

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

**Original Application No. 122 of 2024**

**IN THE MATTER OF:**

Tribunal on its own motion Suo Moto  
based on the news item published in The  
Economic Times, E-edition dt: 03.04.2024  
titled, "**Chennai lake contaminated with  
Forever Chemicals linked to cancer and liver damage**"

**With**

Water Resource Department  
Rep by its Additional Secretary  
Chennai and Others.

.... Respondents

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**Advocate  
Thiru.S. Sai Sathya Jith,  
Advocate, Chennai.**



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**REPORT FILED ON BEHALF OF THE THIRD RESPONDENT  
TAMIL NADU POLLUTION CONTROL BOARD.**

I, S. Vasuki, D/o. Thiru. P. K. Somasundaram aged about 56 years, having my office at 76, Mount Salai, Guindy, Chennai-600032, do hereby solemnly affirm and sincerely state as follows:-

1. I submit that I am working as the Joint Chief Environmental Engineer (i/c) Tamil Nadu Pollution Control Board (hereinafter referred as TNPCB), Chennai - 600 032, and I am authorized to file this Report on behalf of the third respondent of the Tamil Nadu Pollution Control Board and as such I am well acquainted with the facts of the case from the available office records.
2. It is respectfully submitted that a Suo Motu was taken by the Hon'ble NGT, (SZ), Chennai on 18.4.2024 based on the news item published in The Economic Times Newspaper dated: 03.04.2024, titled, "Chennai Lake contaminated with 'Forever Chemicals' linked to cancer and liver damage" and the news article mentioned the following points:
  - a. The synopsis of the article "Chennai lakes show alarming PFAS (Perfluoroalkyl substances and Polyfluoroalkyl substances) levels 19,400 times higher than EPA safety limits. Contamination extends to

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CHENNAI-600 032,

Adyar, Buckingham Canal, Urgent intervention needed to address hazardous forever chemicals in water sources.

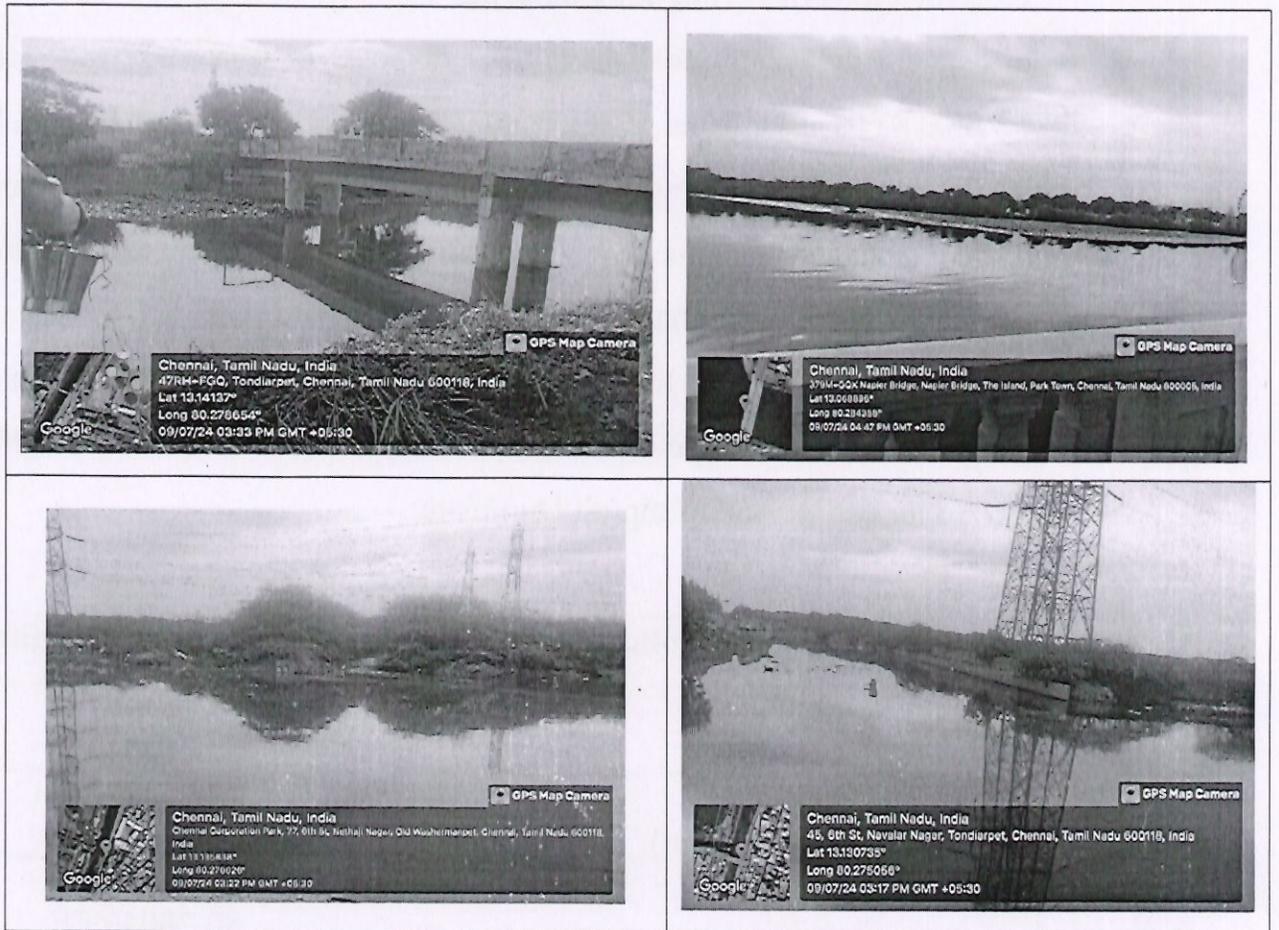
- b. As per a study of IIT Madras, Chennai's Water contains PFAS concentrations that are approximately 19,400 times higher than the safety levels set by the American Environmental Protection Agency (EPA). These Chemicals were detected in groundwater near the Perungudi dumpyard, Adyar river, Buckingham canal, Chembarambakkam lake, and the treated water from the lake.
3. It is respectfully submitted that as per the direction of the Hon'ble NGT, (SZ), Chennai, the third respondents submit the report herein.
4. It is respectfully submitted that TNPCB officials have inspected the Chembarambakkam Lake, Perungudi Dumpsite, stretches of the Buckingham canal and the Adyar River, to check for any wastewater or industrial effluent being discharged into it. The samples were collected at various points, and samples were handed over to an external NABL-accredited Lab for the analysis of components of Forever Chemicals, such as Perfluoroalkyl substances and Polyfluoroalkyl substances, as the TNPCB laboratories do not have this facility.
5. It is respectfully submitted that TNPCB officials from the Chennai office inspected the stretch of Buckingham canal coming under their jurisdiction, i.e., from the M/s. INDIAN OIL CORPORATION LIMITED (TONDIARPET TERMINAL) to Napier Bridge, covering 8.96 KM on 09.07.2024 and 05.06.2025. It was found that there is no industrial activity and discharges along the stretch of Buckingham Canal other than M/s. INDIAN OIL CORPORATION LIMITED (TONDIARPET TERMINAL) and M/S. CMWSSB, KODUNGAIYUR, which discharges treated sewage. Both units are consented units, and their treated effluent parameters are within the discharge standards.
6. It is respectfully submitted that samples were collected on 09.07.2024 in the following six locations in the stretch of Buckingham canal.

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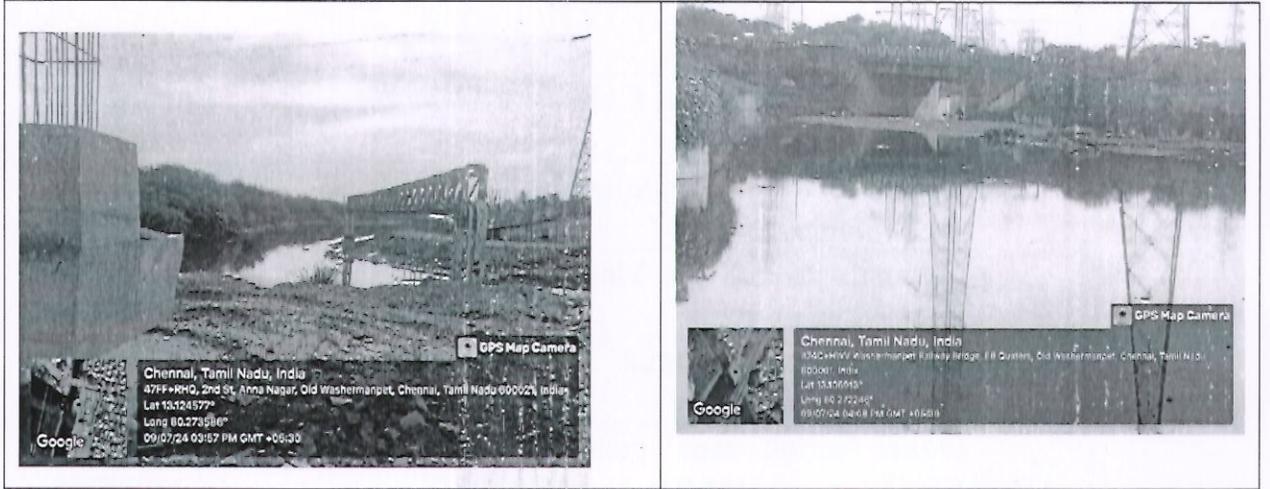
S.No.	Point of Collection	Latitude & Longitude
1.	Opposite to the Chennai Hr. Sec. School, Patel Nagar	13.140368; 80.27814
2.	Opposite to GCC - Manure manufacturing unit, Navalur street	13.135838; 80.276626
3.	Captain Cotton Canal Joining point, near Kannagi nagar	13.124577; 80.273586
4.	Otteri Nallah canal connecting point, near EB Quarters, Old Washermentpet	13.106914; 80.272268
5.	River Coovum joining point at the Bay of Bengal Ocean near Napier bridge	13.068895; 80.284355
6.	Napier Bridge, Buckingham canal	13.14137; 80.278654

The Result of Analysis of water samples reveals that levels of Forever Chemicals (22 PFAS) in the samples collected are below the Limit of Quantification (0.25 µg/Litre).

### Photographs

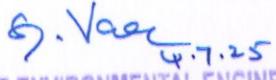


Sy. Vasu 4.7.25  
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7. It is respectfully submitted that TNPCB officials from the Chennai (South) office inspected the following, which come under their jurisdiction,
- The stretch of Buckingham canal, i.e., from M/s. Napier Bridge to Indian Marie time University (Uthandi), covering around 27 KM.
  - The Adyar River stretch starts from River View Road, Manappakkam to Back side of Leela Palace, Thandavarayan St, MRC Nagar, Raja Annamalai Puram, covering around 14.5 KM.
  - 2 locations of Perungudi Dumpsite.
8. It is respectfully submitted that there is disposal of treated sewage from CMWSSB STPs at Saidapet, Kotturpuram, Perungudi & Sholinganallur, but the parameters of treated sewage are within the Sewage discharge standards. And there is no effluent discharge by Industrial activity along the stretch of Adyar Canal and Buckingham canal.
9. It is respectfully submitted that samples were collected on 27.08.2024 in the below-mentioned twenty-eight locations of the stretch of Buckingham canal, Adyar canal and Perungudi Dumpsite:

S.No.	Point of collection	Latitude and Longitude
1.	Napier bridge	13.067969°N 80.282512°E
2.	Victoria Hostel Road (Chepauk Metro Station)	13.063587°N 80.280469°E
3.	Pycrofts Road	13.063587°N 80.280469°E
4.	Dr. Besant Road	13.0578°N 80.280417°E
5.	Avvai Shanmugam Salai	13.046585°N 80.277277°E

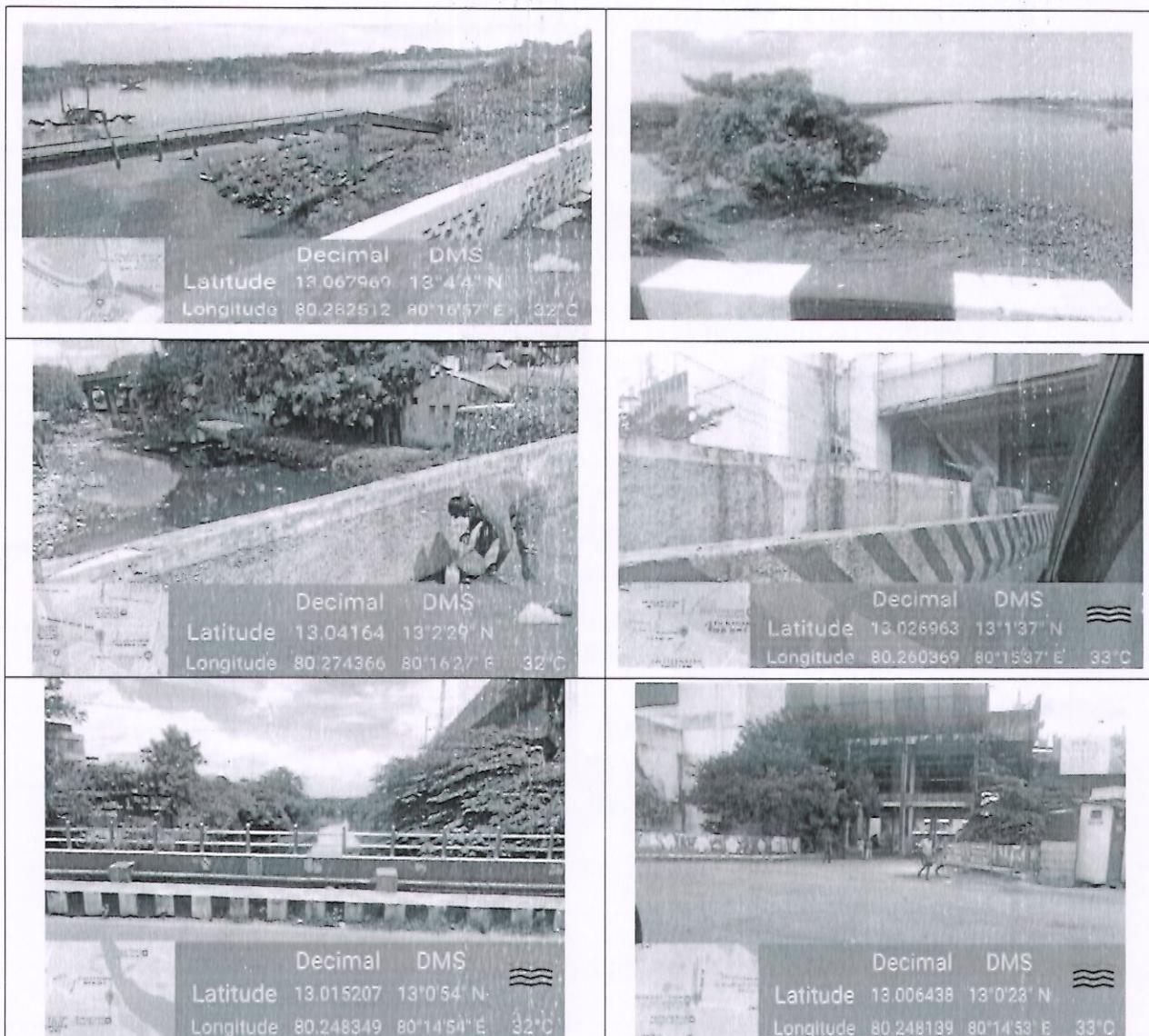
  
 4.7.25  
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6.	Dr.RadhaKrishanan Salai	13.046585°N 80.277277°E
7.	PV Koil Street (Ambedkar Bridge)	13.04164°N 80.274366°E
8.	Ramakrishna Mutt Road (Mylapore MRTS)	13.0361315°N 80.26771635°E
9.	Sringeri Mutt Road (Mandaveli MRTS)	13.026963°N 80.260369°E
10.	Greenways Road MRTS	13.0220182°N 80.2528108°E
11.	Kotturpuram MRTS	13.015221°N 80.248378°E
12.	Madhya Kailas MRTS	13.006438°N 80.248139°E
13.	Lattice Bridge Road	12.9818955°N 80.2533258°E
14.	Veeramani Salai (Palavakkam) (Awfis Opp.)	12.9659511°N 80.2516065°E
15.	MGR Nagar (Palavakkam) (Canalpuram Road)	12.9606813°N 80.2504353°E
16.	Pandian Salai (Thoraipakkam) (Maruthi Nagar)	12.9495099°N 80.2483412°E
17.	Sholinganallur Main Road (Akkrai Towards - CMWSSB nearby )	12.899586°N 80.238675°E
18.	Indian Marie time University (Uthandi)	12.872875°N 80.241782°E
19.	Masjith Street(Perungudi)	12.940541°N 80.246597°E
20.	River View Road, Manappakkam Village, Alandur Taluk,	13° 0'54.47"N 80°10'55.19"E
21.	Opp. MIOT Hospital Parthasarathy Nagar, Manapakkam	13° 1'11.85"N 80°11'10.83"E
22.	Ekattuthangal Bridge - Bridge Kasi Estate, West Jaffer Khanpet	13° 1'36.86"N 80°12'28.59"E
23.	Maraimalai Adigalar Mount Rd Gotha Medu Housing Board, Nandanam	13° 1'3.09"N 80°13'29.44"E
24.	River View Point, Kotturpuram Bridge Chitra Nagar, Kotturpuram	13° 1'33.09"N 80°14'37.75"E
25.	Thiru-Vi-Ka Bridge Gandhi Nagar, Raja Annamalai Puram	13° 0'46.31"N 80°15'32.23"E
26.	Back Side of Leela Palace, Thandavarayan St, MRC Nagar, Raja Annamalai Puram	13° 1'1.70"N 80°16'29.15"E
27.	Perungudi Dump site- Leachate	12°56'58.3"N 80°13'33.3"E
28.	Perungudi Dump site- Borewell	12.953870°N, 80.229059°E

G. Vaal 4.7.25.  
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The Result of Analysis of water samples reveals that levels of Forever Chemicals (22 PFAS) in the samples collected are below the Limit of Quantification ( $0.25 \mu\text{g/Litre}$ ).

### Photographs



10. It is respectfully submitted that the Adyar river stretch starting from Mudichur to Cowl Bazaar, covering approximately 15.5 KM. The said stretch falls under the jurisdiction of Maraimalai Nagar Office and the same was inspected by the TNPCB officials of Maraimalar Nagar on 26.12.2024, 27.12.2024 and 19.03.2025. During inspection the following were observed.

- There is disposal of treated sewage from Tambaram Municipality Common STP, Tambaram Taluk, Chengalpattu District but the parameters of treated sewage are within the Sewage discharge standards.

*S. Vasu* 6.7.25  
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- There is a one special Economic zone namely Madras Export Processing Zone. It has 106 industries, out of which 76 are operational and 30 are inactive. There are 20 industries that generate trade effluents, each with its own Effluent Treatment Plant (ETP). These ETPs are regularly monitored by the Tamil Nadu Pollution Control Board. MEPZ also operates two Common Sewage Treatment Plants (CSTPs) with Capacity of 1000 KLD and 535 KLD for the 106 industries and treated water is reused for gardening and toilet flushing and there is no effluent discharge along the stretch of Adyar Canal.
- There is one Common Effluent Treatment Plant (CETP) at Pammal namely, M/s. Pallavaram Tanners Industrial Effluent Treatment Company Limited, in which 130 tanneries in Pammal, Nagalkeni, and Pallavaram are members and send their trade effluent through underground pipelines. The CETP treats the effluent and reuses 900 KLD within its own treatment process and sends 2100 KLD to the Perungudi Common Sewage Treatment Plant for dilution and diluted treated sewage is released into the Buckingham Canal and no effluent is discharged into the Adyar River. The Tamil Nadu Pollution Control Board (TNPCB) has granted permission for this operation, valid until 31 March 2027.
- Further it was noticed that the surplus water from the Kadaperi lake, Thiruneermalai lake, Mudichur lake, Veeraraghavan Lake flows into the Adyar river through Storm water earthen channel. Also noticed that domestic sewage from the unsewered areas of Old Perungalathur, new Perungalathur, Mudichur village, Tambaram, Chromepet, Pallavaram, Thiruneermalai, Pammal, Anagaputhur and Cowl Bazaar area falls under Tambaram City Municipal Corporation flows through earthen storm water channel and finally flows into the Adyar river.

11. It is respectfully submitted that water samples were collected at eight locations including sewage outfall as detailed below on 27.12.2024 and 19.03.2025 and sent to laboratory for analysis.

*S. V. S. 4.7.25*  
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 CHENNAI-600 032,

S. No.	Point of Collection	Latitude & Longitude
1	Adyar river water sample collected at Outer Ring Road (Vandalur to Minjur) bridge over Adayar River at Mudichur.	12.921258N 80.077222E
2	Storm water drain & sewage outfall near to Outer Ring Road (Vandalur to Minjur) bridge over Adayar River at Mudichur.	12.9212583N 80.0772227E
3	Treated sewage outfall to Tambaram Municipality common STP into the Adyar river at Vasantham Nagar, Kannadapalayam, West Tambaram.	12.942206N 80.097606E
4	Adyar River Water Sample Collected After Treated Sewage Mixing of Tambaram Municipality Common STP in the Adyar River at Vasantham Nagar, Kannadapalayam, West Tambaram.	12.938444N 80.095139E
5	Water sample collected from earthen channel mixed with sewage/sullage running across Tambaram-Madhuravoyal Bye-pass Road near Tiruneermalai.	12.9656235N 80.1187817E
6	Adyar river water mixing with sewage outfall sample collected at Anakaputhur Bridge over the Adyar river.	12.9861036N 80.1196463E
7	Adyar river water sample collected after sewage mixing at Anakaputhur Bridge over the Adyar river	12.9863602N 80.1193937E
8	Adyar river water sample collected near Cowl Baazar bridge over the Adyar river.	12.99415666N 80.14890812E

The Result of Analysis (ROA) reveals that the levels of Forever chemicals – 22 PFAS are below the Limit of Quantification (0.25 µg/litre).

### Photographs



S. Vaazhuvandi  
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 No.76, MOUNT SALAI, GUINDY,  
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12. It is respectfully submitted that as mentioned in the article, the Chembarambakkam Lake located at Kancheepuram District, is comes under the jurisdiction of O/o. DEE, TNPCB, Sriperumbudur. Chembarambakkam tank bund was raised to accommodate the Krishna Water conveyed by the Link canal from Poondi Reservoir which is called as Krishna Water Supply Project. The said area was inspected by the TNPCB official of Sriperumbudur Office on 15.10.2024 and 30.10.2024. During inspection the following were observed.

- There was no effluent discharge by Industrial activity along the peripheral of the Chembarambakkam lake. The industries located within the SIPCOT of Irungattukottai Industrial Estate has provided their own sewage treatment facility/ Septic tank with soak pit

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S. Vasu 4.7.25  
JOINT CHIEF ENVIRONMENTAL ENGINEER (i/c)  
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arrangements/Effluent Treatment Plant and operates with zero liquid discharge facility.

- There is no sewage treatment plant provided for the treatment of the sewage generated from those villages of Mannur, Valarapuram, Thandalm and Chettipedu. Hence the sullage, sewage and storm water from these villages finds a way to Krishna water canal at the mouth of Chembarambakkam lake.
- There is a Health care facility named M/s Saveetha Medical College & Hospital, which has provided the Sewage Treatment Plant and Effluent Treatment Plant to treat their sewage and trade effluent and observed that there was no discharge of sewage/effluent finding access outside its premises.
- The VGP Industrial complex and Vijayashanthi Residential complex is located in between M/s.Saveetha Medical College and Chettipedu Village. At VGP industrial complex, there are 30 residences and the sewage generated from those residences are treated through Sewage Treatment Plant and utilized for gardening. No discharge of sewage or effluent was noticed from the industries located in the complex. In Vijayashanthi Residential complex, there are 300 residential and the sullage/sewage generated from those apartments is treated in their Common Sewage Treatment Plant and the treated sewage is utilized for gardening and the excess treated sewage is discharged into the storm water drain of Chettipedu village.

13.It is respectfully submitted that the water samples were collected at five locations as detailed below on 30.10.2024 and the same was sent to Laboratory for analysis.

S.No.	Point of Collection	Latitude & Longitude
1.	Chembarambakkam Lake,	12.997984 80.079005
2.	Mevalurkuppam / Thandam Village water Inflow to Krishna Water	13.021241 80.014794
3.	Krishna water Inflow to Chembarambakkam Lake	13.021568 80.015285

G. V. V. 30.10.24  
 JOINT CHIEF ENVIRONMENTAL ENGINEER (4c)  
 TAMIL NADU POLLUTION CONTROL BOARD  
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4.	Chettipedu Village water Inflow to Krishna Water	13.022446 80.015695
5.	STP treated surplus water from Vijayashanthi Residential complex to Krishna Water	13.024225 80.021729

The Result of Analysis (RoA) of the water sample collected reveals that the levels of Forever chemicals – 22 PFAS are below the Limit of Quantification (0.25 µg/litre)

**Photographs**

<p>SIPCOT- Irugattukottai</p>	<p>Sewage / Rain Water from Chettipedu Village mixing with Krishna Water Canal</p>
 <p>Latitude: 13.002572 Longitude: 80.01186 Elevation: 55.4814 m Accuracy: 23.0 m GPSTime: 30-10-2024 12:45 Note: storm water</p>	 <p>Latitude: 13.021696 Longitude: 80.019226 Elevation: 39.8515 m Accuracy: 4.2 m GPSTime: 30-10-2024 13:09 Note: chettipedukottai</p>
<p>Chembarambakkam Lake</p>	<p>Krishna Water Canal</p>
 <p>Latitude: 12.997984 Longitude: 80.079005 Elevation: 56.3128 m Accuracy: 5.5 m GPSTime: 30-10-2024 11:56 Note: Chembarambakkam North</p>	 <p>Latitude: 13.02159 Longitude: 80.015352 Elevation: 60.3815 m Accuracy: 6.2 m GPSTime: 30-10-2024 12:57 Note: Krishna R centre</p>
<p>Mevalurkuppam / Thandam Village Sewage Inflow to Krishna Water</p>	<p>Chettipedu Village water stagnation due to blond provided in the Krishna Canal</p>
 <p>Latitude: 13.021218 Longitude: 80.014777 Elevation: 61.78114 m Accuracy: 5.7 m GPSTime: 30-10-2024 12:48 Note: Krishna R West</p>	 <p>Latitude: 13.022446 Longitude: 80.015695 Elevation: 49.1810 m Accuracy: 28.1 m GPSTime: 30-10-2024 13:15 Note: Krishna R East</p>

S. V. S. 4.7.25  
 JOINT CHIEF ENVIRONMENTAL ENGINEER (JCE)  
 TAMIL NADU POLLUTION CONTROL BOARD  
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14. It is respectfully submitted that the Tamil Nadu Pollution Control Board have inspected the Chembarambakkam Lake, Perungudi Dumpsite, stretches of the Buckingham canal and the Adyar River and the Result of Analysis (RoA) of the water samples collected revealed that the levels of Forever chemicals – 22 PFAs are below the Limit of Quantification (0.25 µg/litre).
15. It is respectfully submitted that IIT Madras compares the PFAS concentrations of water samples collected from the waterbodies with the safety levels set by the American Environmental Protection Agency (EPA). But there is no standard available for comparing the PFAS concentrations of water samples in India.

Therefore, it is humbly prayed that this Hon'ble National Green Tribunal (Southern Zone) may be pleased to pass such further or other orders as this Hon'ble Tribunal may deem fit and proper in the facts and circumstances of this case and thus render justice.

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S. Vasuki 07.07.25  
JOINT CHIEF ENVIRONMENTAL ENGINEER (i/c)  
TAMIL NADU POLLUTION CONTROL BOARD  
No.76, MOUNT SALAI, GUINDY,  
CHENNAI-600 032.

### VERIFICATION

I, S. Vasuki, D/o. Thiru. P.K. Somasundaram, working as the Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board, having my office at 76, Mount Salai, Guindy, Chennai-600032, do hereby verify that the contents of above report are true to the best of my knowledge through records.

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S. Vasuki 07.07.25  
JOINT CHIEF ENVIRONMENTAL ENGINEER (i/c)  
TAMIL NADU POLLUTION CONTROL BOARD  
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**REPORT FILED ON BEHALF OF THE  
THIRD RESPONDENT - TAMIL NADU  
POLLUTION CONTROL BOARD**

**Advocate for Respondent: TNPCB  
Thiru.Sai Sathya Jith,  
Advocate, Chennai.**

**Date:04.07.2025**

**Date of Hearing on:07.07.2025**

