heelalagi and Chandapura lakes. The sewage/sullage/water has been diverted from the above mentioned lakes and same water further flows towards the lakes of Muttanalluru followed by Bidaraguppe and overflow from the Bidaraguppe is flows towards Tamilnadu state (which is not connected directly to river dakshinapinakini). The Dakshina Pinakini river is faraway (more than 10 KM) from the above mentioned local bodies and the water flows from outlet of Bidaraguppe is not joining to the Dakshina Pinakini river as such in the Karnataka state.</p>																			
3. a. Major industrial estates located with total no. of industries	<p>This office is having Three (3) No. of industrial area/estates namely, Bommasandra, Veerasandra and Attibele and there about 72 major industries are located in the industrial area. However, the industrial area is not located in the catchment area of river Dakshinapinakini and no trade effluent generating industries exist adjacent to Dakshinapinakini river of this region.</p>																			
b. Total water consumption and total industrial effluent generation in MLD	<table border="1"> <thead> <tr> <th rowspan="2">Total No. of industries</th> <th colspan="2">Generation of effluent in KLD</th> </tr> <tr> <th>Sewage</th> <th>Trade effluent</th> </tr> </thead> <tbody> <tr> <td>72</td> <td>325.25</td> <td>779.329</td> </tr> </tbody> </table>	Total No. of industries	Generation of effluent in KLD		Sewage	Trade effluent	72	325.25	779.329											
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	Sewage	Trade effluent																		
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<p>c. No. of industries having captive ETPs and their treatment capacity in MLD</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Total no. of operating Industries - 72</td> </tr> <tr> <td style="padding: 2px;">No. of Industries closed - 8</td> </tr> <tr> <td style="padding: 2px;">Total no. of Trade effluent generating Industries - 39</td> </tr> <tr> <td style="padding: 2px;">Total water consumption for domestic purpose in KLD – 395.61</td> </tr> <tr> <td style="padding: 2px;">Total sewage generation in KLD – 325.25</td> </tr> <tr> <td style="padding: 2px;">Total STP capacities of Industries in KLD – 300</td> </tr> <tr> <td style="padding: 2px;">Total water consumption for trade in KLD – 947.726</td> </tr> <tr> <td style="padding: 2px;">Total trade generation in KLD – 779.329</td> </tr> <tr> <td style="padding: 2px;">Total ETP capacities of Industries in KLD - 745</td> </tr> <tr> <td style="padding: 2px;">Total Combined ETP capacities of Industries in KLD – 210 KLD</td> </tr> <tr> <td style="padding: 2px;">Total no. of Industries discharge to CETP & their capacities in KLD – 96.629 KLD</td> </tr> </table> <p>There is no gap in waste water treatment in the industrial estates. Grossly polluting are 39 nos and 19 No's of industries are discharging to CETP.</p>	Total no. of operating Industries - 72	No. of Industries closed - 8	Total no. of Trade effluent generating Industries - 39	Total water consumption for domestic purpose in KLD – 395.61	Total sewage generation in KLD – 325.25	Total STP capacities of Industries in KLD – 300	Total water consumption for trade in KLD – 947.726	Total trade generation in KLD – 779.329	Total ETP capacities of Industries in KLD - 745	Total Combined ETP capacities of Industries in KLD – 210 KLD	Total no. of Industries discharge to CETP & their capacities in KLD – 96.629 KLD
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Total no. of Industries discharge to CETP & their capacities in KLD – 96.629 KLD												
<p>d.No of CETP's and their treatment capacity</p>	<p>This office is having 20 KLD CETP (M/s Viwa ECOCLUB) with RO plant. The permeate from the RO is recycled by the nearby industries located in the industrial estate and RO reject is blending with excess RO permeate water/fresh water and used on land for gardening in the industrial estate.</p>											
<p>4. ACTION TAKEN</p>	<p>This office is monitoring the water quality of the river on a monthly basis. On verification of the analysis report, the DO level is between BDL to 2.2 mg/lit and presence of E-coli in the water for the month from January – 2024 to August - 2024, this may be due to the entry of untreated/partially treated/treated sewage from the upstream of the river and also due to environmental variation.</p> <p>An article was published in the Indian Express by title “Lakes of Bangalore: Industrial Effluents, raw sewage: stinky tale of Chandapura lake” on 21.11.2021. Based on the news article, a suo-moto case viz O.A. No. 324/2021 has been registered by the Hon'ble National Green Tribunal and as per the directions of the Hon'ble court vide its order dated 26.11.2021 a Seven (7) members committee has been constituted comprising of CPCB, State PCB, Indian Institute of Science – Bengaluru, State Environment Impact Assessment Authority, National Wetland Authority, State Wetland Authority and the District Magistrate, Bengaluru in order to ascertain the facts. In compliance to the said order, Central Pollution Control Board has issued an OM on constitution of committee on 03.01.2022 and revised OM on 12.01.2022. The joint committee inspected in and around the lakes located at Jigani - Bommasandra Industrial Area on 18.01.2022 and 19.01.2022 and the detailed report has been submitted to the report to Hon'ble NGT.</p> <p>Hon'ble NGT has directed to deposit Rs.500 Crores to mitigate the pollution in the area, accordingly, the Government has deposited Rs.500 Crores. Presently, the Government has rejuvenated the lakes namely, Hebbagodi, Kammansandra, Bommasandra, Heelalagi and Chandapura by using the same fund located in the TMC/CMC area of Hebbagodi, Bommasandra and Chandapura. Further, providing the UGD and construction of STP work in the said area has to be taken up by the government including establishment of new CETP to treat the trade effluent generated from the small scale industries of that area.</p>											

Surfactant Analysis

i. Channasandra Bridge

CHEMICAL TESTING

ULR No:	TC83092400009247F	Report no:	STH/2024/12774	Page No: 1 of 1
Customer Details				
Issued To	M/S. CENTRAL POLLUTION & CONTROL BOARD	Sample Receipt Date :	06.11.2024	
		Analysis Started Date :	07.11.2024	
		Analysis Completed Date :	11.11.2024	
		Report issued Date :	11.11.2024	
Contact Person	---	Contact Details	NA	
Condition of sample at receipt:	Good	Sample Collected by:	Our Representative	
Sample Details (Customer Provided Details)				
Group :	Pollution & Environment	Sample Name :	WATER-28	
Nature of Sample:	Liquid	Location:	NA	
Sample Quantity :	1 Ltr	Sample Package :	PE Container Tightly closed	

SL. No	Parameter	Units	Results	Test Method
1	Anionic detergents (as MBAS)	mg/l	BDL	Annex K of IS 13428

BDL: Below Detection limit

END OF REPORT

ii. Mugaluru Bridge

CHEMICAL TESTING

ULR No:	TC83092400009247F	Report no:	STH/2024/12775	Page No: 1 of 1
Customer Details				
Issued To	M/S. CENTRAL POLLUTION & CONTROL BOARD	Sample Receipt Date :	06.11.2024	
		Analysis Started Date :	07.11.2024	
		Analysis Completed Date :	11.11.2024	
		Report issued Date :	11.11.2024	
Contact Person	---	Contact Details	NA	
Condition of sample at receipt:	Good	Sample Collected by:	Our Representative	
Sample Details (Customer Provided Details)				
Group :	Pollution & Environment	Sample Name :	WATER-29	
Nature of Sample:	Liquid	Location:	NA	
Sample Quantity :	1 Ltr	Sample Package :	PE Container Tightly closed	

SL. No	Parameter	Units	Results	Test Method
1	Anionic detergents (as MBAS)	mg/l	< 0.1	Annex K of IS 13428

BDL: Below Detection limit

END OF REPORT

iii. CHokkarasanapalli

CHEMICAL TESTING

ULR No:	TC83092400009247F	Report no:	STH/2024/12776	Page No: 1 of 1
Customer Details				
Issued To	M/S. CENTRAL POLLUTION & CONTROL BOARD	Sample Receipt Date :	06.11.2024	
		Analysis Started Date :	07.11.2024	
		Analysis Completed Date :	11.11.2024	
		Report issued Date :	11.11.2024	
Contact Person	---	Contact Details	NA	
Condition of sample at receipt:	Good	Sample Collected by:	Our Representative	
Sample Details (Customer Provided Details)				
Group :	Pollution & Environment	Sample Name :	WATER-30	
Nature of Sample:	Liquid	Location:	NA	
Sample Quantity :	1 Ltr	Sample Package :	PE Container Tightly closed	

SL. No	Parameter	Units	Results	Test Method
1	Anionic detergents (as MBAS)	mg/l	< 0.1	Annex K of IS 13428

BDL: Below Detection limit

END OF REPORT

iv. Kelavarapalli Dam Upstream

CHEMICAL TESTING

ULR No:	TC83092400009247F	Report no:	STH/2024/12777	Page No: 1 of 1
Customer Details				
Issued To	M/S. CENTRAL POLLUTION & CONTROL BOARD	Sample Receipt Date :	06.11.2024	
		Analysis Started Date :	07.11.2024	
		Analysis Completed Date :	11.11.2024	
		Report issued Date :	11.11.2024	
Contact Person	---	Contact Details	NA	
Condition of sample at receipt:	Good	Sample Collected by:	Our Representative	
Sample Details (Customer Provided Details)				
Group :	Pollution & Environment	Sample Name :	WATER-31	
Nature of Sample:	Liquid	Location:	NA	
Sample Quantity :	1 Ltr	Sample Package :	PE Container Tightly closed	

SL. No	Parameter	Units	Results	Test Method
1	Anionic detergents (as MBAS)	mg/l	< 0.1	Annex K of IS 13428

BDL: Below Detection limit

END OF REPORT

v. Kelavarapalli Dam downstream

CHEMICAL TESTING				
ULR No:	TC83092400009247F	Report no:	STH/2024/12778	Page No: 1 of 1
Customer Details				
Issued To	M/S. CENTRAL POLLUTION & CONTROL BOARD	Sample Receipt Date :	06.11.2024	
		Analysis Started Date :	07.11.2024	
		Analysis Completed Date :	11.11.2024	
		Report issued Date :	11.11.2024	
Contact Person	---	Contact Details	NA	
Condition of sample at receipt:	Good	Sample Collected by:	Our Representative	
Sample Details (Customer Provided Details)				
Group :	Pollution & Environment	Sample Name :	WATER-32	
Nature of Sample:	Liquid	Location:	NA	
Sample Quantity :	1Ltr	Sample Package :	PE Container Tightly closed	
SL. No	Parameter	Units	Results	Test Method
1	Anionic detergents (as MBAS)	mg/l	< 0.1	Annex K of IS 13428

BDL: Below Detection limit

END OF REPORT

vi. Dam Downstream, Marasandiram

CHEMICAL TESTING				
ULR No:	TC83092400009247F	Report no:	STH/2024/12779	Page No: 1 of 1
Customer Details				
Issued To	M/S. CENTRAL POLLUTION & CONTROL BOARD	Sample Receipt Date :	06.11.2024	
		Analysis Started Date :	07.11.2024	
		Analysis Completed Date :	11.11.2024	
		Report issued Date :	11.11.2024	
Contact Person	---	Contact Details	NA	
Condition of sample at receipt:	Good	Sample Collected by:	Our Representative	
Sample Details (Customer Provided Details)				
Group :	Pollution & Environment	Sample Name :	WATER-33	
Nature of Sample:	Liquid	Location:	NA	
Sample Quantity :	1 Ltr	Sample Package :	PE Container Tightly closed	
SL. No	Parameter	Units	Results	Test Method
1	Anionic detergents (as MBAS)	mg/l	< 0.1	Annex K of IS 13428

BDL: Below Detection limit

END OF REPORT



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
 REGIONAL DIRECTORATE - BENGALURU
 A-Block, Nisarga Bhavan, 1st and 2nd Floors, 7th D Cross, Thimmaiah Road, Shivanagar,
 Bengaluru-560079

जैव-विज्ञान प्रयोगशाला BIO-SCIENCE LABORATORY
Microbiological Analysis Report

- | | |
|---|--|
| 1. रिपोर्ट संख्या और जारी करने की तारीख
Report No. & Date of Issue | : RD-BEN/2425/MB/00055,08/11/2024 |
| 2. रिपोर्ट भेज दी गई है
(मांगकर्ता का नाम, मोबाइल नंबर और पता)
Report Sent To
(Name, Mobile no. & Address of Indentor) | : DH of RD Bengaluru |
| 3. नमूने पंजीकरण संख्या और दिनांक
Samples Registration No. & Date | : RD-BEN/MB/2425/SR00011,29/10/2024 |
| 4. विश्लेषण अनुरोध प्रभाग/संगठन
Analysis Request Division/Organization | : RD Bengaluru |
| 5. एकत्रित किया गया नमूना
Sample Collected by | : P. K. Selvi, Nisarga K Gowda, Sc.B and Seenivel Raj, SSA |
| 6. नमूनाकरण योजना प्राथमिकता
Sampling Plan Reference | : |
| 7. नमूना प्राप्ति की तिथि एवं समय
Date & Time of Sample Receipt | : 30/10/2024 12:58 PM |
| 8. नमूना विश्लेषण अवधि
Sample Analysis Period | : 29/10/2024 04/11/2024 |
| 9. नमूना विवरण
Sample Details | : |
| 10. परियोजना का नाम
Name of the Project | : Thenpenniar River Monitoring as per MS orders |
| 11. रिपोर्ट स्थिति
Report Status | : Final |

SR. NO	Field Code	Sample Matrix	Date & Time of Sample Collection	Parameters	Result value	Unit
1	CB-1	Fresh Water	28-10-2024	Faecal Coliform	22*10^4	MPN/100ml
2	CB-1	Fresh Water	28-10-2024	Total Coliform	92*10^4	MPN/100 mL
3	MB-2	Fresh Water	28-10-2024	Faecal Coliform	17*10^5	MPN/100ml
4	MB-2	Fresh Water	28-10-2024	Total Coliform	92*10^5	MPN/100 mL
5	CT-3	Fresh Water	28-10-2024	Faecal Coliform	12*10^5	MPN/100ml
6	CT-3	Fresh Water	28-10-2024	Total Coliform	16*10^6	MPN/100 mL
7	KDU-4	Fresh Water	28-10-2024	Faecal Coliform	94	MPN/100ml
8	KDU-4	Fresh Water	28-10-2024	Total Coliform	920	MPN/100 mL
9	KDD-5	Fresh Water	28-10-2024	Faecal Coliform	11*10^3	MPN/100ml
10	KDD-5	Fresh Water	28-10-2024	Total Coliform	92*10^3	MPN/100 mL
11	DD-6	Fresh Water	28-10-2024	Faecal Coliform	33*10^2	MPN/100ml
12	DD-6	Fresh Water	28-10-2024	Total Coliform	35*10^3	MPN/100 mL

* END OF REPORT आख्या समाप्ति *

Remarks (if any) :

Statement :

- परिणाम केवल परीक्षण किए गए नमूने से संबंधित हैं।
The results relate only to the samples tested.
- यह रिपोर्ट को छेड़कर दोबारा प्रस्तुत नहीं किया जाएगा। सीपीसीबी के सक्षम प्राधिकारी की लिखित मंजूरी के बिना।
The report shall not be reproduced except in full, without the written approval of the Competent authority of CPCB.
- इस परीक्षण रिपोर्ट के जारी होने की तारीख से एक सप्ताह तक नमूना रखा जाएगा।
The sample will be retained for one week from the date of issue of this test report.
- डिटैक्शन लिमिट से नीचे (बीडीएल) <1.8 एम्पीएन/100 एमएल इंगित करता है।
Below Detection Limit (BDL) indicates <1.8 MPN/100 mL.

Analyst

Dr B S Anupama

Supervisor, Reviewer & Authorized signatory

Dr B S Anupama

DH Bioscience Laboratory

Dr B S Anupama

Printed on: 19 Nov 2024

Page No. : 1/2

यह एक कंप्यूटर जनित रिपोर्ट है, किसी हस्ताक्षर की आवश्यकता नहीं है। This is a computer-generated Report. No signature is required.



केंद्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
REGIONAL DIRECTORATE - BENGALURU
A-Block, Nisarga Bhavan, 1st and 2nd Floors, 7th D Cross, Thimmaiah Road, Shivanagar,
Bengaluru-560079

जैव-विज्ञान प्रयोगशाला BIO-SCIENCE LABORATORY

Microbiological Analysis Report

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurement
Faecal Coliform	APHA, 9221-E, 9-77 to 9-78, 23rd Ed.,; 2017	MPN/100ml	1.8	
Total Coliform	APHA, 9221-A,B,C, 9-68 to 9-75, 23rd Ed., : 2017	MPN/100 mL	1.8	

Analyst

Dr B S Anupama

Supervisor, Reviewer & Authorized signatory

Dr B S Anupama

DH Bioscience Laboratory

Dr B S Anupama

Printed on: 19 Nov 2024

Page No. : 2/2

यह एक कंप्यूटर जनित रिपोर्ट है, किसी हस्ताक्षर की आवश्यकता नहीं है। This is a computer-generated Report. No signature is required.

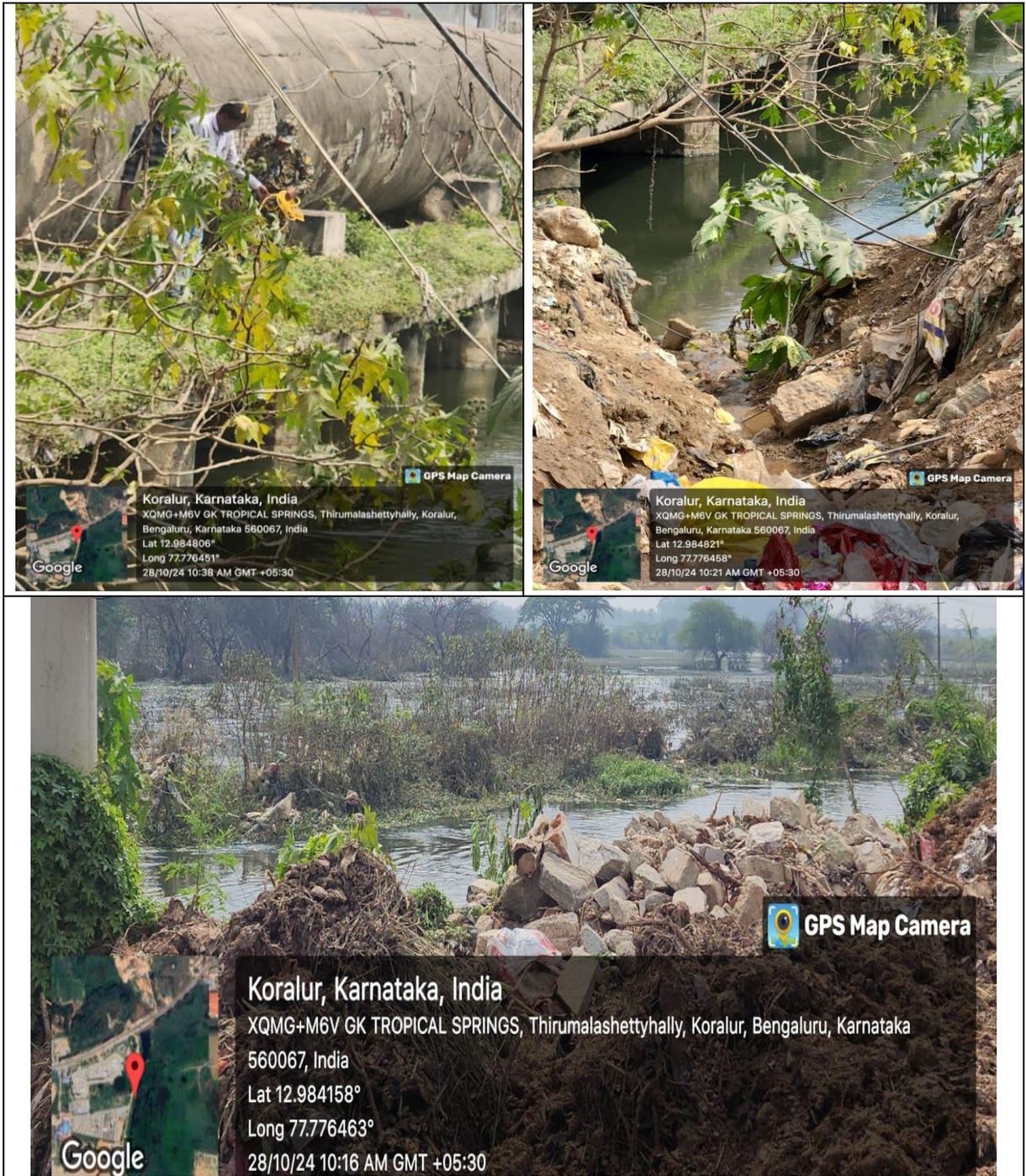
List of Under Construction STPs in Karnataka

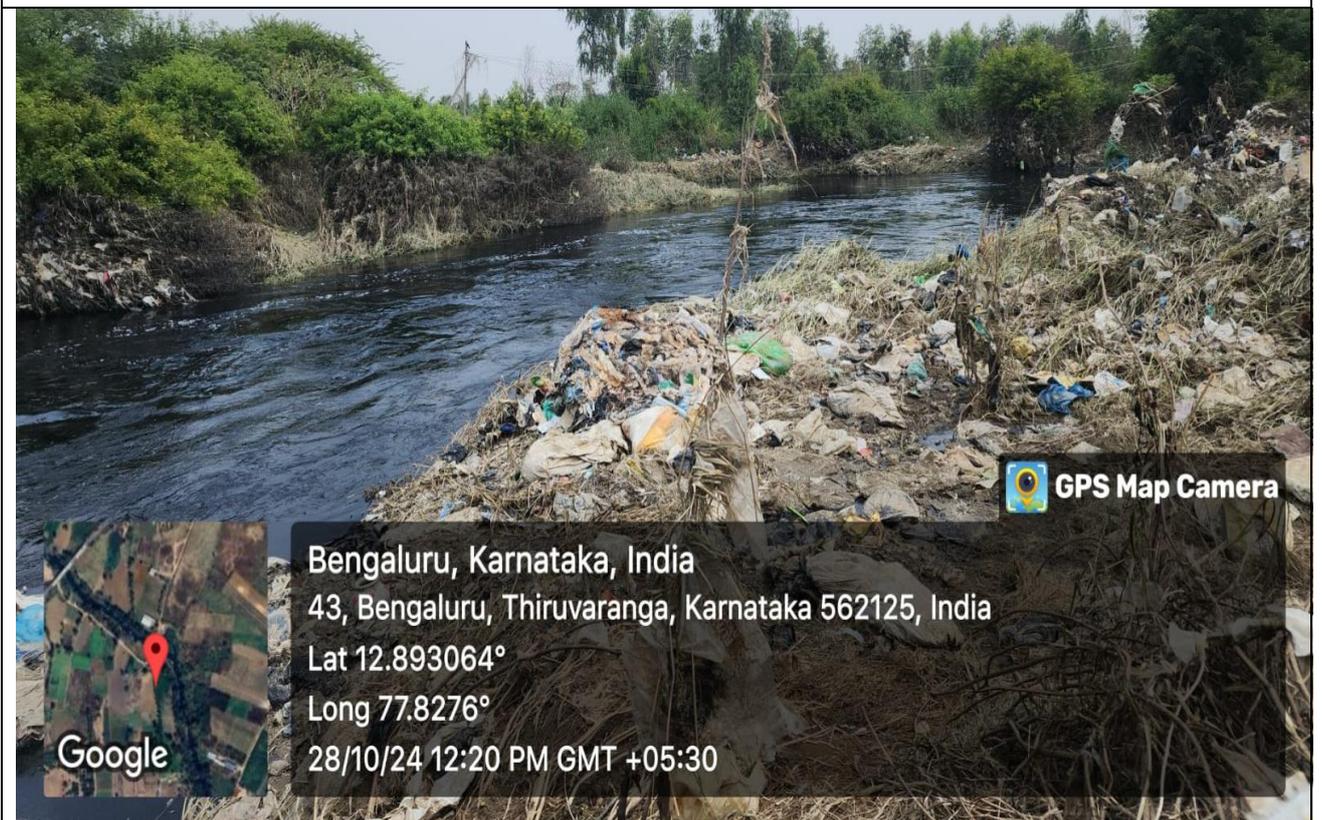
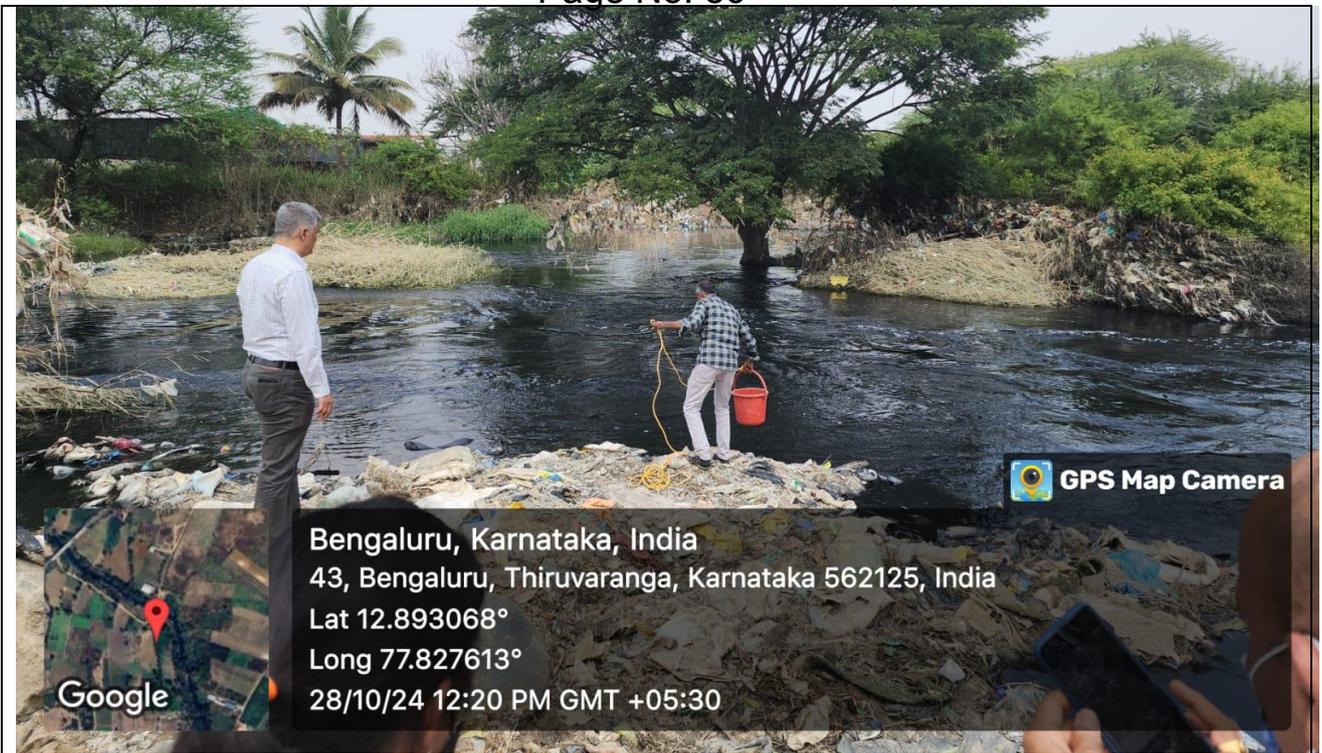
Sl. No.	District	STP location	Capacity (MLD)	Technology of STP	Physical progress as on 30/09/24 in %	Status of the project (Work Commenced/ Commissioned/ Trial Run)	Proposed date of completion	Remark
1	Bangalore Urban	Varthur	25	EA	0%	–	–	Land issue case pending in Hon'ble Supreme court.
2	Bangalore Urban	Bilishivale	17	SBR	64%	Under construction	Mar-25	KSPCB has instructed to stop the work, stating wet land/buffer zone.
3	Bangalore Urban	Doddabettahally	7	SBR	63.40%	Under construction	Mar-25	KSPCB has instructed to stop the work, stating wet land/buffer zone.
4	Bangalore Urban	Jakkur	7	SBR	70%	Under construction	Mar-25	
5	Bangalore Urban	Yelahanka	6	SBR	63.50%	Under construction	Mar-25	KSPCB has instructed to stop the work, stating wet land/buffer zone.
6	Bangalore Urban	Jakkur- Down stream	10	SBR	10.50%	Under construction	9/23/2025	–
7	Bangalore Urban	Byrathikanne	13	SBR	16.50%	Under construction	9/26/2025	–

8	Bangalore Urban	Hebbal	60.00	IFAS	8.50%	Under construction	23.09.2025	-
9	Bangalore Urban	Horamavu	60.00	IFAS	5.50%	Under construction	23.09.2025	-
10	Bangalore Urban	Kaggadasapura	5.00	SBR	48	Under construction	Dec-24	-
11	Bangalore Urban	Rachenahalli	10.00	SBR	28	Under construction	7.2.2025	-

Photographs taken on 28.10.2024

The observations made at the locations on the day of inspection (28.10.2024) are given below;

I. Upstream of Interstate Border: Karnataka Region**(i) Channasandra Lake:****(ii) Mugalur Bridge:**

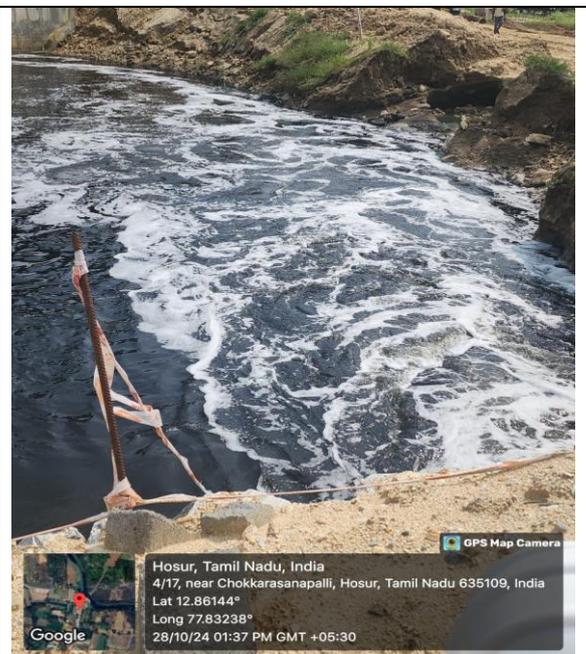


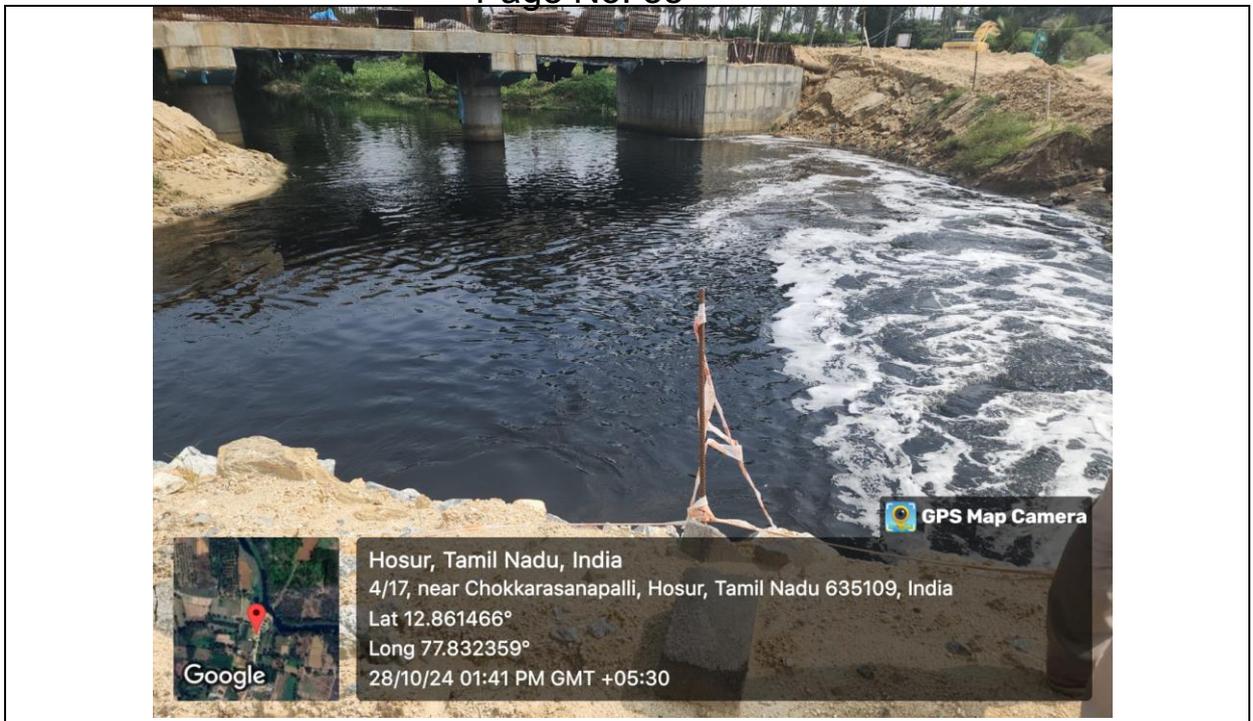
Agriculture farming at Mugalur Bridge, Karnataka:



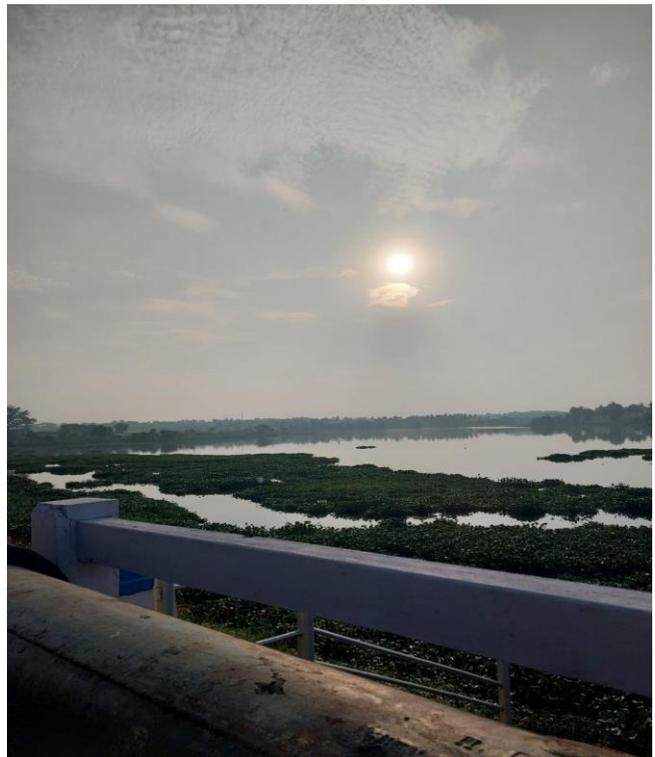
II. Downstream of Interstate Border: Tamil Nadu Region

(iii) Chokkarasanapalli Interstate Water Sampling Location:

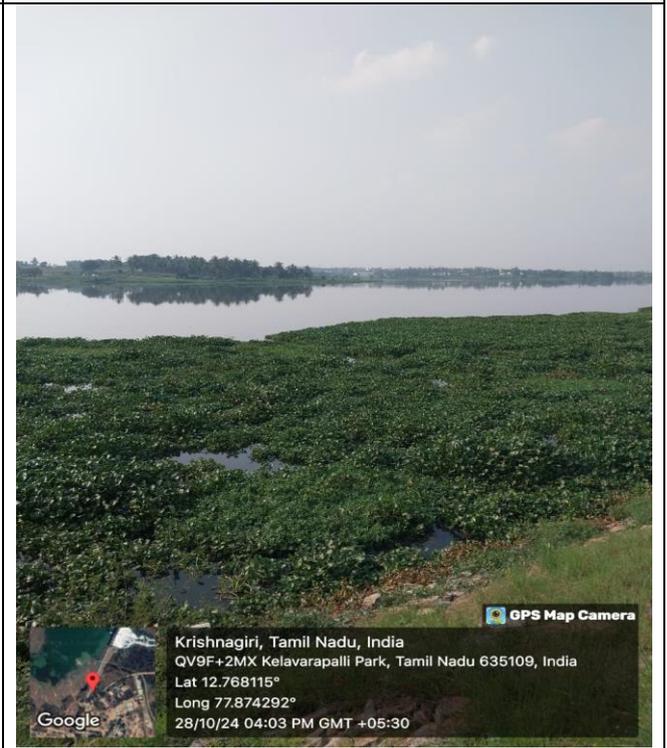
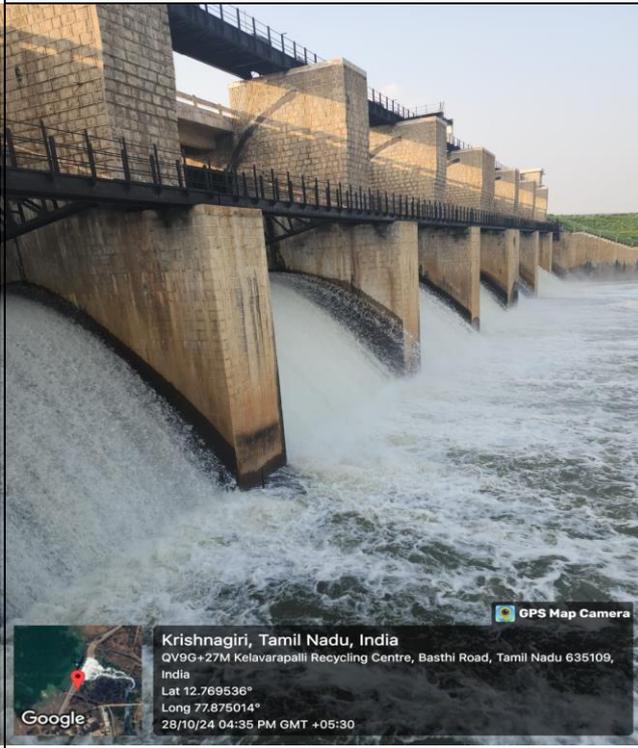
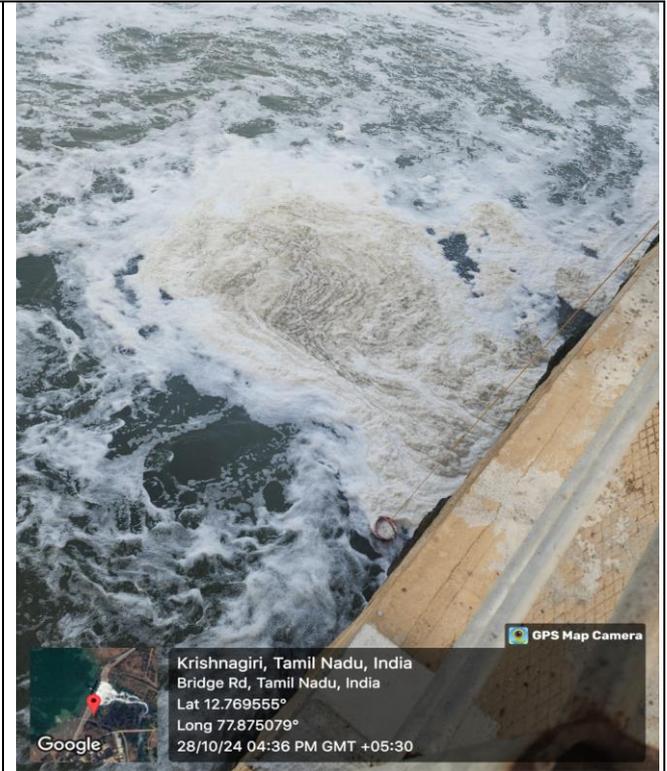
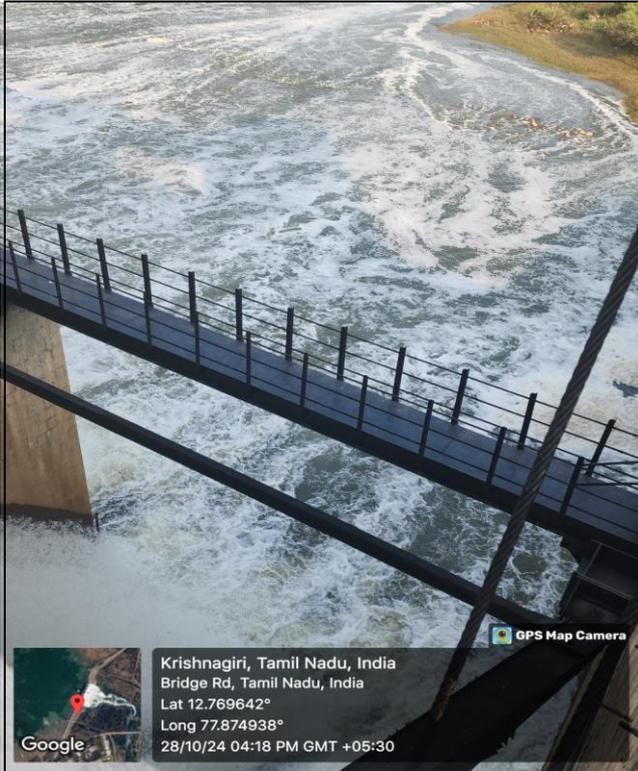




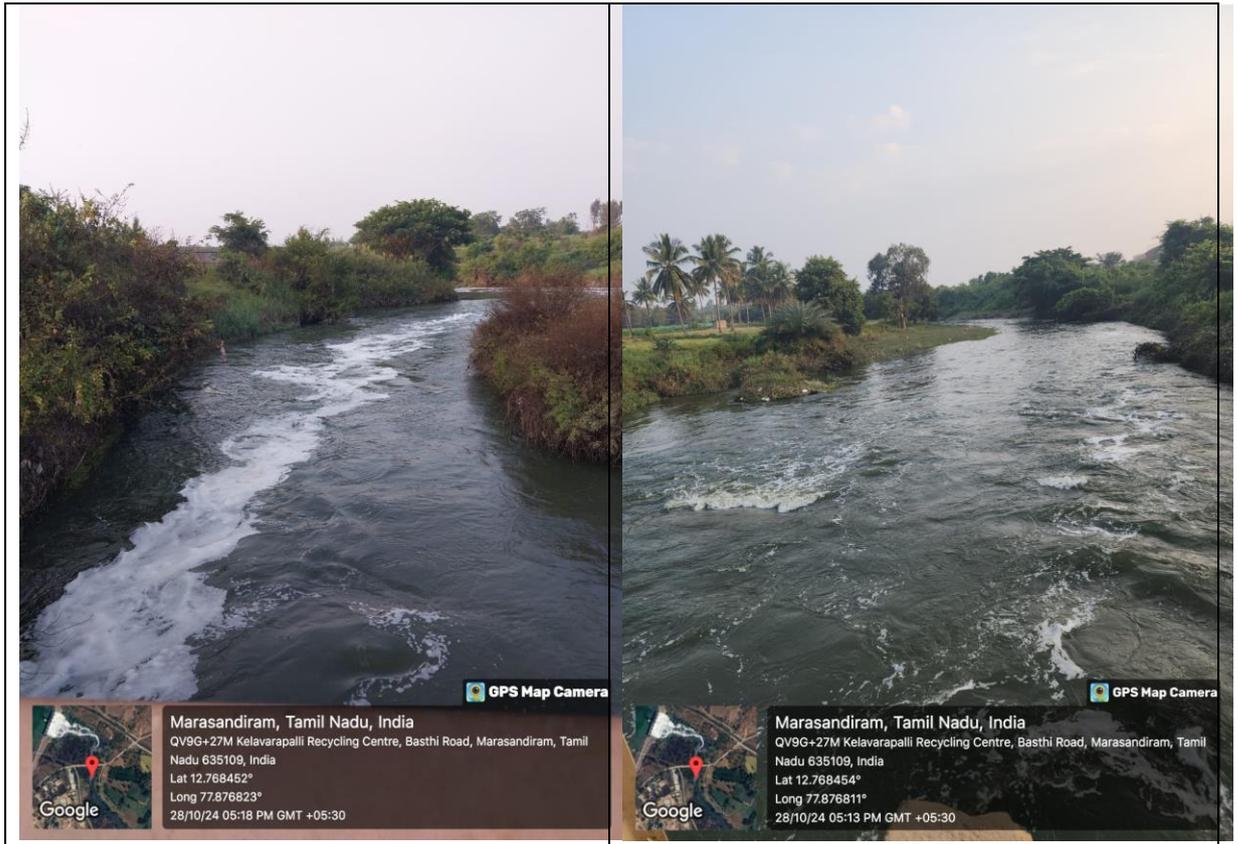
(iv) Kelavarapalli dam Upstream:



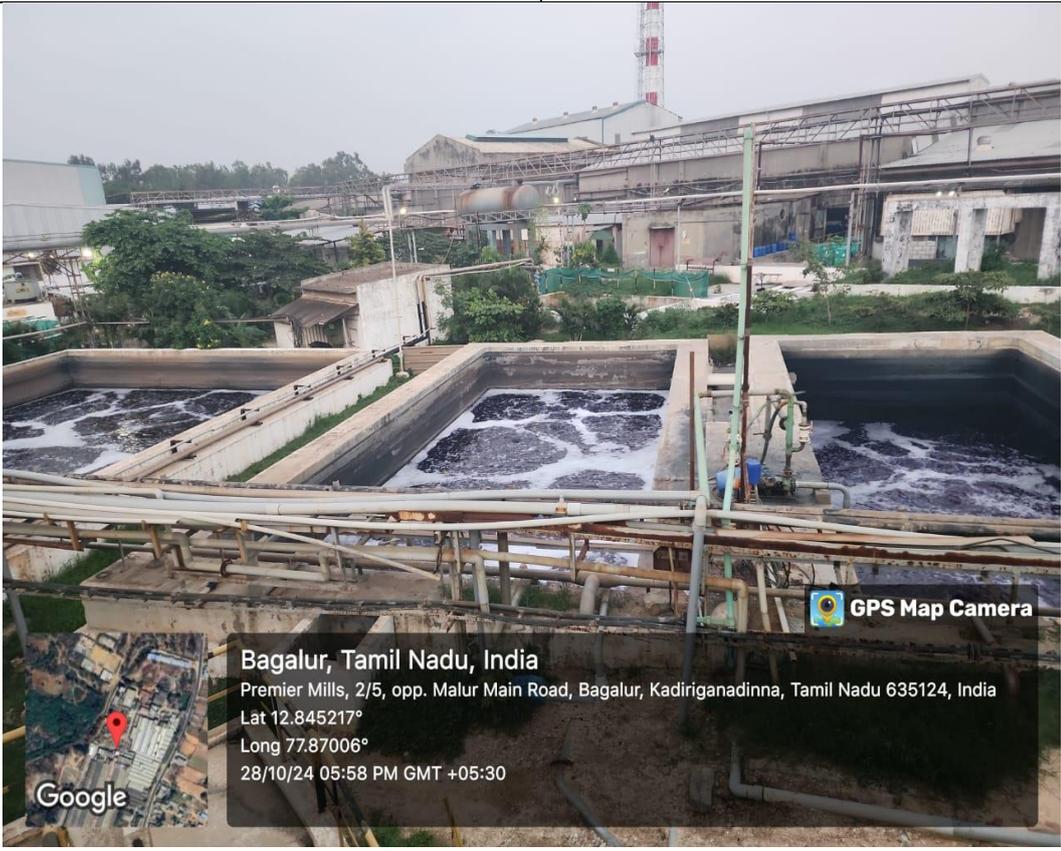
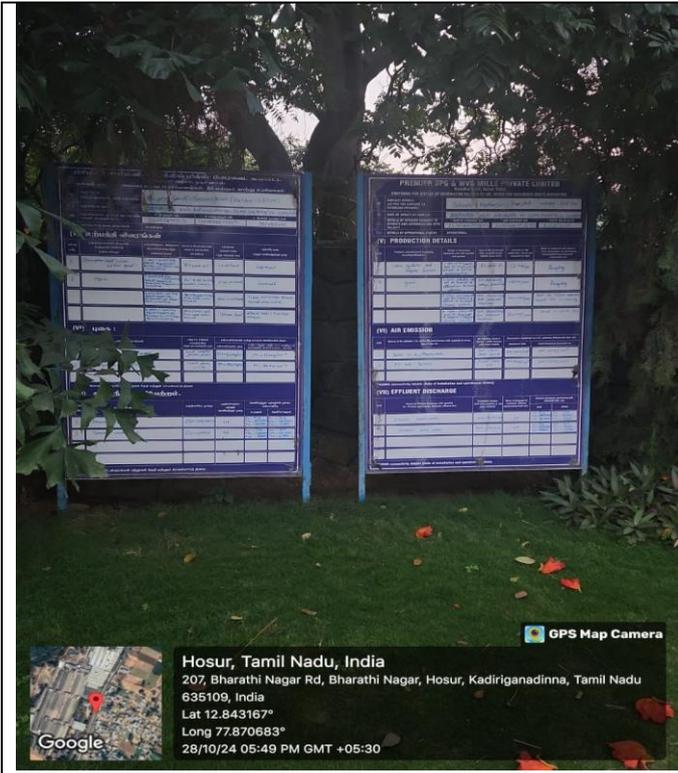
(v) Kelavarapalli dam outfall:



(vi) Mitteganahalli bridge / Marasandiram:



(vii) Photographs during visit to Textile Industry-Premier SPG and WVG Mills Pvt. Ltd., Bagalur, Tamilnadu (ZLD)





केंद्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

F. No. Tech/02/Legal(TN)/RDC/2024-25/ 931

Date: 07.01.2025

To

The Member Secretary
Tamil Nadu Pollution Control Board
No.76, Mount Road, Guindy
Chennai-600032

Sub: Request to provide ATR in case of O.A. No. 1374/2024 (PB)

Sir,

The Hon'ble National Green Tribunal, Principal Bench, Delhi has registered a Suo Motu case Original Application No. 1374 of 2024 based on the News item appearing in NDTV.com dated 05.12.2024, titled "Sea of Toxic Foam In Tamil Nadu's Hosur After Dam Discharges Surplus Water". The matter relates to a toxic foam crisis that has emerged in a stretch of south Pennai river near Hosur, Tamil Nadu, as the Kelavarapalli Dam released surplus water following heavy rains. CPCB has been impleaded as Respondent No. 2 vide Hon'ble NGT PB Order dated 18.12.2024. The case has been transferred to the Southern Zone and will be listed on 10.02.2025.

In this connection, it is kindly requested to provide action taken report (ATR), water sampling and analysis carried out if any to this office, at the earliest.

Yours faithfully

(H. D. Varalaxmi)
Regional Director

क्षेत्रीय निदेशालय (चेन्नई) : द्वितीय तल, 40-ई, बीएसएनएल बिल्डिंग, थिरु-वी-का औद्योगिक एस्टेट, सिपेट रोड, गिंडी, चेन्नई - 600032
दूरभाष: 044-29998683/044-29567019 ईमेल: rdchennai.cpcb@gov.in

Regional Directorate (Chennai): Second Floor, 40-E, BSNL Building, TVK Industrial Estate, CIPET Road, Guindy, Chennai - 600032
Phone: 044-29998683/044-29567019 Email: rdchennai.cpcb@gov.in

प्रधान कार्यालय : परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली - 110 032
Head Office: Parivesh Bhawan, East Arjun Nagar, Delhi - 110032
दूरभाष / Telephone: 011-43102030, Fax : 22305793, 22307078, 22307079, 22301932, 22304948
ई-मेल / E-mail: cpcb@nic.in वैबसाइट / Website : www.cpcb.nic.in

फ़ा. नतक. :./02/ लीगल (त.ना)/क्षे.नि.चे./2024-25/

दिनांक: 07.01.2025

सेवा में

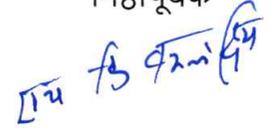
सदस्य सचिव
तमिलनाडु राज्य प्रदूषण नियंत्रण बोर्ड
नंबर 76, माउंट रोड, गिंडी
चेन्नई-600032

विषय: ओ.ए. संख्या 1374/2024 (पीबी) के मामले में एटीआर प्रदान करने का अनुरोध
महोदय,

माननीय राष्ट्रीय हरित अधिकरण, प्रधान पीठ, दिल्ली ने NDTV.com पर दिनांक 05.12.2024 को प्रकाशित समाचार आइटम "तमिलनाडु के होसुर में बांध से अतिरिक्त पानी छोड़े जाने के बाद जहरीले झाग का सागर" के आधार पर एक स्वप्रेरणा मामला मूल आवेदन संख्या 1374/2024 पंजीकृत किया है। यह मामला जहरीले झाग के संकट से संबंधित है जो तमिलनाडु के होसुर के पास दक्षिण पेन्नाई नदी के एक हिस्से में उभरा है, क्योंकि केलावरपल्ली बांध ने भारी बारिश के बाद अतिरिक्त पानी छोड़ दिया है। सीपीसीबी को माननीय एनजीटी पीबी आदेश दिनांक 18.12.2024 के तहत प्रतिवादी संख्या 2 के रूप में शामिल किया गया है। मामला दक्षिणी क्षेत्र में स्थानांतरित कर दिया गया है और 10.02.2025 को सूचीबद्ध किया जाएगा।

इस संबंध में, कृपया इस कार्यालय को जल्द से जल्द कार्रवाई रिपोर्ट (एटीआर), पानी का नमूना और विश्लेषण यदि कोई हो, उपलब्ध कराने का अनुरोध किया जाता है।

निष्ठापूर्वक



(एच. डि. वरलक्ष्मी)
क्षेत्रीय निदेशक



TAMIL NADU POLLUTION CONTROL BOARD



From

Thiru. R.Kannan, M.Tech,
Member secretary
Tamil Nadu Pollution Control Board,
76, Anna Salai, Guindy,
Chennai- 600 032.

To

The Member Secretary,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi – 110 032.
e-mail: m PCB@nic.in

Lr. No. T5/TNPCB/F.004258/NGT/2025, Dated: 04.03.2025

Sub: TNPCB – Thenpennaiyar – Suo Moto Case by Hon'ble NGT (PB), New Delhi – OA No. 1374 of 2024 – Renumbered as OA No. 14 of 2025 – Hon'ble NGT (SZ) – Action taken report submitted – Request for Directions to be issued under section 24,25 & 26 of Water (P&CP) Act, 1974 as amended in 1988 – Reg.

Ref: 1. Letter from DEE, Hosur, TNPCB No. DEE/TNPCB/OA No.14 of 2025/HSR/2025 Dated: 19.02.2025
2. Hon'ble NGT(SZ) Chennai Order Dated 10.02.2025 in OA No 14 of 2025
3. Letter from CPCB F. No. Tech/02/Legal (TN)/RDC/2024-25/933 dated 07.01.2025
4. Hon'ble NGT(SZ) Chennai Order Dated 06.11.2024 in OA No 111 of 2020.

Suo Moto case OA No. 1374 of 2024 was registered by the National Green Tribunal (PB) on the basis of the news item titled "Sea of Toxic Foam In Tamil Nadu's Hosur After Dam Discharges Surplus Water" appearing in NDTV.com dated 05.12.2024. The matter relates to a toxic foam crisis that has emerged in a stretch of Thenpennai river near Hosur, Tamil Nadu, as the Kelavarapalli Dam released surplus water following heavy rains. In connection with this, CPCB had requested TNPCB to submit Action Taken Report (ATR), and water sampling and analysis carried out vide reference 3rd cited.

In this regard, It is submitted that River Thenpennai originates in Karnataka State and passes 85 Km in that state before entering the Tamil Nadu border through the Northern side of Bangalore. The river reaches Bagalur Village, Hosur Taluk, Krishnagiri District at a distance of about 4 Km and it passes through Krishnagiri, Dharmapuri, Thiruvannamalai, Villupuram, Cuddalore Districts of about 400 km, and finally joins the Bay of Bengal. The River Thenpennai flows and enters into the Tamil Nadu state border located at Sokkaransanpalli Village, Hosur Taluk, Krishnagiri District, and the Kelavarapalli Dam, which impounds the River Thenpennai, approximately 8.5 kilometers away from the state boundary.

No. 76, MOUNT SALAI, GUINDY, CHENNAI - 600 032.

Tel : 044-22353134 - 139 Fax : 044-22353068

Email : tnpcb-chn@gov.in Web : tnpcb.gov.in

Earlier, a SUO MOTU case i.e. OA.No.111 of 2020 was registered by the Hon'ble National Green Tribunal (SZ), Chennai based on news published in Dinamalar, Chennai City Supplement Edition dated 13.07.2020 under the caption of "Frothing of Chemical Foam in the River Thenpennai", the issues alleged are large scale foam in Thenpennai River due to untreated chemical effluents discharged from Kelavarapalli Reservoir and also the residential sewage is mixed with the water which affects water quality.

The Hon'ble National Green Tribunal (SZ), Chennai, in its order dated 20.07.2020, has appointed a Joint Committee constituted by CPCB, Regional office, Bangalore, to study the area and submit a detailed report with recommendations including an action plan and remedial measures.

The Hon'ble National Green Tribunal (SZ), Chennai, vide reference 4th cited, has disposed of the case with certain directions to the stakeholders and SPCBs and also directed the Chief Secretary of two states to monitor the implementation of the Joint Committee's recommendation.

As per the Joint Committee report, most of the action plans and remedial measures were suggested to the stakeholders of Karnataka state since the prime sources of pollution are located in Bangalore, Karnataka and the sewage from the Bangalore metro city, both treated and untreated is being discharged into the lakes of Bellandur, Agara and Varthur. The overflow from the lakes flows into the River Thenpennaiyar. Only, the following action points were suggested to the Tamil Nadu Pollution Control Board.

1. Sewage and Solid Waste Management in the villages adjoining River Thenpennai up to Kelavarapalli.
2. Regular Water Quality Monitoring at important locations.
3. Random Verification of grossly polluting (water polluting) industries located in the River Basin and Assessment of wastewater management and discharge mode

In this regard, TNPCB collected and analysed the water samples from River Thenpennaiyar every month at Chokarasanapalli Village (interstate Border) to monitor the Quality of water, and the action taken by the TNPCB for said action points is submitted vide Annexure I & II.



TAMIL NADU POLLUTION CONTROL BOARD



Meanwhile, a news item broadcasted in Sun News dated 25.10.2024 states that in the Kelavarapalli Reservoir, there was a heavy frothing (chemical foam) that blocked the arterial road, disturbing the regular transport. In this regard, the officials of the Regional Office, South Zone, CPCB have inspected along with the officials of TNPCB, Hosur in the Thenpennaiyar River Stretch in Tamil Nadu Inter-State Border on 29.10.2024, and the samples were collected by the officials of Regional Office, South Zone, CPCB and sent to the DEL, TNPCB, Hosur for analysis.

The RoA of the samples collected by officials of CPCB and TNPCB on 29.10.2025 at the points of Chokkarasanapalli Entry Point, Kodiyalam Village, Upstream of Kelavarapalli Dam (Bagalur Village), Middle point near shutter No.2 of Kelavarapalli Dam and Down Stream of Kelavarapalli Dam (Near Marasandiram Village Road) in Tamil Nadu Stretch reveals that the DO level fluctuates from 1.3 mg/l to 6.1 mg/l at the Chokkarasanapalli Entry Point to Down Stream of Kelavarapalli Dam. The Total coliform level fluctuates from 241960 MPN/100ml to 19863 MPN/100ml at the Chokkarasanapalli Entry Point to Down Stream of Kelavarapalli Dam, and Fecal coliform level fluctuates from 98040 MPN/100ml to 10462 MPN/100ml at the Chokkarasanapalli Entry Point to Down Stream of Kelavarapalli Dam. From the report, the Total and Fecal coliform at Chokkarasanapalli Entry Point reveals that there is a discharge of sewage/wastewater in the Thenpennai River from the Karnataka State. (The RoA of the samples is hereby submitted vide Annexure III)

Further, the Hon'ble NGT (PB) on its own motion Suo Motu based on the News item in NDTV.com dated 05.12.2024 titled "Sea of Toxic Foam in Tamil Nadu Hosur after Dam discharges surplus water" as mentioned earlier. In this regard, the counter affidavit was filed by the TNPCB. Then, the Hon'ble NGT (PB) vide order dated 18.12.2024 has informed that since the matter relates to the Southern Zonal Bench, Chennai, therefore OA is transferred to the Southern Zonal Bench for appropriate further action. In continuation of the above, the case was transferred to the Hon'ble NGT (SZ) and renumbered as OA No.14 of 2025.

The Hon'ble NGT (SZ) vide order dated 10.02.2025 has directed that TNPCB make an inspection and file their report. In this regard, the Kelavarapalli Dam and River Thenpennaiyar were inspected by the officials of TNPCB, Hosur on 19.02.2025 (Photocopy Enclosed vide Annexure IV) and observed that there is no frothing found in the river stream discharged from the Kelavarapalli Dam. However, the frothing occurred in the river stretch during the monsoon/heavy rainfall days due to the presence of high levels of coliform and BOD in the untreated sewage discharged into the River Thenpennai from the State of Karnataka.

From the analysis of regular water samples collected every month for the years 2022-2023 & 2023-2024 at Chokarasanapalli Village (interstate Border), it was observed that BOD varies from 32 mg/l to 134 mg/l, total coliform varies from 1200 MPN/100 ml to 20050 MPN/100 ml and Fecal Coliform varies from 840 MPN/100 ml to 16520 MPN/100 ml reveals which that there is a discharge of sewage/wastewater in the Thenpennai River from the Karnataka State.

Also, the value of BOD, Total Coliform, and Fecal Coliform was observed as 134 mg/l, 20050 MPN/100 ml, and 16520 MPN/100 ml respectively during the collection of water sample at Chokarasanapalli Village (interstate Border) in 26.12.2024 after the publishing of news in NDTV.com which reveals that there is a discharge of sewage/wastewater in the Thenpennai River from the Karnataka State thereby formation of frothing in the stretch of River Thenpennai.

In this regard, it is requested that the Central Pollution Control Board may kindly issue necessary directions to the stakeholders to curtail the discharge of sewage/wastewater from Bangalore City through the Bellandur and Varthur lake systems and industries located in the state of Karnataka to improve the water quality of the Thenpennai River.

This is submitted for your kind information and necessary action, please.

Encl: As above


6/3/25
P. S. H. C. I.
06/02/2025
For Member Secretary

Annexure I

Action Points	Present Status	Proposed Action by the Joint Committee	Agency Responsible (Timeline)	Action Taken by TNPCB
Sewage and Solid Waste Management in the villages (13) adjoining River Thenpennai up till Kelavarapalli	Among the villages located near River Thenpennai, Bagalur is having population of about 11,000 and the domestic sewage generation is to be estimated about 0.0715 MLD. Further, Solid Waste generation in Bagalur is to be estimated about 1.5 Tons/day.	Feasibility study for Sewage Treatment options (such as oxidations ponds/ diversion channels or wetlands etc.) by TNPCB followed by implementation by Local authority of the district. Solid Waste Management Plan be devised and executed by concerned Block Development Officer, Hosur taluk to ensure the solid wastes are not disposed on the riverside and managed as per Solid Waste Management Rules, 2016.	Feasibility study by TNPCB in consultation with local authority for implementation (six months) Concerned Block Development Officer to submit TNPCB (six months)	In order to mitigate the Thenpennai River pollution in Tamil Nadu Stretch, the Board has issued certain directions vide Proceeding dated 03.02.2022, 04.02.2022 and 09.02.2022 to the BDO, Hosur Panchayath union and the Executive Engineer, PWD, WRO (River Thenpennai Basin) respectively. Subsequently, Personal Hearing was conducted by the JCEE(M), Vellore Zone on 09.01.2024 with the officials of PWD, WRD (Pennaiyar Basin) and HosurPanchayat Union. The JCEE(M), Vellore Zone and instructed the officials of PWD, WRD (Thenpennaiyar Basin) and the BDO, Hosur Panchayat Union to expedite the implementation of directions issued by the Board vide Proc. Dated 03.02.2022,04.02.2022 and 09.02.2022.

<p>Regular Water Quality Monitoring at important locations</p>	<p>Water Quality is being monitored by KSPCB by installing real time monitoring stations in Bellandur and Varthur. Further, Mugalur bridge and sokkarasanapalli is being monitored under National Water</p>	<p>The trend of water quality and its improvement at major confluence points may be monitored for the year 2021-22 on a monthly basis and a report be submitted to CPCB to ensure the quality of water</p>	<p>TNPCC & KSPCB (to monitor on yearly basis)</p>	<p>As per the joint committee recommendations in the matter of O.A.111/2020, the river water samples were collected periodically by the TNPCC at Chokkarsanapalli, Thenpennai River Entry point of Tamil Nadu (Inter-State Border). As per the primary water quality criteria prescribed by the CPCB, the Biochemical Oxygen Demand of 3mg/l or less of the water ensures reasonable freedom from oxygen demanding pollutants and prevent production of obnoxious gases. But, it is observed that the BoD level is fluctuating between the range of 32 mg/l to 134 mg/l in the consolidated Report of Analysis of the water samples collected from the year 2022-2023 to 2024-2025, which denotes that there is a significant depletion oxygen level (Dissolved Oxygen level is fluctuating between the range of 0.2 to 4.4 mg/l).</p> <p>In addition to that, it was observed that, the value of total coliform varies from 1200 MPN/100ml to 20050 MPN/100ml and Fecal Coliform varies from 840 MPN/100 ml to 16520 MPN/100ml. Hence, it is ascertained that the untreated sewage/</p>
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<p>Environmental Compensation be imposed by SPQBs after re-evaluating performance of STPs and identification of defaulters upon Random Verification.</p>	<p>Performance of STPs evaluation by BWSSB and random inspection of industries is required to be carried out by KSPCB/TNPCB with specific reference to River Thenpennai.</p>	<p>EC be calculated and imposed based on the Performance Evaluation of STPs and Random Verification of Grossly Polluting Industries. EC be calculated and imposed based on Random Verification of Grossly Polluting Industries Calculation of EC by the three member Committee comprising of CPCB, TNPCB and KSPCB, after submission of Reports by the concerned authorities (BWSSB, KSPCB, TNPCB).</p>	<p>BWSSB and KSPCB (Six months) TNPCB (Six months) CPCB (Six months on receipt of the Study Report and recommendations/criteria for imposing EC from KSPCB and TNPCB)</p>	<p>waste water may contaminated the upstream of river water before enter at the Chokkarsanapalli, Thenpennai River Entry point of Tamil Nadu (Inter- State Border).</p> <p>No grossly polluting (water polluting) industries are located at the River Basin of Thenpennai in Tamil Nadu Stretch. Hence, there is no discharge of sewage/trade effluent from the industries.</p>
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<p>Random Verification of grossly polluting (water polluting) industries located in the River Basin and Assessment of wastewater management and discharge mode.</p>	<p>The information of grossly polluting industries located in the river basin along with the status of effluent management has been compiled by KSPCB.</p>	<p>Among the industries those that are Red/Orange category (small, medium and large) with treated effluent discharge option as surface water/sewer drain/others (which includes industries having ZLD) in River basin of Thenpennai be monitored for effluent characteristics by concerned SPCBs, so as to ascertain the quality of treated effluent discharge as per the Consent Conditions of SPCBs. The details of the compliance status and action taken report be placed in public</p>	<p>TN/PCB & KSPCB (six months)</p>	<p>No grossly polluting (water polluting) industries are located at the River Basin of Thenpennai in Tamil Nadu Stretch.</p>
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 District Environmental Engineer
 Tamil Nadu Pollution Control Board
 Hosur


 19/1/2008

A. V

Pennaiyar River Water samples collected at Chokarasappalli village at the inter State Border by the DEE, TNPCB, Hosur from Jan 2022 to Dec 2022

Parameter	Units	Date of Sample Collection											
		24.01.2022	22.02.2022	23.03.2022	25.04.2022	24.05.2022	29.06.2022	13.07.2022	02.08.2022	06.09.2022	11.10.2022	02.11.2022	
Number		7.17	7.08	6.87	6.70	6.57	6.34	6.5	9.96	6.55	6.7	7.1	
Total Solids	mg/l	16.4	14	16.0	8.0	10.0	16.0	42	12	424	42	48	
Total Solids	mg/l	694	730	354	350	324	330	718	1089	976	543	482	
	mg/l	215	220	205	200	155	210	199	353	125	136	110	
	mg/l	125	14	22	72	147	28	27	54	44	120	32	
Free Chlorine	mg/l	2	2	1.0*	1.0*	1.0*	-	-	-	-	-	-	
Temperature	mg/l	9	10	28.0	23.0	6.0	16.0	32	14	15	5	4	
	mg/l	48	48	80.0	48.0	72.0	32.0	360	160	66	16	32	
Dissolved Oxygen	mg/l	2.36	0.28	0.73	0.92	1.04	1.20	1.1	6.52	4.4	4.4	6.9	
	NTU	2.31	2.32	2.34	2.31	2.34	4.00	-	8	24	-	-	
Chlorophyll (a)	mg/l	0.88	0.89	0.87	0.88	0.89	-	-	-	-	-	-	
	mg/l	1.8	1.82	1.8	1.8	1.5	-	0.1375	0.046	0.04	0.7	1.1	
Ammonia (NH3)	mg/l	0.07	0.08	0.08	0.08	0.10	-	-	<BDL	<BDL	<BDL	<BDL	
	mg/l	1075	1132	1653	730	1126	1280	1483	3150	1898	1056	847	
AEL, TNPCB, Salem													
MPN / 100		1200	1500	1700	2100	2200	2800	3500	1500	2800	-	-	
MPN / 100		----	----	840	----	----	1400	-	-	1300	-	-	

V. S. S. Pillay
 District Environmental Engineer
 Tamil Nadu Pollution Control Board
 Hosur
 10/11/2025

ennaiyar River Water samples collected at Chokarasapalli village at the inter State Border by the DEE, TNPCB, Hosur on April 2023 to August 2023

Parameter	Units	Date of Sample Collection				
		08.04.2023	09.04.2023	01.06.2023	03.07.2023	07.08.2023
	Number	7.1	7.21	6.32	5.75	7.24
l Suspended Solids	mg/l	82	60	12	104	254
l Dissolved Solids	mg/l	1280	815	692	692	898
tride	mg/l	250	260	200	225	225
hate	mg/l	90	93	120.6	190	3
and Grease	mg/l	-	-	-	-	-
o 3 days at 27°C	mg/l	26	22	8	20	8
)	mg/l	46	45	162	72	72
olved Oxygen	mg/l	3.8	3.7	3.8	3.7	4.1
idity	NTU	20	30	7	-	-
(Sodium Absorption	mg/l	-	-	-	-	-
)	mg/l	0.197	0.152	0.003	-	-
n	mg/l	<MDL	<MDL	2	-	-
Ammonia (NH3)	mg/l	1313	1414	-	-	-
luctivity	mg/l	61.6	117.6	10.08	-	-
ionical Nitrogen	mg/l	32.4	30.6	8.2	-	-
e	mg/l	10.534	11.012	0.36	-	-
phate	mg/l	2.7	2.36	1.038	-	-
AEL, TNPCB, Salem						
Coliform	MPN / 100 ml					
Coliform	MPN / 100 ml					

M. S. - 10/08/2023
DISTRICT ENVIRONMENTAL ENGINE
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Water samples collected at Chokarasampalli village at the inter State Border by the DEE, TNPCB, Hosur on Jul 2024 to Dec 2024

Parameter	Units	Date of Sample Collection				
		10.07.2024	12.08.2024	07.10.2024	08.11.2024	26.12.2024
Number	Number	6.96	6.7	7.04	7.11	7.46
Unfiltered Solids	mg/l	158	186	16	254	48
Dissolved Solids	mg/l	-	-	-	692	898
	mg/l	200	160	-	225	225
	mg/l	78	8	-	190	3
Acidity	mg/l	-	-	-	-	-
Alkalinity at 27°C	mg/l	12	22	32	48	134
	mg/l	64	54	96	156	0.2
Dissolved Oxygen	mg/l	3.6	4.1	1.8	0.7	4.1
	NTU	4	22	-	-	-
	mg/l	<MDL	<MDL	0.018	<MDL	<MDL
	mg/l	0.007	0.016	-	-	-
	mg/l	<MDL	0.131	0.212	0.572	0.358
	mg/l	<MDL	0.314	0.492	<MDL	<MDL
	mg/l	-	0.012	-	-	-
	mg/l	1.8	0.6	-	-	4
	mg/l	2.35	1.2	1.21	1.72	21.41
Phosphate	mg/l	-	-	0.59	0.8	8.69
	mg/l	-	-	4.89	7.42	1.8
	mg/l	-	-	0.64	5.78	2.2
Nitrogen	mg/l	-	-	5.8	8.06	6.1
	mg/l	-	-	2.04	0.993	20.019
	mg/l	-	-	<MDL	<MDL	<MDL
	mg/l	-	-	11.4	16.04	8.9
		Sulphide Smell	Rotten on egg Smell	-	-	-
		Brown Furbid	Slightly Brown	-	-	-
MPN/ 100ML	MPN/ 100ML	2025	2282	1011	11500	20050
MPN/ 100ML	MPN/ 100ML	1230	1046	722	1640	16520
mg/l	mg/l	-	<MDL	-	-	-

A-14



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Name of the Parameter : Phosphate

Sl. No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar) / Thenpennai River Chokkarasanapalli-Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	1.48	1.48	1.61
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	1.51	1.23	1.33
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	0.82	1.31	1.69
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	1.2	1.04	1.36
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	1.2	1.28	1.46

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Name of the Parameter : **Dissolved Phosphate**

SL No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli- Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	0.58	0.69	0.65
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	0.61	0.59	0.41
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	0.32	0.52	0.66
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	0.51	0.36	0.58
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	0.53	0.48	0.88

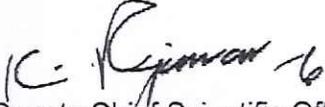

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Name of the Parameter : Nitrate (NO₃-)

Sl. No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli-Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	3.61	3.93	4.79
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	3.91	3.35	4.68
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	1.96	3.62	4.15
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	8.34	3.24	3.3
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	3.94	3.74	10.21


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Name of the Parameter : Nitrite (NO₂)

SL No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli- Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	0.59	0.32	0.56
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	0.6	0.11	0.61
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	0.03	0.52	0.51
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	1.18	0.04	0.32
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	0.03	0.14	1.34

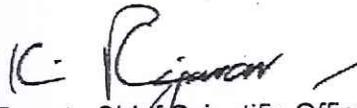

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Name of the Parameter : Ammonical Nitrogen

SL No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli- Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	mdl	12.3	15.1
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	7.3	7.8	7.8
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	14	6.7	6.7
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	2.2	3.4	mdl
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	mdl	mdl	mdl

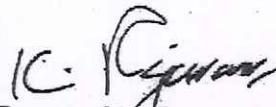

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Name of the Parameter : Total Khjeldahl Nitrogen (TKN)

SL No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli-Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	4.5	23.5	26.2
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	13.4	15.5	16.2
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	22.8	10.5	13
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur - Taluk	mg/l	3.7	6	1.7
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	2.1	2.8	3


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Name of the Parameter : Biochemical Oxygen Demand (BOD)

SL No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli- Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	25	28	32
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	30	28	28
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	30	28	32
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	31	21	21
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	22	24	20


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TAMIL NADU POLLUTION CONTROL BOARD

Name of the Parameter : Chemical Oxygen Demand (COD)

Sl. No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli- Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	112	120	112
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	128	88	96
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	104	128	120
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	112	88	72
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	72	72	88


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TAMIL NADU POLLUTION CONTROL BOARD

Name of the Parameter : pH

Sl. No.	Sampling Location	Date of Sample Collected		
		29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli- Village ,Entry point in Tamilnadu Border , Hosur-Taluk	7.06	6.93	6.65
2	Kodiyalam Village (Check Dam) Hosur-Taluk	7.09	7.03	6.92
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	7.04	7.02	6.82
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	7.02	6.98	6.52
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	6.97	6.92	6.43


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TAMIL NADU POLLUTION CONTROL BOARD

Name of the Parameter : Total Suspended Solids (TSS)

Sl. No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli- Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	58	62	66
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	14	22	20
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	40	36	66
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	18	16	22
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	18	26	22

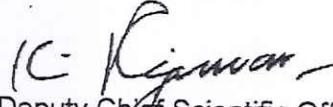

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TAMIL NADU POLLUTION CONTROL BOARD

Name of the Parameter : Dissolved Oxygen (DO)

Sl. No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli- Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	1.3	1.6	1.5
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	1.2	1.5	1.8
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	2.6	3.1	3.3
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	4.3	4.4	4.2
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	6.1	5.7	5.8


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Name of the Parameter : Oil and Grease (O&G)

SL No.	Sampling Location	Unit	Date of Sample Collected		
			29.10.2024	30.10.2024	1.11.2024
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli- Village ,Entry point in Tamilnadu Border , Hosur-Taluk	mg/l	<MDL	<MDL	<MDL
2	Kodiyalam Village (Check Dam) Hosur-Taluk	mg/l	<MDL	<MDL	<MDL
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	mg/l	<MDL	<MDL	<MDL
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	mg/l	<MDL	<MDL	<MDL
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	mg/l	<MDL	<MDL	<MDL

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Tamil Nadu Pollution Control Board
Hosur – 635 126.



TAMIL NADU POLLUTION CONTROL BOARD

Name of the Parameter : Total Coliform (TC) & Fecal Coliform (FC)

SL No.	Sampling Location	Unit	Date of sample Collected: 4.11.2024		Date of sample Collected: 8.11.2024	
			TC	FC	TC	FC
1	Pennaiyar South (South Pennaiyar) Thenpennai River Chokkarasanapalli-Village ,Entry point in Tamilnadu Border , Hosur-Taluk	MPN /100ml	241960	98040	11500	1640
2	Kodiyalam Village (Check Dam) Hosur-Taluk	MPN/ 100ml	241960	120330	9000	6400
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	MPN/ 100ml	182560	23506	13900	12400
4	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	MPN/ 100ml	26868	9958	**	**
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur- Taluk	MPN/ 100ml	19863	10462	**	**

TC: Total Coliform; FC: Fecal Coliform

** Sample Not collected due to public complaint

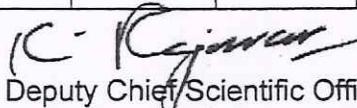

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 Tamil Nadu Pollution Control Board
 Hosur



TAMIL NADU POLLUTION CONTROL BOARD

Name of the River: Pennaiyar South (South Pennaiyar)
Thenpennai River

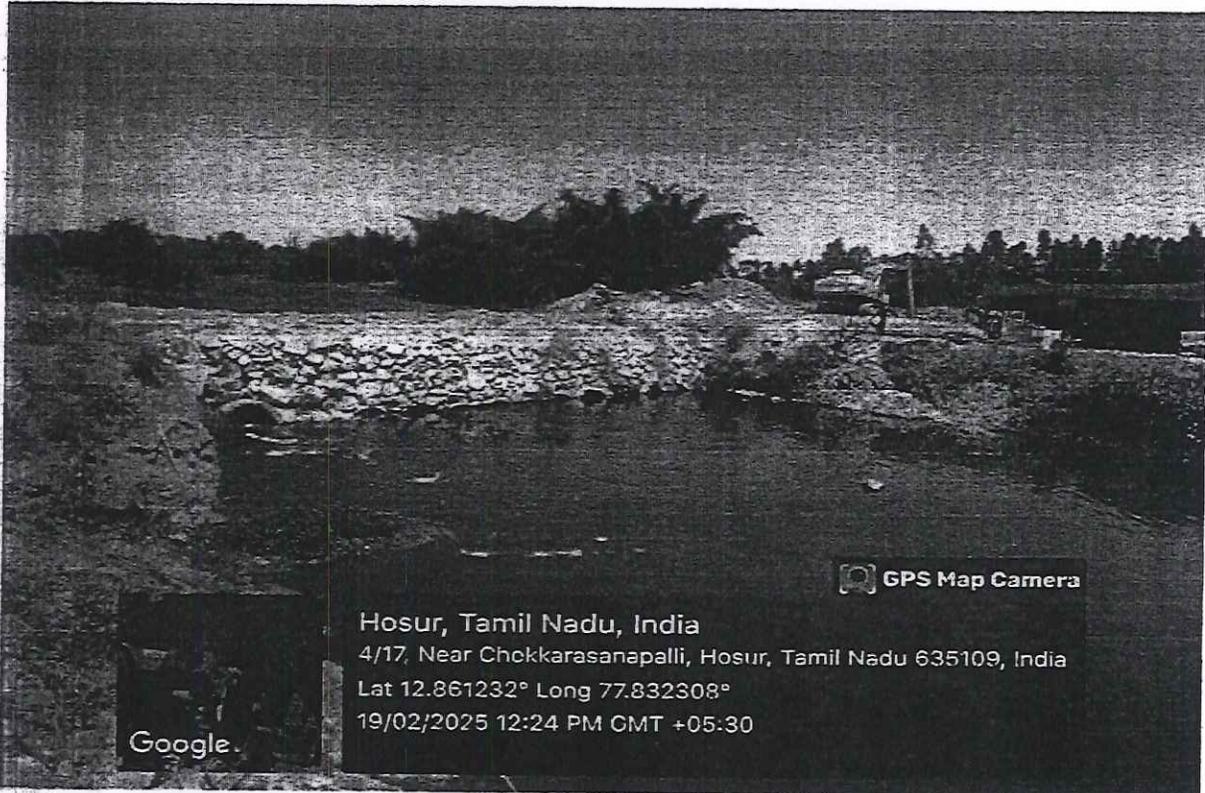
Parameter : Heavy Metals								
Sl No.	Point Of collection	Date Of collection	Zinc as Zn	Iron as Fe	Chromium as Cr	Nickel as Ni	Lead as Pb	Unit
1	Pennaiyar South (South Pennaiyar)/ Thenpennai River Chokkarasanapalli-Village ,Entry point in Tamilnadu Border , Hosur-Taluk	29.10.24	0.171	2.350	<MDL	0.206	<MDL	mg/l
		30.10.24	0.547	4.279	<MDL	0.243	<MDL	mg/l
		01.11.24	0.350	1.821	<MDL	0.331	0.151	mg/l
2	Kodiyalam Village (Check Dam) Hosur-Taluk	29.10.24	0.226	2.083	<MDL	0.164	0.004	mg/l
		30.10.24	0.515	2.129	<MDL	0.298	0.079	mg/l
		01.11.24	0.178	2.435	0.016	0.156	<MDL	mg/l
3	Bagalur Village (Upstream Of kelavarapalli Dam) Hosur-Taluk	29.10.24	0.297	2.313	<MDL	0.186	<MDL	mg/l
		30.10.24	0.367	1.744	<MDL	0.317	<MDL	mg/l
		01.11.24	0.292	1.995	<MDL	0.412	<MDL	mg/l
4.	Middle Point Near Shutter NO- 2, Kelavarapalli Dam in Hosur -Taluk	29.10.24	0.316	1.642	<MDL	0.157	0.041	mg/l
		30.10.24	0.319	1.650	<MDL	0.221	<MDL	mg/l
		01.11.24	0.250	1.458	<MDL	0.301	<MDL	mg/l
5	Downstream of Kelavarapalli Dam near Marasanthiram Village Road, Hosur-Taluk	29.10.24	0.285	1.782	<MDL	0.227	<MDL	mg/l
		30.10.24	0.346	2.288	<MDL	0.223	<MDL	mg/l
		01.11.24	0.239	1.481	<MDL	0.258	0.043	mg/l


 Deputy Chief Scientific Officer,
 District Environmental Laboratory
 Tamil Nadu Pollution Control Board,
 Hosur - 635 126.

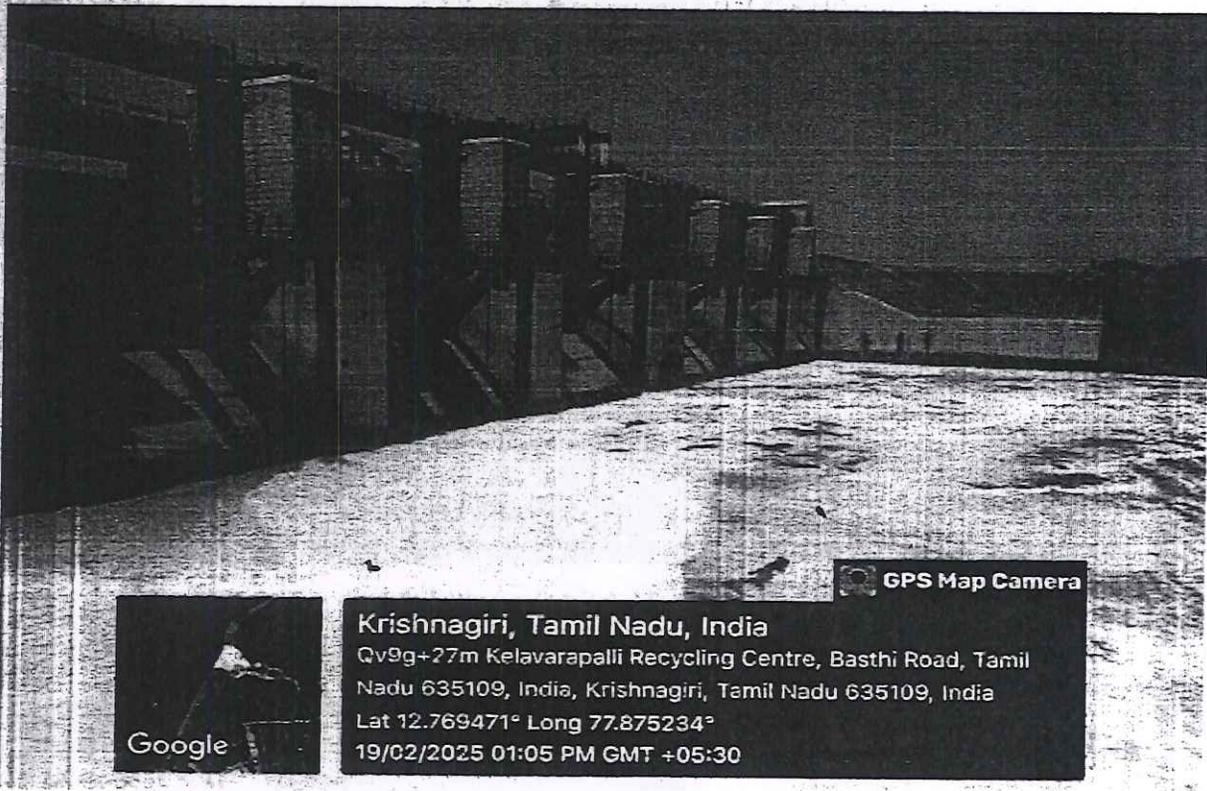
Annexure IV

The Photographs taken during the Inspection at the locations of River Thenpennai flowing in Tamil Nadu Stretch on 19.02.2025

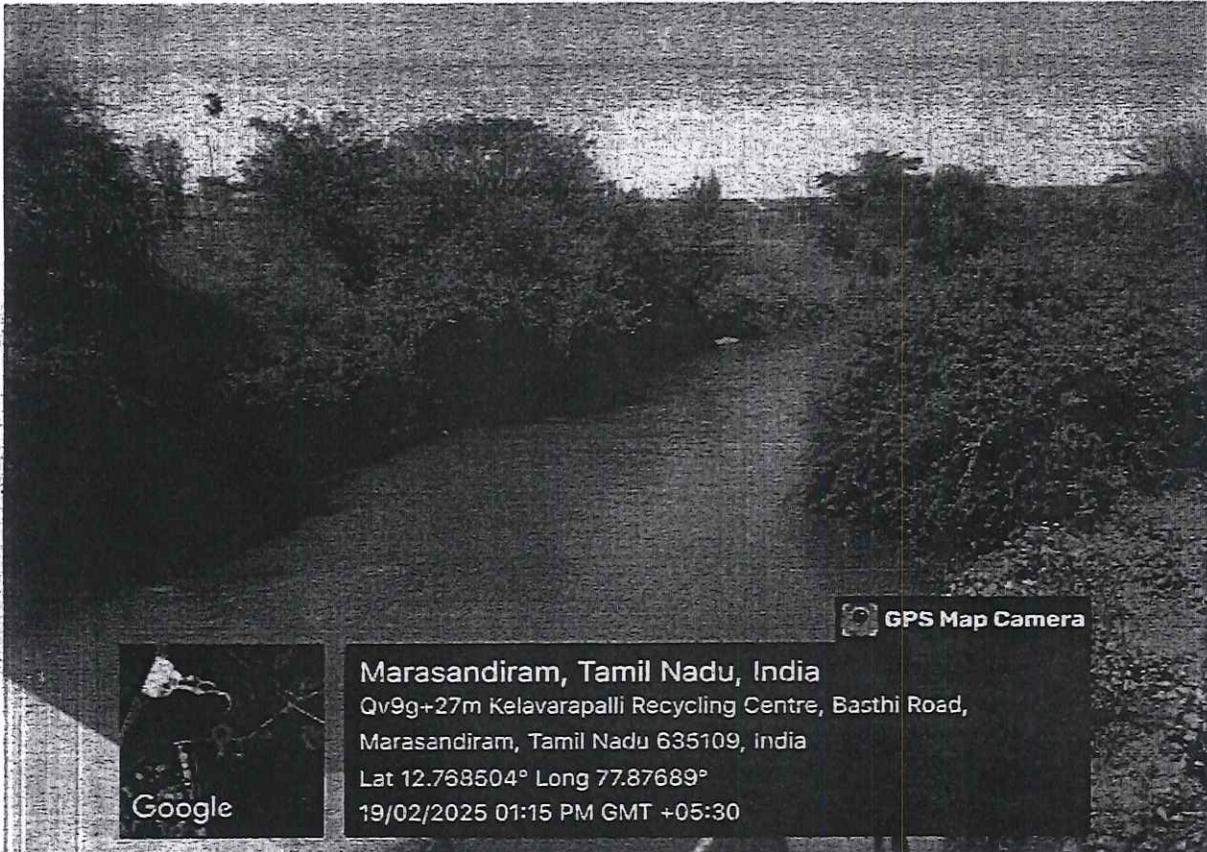
1. River Flow at Chokkarasanapalli Entry Point



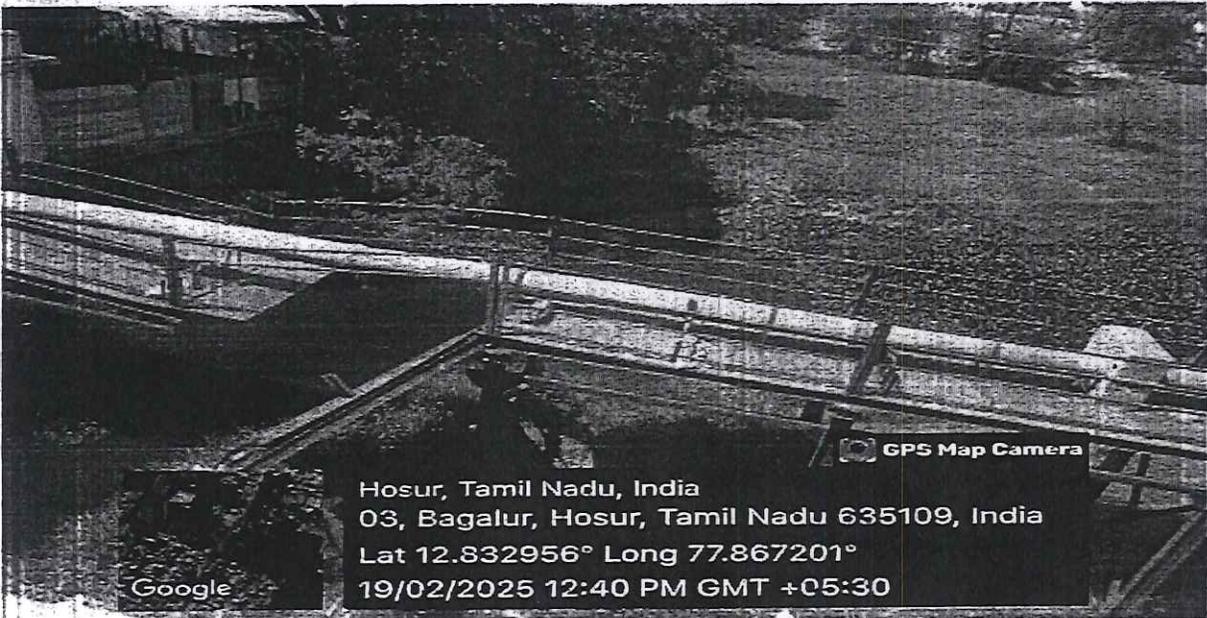
2. River Flow at Upstream of Kelavarapalli Dam



3. River Flow at Downstream of Kelavarapalli Dam



4. River Flow at Bagalur Village



H.S. Lakshmi
19/2/25

**District Environmental Engineer
Tamil Nadu Pollution Control Board
Hosur**

[Signature]
19/2/25



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Environment



Annexure - IV
केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

Speed-post/ E-mail

F. No.: CM-13013/9/2025-TECH-RD-CHENNAI-RD (Chennai) 29.03.2025

To,

The Member Secretary,
Karnataka State Pollution Control Board
"Parisara Bhavana", No #49, Church Street
Bengaluru – 560001, Karnataka

Sub: Sea of Toxic Foam in Tamil Nadu's Hosur After Dam Discharges Surplus Water

Sir,

This has reference to Hon'ble NGT order dated 18.12.2024 AND 10.02.2025 in OA 1374/2024 (PB)/ re-registered OA 14/2025 (SZ) in Suo Motu matter in respect of news item appearing in NDTV.com dated 05.12.2024 titled "Sea of Toxic Foam in Tamil Nadu's Hosur After Dam Discharges Surplus Water" Vs TNPCB.

Water quality of the river in the area in question has been reported as below:

-The "Dakshina Pinakini along Mugaluru" stretch is identified as one of the a Polluted River Stretch (PRS) along Mugaluru under Priority I. According to the report of CPCB for identification of polluted river stretches in the country titled "Polluted River Stretches for Restoration of Water Quality - 2022", as the maximum BOD observed as 111 mg/L during the period 2019 & 2021. The location is downstream of Bengaluru city in Karnataka.

-CPCB - RD, Bengaluru monitors water quality at inter-state location at river Thenpennaiyar at Chokkarasanapalli Bridge under National Water Quality Monitoring Programme (NWMP) on quarterly basis. The location is further downstream of Bengaluru city in Karnataka. The assessment of water quality data for the year 2024 indicates that Dissolved Oxygen (DO) is observed as BDL (0.3 mg/ L), pH in the range of 7.24 - 8.1, Bio-chemical Oxygen Demand (BOD) in the range of 17 - 52.4 mg/ L, Fecal Coliform in the range of 2,80,000 - 79,00,000 MPN/ 100 mL and Total Coliform in the range of 16,00,000 - 35,000,000 MPN/ 100 mL.

-The officials of CPCB, Regional Directorate, Bengaluru along with officials of Regional Office, Karnataka State Pollution Control Board (herein referred

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Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032

दूरभाष/Tel: 43102030, 22305792, वेबसाईट/Website : www.cpcb.nic.in

as KSPCB), Sarjapura, Karnataka and Regional Office, Tamil Nadu State Pollution Control Board (herein referred as TNPCB), Hosur, Tamilnadu carried out sampling of six locations at River Thenpennai, namely, Channasandra bridge (01), Mugaluru bridge (01) in Karnataka State, Chokkarasanapalli (01), Kelavarapalli dam (dam water/upstream, downfall near gate/downstream, Mitteganahalli bridge/ Marasandra) (03) in Tamil Nadu State on 28.10.2024. The analysis results reveal that water quality of river Thenpennai is not complying with Primary Water Quality Criteria for Bathing waters notified under the Environment (Protection) Amendment Rules, 2000 at all the 06 locations (**Annexure-1**).

-TNPCB has informed CPCB vide letter dated 04.03.2025 that from the analysis of water samples collected from river Thenpennaiyar every month for the years 2022-2023 & 2023-2024; it was observed that BOD varies from 32mg/L to 134 mg/L, Total coliform varies from 1,200 MPN/100 ml to 20,050 MPN/100 ml and Fecal coliform varies from 840 MPN/100 ml to 16,520 MPN/100 ml which reveals that there is a discharge of wastewater in the river, and that in compliance to Hon'ble NGT order in the above-cited matter TNPCB once again collected the water samples at Chokkarasanapalli Village on 26.12.2024 and BOD, Total coliform and Fecal coliform were observed as 134 mg/L, 20,050 MPN/100 ml and 16,520 MPN/100 ml respectively (**Annexure-2**).

CPCB has already issued various directions to SPCBs, and state authorities, including Karnataka SPCB/state, regarding sewage management: -

- Direction under Section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 to SPCBs/PCCs regarding 'Treatment & Utilization of Sewage' (21.04.2015).
- Direction under Section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 to Karnataka SPCB in the matter of contamination of Bellandur and Varthur Lake (22.05.2015).
- Directions under Section 5 of The Environment (Protection) Act, 1986 to Municipal Corporations of 46 Metropolitan cities and 20 State Capitals regarding 'Treatment and Utilization of Sewage for Restoration of Water Quality of River' (09.10.2015).
- CPCB has communicated to Principal Secretaries of Urban Development Department for formulation of comprehensive action plans for sewage management in their respective States/UTs (15.2.2022).
- CPCB prepared "Indicative Guidelines for Restoration of Water Bodies" in June, 2019 as a guidance to the stakeholders for ensuring restoration/rejuvenation of water bodies & circulated it to all the SPCBs/PCCs vide CPCB letters dated 18.06.2019 and 26.07.2019 and also uploaded it on

CPCB Website at <https://cpcb.nic.in/NGTMC/Ind-Guidelines-For/WaterBodies-10062019.pdf>

In view of above, it is requested to address the discharge of sewage/ wastewater in river Therpennaiyar through the Bellandur and Varthur lakes systems from Bengaluru city and any other significant sources to improve the water quality of the Therpennai river and provide the action taken report in the matter with CPCB at the earliest.

Yours faithfully,

Nazimuddin
28/5/2025

(Nazimuddin)

Divisional Head, WQM-I Division

**BEFORE THE NATIONAL GREEN
TRIBUNAL (SOUTHERN ZONE)
CHENNAI**

ORIGINAL APPLICATION No. 14 OF 2025

In the matter of:

Suo Motu matter in respect of news item
appearing in NDTV.com dated 05.12.2024 titled
“Sea of Toxic Foam In Tamil Nadu’s Hosur
after Dam Discharges Surplus Water”

..... Applicant (s)

Versus

Tamil Nadu Pollution Control Board

Through its Member Secretary and Ors.

.....Respondent(s)

REPLY ON BEHALF OF RESPONDENT NO.2
CENTRAL POLLUTION CONTROL BOARD

Advocate D.S Ekambaram
Counsel for the 2nd Respondent

Mobile: 9445158274