

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

OA No 13 OF 2021

IN THE MATTER OF:

NATIONAL GREEN TRIBUNAL SOUTHERN ZONE

..... Applicant

Vs

**UNION OF INDIA REP. BY ITS SECRETARY MINISTRY OF ENVIRONMENT FOREST AND CLIMATE
CHANGE**

..... Respondents

REPORT FILED BY THE APPCB 12th RESPONDENT

DATE - 29.09.2024



**M/s MADHURI DONTI REDDY
ADVOCATE**

STANDING COUNSEL FOR GOVERNMENT OF ANDHRA PRADESH

A.P. POLLUTION CONTROL BOARD

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BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI
Original Application No. 13 of 2021 (SZ)

IN THE MATTER OF

Tribunal on its own motion-SUO MOTU Based on the
News item in Deccan Chronicle English Newspaper, Dated
10.12.2020, "Kurnool shocked by quality of KMC water."

...Applicant(s)

Versus

Union of India, Rep. by its Secretary and Others.

...Respondent(s)

INDEX

S. No.	Particulars	Page No.
1.	Status Report on the issues directed by the Hon'ble NGT vide order dt. 24.05.2024 in Original Application No. 13 of 2021 (SZ) pertaining to Tungabhadra River Pollution.	1-2
2.	Annexure I - Central Pollution Control Board (CPCB) developed Water Quality Criteria by classifying as class-A, B, C, D, E & below E based on Designated-Best-Use	3
3.	Annexure – II - The latest water quality of River Tungabhadra at Pushkar Ghats, in Kurnool city & River Tungabhadra at Agasanur, Vinayak Ghat and Santa Market, Mantralayam.	4-6

Place: Kurnool.
Dt.16.07.2024


For A.P. Pollution Control Board
AP POLLUTION CONTROL BOARD
REGIONAL OFFICE, KURNOOL

Further Report of A. P. Pollution Control Board submitted in compliance to the Hon'ble NGT (SZ) order dt. 24.05.2024 in O.A. No. 13 of 2021

The matters are pertaining to the news item in Deccan Chronicle English newspaper, dated: 10.12.2020 on the incident of "Kurnool shocked by quality of KMC water". The A.P. Pollution Control Board earlier filed action taken reports on 14.12.2021 in O.A. No.13 of 2021.

The Hon'ble National Green Tribunal in its order dt. 24.05.2024, Ordered that "1. At the request of the Learned Counsel appearing for the Andhra Pradesh Pollution Control Board, the matter is adjourned to 23.07.2024. 2. Though, the report is ready but it is not yet uploaded. Let the Pollution Control Board file the report after taking water sample test. 3. Post the matter on 23.07.2024".

The APPCB has been regularly collecting the water samples at Bavapuram, Pedidampadu, Gondiperla, Mantralayam of River Tungabhadra under National Water Monitoring Program on monthly basis to assess the water quality, The average values are tabulated below:

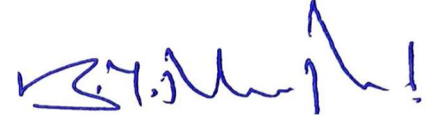
The average values from January, 2024 to June, 2024 is tabulated below:						
Parameters	Unit of measurement	NWMP Sampling Station Location: River Tungabhadra				Standards
		Padidempadu	Bavapuram	Mantralayam	Gondiparla	
Dissolved Oxygen	mg/l	5.3	5.4	5.8	5.3	≥ 5
pH		7.7	7.9	7.9	7.4	6.5-8.5
Conductivity	µs/cm	1731	1620	1504	1565	—
Biochemical Oxygen Demand	mg/l	2.1	2.4	1.5	2.4	3.0
Nitrate	mg/l	1.5	0.5	0.1	0.3	45
Nitrite	mg/l	0.2	0.2	0.1	0.1	—
Total Coliform	MPN/100 ml	875	802	613	826	500
Fecal Coliform	MPN/100 ml	266	284	201	252	—
Fecal Streptococci	MPN/100 ml	—	—	—	—	—
Saprobity index		—	5.9	—	—	—
Diversity index		—	0.6	—	—	—
Turbidity	NTU	1	1.4	2	2.0	—
Phenophthalein Alkalinity	mg/l	< 5	< 5	< 5	< 5	—
Bicarbonate as CaCo3	mg/l	328	256	220	240	—
Chlorides	mg/l	230	228	216	238	600
Chemical Oxygen Demand	mg/l	17	17.8	12	17.8	—
Total Kjeldal Nitrogen	mg/l	2.6	2.4	1.7	2.5	—
Ammonical Nitrogen	mg/l	1.3	1.4	1.1	1.6	—
Hardness as CaCo3	mg/l	334	296	296	339	—
Calcium as CaCo3	mg/l	193	127	112	186	—
Magnesium as CaCo3	mg/l	141	170	184	153	—
Sulphates	mg/l	200	221	216	197	400
Sodium	mg/l	240	233	208	199	—
Total Dissolved Solids	mg/l	995	941	870	899	1500
Total Fixed Solids	mg/l	847	812	757	772	—
Total Suspended Solids	mg/l	16	15	13	15	—
Ortho Phosphates	mg/l	0.3	0.2	0.1	0.2	—
Boron	mg/l	0.9	0.9	0.8	0.8	—
Potassium	mg/l	8.1	6.1	4.6	8.8	—
Flouride	mg/l	0.7	0.7	0.7	0.7	1.5
% Sodium	meq/L	61	63	60	55	—
SAR	meq/L	5.7	5.9	5.2	4.7	—

From the above it may be noted, the present water quality is classified as Class-C due to mixing of sewage into the river, though the values of pH, DO, Faecal coliform (as per Hon'ble NGT order dated. 20.09.2018) & BOD are meeting the quality criteria for Class-B (Outdoor bathing- organized) except the concentrations of Total Coliform count. The copy of the CPCB developed best use water quality criteria is attached as Annexure-I for kind perusal.

As per the Orders of Hon'ble NGT, the present water Quality of River Tungabhadra in Kurnool along with the analysis reports of Tunghabhadra River Pushkar ghats located in Kurnool District are here with submitted. The Analysis reports are attached as Annexure – II for kind perusal.

This further report is submitted to the Hon'ble NGT in due compliance of the directions issued by this Hon'ble Tribunal. APPCB will abide by all such directions as this Hon'ble Tribunal may deem fit and appropriate.

Dated at Kurnool, A.P. on this the 16th day of July, 2024.



ENVIRONMENTAL ENGINEER
AP POLLUTION CONTROL BOARD
REGIONAL OFFICE, KURNOOL

Annexure – I

Central Pollution Control Board (CPCB) developed Water Quality Criteria by classifying as class-A, B, C, D, E & below E based on Designated-Best-Use as detailed below:

Water Quality Criteria		
Designated-Best-Use	Class of water	Criteria
Drinking Water Source without conventional treatment but after disinfection	A	Total Coliforms Organism MPN/100ml shall be 50 or less pH between 6.5 and 8.5 Dissolved Oxygen 6mg/l or more Biochemical Oxygen Demand 5 days 20°C 2mg/l or less
Outdoor bathing (Organised)	B	Total Coliforms Organism MPN/100ml shall be 500 or less pH between 6.5 and 8.5 Dissolved Oxygen 5mg/l or more Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Drinking water source after conventional treatment and disinfection	C	Total Coliforms Organism MPN/100ml shall be 5000 or less pH between 6 to 9 Dissolved Oxygen 4mg/l or more Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Propagation of Wild life and Fisheries	D	pH between 6.5 to 8.5 Dissolved Oxygen 4mg/l or more Free Ammonia (as N) 1.2 mg/l or less
Irrigation, Industrial Cooling, Controlled Waste disposal	E	pH between 6.0 to 8.5 Electrical Conductivity at 25°C micro mhos/cm Max.2250 Sodium absorption Ratio Max. 26 Boron Max. 2mg/l
	Below-E	Not Meeting A, B, C, D & E Criteria

ANNEXURE - II

A.P. POLLUTION CONTROL BOARD
Zonal Laboratory: Kurnool
Road No:02, Labor Colony, V R Colony, Kurnool - 518 003



FORMAT No.APPCB/ZL/KNL/FM/66

ANALYSIS REPORT

Report No: KNL2406060 to 063

Dated: 29th day of June 2024

Sampling Source : M/s. Tungabhadra River water samples at Puskhar Ghats
Kurnool Municipal Corporation, Kurnool, Kurnool District

Sample code & Location : **KNL2406060** : Puskhar Ghat in Tungabhadra River near Ragavendra Mutt in Kurnool Town

KNL2406061 : Puskhar Ghat in Tungabhadra River right side at Sri Sai Baba Temple, Kurnool Town

KNL2406062 : Puskhar Ghat at Nagreshwara Swamy temple, Kurnool

KNL2406063 : Puskhar Ghat in Tungabhadra River at NH-44 near Munagalapadu (V), Kurnool

Purpose of sample : As per the Order of NGT in the matter of O.A 13/2021 (SZ)

Sample collected by : Analyst Gr-I, Regional Office, Kurnool

Sample collected on : 20-06-2024

Sample received on : 21-06-2024

Report issued on : 29-06-2024

It is to certify that the aforementioned samples were analyzed from 22-06-2024 to 28-06-2024 and the analysis result is declared as follows:

Sl. No	Parameter	Unit	SAMPLE CODE				Test Method
			Analysis Result				
			060	061	062	063	
1	pH @ 25°C	--	7.1	7.5	7.5	7.5	APHA (23 rd Edition) 4500-H*B: 2017, Page. 4-95 to 4-99
2	Total Suspended solids (TSS)	mg/L	<1	19	24	39	APHA (23 rd Edition) 2540-D: 2017, Page. 2-70 to 2-71
3	Total Dissolved Solids (TDS)	mg/L	722	675	709	715	APHA (23 rd Edition) 2540-C: 2017, Page. 2-69 to 2-70
4	Chemical Oxygen Demand (COD)	mg/L	18	11	12	16	APHA (23 rd Edition) 5220-B: 2017, Page. 5-18 to 5-19
5	Biochemical Oxygen Demand (BOD) 3 days @ 27°C	mg/L	2.3	<2	<2	2.0	IS 3025 (Part 44): 1993 (Reaffirmed 2019)
6	Sulphate (as SO ₄ ²⁻)	mg/L	175	160	167	159	APHA (23 rd Edition) 4500-SO4 E: 2017Page. 4-199 to 4-200
7	Chloride (as Cl ⁻)	mg/L	136	120	126	142	APHA (23 rd Edition) 4500-Cl B: 2017, Page. 4-75 to 4-76
8	Phosphate (as PO ₄ ³⁻)	mg/L	0.8	1.9	0.2	0.3	APHA (23 rd Edition) 4500-P D: 2017, Page. 4-163 to 4-164
9	Total Coliform	MPN/100 ml	961	870	816	921	MPN Method
10	Faecal Coliform	MPN/100 ml	281	288	226	293	MPN Method
11	Dissolved Oxygen (DO)	mg/L	5.4	5.9	5.9	5.2	APHA (23 rd Edition) 4500-O C: 2017, Page. 4-146 to 4-148

Remarks:

1. The result is related to the sample as received and tested.
2. This report shall not be reproduced except in full without the approval of the laboratory.

Authorized Signatory

K. Sudhakar

STATE BOARD ANALYST

(K. SUDHAKAR)

Jr. Scientific Officer

Zonal Laboratory, Kurnool

Copy submitted to the Environmental Engineer, APPCB, Regional Office, Kurnool for information.

++ END OF THE REPORT ++

Page 1 of 1



A.P. POLLUTION CONTROL BOARD
Zonal Laboratory: Kurnool
Road No:02, Labor Colony, V R Colony, Kurnool – 518 003



FORMAT No.APPCB/ZL/KNL/FM/66

ANALYSIS REPORT

Report No: KNL2406056 to 059

Dated: 29th day of June 2024

Sampling Source : M/s. Tungabhadra River water samples at Puskhar Ghats
Kurnool Municipal Corporation, Kurnool Kurnool District

Sample code & Location : **KNL2406056** : Puskhar Ghat in Tungabhadra River at Pump House
near Masamasid Village, Kurnool

KNL2406057 : Puskhar Ghat in Tungabhadra River at Sankalbagh,
Kurnool Town

KNL2406058 : Puskhar Ghat in Tungabhadra River at Nagasai
Temple, Kothapeta, Kurnool Town

KNL2406059 : Puskhar Ghat in Tungabhadra River at Rambotla
Temple, One Town in Kurnool Town

Purpose of sample : As per the Order of NGT in the matter of O.A 13/2021 (SZ)

Sample collected by : Analyst Gr-I, Regional Office, Kurnool

Sample collected on : 20-06-2024

Sample received on : 21-06-2024

Report issued on : 29-06-2024

It is to certify that the aforementioned samples were analyzed from 22-06-2024 to 27-06-2024 and the analysis result is declared as follows:

Sl. No	Parameter	Unit	SAMPLE CODE				Test Method
			Analysis Result				
			056	057	058	059	
1	pH @ 25°C	--	7.3	7.2	7.2	7.2	APHA (23 rd Edition) 4500-H+B: 2017, Page. 4-95 to 4-99
2	Total Suspended solids (TSS)	mg/L	1	22	19	10	APHA (23 rd Edition) 2540-D: 2017, Page. 2-70 to 2-71
3	Total Dissolved Solids (TDS)	mg/L	735	690	742	765	APHA (23 rd Edition) 2540-C: 2017, Page. 2-69 to 2-70
4	Chemical Oxygen Demand (COD)	mg/L	16	14	10	11	APHA (23 rd Edition) 5220-B: 2017, Page. 5-18 to 5-19
5	Biochemical Oxygen Demand (BOD) 3 days @ 27°C	mg/L	2.0	<2	<2	<2	IS 3025 (Part 44): 1993 (Reaffirmed 2019)
6	Sulphate (as SO ₄ ²⁻)	mg/L	173	170	185	197	APHA (23 rd Edition) 4500-SO4 E: 2017Page. 4-199 to 4-200
7	Chloride (as Cl ⁻)	mg/L	142	126	136	138	APHA (23 rd Edition) 4500-Cl B: 2017, Page. 4-75 to 4-76
8	Phosphate (as PO ₄ ³⁻)	mg/L	0.1	1.9	1.2	1.7	APHA (23 rd Edition) 4500-P D: 2017, Page. 4-163 to 4-164
9	Total Coliform	MPN/100 ml	980	1011	1046	961	MPN Method
10	Faecal Coliform	MPN/100 ml	279	303	298	289	MPN Method
11	Dissolved Oxygen (DO)	mg/L	5.1	5.2	5.5	5.4	APHA (23 rd Edition) 4500-O C: 2017, Page. 4-146 to 4-148

Remarks:

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K. Sudhakar

STATE BOARD ANALYST

(K. SUDHAKAR)

Jr. Scientific Officer

Zonal Laboratory, Kurnool

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++ END OF THE REPORT ++



A.P. POLLUTION CONTROL BOARD
Zonal Laboratory: Kurnool
Road No:02, Labor Colony, V R Colony, Kurnool - 518 003



FORMAT No.APPCB/ZL/KNL/EM/66

ANALYSIS REPORT

Report No: KNL2406064 to 066

Dated: 29th day of May 2024

Sampling Source : River water samples, Agasanur (V), Kosigi (M),
Mantralayam, Kurnool District

Sample code & Location : **KNL2406064** : Tungabhadra River at Agasanur (V), Kosigi (M)
KNL2406065 : Tungabhadra River at Vinayaka Ghat, Mantralayam (M)
KNL2406066 : Tungabhadra River at Santa Market, Mantralayam (M)

Purpose of Sample : As per the Order of NGT in the matter O.A 13/2021 (SZ)

Sample collected by : Analyst Gr-I, Regional Office, Kurnool

Sample collected on : 21-06-2024

Sample received on : 22-06-2024

Report issued on : 29-06-2024

It is to certify that the aforementioned samples were analyzed from 22-06-2024 to 28-06-2024 and the analysis result is declared as follows:

Sl. No	Parameter	Unit	SAMPLE CODE			Test Method
			Analysis Result			
			064	065	066	
1	pH @ 25°C	--	7.5	7.5	7.6	APHA (23 rd Edition) 4500-H+B: 2017, Page. 4-95 to 4-99
2	Total Suspended solids (TSS)	mg/L	72	24	36	APHA (23 rd Edition) 2540-D: 2017, Page. 2-70 to 2-71
3	Total Dissolved Solids (TDS)	mg/L	735	670	723	APHA (23 rd Edition) 2540-C: 2017, Page. 2-69 to 2-70
4	Chemical Oxygen Demand (COD)	mg/L	17	12	14	APHA (23 rd Edition) 5220-B: 2017, Page. 5-18 to 5-19
5	Biochemical Oxygen Demand (BOD) 3 days @ 27°C	mg/L	2.2	<2	<2	IS 3025 (Part 44): 1993 (Reaffirmed 2019)
6	Sulphate (as SO ₄ ²⁻)	mg/L	183	168	175	APHA (23 rd Edition) 4500-SO4 E: 2017 Page. 4-199 to 4-200
7	Chloride (as Cl ⁻)	mg/L	126	112	124	APHA (23 rd Edition) 4500-Cl B: 2017, Page. 4-75 to 4-76
8	Phosphate (as PO ₄ ³⁻)	mg/L	0.5	0.2	0.1	APHA (23 rd Edition) 4500-P D: 2017, Page. 4-163 to 4-164
9	Total Coliform	MPN/100 ml	870	792	980	MPN Method
10	Faecal Coliform	MPN/100 ml	288	232	304	MPN Method
11	Dissolved Oxygen (DO)	mg/L	5.1	6.3	5.7	APHA (23 rd Edition) 4500-O C: 2017, Page. 4-146 to 4-148

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