

BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH

ORIGINAL APPLICATION NUMBER 1219 /2024

IN THE MATTER OF

**News Item Titled “KSPCB directs BBMP to redirect sewage flow in
Kodichikkanahalli” appearing in The Hindu dated 18.09.2024**

AFFIDAVIT ON BEHALF OF KARNATAKA STATE

POLLUTION CONTROL BOARD

PAPERBOOK

[PLEASE SEE INSIDE FOR INDEX]



DEVRAJ ASHOK

COUNSEL FOR KARNATAKA STATE POLLUTION CONTROL BOARD

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PLACE: BENGALURU

DATE:



THROUGH COUNSEL

DEVRAJ ASHOK
PH: 8050637442

BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH

ORIGINAL APPLICATION NUMBER 1219 /2024

IN THE MATTER OF

News Item Titled “KSPCB directs BBMP to redirect sewage flow in Kodichikkanahalli” appearing in The Hindu dated 18.09.2024

**AFFIDAVIT ON BEHALF OF THE KARNATAKA STATE POLLUTION
CONTROL BOARD**

I, Shri. Manjappa C.N, son of Late Sri. Nanjappa Naik. S, aged about 51 years, presently working as Senior Environmental Officer, Karnataka State Pollution Control Board (the “KSPCB”), Parisara Bhavan, Bangalore do hereby solemnly affirm and state that I am duly authorized and competent to depose the present affidavit, on behalf of the KSPCB. I am familiar with the facts and circumstances pertaining to the present matter, based on the official documents/records of the Karnataka State Pollution Control Board and also in my official capacity and depose as set forth below:

1. It is respectfully submitted that the present proceedings have been initiated *suo moto* by this Hon’ble Tribunal based on the news article referred to in the cause title herein above. Further to the order dated 04.10.2024, passed in these



Manjappa
Senior Environmental Officer
Karnataka State Pollution Control Board
Bangaluru - 560 001.

proceedings, KSPCB has taken additional steps to address the situation. Details of the subject matter of these proceedings and the additional steps undertaken by the KSPCB are set forth below.

2. KSPCB had received a verbal complaint regarding sewage flowing into the stormwater drain attached to No.96, Vakil Marina, Kodichikkananhalli, near Madiwala Lake, Opposite Janapriya apartments, BTM Layout, Bangalore 560008, through the KSPCB Complaint and Enforcement Cell. Consequently, the subject-matter site was inspected by the KSPCB on 06.09.2024. It was observed that there was a flow of sewage from upstream, i.e., from JP Nagar area side, into the subject matter stormwater drain (the "SWD"), and it was the source of foul smell in the area. The residents of Vakil Marina informed KSPCB that their layout project spans about 4.2 acres, it was noted that the same is not under the consent mechanism of the KSPCB. Accordingly, the Regional Office, KSPCB, issued a notice to the Executive Engineer of Bruhat Bengaluru Mahanagara Palike (BBMP), Bommanahalli Division, on 09.09.2024, directing them to divert the sewage flowing into the SWD to the Bangalore Water Supply and Sewerage Board (BWSSB) underground drainage network (the "UGD") and report compliance to the KSPCB. A copy of the notice of the KSPCB, issued to the BBMP dated 09.09.2024, is annexed herewith as **ANNEXURE R1**.

3. Subsequently, as per the order dated 04.10.2024 of this Hon'ble Tribunal in the present proceedings and based on the initiative of the Regional Director,



Udayappa
Senior Environmental Officer
Karnataka State Pollution Control Board
Bangaluru - 560 001.

CPCB, the CPCB team jointly inspected the site with the KSPCB on 19.11.2024. During this visit, there was no representation from the BBMP, despite prior intimation to them by CPCB about the joint site inspection. It may be noted that the SWD and its maintenance fall within the jurisdiction of the BBMP.

4. After the site inspection on 19.11.2024, the CPCB addressed a letter to the KSPCB on 27.11.2024, requesting the KSPCB to issue directions under Section 33A of the Water (Prevention and Control of Pollution), Act 1974 (the “**Water Act**”) to the BWSSB and the BBMP, to take necessary steps to prevent the flow of sewage water into the SWD, which included the following steps:

- (i) intersection and diversion of sewage water entering the SWD, to the nearby UGD connected with the STP;
- (ii) undertaking of cleaning of the SWD at least once every quarter during the lean flow period to maintain optimal functioning of the storm water drain and reduce any incidence of foul smell or any other such issue;
- (iii) restoration of the natural drain by plugging any source of sewage water that could enter the SWD; and
- (iv) submission of an action plan covering the above aspects and for compliance in a time-bound manner, together with submission of periodic action taken reports to the KSPCB.



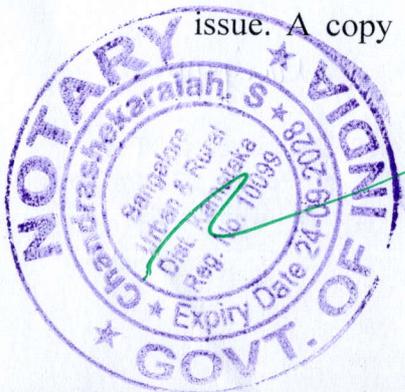
Waijappa

Senior Environmental Officer
Karnataka State Pollution Control Board
Bengaluru - 560 001.

A copy of the letter of the CPCB to the KSPCB dated 27.11.2024 is annexed herewith as **ANNEXURE R2**.

5. Subsequently, the KSPCB issued necessary directions to the Commissioner, BBMP and the Chairman BWSSB under Section 33A of the Water Act, on 30.05.2025. A copy of the directions dated 30.05.2025, issued to the BWSSB and the BBMP, by the KSPCB, under Section 33A of the Water Act, is annexed herewith as **ANNEXURE R3**. The directions of the KSPCB of 30.05.2025, to the BWSSB and the BBMP, also capture certain legacy issues and other details about the subject-matter site and the same may be read herein as part and parcel of the present affidavit.

6. In response to the directions issued to the BWSSB and the BBMP under Section 33A of the Water Act, the BBMP addressed a letter to the KSPCB, dated 19.07.2025 (received by the KSPCB on 25.07.2025), stating that the BBMP has removed silt from the SWD and also required the BWSSB to stem the flow of sewage water into the SWD. KSPCB also inspected the subject-matter site on 25.07.2025, it is noticed that the BWSSB has not complied with the directions of the KSPCB. However, BWSSB has also replied to the KSPCB on 11.08.2025. Since the reply given by the BWSSB is not satisfactory, KSPCB has decided to call for a personal hearing of both BBMP and BWSSB in order to resolve the issue. A copy of the letter of the BBMP to the KSPCB, dated 19.07.2025, is



Chandrasekhariah S. Vidya
Senior Environmental Officer
Karnataka State Pollution Control Board
Bengaluru - 560 001.

annexed herewith as **ANNEXURE R4**. A copy of the letter of the BWSSB to the KSPCB, dated 11.08.2025, is annexed herewith as **ANNEXURE R5**.

7. In view of the above, the KSPCB will be initiating further steps i.e., to hold a personal hearing with the BBMP and the BWSSB, to address the situation, subject to any specific directions of this Hon'ble Tribunal in the pending proceedings, upon due consideration of the developments until now.

8. It is respectfully submitted that the KSPCB will be obliged to provide any additional information or take any other steps as may be directed by this Hon'ble Tribunal.

Manjappa
DEPONENT
Senior Environmental Officer
Karnataka State Pollution Control Board
Bengaluru - 560 001.

VERIFICATION

Verified on this 29th day of August 2025, at Bengaluru, that the contents of the above affidavit are true and correct to the best of my knowledge, information and belief and nothing material is concealed therefrom.



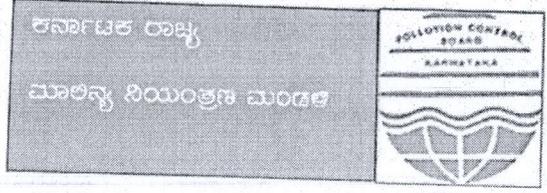
Manjappa
DEPONENT
Senior Environmental Officer
Karnataka State Pollution Control Board
Bengaluru - 560 001.

SWORN TO BEFORE ME
29/8/2025
CHANDRASHEKARIAH, S
Advocate & Notary
No. 917, Kempegowda Nilaya
3rd Cross, Muthurajawasy Extension
Sunkadakatta, Bangalore-560091

Book... 5 Page 28
Req. No. 597 Date 29/8/2025

Office of the Regional Officer
Karnataka State Pollution Control Board
Bengaluru Bommanahalli
"NISARGA BHAVAN" 2nd Floor
Thimmaiah Road, 7th 'D' Main, Shivanagar,
Opp. Pushpanjali Theatre, Bengaluru -560 010
Phone : (O) 080 -23221552

ಪ್ರಾದೇಶಿಕ ಅಧಿಕಾರಿಯವರ ಕಛೇರಿ
ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ
ಬೆಂಗಳೂರು ಬೊಮ್ಮನಹಳ್ಳಿ
"ನಿಸರ್ಗ ಭವನ", ೭ನೇ ಅಂತಸ್ತು, ತಿಮ್ಮಯ್ಯ ರಸ್ತೆ,
೭ನೇ 'ಡಿ' ಮುಖ್ಯ ರಸ್ತೆ, ಶಿವನಗರ
ಪುಷ್ಪಾಂಜಲಿ ಥಿಯೇಟರ್‌ನ ಎದುರು, ಬೆಂಗಳೂರು
ದೂರವಾಣಿ: ೦೮೦- ೨೩೨೨೧೫೫೨



No. KSPCB/RO-BOM/EO/DEO/Notice/2024-25/ ೪೭೨

towards a cleaner Karnataka

Dated:

9 SEP 2024

To

DESPATCHED

The Executive Engineer
Storm Water Division,
BBMP- Bommanahalli Division
Jayanagara Complex, 4th Block,
9th Floor, Bangalore - 560011.

Sir,

Sub: Complaint on sewage flowing in storm water drain attached to 96, Vakil Marina, Kodichikkanahalli, Near Madiwala Lake, Opposite Janapriya apartments, BTM Layout, Bangalore- 560008 - reg

- Ref: 1. Compliant filed at Board office through whatsapp & the same is received by this office dated:04.09.2024.
2. Inspection of the complaint site by the officer of this office on 06.09.2024.

&&&&&&&&&

With reference to above subject, the Board has received oral complaint regarding sewage flowing in storm water drain attached to 96, Vakil Marina, Kodichikkanahalli, Near Madiwala Lake, Opposite Janapriya apartments, BTM Layout, Bangalore 560008 through Compliant & Enforcement Cell (Photos given through whatsapp enclosed for your kind reference). The said compliant was inspected by officer of this office and observed that, there is sewage flow which is flowing from upstream of JP Nagar side and causing smell nuisance.

Hence, you are required to take action to divert the sewage in to BWSSB UGD in concurrence with BWSSB department, in order to avoid flow of sewage in storm water drain. Since the complaint is coming under purview of BBMP and same is herewith forwarded and requested to initiate action to solve the problem and action taken report may be submitted to this office immediately for records.

Yours faithfully

Sd/-

Environmental Officer
Bengaluru-Bommanahalli

Copy to: The Senior Environmental officer Enforcement cell & Complaint, KSPCB, for kind Information.

Ashok Kumar S.R
Environmental Officer
Bengaluru-Bommanahalli



51

ANNEXURE - R2

केन्द्रीय प्रदूषण नियंत्रण बोर्ड

CENTRAL POLLUTION CONTROL BOARD

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT OF INDIAHON'BLE NGT MATTER
ON PRIORITYSPEED POST/E-mailE.No. CM-13011/268/2024 LAW-HO-CPCB-HO
5527th November, 2024

To

The Member Secretary
Karnataka State Pollution Control Board
No. 49, Parisara Bhavana, Church Street
MG Road, Bengaluru - 560001

Sub: Action to be initiated in connection with the NGT case Original Application No. 1219/2024 in which Hon'ble Tribunal on it's Suo motu action registered based on the news item titled "KPSCB directs BBMP to redirect sewage flow in Kodichikkanahalli" appeared in The Hindu dated 18.09.2024

Ref: Joint visit of CPCB and Regional Office, Bommanahalli to the Vakil Marina Layout on 19th November, 2024

Sir,

With reference to the above subject, joint visit was made by the officials of CPCB, Regional Directorate, Bengaluru and Regional Office, Bommanahalli, KSPCB on 19th November, 2024 to assess the ground reality and for ensuring compliance to Hon'ble NGT (PB) order dated 4.10.2024 in OA No. 1219/2024. However, no representative nor nominated official from Bruhat Bengaluru Mahanagara Palike (BBMP) was associated during the joint visit in spite of prior intimation. The photographs taken during the joint visit is annexed as **Annexure-I**. During the joint visit, following observations were made:

- There is one Storm Water Drain (SWD) passing behind the complainant house located in the Vakil Marina Layout which is having a width of approximately around 15 -20 m and depth may be 5 to 10 m.
- The SWD and layout was separated by a returning wall on both the sides to avoid entry of sewage into the said layout and Madiwala lake
- The SWD is completely used for carrying sewage generated from the areas located in the upstream, which is having missing links, leakage of sewage pipe etc. in order to protect the Madiwala lake from entry of untreated sewage.

As per information provided by the local residents, the drain was constructed in the year 1998-1999 and whereas the layout was constructed in 2001. Over the years, size of the SWD is increased to discharge generated sewage.

It is also learnt that, while issuing NOC and clearance applicability of buffer zone was not considered by the concerned authorities.

Contd...2 -

3588
28/11/24DEO for 7/9
28/11/24

क्षेत्रीय निदेशालय (बेंगलूरु) : निर्मल भवन, ए-ब्लॉक, प्रथम एवं द्वितीय तल, तिममाया रोड, 7-डी मैन, शिवनगर, बेंगलूरु - 560 032.

Regional Directorate (Bengaluru) : Nisarga Bhawan, A Block, 1st & 2nd Floors, Timmahah Road, 7th D, Main Shivnagar, Bengaluru - 560 079

दूरभाष / Telephone : 080-23233739, 23233627, 23222539, Fax : 080-23234059

ई-मेल / E mail : zobangalore.cpcb@nic.in

प्रधान कार्यालय : परिवेश भवन, पूर्वी अजंन नगर, दिल्ली- 110 032.

Head Office : Parivesh Bhawan, East Anjan Nagar, Delhi - 110 032

दूरभाष / Telephone : 011-43102030 Fax : 22305793, 22307078, 22307079, 22304932, 22304949

ई-मेल : E mail : cpcb@nic.in वेबसाइट : www.cpcb.nic.in

- As per the residents, the drain has not been cleaned for more than 20 years, de silting has not been done. This is one of the reason for stinking smell and snakes entering into the houses during heavy rains
- It was also confirmed from the local residents that, the domestic sewage generated from Vakil Marina layout is well connected to the existing Under-Ground Drainage (UGD) network through which the sewage is pumped to the Sewage Treatment Plant (STP) located in the downstream.
- Only storm water run-off from the layout is pumped into the SWD during the monsoon as the layout submerges during the monsoon period as it is located lower level than the SWD.
- In Bengaluru, the BBMP and Revenue Department are the responsible authorities for issuance of 'No Objection Certificate' and other requisite Clearances for construction of a building and layout.
- It is the responsibility of the Bengaluru Water Supply and Sewerage Board (BWSSB) for ensuring 100% UGD network for collection and treatment of domestic sewerage generated.

In view of above, it is requested to issue directions under section 33A of The Water (Prevention and Control of Pollution) Act, 1974 to the BWSSB and BBMP directing to take appropriate steps which includes (i) for interception and diverting the sewerage entering into the storm water drain (SWD) to nearby UGD connected with STP, so that the SWD can be kept for the purpose it was constructed.; (ii) To take up the cleaning activities of SWD at least once in a quarter preferably during the lean flow period in order to avoid emanating stinking odour and poisonous snakes entering into the houses located near to the drain; (iii) To restore natural drain by plugging sewage entering sources and for ensuring carrying storm water only; (iv) for submission of an action plan covering the above aspects and for compliance in a time bound manner and for submission of ATR periodically to Karnataka SPCB.

It is also requested to arrange to send action taken report on the above at an early date to this Regional Directorate, CPCB, Bengaluru to enable to apprise Hon'ble NGT in the next hearing on the matter.

Yours faithfully

(J. Chandra Babu)
Regional Director
Jcb.epcb@nic.in

Encl: As above

Contd...3/-

Copy to:

- ✓ 1. The Regional Officer- Bommanahalli
Karnataka State Pollution Control Board
2nd Floor, Nisarga Bhavan, Bengaluru : For kind information and to associate
for joint inspection on the said date, pl
2. The Divisional Head- WQM-I, CPCB,
Delhi : For kind information, pl

H. Chandra Babu
21/12/23
(J. Chandra Babu)

ಹೆಲ್ಪ್ ಲೈನ್ / Helpline : 080-25582559

ಈಮೇಲ್ / Email : contact@kspcb.gov.in

ವೆಬ್‌ಸೈಟ್ / Website : kspcb.karnataka.gov.in

080-25581383, 25589112
080-25589113, 25589114

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ Karnataka State Pollution Control Board

“ಪರಿಸರ ಭವನ”, 1 ರಿಂದ 5ನೇ ಮಹಡಿಗಳು, ನಂ. 49, ಚರ್ಚ್ ಸ್ಟ್ರೀಟ್, ಬೆಂಗಳೂರು - 560 001, ಕರ್ನಾಟಕ ರಾಜ್ಯ, ಭಾರತ
“Parisara Bhavan”, 1st to 5th Floor, # 49, Church Street, Bangalore - 560 001, Karnataka State, India

No. PCB/11/INFRA/NGT O.A. 1219/2025/ 876

DATE: 30 MAY 2025

Directions Under Section 33(A) of Water (Prevention & Control of Pollution) Act, 1974 read with Rule 34 of Karnataka State Board for Prevention and Control of Water Pollution (Procedure for Transaction of Business) and Water (Prevention & Control of Pollution) Rules, 1976:

ರವಾನಿಸಲಾಗಿದೆ

Sub: - Non-compliance to the provisions of Water (Prevention & Control of Pollution) Act, 1974 by Bruhath Bengaluru Mahanagara Palike (BBMP) and Bengaluru Water Supply and Sewerage Board - reg

Ref:

- 1) News item appeared in The Hindu dated 18.09.2024
- 2) Hon'ble NGT, Principal Bench, New Delhi Suo Motu O.A No.1219/2024 and its order dated 04.10.2024
- 3) Central Pollution Control Board letter No. 520 Dated 14.09.2024
- 4) Joint inspection made on 19.11.2024 and CPCB letter No.551 Dated 27.11.2024
- 5) Regional Officer, KSPCB, Regional office-Bommanahalli letter to BBMP vide No. 872 Dated 9.9.2024
- 6) Regional Officer, KSPCB, Regional office-Bommanahalli e-mail dated 28.11.2024

Preamble:

The Hon'ble National Green Tribunal Principal Bench New Delhi has registered Original Application bearing No. 1219/2024 on Suo motu basis based on news item titled “KSPCB directs BBMP to redirect sewage flow in Kodichikkanahalli” appeared in The Hindu dated 18.09.2024. The matter relates to the discharge of sewage into a storm water drain (SWD) attached to Vakil Marina a housing society in Kodichikkanahalli, near Madiwala Lake, opposite to Janapriya Apartments, BTM Layout, Bengaluru. The news also highlighted that the residents have reported unbearable stench and issues of snakes, insects and termites due to sewage flowing through storm water drain attached to the layout area. It is also alleged that the sewage flow has been contaminating local water bodies and creating unhygienic conditions, posing risks to public health and the environment. In this regard, the

Environmental Officer of the Board, Regional Office-Bommanahalli addressed a notice to the Executive Engineer-BBMP (Storm water division) thereby informed to take immediate action to redirect the sewage into UGD of BWSSB. As per the said news item, the Madiwala Lake has been declared a biodiversity hotspot and a bird conservation reserve. An amount of Rs.5 crores has been sanctioned by the Government for ecological development around the Lake. Discharge of sewage into Lake hampers the biodiversity of the region severely. The Hon'ble NGT issued notices to Respondents and directed to submit reply by way of affidavit.

The Regional Director, Central Pollution Control Board, Bengaluru scheduled the joint inspection comprising officers of CPCB, KSPCB and BBMP and accordingly conducted the joint inspection 19.11.2024 and observed the following.

1. There is one storm water drain (SWD) passing behind the complainant house located in the Vakil Marina Layout which is having a width of 15-20 meters and depth may be around 5-10 meters.
2. The SWD and layout was separated by a retaining wall on both the sides to avoid entry of sewage into the said layout and Madiwala Lake.
3. The SWD is completely used for carrying sewage generated from the areas located in the upstream which is having mislinks. Leakage of sewage pipe etc., in order to protect Madiwala Lake from entry of untreated sewage.
4. As per the information provided by the local residents, the drain was constructed in the year 1998-99 and whereas the layout was constructed in 2001. Over the years size of the SWD is increased to discharge generated sewage.
5. As per the residents, the drain has not been cleaned for more than 20 years and desilting has not been done. Due to which stinking smell and snakes are entering into the houses during heavy rains.
6. It was also confirmed from the local residents that the domestic sewage generated from Vakil Marina layout is well connected to the existing Under-Ground Drainage (UGD) network through which the sewage is pumped to the Sewage Treatment Plant located in the downstream. Only the storm water run-off from the layout is pumped into the SWD during monsoon as the layout submerges during the monsoon period as it is located lower level than the SWD.
7. It is responsibility of the Bengaluru water Supply and Sewerage Board (BWSSB) for ensuring 100% UGD network for collection and treatment of domestic sewage generated.

With above observations, the Regional Director, Central Pollution Control Board, Bengaluru requested the State Pollution Control Board to issue directions under Section 33 A of Water (Prevention & Control of Pollution) Act, 1974 to BWSSB and BBMP thereby direct to take appropriate steps.

The Directions were given to the Commissioner BBMP, Bengaluru and to the Chairman, BWSSB, Bengaluru under Section 33(A) of Water (Prevention & Control of Pollution) Act, 1974 read with Rule 34 of Karnataka State Board for Prevention and Control of Water

Pollution (Procedure for Transaction of Business) and Water (Prevention & Control of Pollution) Rules, 1976 vide Board letter No. PCB 01 Infra NGT OA 111 2020/887 dated 10.5.2022 and PCB 01 Infra OA 111 2020/886 dated 10.5.2022 respectively. The following directions were given in the said letters.

BBMP:

1. BBMP through its Lakes Department shall make the flow measurements and monitoring water quality in order to maintain /restore water quality in Lakes/Tanks associated with River Thenpennai
2. BBMP, through its Lake department, shall maintain pristine water quality and provide analysis report of water quality monitored in the Lakes/Tanks flowing into River Thenpennai.

BWS&SB:

1. BWS&SB shall ensure continuous monitoring of all STPs for long term compliance as recommended in the report of IISc, Bengaluru. In case o all STPs not covered in the IISc report, BWS&SB shall evaluate the performance assessment in a time bound manner of 3 months interval.
2. BWS&SB shall assess the quality of sewage generated, gap analysis, sewage treated in entire Bengaluru and the sewage that remains untapped due to the absence of sewerage networking or other means
3. BWS&SB shall provide analysis reports of water quality at stipulated frequency as per Consent, monitored in all the inlet and outlet of STPs associated with River Thenpennai and provide underground sewerage system to cover the entire sewage in the catchment area of the River and bridge the treatment gap along with the treating this sewage effluents to standards stipulated in the Consent order at all times.

The RO-Bommanahalli collected the sample from the K&C valley (storm water drain) near the Vakil Marina Layout on 22.10.2024 and the analysis report the same reveals that the parameters viz., BOD (25 mg/l), Dissolved Oxygen (BDL), Total suspended solids (164 mg/l), Nitrate as Nitrogen (44 mg/l) and Fecal coliform (11,00,000 MPN/100 ml) indicates the sewage contamination.

In view of the above, considering the gravity of situation and in exercise of the powers conferred under Section 33(A) of Water (Prevention & Control of Pollution) Act, 1974, and Rule 34 of Water (Prevention & Control of Pollution) Rules,1976, the **Chairman, Karnataka State Pollution Control Board, Parisara Bhavana, No.49, Church Street, Bengaluru – 560 001** hereby directs you as follows

1. To take appropriate steps immediately for interception and diverting the sewage entering into the storm water drain (SWD) to nearby UGD system connected with STP so that the same can be used for the purpose for which it has been constructed.

2. To take up cleaning activities of SWD at least once in a quarter preferably during the lean flow period in order to avoid emanating of stinking odour and prevent snakes entering into the houses located near to the drain.
3. To restore natural drain by plugging sewage entering sources and for ensuring carrying of storm water only.
4. To submit action plan covering the above aspects and for compliance in a time bound manner and also to submit Action Taken Report to the Board within 7 days.

**FOR AND ON BEHALF OF THE
KARNATAKA STATE POLLUTION CONTROL BOARD
BENGALURU - 560001**

*Draft approved
by chairman*

sdh
**(P.M. NARENDRA SWAMY)
CHAIRMAN
KSPCB, BENGALURU**

To,

The Chief Commissioner,
Bruhath Bengaluru Mahanagara Palike (BBMP)
Bengaluru.

The Chairman
Bengaluru Water Supply & Sewerage Board
Bengaluru

Copy to:

1. The Regional Senior Environmental Officer, Zonal Office-Bengaluru South for information and further needful action
2. Regional Officer, Bommanahalli for further action and to follow up the above issues with the concerned departments for compliance.
3. Office copy

[Signature]
**SENIOR ENVIRONMENTAL OFFICER (Sk)
INFRASTRUCTURE & DEVELOPMENT**



ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

ಸಂಖ್ಯೆ:ಮು.ಅ/ಬೃನೀಗಾ/ಪಿಆರ್/25-26
489

ಮುಖ್ಯ ಅಭಿಯಂತರರ ಕಛೇರಿ
ಬೃಹತ್ ನೀರುಗಾಲುವೆ
9ನೇ ಮಹಡಿ, ಜಯನಗರ ವಾಣಿಜ್ಯ ಸಂಕೀರ್ಣ
ಜಯನಗರ 4ನೇ ಬ್ಲಾಕ್, ಬೆಂಗಳೂರು-560011
ದಿನಾಂಕ: 19/7/2025

ರವರಿಗೆ,

ಮಾನ್ಯ ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿಗಳು,
ಕರ್ನಾಟಕ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ,
ನಂ.49 ಪರಿಸರ ಭವನ, ಚರ್ಚ್ ಬೀದಿ,
ಬೆಂಗಳೂರು-560001

ಮಾನ್ಯರೇ,

ವಿಷಯ: Complaint on sewage flowing in storm water drain attached to 96, Vakil Marina Kodichikkanahalli, Near Madiwal Lake, Opposite Janapriya apartment, BTM Layout Bangalore-560008-reg

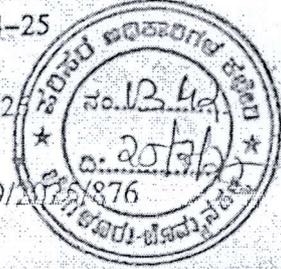
ಉಲ್ಲೇಖ: 1. ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ ರವರ ಪತ್ರ ಸಂಖ್ಯೆ:KSPCB/RO-

BOM/EO/DEO/Notice/2024-25872 ದಿನಾಂಕ:09-09-2024

2. ಈ ಕಛೇರಿ ಪತ್ರ ಸಂಖ್ಯೆ:ಕಾ.ಅ/ಬೃನೀಗಾ/ಬೋವ/ಪಿಆರ್/127/2024-25
ದಿ:23-09-2024

3. ಈ ಕಛೇರಿ ಪತ್ರ ಸಂಖ್ಯೆ:ಕಾ.ಅ/ಬೃನೀಗಾ/ಬೋವ/ಪಿಆರ್/138/2025-25
ದಿ:15-07-2025

4. ತಮ್ಮ ಕಛೇರಿ ಪತ್ರ ಸಂಖ್ಯೆ:PCB/11/INFRA/NGT/O.A.1219/2025-25
ದಿನಾಂಕ:30-05-2025



ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಉಲ್ಲೇಖಿತ ಪತ್ರ (1) ರಲ್ಲಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ ಪತ್ರದಲ್ಲಿ ವಕೀಲ ಮರೀನಾ ಕೋಡಿಚಿಕ್ಕನಹಳ್ಳಿ ಮಡಿವಾಳ ಸರೋವರದ ಹತ್ತಿರ ಜನಪ್ರಿಯ ಅಪಾರ್ಟ್‌ಮೆಂಟ್‌ಗಳ ಎದುರು, ಬಿಟಿಎಂ ಲೇಔಟ್, ಬೆಂಗಳೂರು ರವರು ಬೃಹತ್ ಮಳೆನೀರುಗಾಲುವೆಯಲ್ಲಿ ಒಳಚರಂಡಿ ನೀರು ಹರಿಯುವ ಕುರಿತು ಹಾಗೂ ಜಿ.ಪಿ.ನಗರದ ಕಡೆಯಿಂದ ಕೊಳಚೆ ನೀರು ಹರಿದು ದುರ್ವಾಸನೆ ಬರುತ್ತಿದೆ ಎಂಬ ದೂರಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಕೊಳಚೆ ನೀರನ್ನು BWSSB ಯ ಒಳಚರಂಡಿ ಕೊಳವೆಗೆ ಸೇರಿಸಲು ಕ್ರಮವಹಿಸಬೇಕಾಗಿ ತಿಳಿಸಿರುತ್ತಾರೆ.

ಅದರಂತೆ ದೂರಿನ ಸ್ಥಳವನ್ನು ಪರಿಶೀಲಿಸಿ, ಉಲ್ಲೇಖ (2) ರಲ್ಲಿ ಕಾರ್ಯವಾಲಕ ಅಭಿಯಂತರರು, ದಕ್ಷಿಣ-1 ವಿಭಾಗ, ಬಿ.ಡಬ್ಲ್ಯೂ.ಎಸ್.ಎಸ್.ಬಿ, ಕಛೇರಿಗೆ ಈ ಕಛೇರಿಯಿಂದ ಉಲ್ಲೇಖಿತ (2,3) ರಲ್ಲಿ ಪತ್ರ ಬರೆದು ಪ್ರಸ್ತಾಪಿತ ಸ್ಥಳದಲ್ಲಿ ಒಳಚರಂಡಿ ನೀರನ್ನು ಕೆರೆಗೆ ಮತ್ತು ಮಳೆನೀರುಗಾಲುವೆಗೆ ಬಿಡುವುದು ಅಪರಾಧವಾಗಿದ್ದು, ಬೆಂಗಳೂರು ನೀರು ಸರಬರಾಜು ಮತ್ತು ಒಳಚರಂಡಿ ಸಂಸ್ಥೆಯ ಅಧಿನಿಯಮ 1964 ಪರಿಚ್ಛೇದ 72ರಂತೆ ರಾಜಕಾಲುವೆಗಳಿಗೆ ತ್ಯಾಜ್ಯನೀರನ್ನು ಹರಿಸುವುದನ್ನು ನಿಷೇಧಿಸಲಾಗಿದ್ದು, ವಸತಿ/ವಾಣಿಜ್ಯ ಕಟ್ಟಡಗಳಿಂದ ಕಾಲುವೆಗೆ ನೇರವಾಗಿ ತ್ಯಾಜ್ಯ ನೀರನ್ನು ನೀರುಕಾಲುವೆಗೆ ಮತ್ತು ಜಲಮೂಲಗಳಿಗೆ ಹರಿದು ಬಿಡುತ್ತಿರುವವರ ವಿರುದ್ಧ ಸೂಕ್ತ ಕ್ರಮ ಕೈಗೊಂಡು ವರದಿಯನ್ನು ಸಲ್ಲಿಸಲು ತಿಳಿಸಲಾಗಿರುತ್ತದೆ. ಆದರೆ ಬಿ ಡಬ್ಲ್ಯೂ ಎಸ್ ಎಸ್ ಬಿ ಇಲಾಖೆಯವರು ದೂರಿನ ಬಗ್ಗೆ ಯಾವುದೇ ಕ್ರಮ ಕೈಗೊಳ್ಳದೆ ಇದ್ದುದರಿಂದ ಈ ಕಛೇರಿಯಿಂದ ಮತ್ತೊಮ್ಮೆ ಸದರಿ ರವರಿಗೆ ಉಲ್ಲೇಖ (3) ರಲ್ಲಿ ಪತ್ರ ಬರೆದು ದೂರಿನ ಬಗ್ಗೆ ಕೂಡಲೇ ಕ್ರಮ ವಹಿಸಿ ವರದಿ ನೀಡಬೇಕೆಂದು ಕೋರಲಾಗಿರುತ್ತದೆ.

ಮುಂದುವರೆದು, ಉಲ್ಲೇಖ (4) ರಲ್ಲಿ ಶಾವು ಮಾನ್ಯ ಆಯುಕ್ತರು, ಬಿಬಿಎಂಪಿ ರವರಿಗೆ ಪತ್ರ ಬರೆದು ದೂರಿಸಿ ಬಗ್ಗೆ ಈಗಾಗಲೇ ಮಾನ್ಯ ಹಸಿರು ನ್ಯಾಯಾಧೀಕರಣದಲ್ಲಿ O.A No. 1219/2024 ರಲ್ಲಿ ದಾವೆ ದಾಖಲಾಗಿ ಈ ದಾವೆಯ ವಿಚಾರಣೆಯಲ್ಲಿರುವುದು ಎಂದು ತಿಳಿಸಿ ಈ ದಾವೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಬಿಬಿಎಂಪಿ ವತಿಯಿಂದ ಕೈಗೊಂಡ ಕ್ರಮಗಳ ಬಗ್ಗೆ ವರದಿ ನೀಡುವಂತೆ ಸೂಚಿಸಲಾಗಿದ್ದು, ಕೆಳಕಂಡಂತೆ ಬಿಬಿಎಂಪಿ ವತಿಯಿಂದ ಕೈಗೊಂಡಿರುವ ಕ್ರಮಗಳ ಬಗ್ಗೆ ವರದಿ ನೀಡಲಾಗಿದೆ.

- ಮಳೆ ನೀರುಗಾಲುನೆಗೆ ಪುಟ್ಟೇನಹಳ್ಳಿ, ಸಾರಕ್ಕಿ ಕೆರೆ ಕೋಡಿ ಕಾಲುವೆ, ಅರಕೆರೆ ಕೆರೆ, ಹುಳಿಮಾವು ಕೆರೆ ಕೋಡಿ ಕಾಲುವೆಗಳು ಮಡಿವಾಳ ಕೆರೆಯ ಬಳಿ ಒಂದಾಗಿ ಕೆರೆಯ ಅಂಚಿನಲ್ಲಿ ಹರಿದು ಕೋಡಿಚಿಕ್ಕನಹಳ್ಳಿ ಸಿಲ್ವಬೋರ್ಡ್ ಮುಖಾಂತರ ಅಗರ ಕೆರೆ ಸೇರುತ್ತದೆ. ಪ್ರಸ್ತಾಪಿತ ಮಳೆನೀರುಗಾಲುನೆಗೆಯನ್ನು ಮಾಸ್ಟರ್ ಪ್ಲಾನ್ ನಲ್ಲಿ ಕೆ-209 ಎಂದು ನಮೂದಿಸಲಾಗಿದೆ.
- ಸದರಿ ಮಳೆನೀರು ಕಾಲುವೆಗೆ ಜಲಾನಯನ ಪ್ರದೇಶ (catchment area) 23.17Sqm ಗಳಿದ್ದು, ಮಳೆಯ ಮಾಹಿತಿ (Rainfall data), Hydraulic ವಿನ್ಯಾಸದಂತೆ ಪ್ರಸ್ತಾಪಿತ ಕೋಡಿ ಚಿಕ್ಕನಹಳ್ಳಿ ಸ್ಥಳದಲ್ಲಿ (ಸರಪಳಿ 5100 ಮೀಟರ್) 153.9cumecs ಪ್ರಮಾಣದ ಮಳೆನೀರು ಕಾಲುವೆಯಲ್ಲಿ ಹರಿಯಬೇಕಾಗಿದ್ದು, 16x4 ಮೀಟರ್ ಸಾಮರ್ಥ್ಯದ ಕಾಲುವೆಯು ಅವಶ್ಯಕವಿರುತ್ತದೆ.
- ಅದರಂತೆ ಮಳೆನೀರುಗಾಲುನೆಗೆ ಬರುವ ನೀರಿನ ಪ್ರಮಾಣಕ್ಕನುಗುಣವಾಗಿ ವಿನ್ಯಾಸ ಮಾಡಿ ಕಾಲುವೆಯ ಎರಡೂ ಬದಿಯಲ್ಲಿ ಆರ್.ಸಿ.ಸಿ ತಡೆಗೋಡೆ ನಿರ್ಮಿಸಲಾಗಿದ್ದು, ಕಾಲುವೆಯಲ್ಲಿ ಹರಿಯುವ ನೀರು ಅಕ್ಕಪಕ್ಕದ ಪ್ರದೇಶಗಳಲ್ಲಿ ಹರಿದು ಪ್ರವಾಹ ಉಂಟಾಗದಂತೆ ಕ್ರಮ ವಹಿಸಿ ಅಗತ್ಯ ಕ್ರಮ ಕೈಗೊಳ್ಳಲಾಗುತ್ತಿರುತ್ತದೆ.
- ಕಾಲುವೆಯಲ್ಲಿ ಶೇಖರಣೆಯಾಗುವ ಹೂಳನ್ನು ವಾರ್ಷಿಕ ನಿರ್ವಹಣಾ ಕಾಮಗಾರಿ ಅಡಿಯಲ್ಲಿ ವರ್ಷಕ್ಕೆ ನಾಲ್ಕು ಭಾರಿ ಹೂಳು ಇತ್ಯಾದಿ ಘನ ತ್ಯಾಜ್ಯ ವಸ್ತುಗಳನ್ನು ತೆರವುಗೊಳಿಸಲಾಗುತ್ತಿದ್ದು, ಮಳೆಗಾಲದಲ್ಲಿ ಯಾವುದೇ ಪ್ರವಾಹ ಹಾನಿ ಸಂಭವಿಸದಂತೆ ಅಗತ್ಯ ಕ್ರಮ ಕೈಗೊಳ್ಳಲಾಗುತ್ತಿರುತ್ತದೆ. ಛಾಯಾಚಿತ್ರಗಳನ್ನು ಲಗತ್ತಿಸಿದೆ.

ಮುಂದುವರೆದು, ಮೇಲ್ಕಂಡ ದೂರಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಕಾಲುವೆಯಲ್ಲಿ ಒಳಚರಂಡಿ ನೀರು ಹರಿಯದಂತೆ ಬಿ ಡಬ್ಲ್ಯೂ ಎಸ್ ಎಸ್ ಬಿ ಇಲಾಖೆಯವರು ಅಗತ್ಯ ಕ್ರಮ ಕೈಗೊಂಡು ಕ್ರಮ ವಹಿಸಬೇಕಾಗಿದ್ದು, ಬಿಬಿಎಂಪಿ ವತಿಯಿಂದ ಮೇಲ್ಕಂಡಂತೆ ಹಾಲಿ ಇರುವ ಮಳೆನೀರುಗಾಲುನೆಗೆಯನ್ನು ನಿರ್ವಹಣೆ ಮಾಡಲಾಗುತ್ತಿದೆ ಎಂಬ ವಿಷಯವನ್ನು ತಮ್ಮ ಅವಗಾಹನೆಗೆ ಗೌರವಪೂರ್ವಕವಾಗಿ ಸಲ್ಲಿಸಲಾಗಿದೆ.

ವಂದನೆಗಳೊಂದಿಗೆ,

ತಮ್ಮ ವಿಶ್ವಾಸಿ,

ಮುಖ್ಯ ಆಯುಕ್ತರು
ಬ್ರಹ್ಮಪ್ಪ ಮಳೆನೀರುಗಾಲುನೆ

ಪ್ರತಿಯನ್ನು:

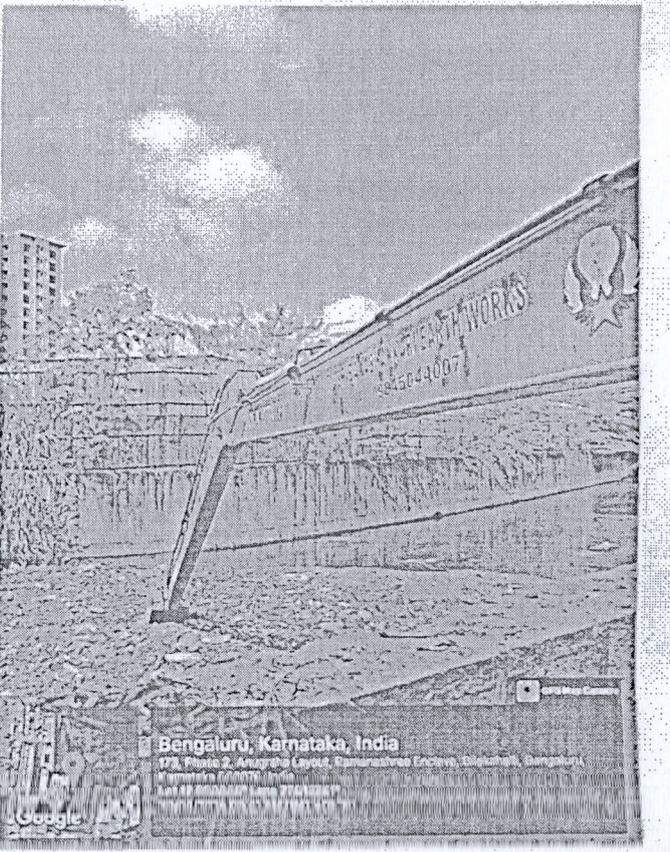
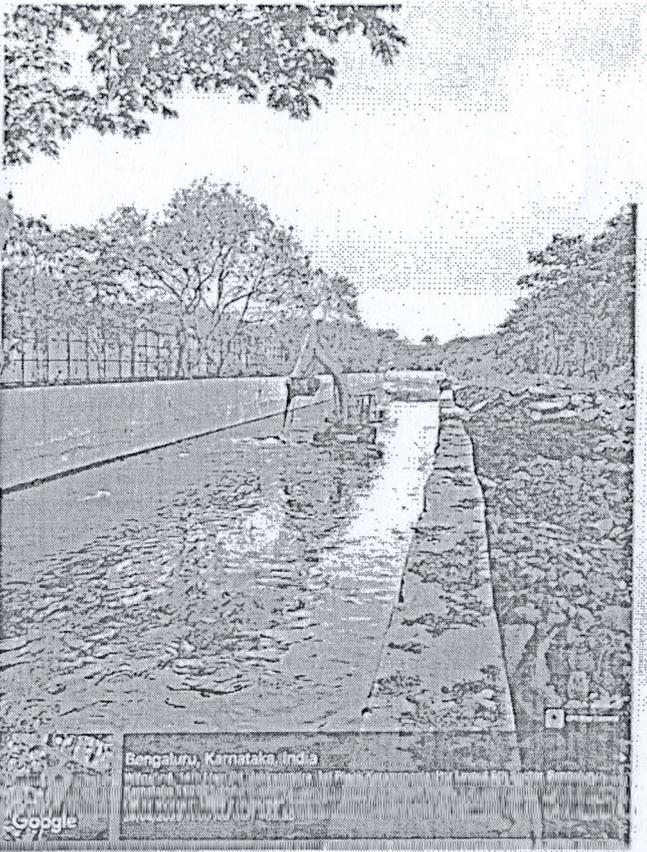
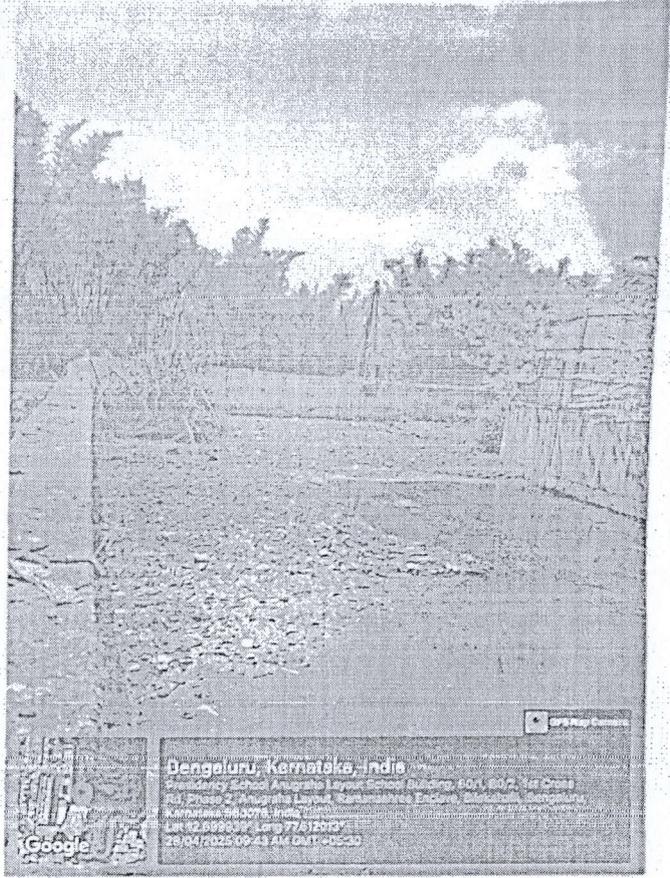
1. ಮಾನ್ಯ ಮುಖ್ಯ ಆಯುಕ್ತರು, ಬಿಬಿಎಂಪಿ ರವರ ಅವಗಾಹನೆಗೆ ಸಲ್ಲಿಸಿದೆ.
2. ಮಾನ್ಯ ವಿಶೇಷ ಆಯುಕ್ತರು, (ಯೋಜನೆ) ಬಿಬಿಎಂಪಿ ರವರ ಅವಗಾಹನೆಗೆ ಸಲ್ಲಿಸಿದೆ.
3. Environmental Officer ಪ್ರಾದೇಶಿಕ ಅಧಿಕಾರಿಯವರ ಕಛೇರಿ, ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ, ನಿಸರ್ಗ ಭವನ, 2ನೇ ಅಂತಸ್ತು, ತಿಮ್ಮಯ್ಯ ರಸ್ತೆ, 2ನೇ ಮುಖ್ಯ ರಸ್ತೆ ಶಿವನಗರ ಮುಷ್ಠಾಂಜಲಿ ಚಿತ್ರಮಂದಿರ ಎದುರು, ಭಸವೇಶ್ವರ ನಗರ, ಬೆಂಗಳೂರು-560079 ರವರಿಗೆ ಕಳುಹಿಸಿದೆ.
4. ಕಛೇರಿ ಪ್ರತಿ.

16

F1



17



HYDRAULIC DESIGN FOR BH579 FOR 5 YEAR RETURN PERIOD

DATA	
Total Catchment area (Sq.km)	23.17
Drain ID	BH 549 & K 209
Travelling length (m)	5500.00
From Chainage	0.00
To Chainage	7500.00
Type of land cover	Open Area
Impermiability factor (c)	0.8
Existing Depth (in m)	2.00
Existing width (in m)	6

1 Slope Calculation:

Elevation at Catchment Starting =	910.000
Elevation of Drain at Starting =	890.000
Travelling length =	5500.000

$$\text{Slope (S)} = \frac{910.000 - 890.000}{5500.000}$$

$$\text{Slope (S)} = 0.003636364 \quad \text{i.e., 1 in 275.00}$$

Provide a slope of 1 in 275.00

2 Time of Concentration (Tc)

Length (L) is taken from furthest point to concentrated point

$$t_c = 0.0195 \times L^{0.27} \times S^{-0.385}$$

$$T_c = 128.6047381 \text{ min}$$

Where

L = Traveling Length

S = Slope

By Interpolating Time of Concentration in IDF CURVE we get,

$$I = \frac{a}{t^n} \quad I = 29.89 \quad \text{Taking } a = 335.81 \quad n = 0.458$$

Avg. Intensity from IDF, I = 29.89 mm/hr

(Refer : CPHEEO Manual Pg-3-7, Table - 3.6)

Therefore,

3 The Discharge (Q) can be calculated using Rational Method

$$Q = 10 CIA$$

Where'

Q = The Discharge in M³

C = Impermiability Factor

I = Intensity of Rainfall in mm/hr

A = Effective Area in Sq. km

(Refer : CPHEEO Manual)

(Refer : CPHEEO Manual Pg-3-6, Table - 3.5)

$$Q = 10 \times C \times I \times A \times 100$$

$$Q = 10 \times 0.80 \times 29.89 \times 10.85 \times 100$$

$$Q = 554041.04 \quad \text{m}^3/\text{hr}$$

$$Q = 153.9002889 \quad \text{m}^3/\text{sec}$$

4 Section Design

Depth of Drain(d) = 3.10 m

Assume Velocity of Flow in the Drain as (V) = 3.00 m/s

Assume Non-Scouring

3 m/s

$$\text{Flow Area required } a = \frac{Q}{V}$$

$$= \frac{554041.04}{3} \text{ Sq. m}$$

$$\text{Width of Flow required } = \frac{a}{d}$$

$$w = \frac{184680.347}{3.10} \text{ m}$$

Consider a Width of flow as = 16.54841816 m

Actual Area(a) = width X depth

$$\text{Actual Area(a)} = 51.3000963 \text{ in Sq.m}$$

$$\text{Length of Perimeter} = w + 2 \times d$$

$$= 22.74841816 \text{ m}$$

$$P = 22.74841816 \text{ m}$$

$$\text{Hydraulic Radius} = \frac{a}{P}$$

$$R = \frac{51.3000963}{22.74841816} \text{ m}$$

5 The Bed fall can be calculated as

n = 0.023
 R = 2.255106088
 S = 500
 S = 500

Elevation of Drain at Starting =	890.000
Elevation of Drain at Ending =	875.000
Total length of Drain =	7500.000
	0.0020

Provide slope 1 in 500

6 Actual Velocity (v)

$$v = \frac{1}{n} \sqrt{RS}$$

v = 3.344 m/s

Therefore, Discharge	Q = a x v
	Q = 171.5339126 m ³ /sec

Actual Discharge is Greater than the Required, Hence the Section is Sufficient		For minimum Freeboard (Refer: CPHEEO Manual page no.-103, Table 5.12)
B =	16.00 m	
d =	3.10 m	
A =	49.60 Sq.m	
P =	22.75 m	
R =	2.26 m	

B (m) = 16.00
 D (m) with Freeboard = 4.00

Hence provide 16.00 x 4.00

S No	Discharge (lps)	Freeboard (mm)
1	Below 3	450
2	3 and above but below 30	600
3	30 and above but below 300	900
4	300 and above but below 3000	1200
5	3000 and above	1500

The construction width of the stormwater drain (SWD) should be determined based on both design calculations and available land records.

- 1 If the available 'B' Karab land, as per revenue records or the village map, is greater than the required design width, the drain can be constructed according to the full width of the available land. This approach ensures adequate drainage capacity while considering future development in the locality.
- 2 However, if the available land, as per revenue records, is less than the required design width, the construction should strictly follow the width determined by design calculations based on rainfall data. This ensures that the drain functions efficiently within the given land constraints.



Office : (080) 22945106

ಬೆಂಗಳೂರು ನೀರು ಸರಬರಾಜು ಮತ್ತು ಒಳಚರಂಡಿ ಮಂಡಳಿ

BANGALORE WATER SUPPLY & SEWERAGE BOARD

Office of the Chief Engineer (WWM), 5th Floor

Cauvery Bhavan, K.G. Road, Bangalore-560009.

No.BWSSB / CE(WWM-E)/ DCE(WWM-E&W) /TA-1/ 645/2025-26

Dated : 11/08/25

To
Senior Environmental Officer
Infrastructure and Development
Karnataka State Pollution Control Board,
Parisara Bhavan, 4th & 5th Floor,
#49, Church Street,
Bangalore-560001.

Sir,

Sub: Non compliance to the provisions of water (Prevention & Control of pollution) Act 1974 by Bruhath Bengaluru Mahanagara Palike (BBMP) and Bengaluru Supply and Sewerage Board - reg.

Ref:1. No. PCB/11/INFRA/NGT 0.A.1219/2025/876 Date: 30.05.2025

2. No.BWSSB/EW(N)KT/PB/470/2025-26 Dt:18-06-2025.

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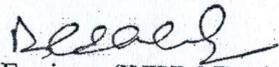
With reference to the above subject, the details are as follows:

Sl. No	Observations	Compliance
1	The SWD and layout was separated by a retaining wall on both the sides to avoid entry of sewage into the said layout and madiwala lake	The existing 1800mm dia submain running along the Madiwala lake bund which inturn connected to 65 MLD + 120MLD ISPS at Agara.
2	The SWD is completely used for carrying sewage generated from the areas located in the upstream which is having mislinks. Leakage of sewage pipe etc., in order to protect the madiwala lake from entry of untreated sewage	The 1800mm dia submain is catering sewage to its full capacity and the ISPS is pumping the sewage from Agara to Challaghatta and Bellandur Amanikere STP and the ISPS's are pumping to full capacity. Due to rapid growth of the city and increasing population, the sewage generation has increased and the submains and connected STP & ISPS are overloaded. Due to this the sewage is flowing in the SWD. The BWSSB has proposed a 75MLD STP at Madiwala Lake Bund and the land transfer from BBMP is awaited
3	It is the responsibility of the BWSSB for ensuring 100% UGD network for collection and treatment of domestic sewage generated	Further, on construction of 75MLD STP

		at Madiwala Lake Bund, the sewage can be treated near Madiwala lake and the sewage load on the submain running along the lake bund will be reduced and there by the flow of sewage in the SWD can be avoided
4	BWSSB shall ensure continuous monitoring of all STPs for long term compliance as recommended in the report of IISc, Bengaluru. In case of all STPs not covered in the IISc report BWSSB shall evaluate the performance assessment in a time bound manner of 3 months interval.	Annexure – A enclosed
5	BWSSB shall assess the quality of sewage generated, gap analysis, sewage treated in entire Bangalore and the sewage that remains and tapped due to the absence of sewerage networking or other means	Annexure – B enclosed
6	BWSSB shall provide analysis reports of water quality at stipulated frequency as per consent, monitored in all the inlet and outlet of STPs associated with river thennapennai and provide underground sewerage system to covered entire sewage in the catchment area of the river and bridge the treatment gap along with the treating this sewage effluents to standards stipulated in the consent order at all times	Annexure – C&D enclosed

Thanking you,

Yours faithfully,


Chief Engineer(WWM-East)
BWSSB.

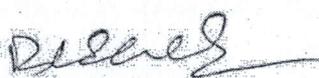
Annexure - A
List of existing STPs in Karnataka

S. No	Address of the STP	Operational Status	Compliance Status	STP Installed Capacity (MLD)	Technology	STP capacity utilization (MLD)	Remarks
1	V.Valley	Operational	Complying	150	ASP WITH BNR	150.36	
2	Doddabele	Operational	Complying	20	SBR	25.66	Upgradation/Rehabilitation work is under progress
3	Doddabele	Operational	Complying	40	SBR	39.95	
4	Rajacanal	Operational	Complying	40	SBR	41.57	Upgradation/Rehabilitation work is under progress
5	Yelahanka	Operational	Complying	10	ASP with Sand filter	5.83	Upgradation/Rehabilitation work is under progress
6	Hebbal	Operational	Complying	100	SBR	93.29	
7	Rajacanal	Operational	Complying	40	Extended Aeration	18.86	Upgradation/Rehabilitation work is under progress
8	Horamavu	Operational	Complying	20	SBR	18.08	Upgradation/Rehabilitation work is under progress
9	Jakkur	Operational	Complying	15	IFAS	17.25	
10	Hennur	Operational	Complying	1	SBT	1.05	
11	Nagasandra	Operational	Complying	20	SBR	18.81	Upgradation/Rehabilitation work is under progress
12	Nagasandra	Operational	Complying	20	Extended Aeration	14.57	Upgradation/Rehabilitation work is under progress
13	Chikkabanavara	Operational	Complying	5	SBR	4.88	Upgradation/Rehabilitation work is under progress
14	Kengeri	Operational	Complying	60	ASP with BNR	59.94	
15	Mailasandra	Operational	Complying	75	EXTENDED AERATION	67.85	Upgradation/Rehabilitation work is under progress
16	K&C Valley	Operational	Complying	30	Extended Aeration Process	31.41	Upgradation/Rehabilitation work is under progress
17	K&C Valley	Operational	Complying	218	Activated Sludge Process	124.23	Out of total installed capacity of 218 MLD, 108 MLD is demolished and upgradation is under process.
18	KR Puram	Operational	Complying	20	Upflow Anaerobic Sludge Blanket	16.64	Upgradation/rehabilitation is under progress.
19	Cubbon Park	Operational	Complying	4	MBR	3.71	
20	Lalbagh	Operational	Complying	1.50	Extended aeration +UV	1.23	
21	K&C Valley	Operational	Complying	150	ASB + BNR with power Generation	151.51	

S. No	Address of the STP	Operational Status	Compliance Status	STP Installed Capacity (MLD)	Technology	STP capacity utilization (MLD)	Remarks
22	K&C Valley	Operational	Complying	60	ASB + BNR with power Generation	61.20	Upgradation/rehabilitation is under progress.
23	KR Puram	Operational	Complying	20	SBR	20.63	Upgradation/rehabilitation is under progress.
24	Yellamallappachetty	Operational	Complying	15	SBR	15.35	Upgradation/rehabilitation is under progress.
25	Bellandur Amanikere,	Operational	Complying	90	Activated Sludge Process with Biological Nutrient Removal	92.11	Upgradation/rehabilitation is under progress.
26	Agaram	Operational	Complying	35	SBR	35.74	
27	Hulimavu	Operational	Complying	10	SBR	10.15	
28	Kadugodi	Operational	Complying	6	SBR	5.85	Upgradation/rehabilitation is under progress.
29	Sarakki	Operational	Complying	5	SBR	5.15	
30	Halasuru	Operational	Complying	2	SBR	1.93	Upgradation work is under progress
31	ChikkaBeguru	Operational	Complying	5	SBR	4.24	
32	Madiwala	Operational	Complying	4	SBR	2.31	
33	Puttenahalli	Operational	Complying	7	SBR	6.04	
34	Kadabeesanahalli	Operational	Complying	50	Activated Sludge Process Technology	45.47	Upgradation work is under progress

1348.5

1212.85


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Annexure - B - Gap Analysis

S. No	Category	Sewage Generation in MLD	Existing STPs			Gap in Treatment (in MLD)		STPs under construction		Approved STP Projects		Total treatment capacity after completion of Ongoing & approved Works
			No. of STPs	Installed Capacity in MLD	Operational Capacity in MLD	Overall Gap in treatment	Gap in Utilization Capacity	No. of STPs	Capacity in MLD	No. of STPs	Capacity in MLD	
1	BWSSB	2120.00	34	1348.50	1212.00	604.00	212.50	27	480.00	17	583.00	2411.50
2	Private STPs		2562	380.00	304.00			-		-		
	Total	2120.00	2596	1728.50	1516.00	604.00	212.50	27.00	480.00	17.00	583.00	2411.50

S. No	Agency	Existing STPs - Maintained by			STPs under construction		Upcoming STP projects - Approved	
		No. of STPs	Installed Capacity in MLD	Operational Capacity in MLD	No. of STPs	Capacity in MLD	No. of STPs	Capacity in MLD
1	BWSSB	34	1348.50	1212	27	480	17	583
	Total	34	1348.50	1212.00	27	480.00	17	583.00

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Annexure - C
Status of Reuse of Treated Water & Outlet Parameters of Treated Water

Sl. No	Name of the STP	Total Installed Capacity of STP in MLD	Total Operational Capacity of STP in MLD	Operational Status of STPs (Operational/ Non-Operational)	Compliance Status for STPs (Compliant/ Non-Compliant)	Frequency of Sampling	Is sampling done for Fecal Coliform Before Disposal of treated water (Yes/No)	BOD (mg/l)	CoD (mg/l)	pH	Total Suspended Solids - TSS (mg/l)	Total Nitrogen (mg/l)	Total Ammoniacal Nitrogen (mg/l)	Dissolved Phosphorus	Fecal Coliform (MPN/100ml)	Quantity of Treated water reused in MLD	Remarks
1	Rajacanal	40	41.57	Operational	Complying	Hourly basis	Yes	8.59	40.82	7.45	11.05	5	4	0.5	37.9	18.24	
2	Yelahanka	10	5.83	Operational	Complying	Hourly basis	Yes	4.23	33	7.34	2.9	-	0.5	0.2	<1	5.49	
3	Hebbal	100	93.29	Operational	Complying	Hourly basis	Yes	4.15	29.81	7.28	5.26	2.93	0.84	0.53	24.58	92.93	
4	Rajacanal	40	18.86	Operational	Complying	Hourly basis	Yes	5.5	30.06	7.31	5.31	-	0.79	0.58	-	40.97	
5	Horamavu	20	18.08	Operational	Complying	Hourly basis	Yes	7.29	39.29	7.45	7.84	3.69	0.61	0.5	23.81	16.90	
6	Jakkur	15	17.25	Operational	Complying	Hourly basis	Yes	1.29	7.96	7.3	0.76	7.1	4.22	0.82	<2	16.38	
7	Hennur	1	1.05	Operational	Complying	Hourly basis	Yes	3.7	45.2	7.29	4.18	1.49	0.37	0.08	30	0.81	
8	Yeshammallappa Chetti	15	15.35	Operational	Complying	Daily	yes	5.96	42.84	7.55	5.16	NA	0.76	0.35	42.42	15.30	
9	KR puram	20	20.63	Operational	Complying	Daily	yes	6.30	33.20	7.15	6.61	6.39	3.04	0.60	72.00	19.92	
10	K&C Valley	150	151.51	Operational	Complying	Daily	yes	6.90	37.67	7.42	5.73	1.94	1.23	0.40	65.23	149.67	
11	K&C Valley	60	61.2	Operational	Complying	Daily	yes	6.45	33.94	7.56	6.28	4.00	0.57	0.57	67.00	59.3	
12	Cubbon Park	4	2.31	Operational	Complying	Daily	yes	1.57	18.71	7.50	0.42	1.10	<1	<1	BDL	0.357	
13	Lalbagh	1.5	1.23	Operational	Complying	Daily	yes	1.48	15.81	7.13	0.74	1.10	<1	<0.1	BDL	1.48	
14	Bellandur Amanikere	90	92.11	Operational	Complying	Daily	yes	5.79	37.67	7.61	9.50	nil	0.56	0.54	74.35	90.05	
15	Agaram	35	35.74	Operational	Complying	Daily	yes	6.30	36.30	7.70	6.30	nil	3.30	0.60	30.20	34.76	
16	Hulimavu	10	10.15	Operational	Complying	Daily	yes	3.19	22.84	7.29	3.70	nil	2.01	0.35	45.06	10.06	

Sl. No	Name of the STP	Total Installed Capacity of STP in MLD	Total Operational Capacity of STP in MLD	Operational Status of STPs (Operational/ Non-Operational)	Compliance Status for STPs (Compliant/ Non-Compliant)	Frequency of Sampling	Is sampling done for Fecal Coliform Before Disposal of treated water (Yes/No)	BOD (mg/l)	CoD (mg/l)	pH	Total Suspended Solids - TSS (mg/l)	Total Nitrogen (mg/l)	Total Ammoniacal Nitrogen (mg/l)	Dissolved Phosphorus (mg/l)	Fecal Coliform in (MPN/100ml)	Quantity of Treated water reused in MLD	Remarks
17	Kadugodi	6	5.85	Operational	Complying	Daily	yes	7.61	42.61	7.60	4.74	nil	0.65	0.71	65.58	5.89	
18	Sankid	5	5.15	Operational	Complying	Daily	yes	3.78	30.53	7.61	5.10	6.47	3.61	0.43	34.55	5.05	
19	Halasuru	2	1.93	Operational	Complying	Daily	yes	4.58	30.06	7.05	5.52	3.73	1.84	0.43	60.94	1.84	
20	Chikka Beguru	5	4.24	Operational	Complying	Daily	yes	6.84	35.48	7.70	6.52	0.00	3.50	0.61	46.68	3.93	
21	Madivala	4	3.71	Operational	Complying	Daily	yes	3.40	31.90	7.73	5.10	4.50	1.42	0.48	32.26	2.28	
22	Kadabeesanahalli Ph-1	50	45.47	Operational	Complying	2/day	Yes	7.86	44.71	7.79	15.46	6	8.5	2	85	44.69	
23	K&C Valley	218	124.23	Operational	Complying	2	Yes	8.07	45.85	7.55	9.38	6.7	3.58	0.83	90	120.64	
24	K&C Valley	30	31.41	Operational	Complying	2	Yes	6.04	34.03	7.64	8.46	5.2	3.35	0.48	70	30.27	
25	K R Puram	20	16.64	Operational	Complying	2	Yes	11.25	77.12	7.66	18.9	11.00	6.00	1.20	90	16.34	
26	Puttenahalli	7	6.04	Operational	Complying			5.76	26.13	7.46	3.77	-	1.70	0.58	47.23	6.03	
		958.50	830.83													809.58	

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 BWSSB

Annexure - D

Sl. No	Name of work	Start date	Completion date	Tender pipeline Qty (in RMT)	Progress /percent age pipeline laid Qty (in RMT)	Financial Progress	Remarks
1	Work of providing and laying of 1600mm dia RCC sewer pipeline from Outer Ring Road near Hennur Police Station to Rajacanal STP	13.03.2024	12.03.2026	3263	1979.50 60.68%	47.39 %	Work under progress
2	Work of Providing and laying of 900/1200/1400 mm dia RCC NP-3 class sewer pipeline including trenchless method from MV Garden to Amarjyothi layout ISPS, Domluru	13.03.2024	12.03.2026	3500	1062.50 30.35%	25.93 %	Work under progress
3	Work of Providing and Constructing ISPS at KGA Road, Amarjyothi Layout and Laying 1100mm dia DI rising Main from ISPS Domluru to 218 MLD STP, Challaghatta Turnkey.	07.06.2024	06.12.2026	3620	973.50 30%	47.24 %	Work under progress
4	Work of Providing and Laying of 1000/1200/1800/2000mm dia RCC NP-3 class sewer pipe line from 7th main road, Garvebhavipalya along HSR layout up to Agaram STP and Construction of ISPS at HSR layout under AEE(WWM-N)K&T-2 Sub Division at Various locations.	15.03.2024	14.03.2027	26111	4200.00 16.08%	10%	Work under progress


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