

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTH ZONE CHENNAI

Original Application No. 33 of 2020 (SZ)



Tribunal on its own motion SUO MOTU
Based on the News Item in Dinamalar Chennai
Newspaper dated 10.02.2020,
"Stagnation of Drainage Water in Velachery,
Veerangal Canal –people suffer from Respiratory Problem".
..... Petitioner

Versus

1. The District Collector,
Chennai District and Others.

.... Respondents

**Counter Affidavit submitted to Hon'ble National Green Tribunal Southern Zones
Chennai in respect to the order on Original Application No. 33 of 2020 (SZ) in the
matter of "Stagnation of Drainage Water in Velachery, Veerangal Canal –people
suffer from Respiratory Problem"**

I, Er. A.Muthiaya S/o. L.Asokan, aged 54 working as the Superintending Engineer, Palar Basin Circle, Chepauk, Chennai filing Counter Affidavit on behalf of the Respondent and myself. I submit the following action taken based on the Orders of National Green Tribunal Southern Zones Chennai in the O.A No. 33 of 2020.

1. It is submitted that in pursuit of the Hon'ble National Green Tribunal (SZ) order on the said subject, a joint committee was formulated with the Commissioner, Chennai Corporation as Nodal Officer and District Collector, Chennai District, District Environmental Engineer TNPCB, Superintending Engineer, P.W.D., W.R.D., Palar Basin Circle and CMWSSB Officials as members. The nominated representatives of the Joint Inspection committee have inspected the Velachery Tank and its abutting area on 17.07.2020 for assessing the on field condition and to file the report to Hon'ble National

Assistant Engineer, WRD,
Palar Basin Circle, WRD,
Chepauk, Chennai - 600 002

Assistant Engineer, WRD,
Irrigation Section,
Padappai

1

Superintending Engineer, PWF
PALAR BASIN CIRCLE, WRD
Chepauk, Chennai - 600 002

Green Tribunal (South Zone). The details of the joint committee inspection are submitted below,

2. It is submitted that the Velachery Tank in Velachery, Zone X of Chennai Corporation Limit is located at South-west to the Gundy National Park. It receives runoff from its free catchment area of 3.89Sq.km mainly comprise of Gundy National Park and some urban residential area in the northern and western sides of tank. The Velachery Tank was having original extent of 107.48Ha, which has diminished to 22.40 Ha due to allotment of tank area for various Government agencies as given below,

Tamilnadu Housing Board	:	21.44.81 Ha
Tamilnadu Slum Clearance Board (approved)	:	56.39.60 Ha
Tamilnadu Slum Clearance Board (unapproved)	:	3.17.27 Ha
Highways Department	:	0.04.06 Ha

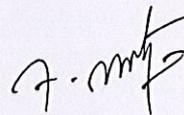
3. After the above said alienation of lands to TNHB and TNSCB the Tank's Hydraulic standards were revised as per the Honorable Madras High Court Order. A new regulator with surplus course was constructed for the following revised Hydraulic standards,

Full Tank Level (FTL)	:	(+) 6.550m
Maximum Water Level (MWL)	:	(+) 6.970m
Crest of the Surplus regulator	:	(+) 5.950m
Length of tank bund & lined channel	:	2420m & 1970m
Designed discharge of drain	:	655 Cusecs
Maximum Discharge -Velachery regulator	:	445 Cusecs

Due to reduced extent of Tank area by allotment of water spread area to housing projects and subsequent revision of Full Tank Level has reduced the storage capacity of the tank to about oneforth of its original capacity of 19.24 Mcft.



Assistant Engineer, WRD,
Irrigation Section,
Padappai



Superintending Engineer, PWD.,
PALAR BASIN CIRCLE, WRD.,
Chepauk, Chennai - 600 005.

4. It is submitted that on the specific issue of Pollution to the lake by the way of letting untreated Sewage / Sullage into the Velachery Tank, the Joint Committee has inspected the following pollution points and the observations made are given below,

A. Storm Drain near Velachery Bye-pass:

The storm Drain located at North Eastern part of Velachery Tank draining from North to South is constructed as Storm Water carrier for the local urban catchment of Ganapathy Nagar. But due to unauthorized letting of Sewage / Sullage into this Storm Drain, it is bringing in pollution load to the Velachery Tank. The Revenue Divisional Officer, Mambalam – Guindy have observed that the unauthorized Sewage / Sullage letting in should be immediately stopped and floating debris coming should be checked and also removed regularly.

The Area Engineer, Chennai Metropolitan Water Supply and Sewage Board (CMWSSB) has reported that they have prepared a Detailed Project Report (DPR) for intercepting these drain and pump the sewage to the existing Pump Station then treat with the existing STP facility. The average quantum of Sewage / Sullage flow in this channel is about 2 MLD as reported by Executive Engineer, Chennai Metropolitan Water Supply and Sewage Board.

B. Rajbhavan Drain:

This Drain is the major natural catchment drain brings rain water from the Forest area of Guindy Park / Rajbhavan area. While traversing through the urban area this drain is being polluted and bring in Sewage / Sullage flow from the adjacent residential colonies to the Tank.

C. Bhaveshwari Nagar / Kakkan Nagar Drain:

This is originally urban storm drain constructed for draining the storm water from the Kakkan Nagar and Bhaveshwari Nagar (Which is an encroachment area of Velachery Tank). The average quantum of Sewage / Sullage flow in this channel is about 1 MLD as

Assistant Engineer, WRD,
Irrigation Section,
Padappai

reported by Area Engineer, CMWSSB. On inspecting the site all members felt that removal of the debris at spot should be taken up as top priority by Greater Chennai Corporation Officials. It is also observed that necessary Trash Track / Trash Boom is installed by Greater Chennai Corporation but the local residences have deposited debris in and around Channel exit. This exit should be cleared immediately and periodic cleaning should be ensured by

D. Kakkan Bridge Drain:

This drain is located at Western end of the Velachery Tank and passing below Kakkan Bridge in Adambakkam – Guindy Road. This is second major original catchment drain from the Alandur side catchment area which is now fully urbanized. This drain also brings in Sewage / Sullage in the Tank causing severe pollution and growth of water hyacinth. The average quantum of Sewage / Sullage flow in this channel is about 3 MLD as reported by Area Engineer, CMWSSB.

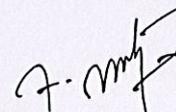
After inspection of these points, the tail end of the Velachery Drain at L.S 1950m was inspected by the Team. The Velachery Drain constructed by W.R.D., P.W.D. for disposing the surplus flood water to Pallikaranai Swamp. At present it is carrying Sewage / Sullage due to the pollution load let into the Velachery Tank as well as unauthorized letting of sewage from the commercial Establishments located along the right side of the Drain.

As this drain confluence with Pallikaranai Swamp the bed levels are very much closed to the Mean Sea Level (M.S.L), hence the flow in this channel should be based on the head difference between the Maximum Flood Level (M.F.L) of the drain and the Maximum Flood Level (M.F.L) of the Pallikaranai Swamp. Hence, letting of Sewage / Sullage in this channel will naturally leads to stagnation of sewage during dry weather season and resulting foul smell and also mosquito menace.

5. It is submitted that the Samples were collected by the Tamil Nadu Pollution Control Board on 17/07/2020 at the following locations:


Assistant Engineer, WRD,
Irrigation Section,
Padappa

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Superintending Engineer, PWD.,
PALAR BASIN CIRCLE, WRD.,
Chepauk, Chennai - 600 005.

1. At the inlets of storm water drain at Maruthupandiar salai, Velachery – 2 No (opp to Sree gupta bhavan, near JM Jumma Masjid) ,
2. At the inlets of storm water drain at Dr Ambedkar Nagar, Adambakkam – 1 No
3. At the inlets of storm water drain near Kakkan bridge, Adambakkam – 1 No
4. At the Velachery lake

The report of analysis is tabulated below:

Parameter		Point of collection				
		Storm water inlet into Velachery lake				At Velachery Lake
		At Marudhupandiar Salai (opp to shree gupta bhavan)	At Marudhupandiar Salai (near JM Hawa Jumma Masjid)	At Dr.Ambekar Nagar, Adambakkam	At Kakkan bridge, Adambakkam	
pH	Number	5.7	7.39	7.41	7.53	7.67
TSS	mg/L	444	8	62	72	60
TDS	mg/L	1900	880	632	932	644
Chlorides	mg/L	640	355	305	195	330
Sulphate	mg/L	331	46	58	30	53
Oil & Grease	mg/L	<2	<2	<2	<2	<2
BOD	mg/L	118	11	24	29	17
COD	mg/L	1200	72	184	200	216
Calcium	mg/L	470	230	430	740	550
Faecal Coliform	MPN/100mg/L	68	270	120	2400	110
DO	mg/L	NIL	NIL	NIL	NIL	NIL

6. It is submitted that the report of analysis reveals that the samples collected at the storm water inlets into Velachery lake and at the Velachery lake contain faecal coliform which shows that the same is contaminated with sewage.
7. It is submitted that in the light of above said observations of the joint committee inspection of the said pollution spots, the following decisions are made for immediate action and long term remedies.

A. Immediate action for pollution abatement:

- i. The Chennai Metropolitan Water Supply and Sewage Board (CMWSSB) to take up immediate action to check the unauthorized entry of Sewage / Sullage from various points of the above said drain at foreshore of the Velachery Tank and also in the Velachery Drain running along the Bye-pass.

Superintending Engineer, PWD,
PALAR BASIN CIRCLE, WRD,
Chennai - 600 008.

Assistant Engineer, WRD,
Irrigation Section.

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Superintending Engineer, PWD,
PALAR BASIN CIRCLE, WRD,
Chennai - 600 008.

- ii. The Area Engineer, CMWSSB explained that the Board is having proposal to intercept the sewage flow at all these storm drains by construction of Weeping Weirs and pump the sewage from that point to the existing Sewage Treatment facilities located in the foreshore area of the Tank. This immediate action will reduce the pollution load in the Tank and in turn to pollution abatement to the downstream Velachery Drain.
- iii. The Kakkan Drain which is also bringing Sewage / Sullage to Velachery Tank should be addressed by the Area Engineer, CMWSSB, Zone 13, Alandur. The Area Engineer, CMWSSB, Zone 11, Velachery will ensure the coordination for implementation.
- iv. The Greater Chennai Corporation Official consented to install Trash Track / Trash Broom to avoid entry of floating debris into Tank and Channel. It is also decided to ensure periodic cleaning of this exist points and the water front area.
- v. The Water Resources Department, (P.W.D) and Revenue Department to take action for speeding completion of the enumeration, obtaining alternative housing allotment from Tamil Nadu Slum Clearance Board (TNSCB) for ensuring eviction of encroachments.

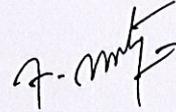
B. Long Term Remedial Measures:

I. Water Resources Department (P.W.D.,)

- i. The W.R.D along with Revenue Department had surveyed and identified about 1100 encroachments in the Velachery Tank area. In order to revive the Tank eco-system, the encroachment will have to be evicted after lifting of COVID - 19 lock down period.
- ii. Strengthening of Tank Bund along the western side of 100' Feet Road.
- iii. Desilting of Tank Bed to improve the storage capacity.
- iv. Providing Foot path on along Tank, Boat facility, Greenery and Children Park to add recreational value of the Tank.


Assistant Engineer, WRD,
Irrigation Section,
Pedappai

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Superintending Engineer, PWD.,
PALAR BASIN CIRCLE, WRD.,
Chepauk, Chennai - 600 005.

- v. Providing Retaining Wall on rear side of Tank and Grill fencing in the foreshore of Tank to prevent the dumping of waste & garbage in the Water Spread Area.
- vi. Providing R.O Plant, Bore Well, Power Room, Sanitary arrangements and Entrance Arch.

II. Chennai Metropolitan Water Supply and Sewage Board (CMWSSB)

The CMWSSB has proposed to prevent the sewage out flow into Velachery Lake by Plugging of Sewage outfalls into Velachery lake by providing gravity sewer at Kakkan Nagar Main road, Bavani Nagar, Raj Bhavan Canal and Gupta Bhavan in Depot 177 in the Area XIII. (any modification and updation shall be made by Area Engineer, CMWSSB, Velachery)

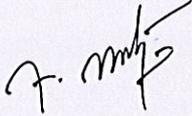
III. Greater Chennai Corporation (GCC)

The joint inspection was concluded with a resolve to take up the immediate action for pollution abatement and eviction of encroachment immediately after lifting of lock down for COVID – 19.

8. It is submitted that the joint committee report is circulated to all Line Departments through e-mail. Now the report undersigned is submitted for kind presual. It is submitted that as per the findings and recommendations of joint committee “Comprehensive Ecological Restoration and Rehabilitation Projects for Velachery Tank” is proposed to be taken up to attain the ultimate goal of preventing stagnation of drainage water in Velachery and Veerangal Channel and Rehabilitation to the Tank. Also, the CMWSSB has proposed long term and short term measurement to prevent sewage entry into the Velachery Tank.

Underlying the above submission, it is humbly requested the Hon'ble National Green Tribunal (SZ) to pass appropriate order as deemed fit.


Assistant Engineer, WRD,
Irrigation Section


Superintending Engineer, PWD.,
PALAR BASIN CIRCLE, WRD.,
Chepauk, Chennai - 600 005.