

INSPECTION REPORT OF THE JOINT COMMITTEE CONSTITUTED BY THE HON'BLE NATIONAL GREEN TRIBUNAL (SOUTHERN ZONE) IN RESPECT OF O.A NO. 98 OF 2020 (SZ) SUOMOTU ON THE BASIS OF THE NEWS PAPER REPORT PUBLISHED IN DINAMALAR CHENNAI CITY SUPPLEMENT EDITION DATED, 02.07.2020 UNDER THE CAPTION "IF THE ENCROACHMENTS ARE REMOVED TOTALLY, THE NARAYANAPURAM LAKE WILL BECOME DRINKING WATER SOURCE"

1. ORDERS OF THE HON'BLE TRIBUNAL

It is respectfully submitted that the Hon'ble National Green Tribunal (SZ), Chennai in its order dated 07.07.2020 in the matter of O.A.No. 98 of 2020 inter alia stated that:

"2. It is alleged in the news paper report that originally the lake was having an extent of 120 acres situated in Pallikaranai, Perungudi Zone. Due to large scale encroachment, the extent of lake was reduced to 45.05 acres. This lake was earlier used for the purpose of providing drinking water apart from acting as a rain water harvesting system and also to facilitate the inflow of water through water canal and drains.

3. Due to lack of maintenance and also negligent use of the area by the State Government authorities and the Highways Department the extent of the lake has been reduced by constructing Pallavaram – Thuraipaallam radial road. In spite of calamity occurred due to flood, the State Government is not bestowing their attention in protecting the lakes.

4. According to the report, this has become a small pond and if it not properly maintained, it is likely to vanish in future. So, there is a necessity to protect this lake against pollution and encroachment and necessary maintenance work will have to be done for the purpose of restoring the rain water canals which existed earlier to collect the rain water and discharge the same into this lake to avoid flood during monsoon.

8. Considering the circumstances and before going further, we feel it appropriate to appoint a joint committee comprising of the District Collector, Chennai District or an Officer nominated by him not below the rank of the Revenue Divisional Officer or Assistant Collector, the Superintending Engineer of Public Works Department and Water Resources Organisation, Commissioner or a Senior responsible Officer who is in charge of protecting lakes within the Greater Chennai Corporation nominated by the Commissioner, Greater Chennai Corporation and a Senior Officer from the Tamil Nadu Pollution Control Board as nominated by the Chairman, to inspect the lake in question and submit a status as well as action taken report, if there is any violation found to this Tribunal.

9. The committee is directed to go into the question regarding the verification of original extent as per the revenue records and nature of unauthorised encroachments and if so, what is the action taken and also whether any pollution is being caused to the lake by discharging untreated effluents or sewage into the lake from that area.

10. The committee is also directed to conduct water analysis test to assess the quality of the water and if it is contaminated find out the sources of contamination and suggest steps to be taken to restore the same to its original position.

11. The committee is also directed to mention as to whether there was any scheme launched by the Government or the local authorities for maintaining this water body and if so its stage of implementation.

12. The committee is also directed to assess the environmental compensation, if any damage has been caused to the lake on account of unauthorised encroachment or by causing pollution to the water in the lake.

13. The committee is also directed to ascertain the existence of the inflow and out flow canals and drains which act as a storm water drain to carry excess rain water into the lake and if there is any encroachment or any closure of the same which affects the in inflow and outflow, then what are all the steps to be taken to restore the same to its original position and its feasibility.

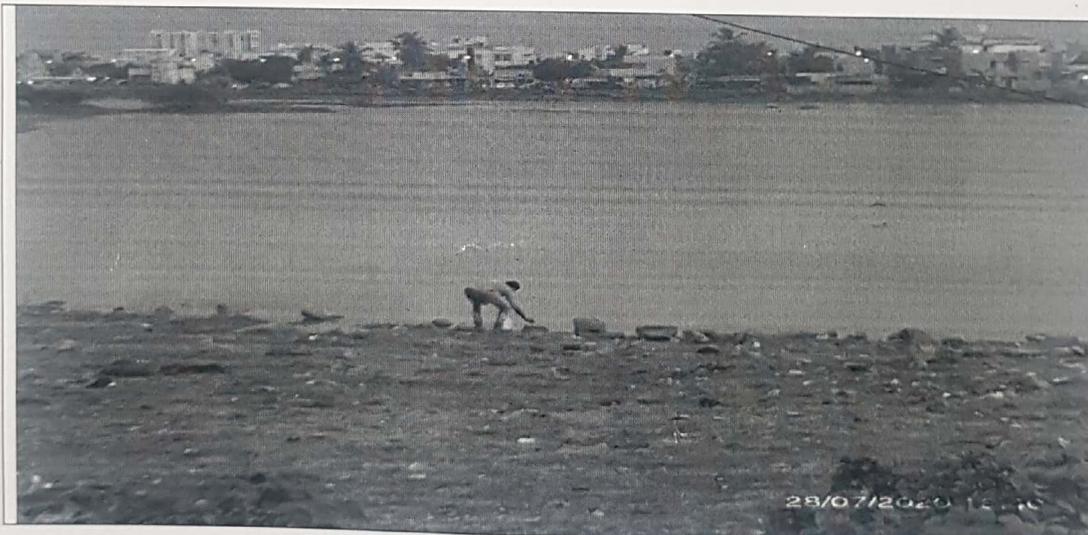
14. The committee is also directed to suggest long term as well as short term plan to protect the lake from further encroachment and pollution by establishing bio-diversity parks/ tree plantation around the lake and construction of any compound wall or other protecting method to avoid future encroachment and the responsibility of the person who has to carry out the same as well.

15. The Public Works Department and Water Resources Organisation will act as the nodal agency for co-ordination and for providing all necessary logistics for this purpose."

## 2. COMPLIANCE OF THE DIRECTION

It is respectfully submitted that in due compliance of the said Hon'ble National Green Tribunal direction, surface water sample from the Narayanapuram Lake was collected on 28/07/2020 so as to ascertain the present water quality in the said water body

### **Collection of water sample to ascertain the quality of water in Narayanapuram Lake**



### **Statement showing the value of the Physico chemical parameters analyzed**

Sl.No	Parameters	Units	Point of Collection	TNPCB Standards (Inland Surface Water)
			Narayanapuram Lake	
1	pH @ 25°C	No.	8.30	5.5-9
2	Total Suspended Solids @ 105°C	mg/L	20	100
3	Total Dissolved Solids @ 180°C	mg/L	719	2100

4	BOD @ 27°C	mg/L	14	30
5	COD	mg/L	160	250
6	Copper as Cu	mg/L	<0.033	3
7	Zinc as Zn	mg/L	<0.01	1
8	Cadmium as Cd	mg/L	<0.013	2
9	Lead as Pb	mg/L	<0.07	0.1
10	Nickel as Ni	mg/L	<0.05	3
11	Total Chromium Cr	mg/L	<0.05	2
12	Hexavalent Chromium Cr <sup>+6</sup>	mg/L	<0.05	0.1
13	D.O	mg/L	6.30	5mg/l and above

**Statement showing the value of the Bacteriological parameters analyzed**

Sl.No	Parameters	Units	Point of Collection	Primary Water Quality Criteria for Bathing Waters prescribed by Central Pollution Control Board
			Narayanapuram Lake	
1	Total Coliform	MPN/100 ml	110	500 or less.
2	Faecal Coliform	MPN/100 ml	<1.8	500 (desirable) 2500 (Maximum Permissible)

The Report of analysis of the water sample collected from the said water body reveals that the Physico chemical parameters analysed satisfy the Inland surface water standards prescribed by the Board. Furthermore the water sample collected from the Narayanapuram Lake analysed for Bacteriological parameter Total Coliform and Faecal Coliform meets the Primary Water Quality Criteria for Bathing Waters prescribed by Central Pollution Control Board.

**3. REPORT OF THE PUBLIC WORKS DEPARTMENT:**

It is respectfully submitted that PWD as one of the member of the committee submits that Narayanapuram Eri is a tank maintained by the Public Works Department. Narayanapuram Eri is located at Survey No.118 in Pallikaranai Village of Sholinganallur Taluk in Chennai District. It has a water spread area in an extent of 21.37 Ha with a combined catchment of 1.42 sq.km and with the storage capacity of 5.18 Mcft. The tank was once irrigating an extent of 57.08 Ha and there are 216 encroachments in an extent of 3.17 Ha as identified by the survey department officials in the year of 2009. The tank has lost its irrigation potential long back due to the expansion of the city in course of time and now it is only a natural aquifer.

Greater Chennai Corporation has laid the road foreshore of the Narayanapuram Eri with the approval of the Government which may prevent further encroachment in the bund and in the water spread of the Eri. CMWSSB (Chennai Metropolitan Water Supply and Sewerage Board) is drawing water for domestic purposes from this Eri presently.

Narayanapuram tank is one of the tanks in Kovalam Basin, there are proposals for rehabilitation and restoration of all tanks in overall Kovalam basin (comes under Chengalpattu and Chennai District) under Comprehensive Flood Mitigation Project with an amount of Rs.2000 crore which also involves creating biodiversity parks/ tree-planting around the banks of the water body

protecting the lake against the future encroachment. Detailed Project Report has been sent to Government and after approval from the World Bank, the said project scheme will be executed.

#### **4. REPORT OF GREATER CHENNAI CORPORATION - ZONE 14 -NARAYANAPURAM LAKE**

Narayanapuram Eri is located at survey no.118 of Pallikaranai Revenue Village situated adjacent to Pallikaranai Marsh Land coming under Greater Chennai Corporation, Zone-14, Unit - 42, Division-188 and it is having a water spread area to an extent of 21.37 Ha

##### **Garbage Generation and Disposal Details in Division 188 :**

S. No	Division	Total Population	Total no of Households	No. of Garbage Bins	Approx wet waste Collected from households /day in Kg	Approx Plastic collecte d /day in Kg
1	188	73408	18352	130	6500	600

The segregated wet waste is composted on a daily basis at the Micro Composting Centre (MCC) located at the Pallikaranai old dumping ground on daily basis located in div 188, at Tambaram - Velachery main road.

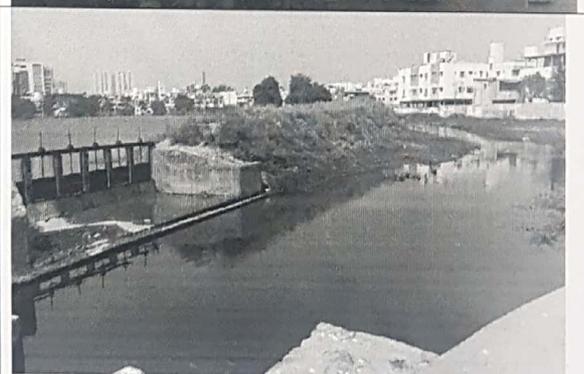
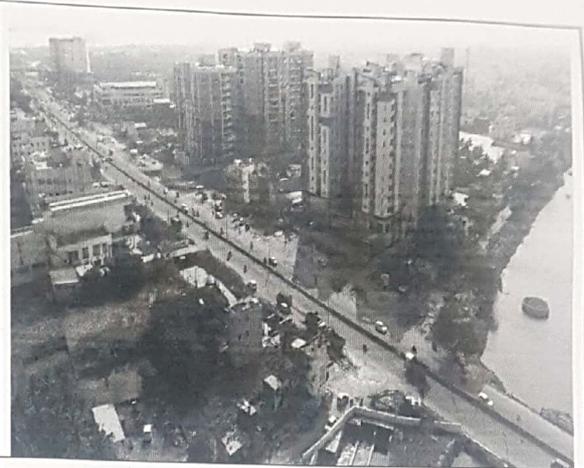
##### **Sewage Management Details:**

S.No	Name of Street	Total No of House holds	UGD Sewerage Connection given CMWSSB	Septic tank
1	West Anna Nagar Main Road	18	Nil	18
2	West Anna Nagar Main Road 1 <sup>st</sup> street	21		21
3	West Anna Nagar Main Road 2 <sup>nd</sup> street	4		4
4	West Anna Nagar Main Road 3 <sup>rd</sup> street	5		5
5	West Anna Nagar Main Road 4 <sup>th</sup> street	23		23
6	West Anna Nagar Main Road 5 <sup>th</sup> street	21		21
7	West Anna Nagar Main Road 6 <sup>th</sup> street	22		22
8	West Anna Nagar Main Road 7 <sup>th</sup> street	49		49
9	West Anna Nagar Main Road 8 <sup>th</sup> street	22		22
10	West Anna Nagar Main Road 9 <sup>th</sup> street	29		29
11	West Anna Nagar Main Road 10 <sup>th</sup> street	21		21
12	West Anna Nagar Main Road 11 <sup>th</sup> street	03		03
13	West Anna Nagar Main Road 12 <sup>th</sup> street	38		38

There is no Under Ground Sewerage system for the area in Div 188 of Zone - 14. The households and commercial establishment were provided with individual septic tank arrangements.

#### **5. JOINT INSPECTION OF THE COMMITTEE**

The members of the Joint committee have carried out the inspection in the area in question on 28/07/2020



Head reach of Cut and cover channel provided for the conveyance of the surplus water to the Pallikaranai Marsh Land

Surplus water from Narayanapuram Eri joining the surplus course

## 6. OBSERVATIONS BY THE COMMITTEE

During the time of inspection, the committee observed the following

1. Narayanapuram tank is a PWD tank. It has lost its irrigation potential long back due to agglomeration of Chennai City and its suburb over the period of time. Now, the tank serves mostly as a natural aquifer.
2. Narayanapuram tank is located at Survey No.118 of Pallikaranai Village, Sholinganallur Taluk in Chennai District.
3. It has a water spread area in an extent of 21.37 Ha and divided by the Pallavaram Thoraipakkam Radial Road into two parts namely Southern and Northern part.
4. It is bounded by Residences of Greater Chennai Corporation Zone 14 in the Southern side, western side and in the Eastern side. A part of Kovilambakkam Panchayat area is in the North – west side of the said tank.

5. The overflow of the Pallikaranai Anai Eri and Sunnamu Kolathur tank reaches Narayanapuram tank.
6. The surplus water of the Narayanapuram tank is disposed through cut & cover arrangements newly provided and also through Keelkatalai surplus course, finally confluence the Pallikaranai Marsh Land.
7. Encroachments were noticed on the western side of the water spread area of the Narayanapuram tank.
8. There is no Under Ground Sewerage system in the Corporation area (Div 188 of Zone – 14) in the upstream side of the Narayanapuram tank. Households and commercial establishments in the said area were provided with the septic tank arrangements. However sullage generated from the said area reaches the said water body. Similarly there is no underground sewerage system in the Kovilambakkam village Panchayat located in the north – western side of the water body. Sullage generated from the said area also reaches the above said water body.
9. There is no dumping of garbage / solid waste in the said water body.
10. PWD has completed the construction of retaining walls all along the surplus course of the water body and cut and cover channel from Narayanapuram Eri to Pallikaranai Marsh land. Further completed the construction of flood control regulator on both side of the water body i.e. southern and northern side of the water body to avoid flooding of the foreshore area of the said tank during the monsoon period.

## **7. RECOMMENDATIONS:**

**Based on the above observation, the Joint committee submits the following recommendation before the Hon'ble National Green Tribunal (Southern Zone)**

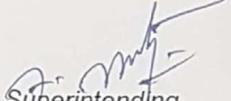
01. CMWSSB to provide and implement UGSS in the area in question, also take steps to intercept, transport, treat and dispose the sewage/sullage generated in the foreshore area of the Narayanapuram Eri within six months.
02. The Block development officer, St. Thomas Mount Panchayat Union shall prepare action plan to take steps to intercept, transport, treat and dispose the sewage/sullage generated from its local body area of Kovilambakkam village Panchayat reaching the water body and shall implement the same within six months.
03. The Greater Chennai Corporation & Block development officer, St. Thomas Mount Panchayat Union (Kovilambakkam Village Panchayat) shall arrange for the regular monitoring of the water body to avoid dumping of solid waste if any into the lake.
04. The Greater Chennai Corporation & Block development officer, St. Thomas Mount Panchayat Union (Kovilambakkam Village Panchayat) shall levy fine on the violators dumping solid waste and the CMWSSB shall take action against the disposing sewage/sullage into the Narayanapuram Lake under Local body Acts.
05. The Greater Chennai Corporation & Block development officer, St. Thomas Mount Panchayat Union (Kovilambakkam Village Panchayat) shall create awareness among the public with the help of associations in the local body area for proper segregation of solid waste.

06. PWD with the help of Revenue Authorities shall make survey to identify encroachments in the Narayanapuram Lake within six months and to take necessary steps to evict them.
07. PWD shall strengthen of the bunds in the said water body and create biodiversity parks/ tree-planting around the banks of the water body, so as to protect the lake against the future encroachment within six months by obtaining necessary funds from the Government.
08. The Committee should review the above recommendations at very 3 months.

  
District Environmental  
Engineer, Tamil Nadu  
Pollution Control  
Board, Maraimalai  
Nagar

  
Superintending Engineer  
O/o Regional Deputy  
Commissioner (south)  
Greater Chennai  
Corporation

  
Revenue  
Divisional  
Officer (South),  
Guindy

  
Superintending  
Engineer of Public  
Works Department and  
Water Resources  
Organisation