

Independent Report of Karnataka State Pollution Control Board regarding action taken by the Board w.r.t. prevention and control of Water Contamination in Yele Mallappa Shetty Lake and w.r.t Hon'ble NGT OA No.195 of 2021 (SZ) in respect of Yele Mallappa Shetty Lake/Tank located at Basavanapura Village, K.R.Puram Hobli, Bengaluru East Taluk, Bengaluru Urban District

Preamble:

Yele Mallappa Shetty Lake/Tank is located near Avalahalli village, Bidarahalli Hobli, Bengaluru East Taluk of Old Madras Road, Bengaluru to Hoskote Road. Department of Minor Irrigation, Government of Karnataka is having the ownership of the lake. The lake is having 5 inlets and the details are as below:

- a. Overflow of Rampura Lake is directly entering to the lake through natural nala towards north-western side of the lake, which is the major source of water to the lake.
- b. Sewage/sullage from the Basavanapura residential area towards western side of the lake is directly connected to the lake through storm water drain which is the second major source of water to the lake.
- c. Sewage/sullage from the village area of Virgonagar towards eastern side.
- d. Hirandahalli area towards northern side of the lake is also directly connected to the lake.
- e. Sewage/sullage from Kurudusonnenahalli area towards southern side of the lake is also directly connected to the lake through storm water drain.

The lake has one weir and the overflow from the said weir finally joins South Pinakini River. This office is monitoring the lake water quality on monthly basis and water quality conforms to Class D-Propagation of Wild Life, Fisheries & Class E-Irrigation, Industrial Cooling, Controlled Waste Disposal. The compiled analysis results for the period from April 2017 to July 2021 are enclosed as **Annexure-I**.

The paramount reason for pollution of Yele Mallappa Shetty Lake is sewage/sullage flowing in the storm water drains entering the said lake, rapid and large scale urbanization, change in land use pattern, under capacity of sewers, encroachment of sewers, damages to sewerage system and direct discharges from unauthorized layouts in newly formed 110 villages etc., leading to substantial quantity of sewage flowing in the storm water drains.

Earlier, based on the complaints received at KSPCB, the Board has issued notices to the concerned departments w.r.t control of sewage entry into the lake & solid waste dumping in lake buffer and lake rejuvenation.

Additionally, it is also important to note that based on the complaints received at different Hon'ble authorities, the issue of pollution of Yele Mallappa Shetty Lake is being dealt before Karnataka State Human Rights Commission (KSHRC) vide HRC No.650/10/1/2015 & Hon'ble Karnataka Lokayukta, vide Case number. Compt/LOK/BCD/2600/2018/ARE-1. Further, it is to be noted that, Yele Mallappa Shetty Lake is a part of South Pinakini/South Pennar/Thenpennai River and the issue of Frothing of chemical foam in this River has also been dealt before Hon'ble NGT vide OA no.111 of 2020 (Southern Zone). The case has been disposed vide order dated 28.06.2021 wherein directions have been issued regarding implementation of recommendations made by the Joint Committee.

Now, Sri. J.Jagan Kumar, resident of Bengaluru has filed petition/application at Hon'ble National Green Tribunal, Southern Zone (SZ), Chennai with regard to the encroachment of Yelemallappachetty Lake, relocate the project of Minor Irrigation project Jack Well Pump House work, sewage is being drained into lake thereby water is being contaminated and polluted, road is also constructed encroaching into the buffer zone of the lake, though complaints have been made to the authorities, they have not taken any action and hence the same has been admitted in Hon'ble NGT (SZ) in the name of Original Application No.195 of 2021(SZ).

The Hon'ble National Green Tribunal, Southern Zone, Chennai has passed an order dated 08.09.2021 with respect to Original Application No.195 of 2021 regarding indiscriminate encroachment in Yele Mallappa Shetty Lake/Tank and its buffer zone. In order to implement the Hon'ble NGT (SZ) order dated: 08.9.2021, the Karnataka State Pollution Control Board has issued an Office Memorandum vide no.PCB/31/Infra/GEN/21/3011 dated 22.09.2021 w.r.t constitution of Joint Committee.

Accordingly, the preliminary meeting was conducted under the Chairmanship of the Deputy Commissioner on 24.9.2021 at the Deputy Commissioner (Bengaluru Urban District) Meeting Hall. Further, the spot inspection of Yele Mallappa Shetty Lake was carried out by the Joint Committee on 11.10.2021 wherein all the respondents & applicant Sri.J.Jagan Kumar were accompanied for

inspection to ascertain the ground reality. The observations made by the Joint Committee and action taken w.r.t Hon'ble NGT directions issued in the interim order dated 08.09.2021 has already been submitted to Hon'ble NGT.

Now, in the order dated 22.10.2021, Hon'ble NGT has called to answer the allegations made in the application independently with supporting documents. Hence, apart from the above detailed actions taken by KSPCB, the KSPCB is submitting the independent report as below:

Directions No.	Subject of Direction	Observations of KSPCB Officers as on 11.10.2021	Action Taken
1	Ascertain the extent of the water body as per the original Revenue Records	Yes, encroachment of lake was observed. The, Assistant Director of Land Records (ADLR) is the authority to ascertain the extent of Lake and the Minor Irrigation Department is the authority responsible to remove/clear all the lake encroached area, providing fencing to the lake.	-
2	Whether encroachment has been made into the buffer zone and the lake as alleged by the applicant	Yes, Wet well has been constructed by Minor Irrigation Department within the lake area.	-
3	Whether the proposed pumping station is being constructed in the buffer zone or in the lake areas, as alleged by the applicant.	Obtaining NOC/Clearance from KSPCB is not mandatory, as this activity is not covered under the Board's consent mechanism.	-
4	Whether the Irrigation department has obtained necessary clearance or permission, if any, required for establishing the lift irrigation scheme for the proposed project, on the basis of which they are now setting up the pumping station in the water body.		
5	Whether there is any encroachment	As per ADLR recent survey & physical	After receipt of the projects' list from

	made into the buffer zone or lake by any private party	observations, few activities were observed which have encroached the lake area. Hence, the Committee recommended to identify the private parties jointly by BBMP & Gram Panchayath (GP) authorities and to submit the details.	BBMP & Gram Panchayath (GP) authority, action will be initiated against the defaulters w.r.t the projects covered under the Board's consent mechanism and who have encroached lake area.
6	Whether the lake has been encroached for the purpose of depositing building debris and wastes	Yes, Construction & demolition (C&D) waste was dumped on lake bed and a Road has also been formed within the lake area.	
7	Whether any untreated sewage is being let into the lake	Yes, there is entry of untreated sewage into the lake. The paramount reason for pollution of Yele Mallappa Shetty Lake is sewage/sullage flowing in the storm water drains entering the said lake, rapid and large scale urbanization, change in land use pattern, under capacity of sewers, encroachment of sewers, damages to sewerage system and direct discharges from unauthorized layouts in newly formed 110 villages etc., leading to substantial quantity of sewage flowing in the storm water drains.	KSPCB has insisted for the provision of Sewage Treatment Plants (STP)/Effluent Treatment Plants (ETP) for all units/organisations/construction projects covered under consent mechanism throughout Karnataka State. Through this process, KSPCB has ensured that all projects have provided in-house STPs/ETPs for treatment of sewage/trade effluent and also provided dual plumbing system to reuse the treated sewage/effluent. Action is also being initiated against the

defaulters identified by the Officers during their inspections.

Further, keeping in view of pollution of lakes in Bengaluru & of the opinion that, establishment of STPs in Group housing projects, commercial establishments and such other institutions help in prevention of pollution of water bodies apart from reducing fresh water demand in such establishments as Bangalore is facing shortage of fresh water supply by BWSSB, the Government of Karnataka has issued order on 19-01-2016, vide FEE 316 EPC 2015, in order to ensure in-house treatment of sewage generated in group housing projects, commercial establishments and such other institutions and to ensure reuse of treated water for non potable uses apart from prevention of pollution of lakes and other water bodies. As per the said notification, consent from KSPCB is required for the following projects and these activities needs to install STP compulsorily:

- (i) All residential group housing projects/apartments with 20 units and above or having total BUA of 2,000 sq.m including basement
- (ii) Commercial constructions projects (commercial complexes, office, IT related activities etc) with total built up area of 2,000 sq.m and above
- (iii) Educational institutions with or without hostel facility having total built up area of 5,000 sq.m and above
- (iv) Townships and area development projects with an area of 10 acres and above

Also, earlier, based on the complaints received, KSPCB had issued notices to the concerned departments w.r.t control of sewage entry into the lake & solid waste dumping in lake buffer and lake rejuvenation. The details are as below:

1. Issued notice to Bruhat Bengaluru Mahanagara Palike (BBMP) dated 05.10.2010. Copy of the notice issued is herewith enclosed as **Annexure-II**
2. Issued notice to The Deputy Commissioner, Bengaluru Urban Dist, BBMP, Avalahalli Gram Panchayath & Bangalore Water Supply and Sewerage Board (BWSSB) on 19.05.2015 for taking necessary action with respect to control entry of sewage into

	<p>the lake. Copies of the notices issued are herewith enclosed as Annexure-III</p> <p>3. Issued notice to the Joint Commissioner, BBMP and Assistant Executive Engineer (AEE), Minor Irrigation Sub-Division on 20.09.2016. Copy is herewith enclosed as Annexure-IV</p> <p>4. Issued letter to Joint Commissioner, BBMP, AEE, Minor Irrigation Department, AEE, BWSSB and PDO, Avalahalli Gram Panchayath on 11.12.2018 informing them to take action w.r.t stoppage of sewage entry into the lake. Copy of the letter herewith enclosed as Annexure-V</p> <p>5. Issued a letter to Joint Commissioner, BBMP, AEE, Minor Irrigation Department, AEE, BWSSB and PDO, Avalahalli Gram Panchayath on 25.03.2019 informing them to take action w.r.t stoppage of sewage entry into the lake. Copy of the letter herewith enclosed as Annexure-VI</p> <p>6. Addressed letter to Joint Commissioner, BBMP, AEE, Minor Irrigation Department, Panchayath Development Officer (PDO), Kitagnoor Gram Panchayath, AEE, BWSSB and PDO, Avalahalli Gram Panchayath on 23.07.2019 informing them to consider the matter on priority and take necessary action w.r.t preventing pollution of YMS Lake. Copy of the letter herewith enclosed as Annexure-VII</p>
<p>8</p>	<p>Ascertain the quality of water and if it is contaminated to trace out the source and suggest appropriate remedial measures to restore the same to its original position</p> <p>KSPCB is monitoring the lake water quality on monthly basis and water quality conforms to Class D- Propagation of Wild Life, Fisheries & Class E- Irrigation, Industrial Cooling, Controlled Waste Disposal. The compiled analysis results for the period from April 2017 to July 2021 are herewith annexed as Annexure-I. Further, KSPCB has collected water samples at</p> <p>KSPCB will continue to monitor the lake water quality on monthly basis and submit report to the Committee.</p>

five different sides of the lake on 30.09.2021 & 01.10.2021. The analysis results of the said samples are as below:

Sr.No.	Sample location	Inference
1	South Side (near lift irrigation)	Class D
2	West Side (near kodi)	Class D
3	South Side (near military campus)	Class D
4	North West Side	Class D
5	North Side	Class E

The compiled analysis results of the above are herewith annexed as **Annexure-VIII**. As per the analysis report, the presence of high count of Total Coliform and low level concentration limits/Below detectable limit of Heavy metals clearly indicated that the lake water is contaminated with only sewage entry. The paramount reason for sewage entry is from the unauthorized layouts in newly formed 110

		<p>villages leading to substantial quantity of sewage flowing in the storm water drains thereby leading to downstream lake.</p> <p>BWSSB is the authority to take up the Underground Drainage (UGD) works in 110 villages and connect all the missing links to their STPs in order to control the sewage flow in storm water drains.</p>	
9	<p>Whether any damage has been caused to environment on account of the alleged illegal activities and if so, what is the quantum of compensation to be recovered from the persons who have caused the damage, apart from suggesting the remedial measures to restore the damage caused to environment and the cost required for this purpose</p>	<p>The paramount reason for pollution of Yele Mallappa Shetty Lake is as explained above. Further, the BWSSB authority informed the Committee that, the work of providing Underground Drainage system to 110 villages along with providing terminal Sewage Treatment Plants (STP) will be completed only by the year 2025. Hence, the Committee opined that, identification of individual polluters and levying of compensation for causing damage to the environment at this stage will be difficult and not preferable.</p>	<p>Measures will be taken to identify the polluters and notices will be issued.</p>

Given this factual background, it is respectfully submitted that the Karnataka State Pollution Control Board has taken all necessary steps at regular intervals towards protection of the lake and water environment at the Yele Mallappa Shetty Lake and it is re-iterated that, this issue has also been dealt before Hon'ble NGT vide OA No. 111 of 2020, Hon'ble Karnataka Lokayukta & Karnataka State Human Rights Commission (KSHRC).

Further, it is to be brought to the kind notice of this Hon'ble Tribunal that, the BWSSB authority has reported the status of sewage generation, treatment and enhancement of treatment capacity plan in Hon'ble NGT OA No.195 of 2021 wherein it was reported that, the enhancement of sewage treatment capacity of STPs in entire Bengaluru (covering both Hebbal & Kormangala & Chalaghatta Valley) is estimated by 1582.5 MLD by 2021 & 1726.5 MLD by 2024. However, in the Joint committee report submitted to this Hon'ble Tribunal w.r.t OA No.195 of 2021 (SZ), the BWSBB has submitted the short term & long term measures to prevent the entry of sewage into Yele Mallappa Shetty Lake and requested time till December 2022 to carryout short term measures and time till the end of December 2027 to carry out long term measures.

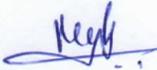
In view of all the above, KSPCB is putting forth below said recommendations/remedial measures for ensuring survival of Yele Mallappa Shetty Lake and other Bengaluru lakes.

1. The BWSSB shall not give any more sewage connections to the UGD in the areas where the sewer network is not connected to terminal STP and also shall take immediate steps to connect the missing links.
2. The BWSSB shall take immediate action to replace the inadequate sewer line due to vertical development.
3. The BWSSB shall encourage treated water from STPs to be utilized for public parks, construction activities, vehicle service stations including KSRTC, BMTC Depots & Railways.
4. BWSSB shall take up sewerage network along with the water supply works simultaneously.
5. The BWSSB shall initiate action to plug the leakages of water in the supply line on top priority.
6. BWSSB/BDA/BBMP shall establish STPs on the upstream of Lakes to treat the sewage before it joins the Lake. This improves the water quality in the Lake and also recharges the

ground water table. (Recommended to establish decentralized STPs in the each lake catchment area).

7. The BBMP shall identify the abandoned quarries & set up processing facility for disposal of the C & D waste and as per the Rule of 2016 notified by MoEF & CC, GoI after obtaining necessary permission from KSPCB to avoid disposal of C & D waste in the lake bed areas.
8. The BBMP shall take action to link primary drains between the lakes, removal of the encroachment and construction of storm water drains wherever it has not been done.
9. The BBMP shall provide screens to the storm water drains at regular intervals in the major storm water drains to prevent carryover of solid waste/ garbage / floating matter into the lake.

It is respectfully submitted that KSPCB will be obliged to provide any additional information if so required by this Hon'ble Tribunal and we hereby submit this report for kind consideration.



Sri.D.P.Mahendra

Environmental Officer, Regional Office-
Mahadevapura, KSPCB, Bengaluru and
Member Convener



Smt.Rekha.R

Senior Officer from KSPCB, Bengaluru
and Joint Committee Member