THE HON'BLE NATIONAL GREEN TRIBUNAL

Principal Bench, New Delhi

Original Application No. 1002/2018

Abhisht Kusum Gupta — Applicant

Vs.

State of Uttar Pradesh & Ors — Respondent(s)

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(A. Sudhakar)
Scientist 'F'
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi-110032.

Place: Delhi
Date: 29.07.2022

Status note on development of standards and policy formulation for maintaining and restoring water quality of storm water drains/ irrigation canals and other “streams” as per the Water Act, 1974

Hon’ble National Green Tribunal (NGT), Principle Bench vide its order dated 23.12.2021 in O. A. No. 1002/2018 in the matter of Abhisht Kusum Gupta Vs. State of Uttar Pradesh & Ors related to preventing untreated sewage going to the “irrigation canal” in Sector 137, Noida directed CPCB and relevant portion of the directions are reproduced below: -

“12. The first report of CPCB deals with the standards of water quality of drains but there is no mention of such standards either laid down or proposed. The report simply mentions the water quality criteria for surface water courses (for bathing waters) and the general standards for effluents. The Tribunal had asked for the standards for disposal of treated effluents, to be permitted in storm water drains or irrigation canals to maintain the water quality of (such) drains laid down or proposed under the Environment (Protection) Act, 1986/the Water (Prevention and Control of Pollution) Act, 1974. Let the Chairman and Member Secretary, CPCB look into this aspect and ensure that appropriate standards are laid down on the subject within one month from today.”

“20. We sum up our directions as follows:
x. (CPCB) To evolve standards and formulate policy for maintaining and restoring water quality of storm water drains / irrigation canals and other “streams” as per the Water Act, 1974.

Actions initiated by CPCB for ensuring compliance to Hon’ble NGT order dated 23.12.2021 is detailed below: -

Action taken by CPCB in compliance to Direction of Hon'ble NGT

In pursuance to Hon’ble NGT order dated 23.12.2021, Central Pollution Control Board (CPCB) constituted an Expert Committee comprising members from concerned Ministries/Expert Institutions/Organizations/SPCBs vide Office Order

dated 11.02.2022 with the terms of reference detailed in subsequent paras.

a. To assess water quality of few storm water drains/irrigation canals under reference in OA No. 1002/2018 and other “streams” in few States/UT, and
b. To evolve standards and formulate policy for maintaining and restoring water quality of storm water drains/irrigation canals and other “streams” as per the Water Act, 1974, within a month.

A Copy of the Office Order constituting Expert Committee vide CPCB letter dated 11.02.2022 is given at **Annexure I.** Details of proceedings and action taken by the Expert Committee are attached at **Annexure II.**

The recommended standards/ Observations of Expert Committee are prepared. As the subject matter involves policy decisions, the report based on the recommendations of the Committee has been submitted to the Competent Authority at CPCB to obtain concurrence & approval from MoEF &CC.

-- OO --

Central Pollution Control Board
(Ministry of Environment, Forest & Climate Change, Govt. of India)
Parivesh Bhawan, East Arjun Nagar,
Delhi – 110032

F No- 14011/WQM-I//2022 /928 **Date: 11.02.2022**

OFFICE ORDER

Constitution of Expert Committee for ensuring compliance to Hon'ble NGT (PB) order dated 23.12.2021 in O. A. No. 1002/2018, Abhisht Kusum Gupta Vs. State of Uttar Pradesh & Ors.- Reg.

In pursuance to Hon'ble NGT (PB) order dated 23.12.2021 in O. A. No. 1002/2018, Abhisht Kusum Gupta Vs. State of Uttar Pradesh & Ors, Central Pollution Control Board (CPCB) is hereby constituting an Expert Committee with following members:

S.No	Ministry/Organization/Name of the Official	Composition of the Expert Committee
1.	DH, WQM-I Division	Chairman of the Committee
2.	Representative of MoEF&CC*	Member
3.	Representative of Ministry of Jal Shakti*	Member
4.	Representative of Ministry of Agriculture *	Member
5.	Representative of National Productivity Council*	Member
6.	Representative of NEERI-Nagpur*	Member
7.	Representative of Environment Department of IARI/ICAR*	Member
8.	Representative of Tamil Nadu PCB	Member
9.	Representative of Gujarat PCB	Member
10.	Sh. Nazimuddin, DH, IPC-II Division, CPCB	Member
11.	DH, UPC-I Division, CPCB or his representative	Member
12.	Sh J.C.Babu, Sc-E, WQM-I Division	Member
13.	Mrs.S.Parashar, Sc 'C', WQM-I	Member Convener

Not below the rank of Director

Contd..2/

The Terms of Reference (ToR) of the Expert Committee:-

The terms of reference of the expert committee shall be as follows: -

(a) To assess water quality of few storm water drains/irrigation canals, irrigation canal under reference in OA No. 1002/2018 and other "streams" in few States/UTs.

(b) To evolve standards and formulate policy for maintaining and restoring water quality of storm water drains/irrigation canals and other "streams" as per the Water Act, 1974, within a month.

Tenure of the Expert Committee: Tenure of the expert committee is one month and same shall be extended if required.

The Chairman of the Committee may invite an expert from any reputed organization/ individual officials as special invitees for the meetings of the committee for seeking views/ suggestions/ review of report, as and when required.

TA/DA/ Honorarium for the Expert Committee shall be paid for attending meetings of Expert Committee, by CPCB from the provision of NGT EC Fund, as per the rates recommended by Hon'ble NGT in the matter of O. A. No. 24/2011.

This issues with the approval of 'Competent Authority, Central Board'

(A. Sudhakar)
Director & DH, WQM-I Division

To:

All the Concerned Ministries/ Organizations/ SPCBs/Individuals

Copy to:

1. PS to CCB : for information of 'CCB', please
2. AO to MS : for information of 'MS', please
3. I/c F & A : for information, please
4. DH, Law section : for information , please

(A. Sudhakar)

Details of proceedings and action taken by the Expert Committee

CPCB vide letters dated 15.02.2022 & 16.03.2022 sought nominations from concerned Ministries/Expert Institutions/SPCBs. National Productivity Council (NPC)has not nominated its representative citing reason that all the officers of NPC were engaged presently.

Meetings of the Expert Committee

Upon receipt of nominations, CPCB organized first meeting of Expert Committee on 25.03.2022 through Video Conferencing under the Chairmanship of Sh. A. Sudhakar,Director & Head, WQM-I Division, CPCB. Minutes of first meeting of the expert meeting is placed at **Appendix I.**

As a follow-up of minutes of the meeting held on 25.03.2022, nominations were alsoinvited from Ministry of Housing and Urban Affairs (MoHUA), National River Conservation Directorate (NRCD), National Mission for Clean Ganga (NMCG) and Town and Country Planning Organization vide CPCB letter dated 08.04.2022 as these organizations have more expertise in design, planning and maintenance of theirirrigation canals & storm water drains. Nominations as special invitees of the ExpertCommittee have been received from NRCD, NMCG and Town and Country PlanningOrganization.

Upon receipt of comments from expert committee members **Appendix II.** CPCB organized second meeting of Expert Committee on 17.05.2022 through Video Conferencing under the Chairmanship of Sh. A. Sudhakar, Director & Head, WQM-I Division, CPCB. Comments received from expert members as well as proposed standards presented before the committee were deliberated during the afore-said meeting. Minutes of meeting of the expert committee held on 17.05.2022 is placed at**Appendix III.**

Analysis results of samples collected from few storm water drains and canals

Analysis results of the samples collected from few storm water drains (such as Malin Drain, Chuiya Siana, Chuiya Drain (at Stone Nagi Road, D/s Mohit Nagar), Siana Drainand Canals (Upper Ganga Canal, Western Yamuna Canal, Bhakra Canal, Mixed Western Yamuna Canal) during 22.03.2022 to 23.03.2022 as well as water quality data of streams/canals monitored under NWMP is annexed as **Appendix IV.**

Speed Post

F No- 14011/WQM-I/1002-2018/2022 **Date: 31.03.2022**

To

Expert Members
(As per the list attached)

Sub: Minutes of First meeting of Expert Committee held on 25.03.2022 for ensuring compliance to Hon'ble NGT(PB) order dated 23.12.2021 in O.A. No. 1002/2018 in the matter of Abhisht Kusum Gupta Vs. State of Uttar Pradesh & Ors.

Sir,

This has reference to First Meeting of Expert Committee held on 25.03.2022 through Video Conference for ensuring compliance to the Hon'ble NGT order and I am directed to forward a copy of minutes of the afore-said meeting for kind information and record. Also, kindly arrange to provide suggestions/views if any in light of the decisions taken in the afore-said meeting for further discussion in next meeting of the committee please.

Yours faithfully,

Suniti

(Suniti Parashar)
Scientist 'C', WQM-I &
Member Convener

o/c

Encl:as above

Copy to:

AO to MS : for information of 'MS' please

Suniti

(Suniti Parashar)

o/c

List of members of the Expert Committee

Sh. Yogesh A. Raundal Assistant Commissioner, Ministry of Agriculture, DA&FW, MoA&FW, Room No-118-B, Shastri Bhawan, New Delhi-110001	Dr Shakeel A Khan Principal Scientist, Division of Environment Science, ICAR-Indian Agricultural Research Institute, Pusa Campus, New Delhi – 110012
Dr.Pawan Labhasetwar Chief Scientist and Head WTMD Division, NEERI-Nagpur Nehru Marg, Nagpur 440 020	Sh. R.B Trivedi Environment Engineer, Regional Officer-Vadodara Gujarat Pollution Control Board ERI Compound, Race Course road, Vadodara 390 007
Sh. Thiru. S.Raghupathi Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board, No.76, Mount Salai, Guindy, Chennai-600 032 E-mail- jcee2chn@tnpcb.gov.in	Sh. Pankaj Kumar Sharma, Director,River Data Compilation 2 Directorate, Central Water Commission West Block 2, First Floor, Wing No 7, Rama Krishna Puram, New Delhi 110605
Sh. Nazimuddin, DH, IPC-II Division, CPCB	Sh Vishal Gandhi Scientist D, UPC-I Div , CPCB
Sh. A. Sudhakar, Head- WQM-I Division, CPCB	Sh.J.C.Babu, Scientist 'E', WQM-I Division CPCB
The Additional Secretary, Ministry of Environment, Forests and Climate Change CP-Division, Prithvi Wing, 2nd Floor, Room No. 216, Indira Paryavaran Bhawan Aliganj, Jor Bagh Road New Delhi – 110003 E-mail- jsnpg.mefcc@gov.in	

Minutes of First meeting of Expert Committee constituted for ensuring compliance to Hon'ble NGT(PB) order dated 23.12.2021 in O.A. No. 1002/2018 in the matter of Abhisht Kusum Gupta Vs. State of Uttar Pradesh & Ors.

First Meeting of Expert Committee constituted by CPCB vide office order dated 11.02.2022 was convened on 25.03.2022 at 3:00 PM under the chairmanship of Sh. A. Sudhakar, Director & Head, WQM-I Division, CPCB through Video Conference to ensure compliance to Hon'ble NGT order dated 23.12.2021. List of participants attended the meeting is given in **Annexure-I.**

Sh. A. Sudhakar, Chairman of the committee welcomed all the expert members and mentioned about the objectives and importance of the Committee. After a brief introduction of all the Expert Members he requested Smt. Suniti Parashar, Sc 'C' to make a brief presentation on CPCB initiatives in the context of the meeting. Mrs. S.Parashar made a presentation covering background, initiatives taken by CPCB for ensuring compliance to Hon'ble NGT order dated 23.12.2021 in O.A No. 1002/2018 and water quality assessment of irrigation canals and storm water drains carried out by CPCB during 22-23.02.2022 in Delhi & NCR as well as water quality of irrigation canals and drains monitored in other parts of the country under National Water Quality Monitoring Programme (NWMP) for the year 2021. The General Standards for Discharge of Environmental Pollutants notified under Schedule VI of Environment (Protection) Rules, 1986 and Designated Best Use Criteria for Classification of Surface Waters-Class E (Irrigation, Industrial Cooling, Controlled Waste disposal) were also informed to the members of the Committee.

Thereafter, Sh. A. Sudhakar requested views of the members on the course of action to comply with the order of Hon'ble NGT.

Sh. Nazimuddin, DH-IPC-II Division, CPCB suggested that committee should consider following aspects while preparation of standards for storm water drains or irrigation canals (i) natural drains and constructed channels carrying effluents need to be separated (ii) standards should be set considering BOD and COD ratio of cleaner river i.e ratio of 2 or 2.5, other parameters such as ammonical nitrogen, organic nitrogen,nitrates and nitrites, and (iii) size and volume of flow of the drains and

dilution ratios.

Sh. R.B Trivedi, Environment Engineer, Regional Officer-Vadodara, GPCB suggested that experts from the Ministry of Urban Development, Town & Country Planning and Irrigation may also be invited or consulted to provide suggestions as they would have expertise in design, planning and maintenance of the irrigation canals & storm water drains.

Shri Pankaj Kumar Sharma, Director, Central Water Commission (CWC) suggested that NRCD and NMCG should be requested for direct representation in the Expert Committee or to provide their comments/views/suggestions regarding the subject matter. He then informed that according to the Hon'ble NGT order the water quality of storm water drains needs to be maintained as that of freshwater.

Sh. Thiru S.Raghupathi, Joint Chief Environmental Engineer, TNPCB suggested that apart from the manual on storm water drainage systems-2019 as shown in the presentation, some new and latest studies be referred and also studies on apportionment of waste (litter, municipal waste, animal waste) contaminating the storm water drains also be looked upon for a better understanding of the issue.

Sh. J.C.Babu, provided his remarks that (i) General Standards for Discharge of Environmental Pollutants notified under Schedule VI of Environment (Protection) Rules, 1986 only specified for discharge of treated effluent into inland surface waters, public sewer, land for irrigation and marine coastal areas and under Consent to Operate issued under Water (Prevention and Control of Pollution), Act 1974 by the SPCBs/PCCs cannot permit effluent discharges into storm water drains. SPCBs/PCCs should examine this aspect critically before issuing Consent to operate under Water Act, 1974 . He emphasised that stringent norms can be made to prevent the contamination of irrigation canal/ storm water drains as empowered under the provisions of various acts. In case, effluents are discharged int to the storm water drain, then concerned authorities should go for Interception & diversion of wastewater/ effluent from strom water drains for treatment before discharging into water bodies complying to the discharge norms. He further suggested that Designated Best Use Criteria for Classification of Surface Waters-Class E (Irrigation,

Industrial Cooling, Controlled Waste disposal) can be made applicable for the irrigation canals. He also suggested that the time given for compliance to the directions of Hon'ble NGT is not adequate enough to evolve standards and formulatedesired policy, expert committee may seek additional time from Hon'ble NGT.

Sh. Yogesh A. Raundal, Assistant Commissioner, Ministry of Agriculture suggested that water quality parameters which affect the soil and the agricultural crops grown can be looked while preparing the standards for irrigation canals and storm water drains.

Further, Sh. A Sudhakar suggested that all the expert members shall go through presentation and Hon'ble NGT order already circulated by e-mail and provide comments or views with suitable suggestions and thereafter same may be discussed in next meeting.

The meeting ended with a vote of thanks to the Chair.

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Annexure I

List of participants attended the First meeting of Expert Committee constituted for ensuring compliance to Hon'ble NGT(PB) order dated 23.12.2021 in O.A. No. 1002/2018 in the matter of Abhisht Kusum Gupta Vs. State of Uttar Pradesh & Ors

1. Sh. A. Sudhakar, Head WQM-I Division, CPCB	Chairman of the Committee
2. Sh. Yogesh A. Raundal, Assistant Commissioner, Ministry of Agriculture	Member
3. Shri Pankaj Kumar Sharma, Director, RDC-2, CWC	Member
4. Sh. Thiru S.Raghupathi, Joint Chief Environmental Engineer, TNPCB	Member
5. Sh. R.B Trivedi , Environment Engineer, Regional Officer-Vadodara, GPCB	Member
6. Sh. Nazimuddin, DH-IPC-II Division, CPCB	Member
7. Sh. Danish Meena, Sc---UPC-I Division, CPCB (On behalf of Sh. Vishal Gandhi)	Member
8. Sh. J. Chandra Babu, Sc. 'E', CPCB	Member
9. Ms. Suniti Parashar, Sc. 'C', CPCB	Member Convener
10. Ms. Deepa Kumari, SRF, CPCB	

COMMENTS OF EXPERT COMMITTEE MEMBERS

Comments of Central Water Commission (CWC)

Storm-water drains

- In ideal conditions, the water quality of storm runoff entering into storm water drain should be in line with water quality of occurring rainfall in its catchment plus Total Suspended Sediments (TSS) / Total Dissolved solids (TDS).
- However, since 100% solid waste segregation and management is still to be achieved in most of the Indian cities, either the solid waste remains on streets or stored in Waste Handling Area of a locality. During monsoon season, gradually, this dumped waste gets washed up in storm water drains / natural drainage and then transported to surface water bodies deteriorating their water quality. In bigger cities / metropolitan areas, waste from local waste handling area is transported to designated landfill areas and stored there. Over the years, landfills grow in size and numbers e.g. landfills area around the Delhi (Ghazipur, Okhla and Bhalsawa etc.). Leachate from the dumpsite flowing through drains nearby is also one of the cause for increased level of chlorides, total dissolved solids (TDS), total soluble solids (TSS) and turbidity in surface water bodies. Waste segregation and management practices need to be strictly implemented. Also, strict monitoring of water quality (surface / ground water both) along the periphery of the landfill areas / waste handling area should be taken up.
- The storm-water drains are planned / designed for carrying rainfall only. Technically, they are supposed to carry storm-water or rainwater only. Also, sewer systems are planned to keep sewage and storm-water separate. Intermixing of sewage with storm-water should never be allowed.
- 3. However, in areas, where such intermixing has already happened and it is not feasible to separate sewage flow from getting into storm-water drains. The prior treatment of the sewage should be taken up before it gets drained into storm-water drains. Like, in urban areas, houses having plot area more than the specific size (lets say 150 square meter) should be required to install waste water treatment plant. Till, complete isolation of storm water drains from sewage system is achieved, for practical conditions, water quality of storm drain at its outfall should be at least of the water quality of surface water body with which it is merging / mixing or better.
- Best management practices (BMPs) may be utilized for management of storm water to minimize contact of rainwater to pollutants and thus preventing the rainwater from transporting pollutants through storm drains to surface water bodies. Some of the BMPs are given for illustration purpose and may be seen in enclosed Annexure.

Irrigation Canals

- Normally, the irrigation canals are designed for gravity flow and are on higher grounds than surrounding areas protected by raised banks. As such, the canal waters do not get mixed with effluents of surrounding areas normally. However, in cases, where irrigation canal are passing through habitations, the effluent of these areas should be kept separate from canal waters. Also, it should be efficiently intercepted and stabilised to the irrigation water quality. The present classification of the water as per its designated uses given by CPCB, i.e. Class E for irrigation purposes, needs to be revisited.

Other Streams

- For evolving the standards and formulation of the policy for maintaining and restoring water quality of other streams, the baseline water-quality of the stream should be at least usable by wildlife and as per organised bathing standards of CPCB.

Best management practices (BMPs)

i. Creation of settling basin to prevent mobilization of pollutants into rivers through storm water drain. Green infrastructure works around storm drains and canal system to slow down the runoff for allowing soaking into groundwater. Some of the techniques of GIWs are rain gardens, pervious pavement, rain barrels, bioswales, dry wells and green roofs.
ii. Catchment area treatment in vicinity of storm water drain to stop loose soil / sediments getting into drain
iii. Also simple and cost-effective solution to deal with the discharge of solid waste from drainage systems is to put nets on the outlet/ outfall of drainage pipes/storm drain. (drain-socks)
iv. Pre-monsoon preparatory works of removal and cleaning of solid and liquid wastes from streets / drains prior to rain should be taken up by ULBs / PRIs.

<u>Comments of National Institute of Hydrology (NIH) forwarded by CWC</u>

- Natural drains and constructed channels carrying effluents should be considered separately while preparation of standards for storm water drains or irrigation canals.

- The General Standards for Discharge of Environmental Pollutants notified under Schedule - VI of Environment (Protection) Rules, 1986 have different Standards for different water quality parameters for disposal of pollutants in different entries viz; Inland Surface Water, Public Sewers, Land for Irrigation and Marine Coastal Areas. Although Inland Surface Water Standards are generally being used for Storm Water Drain and Standards for Land for Irrigation for irrigation canal. But there are many water quality parameters specially metal concentrations (Sr. No. 15-23, which are toxic in nature and becomes the part of food chain) for which no limits are mentioned for disposal of pollutants on Land for Irrigation. This aspect should be included in preparation of revised standards for disposal of pollutants on Land for Irrigation.

- Further Designated Best Use Criteria for Classification of Surface Waters - Class E (Irrigation, Industrial Cooling and Controlled Waste disposal) is also providing the Standards for Irrigation Quality and may be applicable for Irrigation Canals.

- The monitoring of surface water, is however hampered by the inherent variability of flow and pollutant concentrations. Changes in water discharge and variations in suspended solid loadings have a considerable effect upon pollutant loadings, particularly in areas where effluent emissions are irregular. Therefore, volume of flow i.e. discharge of drains should also be considered while preparation of guidelines for maintaining and restoring water quality of storm water drains/irrigation canals and other streams.

Comments of NRCD forwarded by CWC

Input for formation of Standards of Storm water drainage

To develop the standards there is a need to develop key parameters and indicators for systemic and scientific assessment. Therefore, parameters at planning, implementation and operation and maintenance stage is required to be identified. The following index may be considered:

- Index for Drainage Cleaning, Water logging & Drainage coverage are fundamentals
- Rain water harvesting/artificial ground water recharge index: ratio of water stored to ratio of measured rainfall volume.
- Sewage mixing index: Ratio of volume of sewage flows entering the storm water drain to the volume of flows in the storm water drain
- System robustness index: Ratio of rate of incoming storm flow to rate of pumping
- Flood moderation index: Ratio of area not flooded due to moderation to the area that would have been flooded without moderation
- Permeability index: the percentage of impervious catchment
- Rainfall intensity index: Ratio of observed rainfall to the rainfall intensity that causes flooding
- Storm water discharge quality index: Ratio of measured value of total suspended solids /Biochemical oxygen demand of storm water to the prescribed limits of TSS/BOD
- Design internal and peripheral drains of the urban storm water drainage system for maximum rainfall of the five-year frequency storm
- Also provision of pumping arrangement in low lying area/water logging areas is essential. In addition, Compliant redressal may also be included.

Comments of National Environmental Engineering Research Institute (NEERI)

1. Water quality standards/guidelines for irrigation

In addition to surface water quality criteria of CPCB, "Guidelines for the quality of Irrigation Water, IS 11624 (1986) reaffirmed in 2001 (might be in-vogue now also after the latest reaffirmation) can be considered (this might have been also discussed in the meeting). These standards mainly EC, SAR, Residual Sodium Carbonate (RSC) and Boron and suitability of irrigation water for semi-tolerant and tolerant crops are included in this document. Similarly, there are standards/guideline values by International Agencies such as Food and Agriculture Organization (FAO) which also focusses on similar parameters (pl refer to the link and this also seems to be dated document https://www.fao.org/3/T0234e/T0234E01.htm#ch1.4. These standards/guideline values are basically derived to avoid adverse effects on crop growth. In addition, there are standards/guidelines available to avoid adverse health effects due to application of (diluted) sewage/greywater on population likely to be exposed to pathogens either while working in the field or due to involuntary routes. This happens if (diluted) sewage/wastewater in any form is used for irrigation. Guidelines for the safe use of wastewater, excreta and greywater - Volume 2 - Wastewater use in agriculture, 2013 by WHO is another document which can be referred for the guideline vales mainly for pathogens. The Guidelines are designed to protect health of farmers, local communities and product consumers (specially vegetables). This is an excellent document which presents harmonized framework for the development of guidelines and standards for water related pathogens. The framework involves assessment of health risks prior to setting of health based targets.

It also means that this will require engagement of multiple institutes having multi-disciplinary knowledge to evolve country specific standards. Moreover, this will be resource consuming process but I recommend that this process be adopted in developing standards. BIS may also be involved in this exercise.

2. Standards for storm water quality

Most of the storm water standards in fact are derived to protect receiving environment mainly water bodies from unabated discharge of storm water. While storm water quality criteria particularly TSS is mentioned in some of the standards, we need to evolve other parameters for storm water quality.

Considering the fact that dedicated storm water drains in India is not a reality (as most of these drains also carry wastewater and often remain disconnected), developing standards will have limited applicability. NEERI suggested that approach to developing standards can be similar to Guidelines for Drinking Water Quality (GDWQ) of WHO (amended version of which was released on March 22, 2022) although this approach may be resource intensive and time consuming. In any case in the current context, discharge of any type of wastewater into storm water drain or canal for carrying irrigation water should be completely prohibited irrespective of standards.

Comments of Sh. Nazimuddin, Addl.Dirctor, CPCB, Delhi.

Order dated 23.12.2021

"12. The first report of CPCB deals with the standards of water quality of drains but there is no mention of such standards either laid down or proposed. The report simply mentions the water quality criteria for surface water courses (for bathing waters) and the general standards for effluents. The Tribunal had asked for the standards for disposal of treated effluents, to be permitted in storm water drains or irrigation canals to maintain the water quality of (such) drains laid down or proposed under the Environment (Protection) Act, 1986/the Water (Prevention and Control of Pollution) Act, 1974. Let the Chairman and Member Secretary, CPCB look into this aspect and ensure that appropriate standards are laid down on the subject within one month from today."

…

"20.We sum up our directions as follows:

…

x. (CPCB) To evolve standards and formulate policy for maintaining and restoring water quality of storm water drains / irrigation canals and other "streams" as per the Water Act, 1974.

List for further consideration on 12.04.2022" (as per cause list for 12.04.2022 the matter was shifted to 12.05.2022, and as per advance cause list for 12.05.2022 the matter has been further shifted to 24.05.2022). Suggested standards are given as Annexure-I.

Annexure-A

Guidelines for used based classification and water quality criteria of surface waters - rivers, natural drains, canals, lakes/ water tanks

Class	DBU	pH	DO	BOD	TC	FC	FS	Amm-N	EC	SAR	Boron
A	Drinking water source without conventional treatment but with chlorination	6.5-8.5	6 or more	2 or less	50 / 100 ml (MPN)	-	-	-	-	-	-
B	Outdoor bathing	6.5-8.5	5 or more	3 or less	500 / 100 ml (MPN)	-	-	-	-	-	-
	Outdoor bathing – Notified standards	6.5-8.5	5 or more	3 or less		500 – desirable 2500 – permissible	100 – desirable 500 – permissible	-	-	-	-
C	Drinking water source with conventional treatment	**6.0-9.0**	4 or more	3 or less	5000 / 100 ml (MPN)	-	-	-	-	-	-
D	Propagation of wildlife and fisheries	6.5-8.5	4 or more	-	-	-	-	1.2	-	-	-
E	Irrigation, industrial cooling, and controlled waste disposal	6.5-8.5	-	-	-	-	-	-	2250 micro mhos/cm	26 or less	2

Standards for used based classification and water quality criteria of coastal water - Primary water quality criteria

Class	DBU	pH	DO	BOD	FC	Turbidity	Color and Odor	Floating matter / O&G	SS	HM
SW-I	Salt pans, Shell fishing, Mariculture and Ecologically sensitive zone	6.5-8.5	5 or 60% saturation value	-			No noticeable color or offensive odor	Nothing obnoxious or detrimental for use purpose / 0.1	xxx	Hg-0.001 Pb-0.001 Cd-0.01
SW-II	Bathing, Contact water sports, and commercial fishing	6.5-8.5	4 or 50% saturation value	3	100* / 100 ml (MPN)	30 NTU	No visible color or offensive odor	Nothing obnoxious or detrimental for use purpose	-	-
SW-III	Industrial cooling, Recreation (non-contact) and	6.5-8.5	3 or 40% saturation value	-	500* / 100 ml (MPN)	30 NTU	No visible color or offensive odor	Nothing obnoxious or detrimental for use purpose	-	Fe-0.5 Mn-0.5
SW-IV	Harbour waters	**6.0-9.0**	3 or 40% saturation value	5	500* / 100 ml (MPN)	30 NTU	No visible color or offensive odor	10	-	-
SW-V	Navigation and Controlled waste disposal	**6.0-9.0**	3 or 40% saturation value	-	500* / 100 ml (MPN)	30 NTU	None except for such amount that may result from discharge of treated sewage and or industrial waste effluent	xxx	-	-

*Not average value not exceeding 200 / 100 ml in 20 per cent of samples in a year and in 3 consecutive samples in monsoon month
**Not exceeding 1000 / 100 ml in 20 per cent of samples in a year and in 3 consecutive samples in monsoon month

(Suggested) Guidelines for location specific minimal water quality criteria for canals and natural drains, for SPCBs)

Surface waters category	pH	DO	BOD	COD (COD:BOD=2.5)	TOC (COD:TOC=2.666)	FC	Amm-N	EC	FDS	Conditions
~~Rivers~~	~~6.5-8.5~~	~~5 or more (in morning hours 6-8 am)~~	~~3 or less~~	~~7.5 or less~~	~~3 or less~~	~~500* / 100 ml~~	~~1~~			
~~Lakes / Tanks~~	~~6.5-8.5~~	~~5 or more (in morning hours 6-8 am)~~	~~3 or less~~	~~7.5 or less~~	~~3 or less~~	~~500* / 100 ml~~	~~1~~			
Canals	6.5-8.5	5 or more (in morning hours 6-8 am)	3 or less	7.5 or less	3 or less	500* / 100 ml	1			No sewage or effluent discharge to be permitted in canals emanating from rivers except for cooling waters
Natural drains	**6.0-9.0**	_	3 to 30	7.5 to 50	3 to 20	500 / 100 ml to 1000 / 100 ml	1to 10	2250 micro mhos/cm	2000 mg/L	BOD, COD, TOC, FC, and Amm-N value to be decided based on dilution available in recipient river at confluence point of the drain

Speed Post/E-Mail

F No- 14011/WQM-I/1002/2018 /2022 1250-1258 **Date: 19.05.2022**

To

Expert Members
(As per the list attached)

Sub: Minutes of Second meeting of Expert Committee constituted for ensuring compliance to Hon'ble NGT(PB) order dated 23.12.2021 in O.A. No. 1002/2018 in the matter of Abhisht Kusum Gupta Vs. State of Uttar Pradesh & Ors.

Sir,

This is reference to second expert committee meeting convened on 17.05.2022 at 3:00 PM under the chairmanship of Sh. A. Sudhakar, Director & Head, WQM-I Division, CPCB through Video Conference to ensure compliance to Hon'ble NGT order dated 23.12.2021.

Please find enclosed a copy of minutes of second meeting for reference and record please.

Yours faithfully,

Suniti

(Suniti Parashar)
Sc 'C,'WQM-I DIV.

Encl: As above
Copy to:
DH-Law, CPCB : For information and record please.

Suniti

(Suniti Parashar)

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
दिनांक 19/05/2022

Central Pollution Control Board
(Ministry of Environment, Forest & Climate Change, Govt. of India)
Parivesh Bhawan, East Arjun Nagar,
Delhi – 110032

Sub: Minutes of Second meeting of Expert Committee constituted for ensuring compliance to Hon'ble NGT(PB) order dated 23.12.2021 in O.A. No. 1002/2018 in the matter of Abhisht Kusum Gupta Vs. State of Uttar Pradesh & Ors.

Second Meeting of Expert Committee constituted by CPCB vide office order dated 11.02.2022 was convened on 17.05.2022 at 3:00 PM under the chairmanship of Sh. A. Sudhakar, Director & Head, WQM-I Division, CPCB through Video Conference to ensure compliance to Hon'ble NGT order dated 23.12.2021. List of participants attended the meeting is given in **Annexure-I.**

Sh. A. Sudhakar, Chairman of the committee welcomed all the special invitees & expert members and briefly highlighted the background of the discussions held in previous Expert Committee meeting convened on 25.03.2022. Thereafter, he requested Sh. J.C Babu to start the proceedings by discussing the views/comments of the expert members received after the first meeting. Sh. J.C Babu then requested all the members to elaborate the comments submitted to CPCB.

Upon discussion and deliberations held, following decisions were taken:

I. Canals come under the category of end use for irrigation and are normally designed, executed, operationalized and maintained by Irrigation Department in the States. Discharge of sewage/effluents should not be permitted in irrigation canals. However, if the treated waste water is complying to the BIS guidelines for the quality of irrigation water IS:11624-1986 (Reaffirmed-2001) & CPCB Designated Best Use Criteria , then it may be permitted into irrigation canals (to be regulated by the concerned State/ Central Authorities). Moreover, the quality standards of irrigation water are already established and documented in various publications as discussed during the Expert Committee Meeting.

II. Storm water drains do not propagate any aquatic life and used only as conveyance for drainage purpose, therefore, Primary Water Quality Criteria for Bathing Waters may not be applied. However, if these drains meet the aquatic resources (river, lake, pond etc.), State Pollution Control Boards may stipulate General Standards for Discharge of Environmental Pollutants while granting consent to the local authorities for discharging wastewater into storm water drains. Also, the wastewater flowing through drains should assimilate (match) with water quality of recipient water body to avoid any adverse impact on quality of the latter. Therefore, State Board may prescribe further stringent norms, if local water environment demands based on the assessment.

The meeting ended with a vote of thanks to the Chair.

Annexure

List of participants attended the Second meeting of Expert Committee constituted for ensuring compliance to Hon'ble NGT(PB) order dated 23.12.2021 in O.A. No.1002/2018 in the matter of Abhisht Kusum Gupta Vs. State of Uttar Pradesh & Ors

1.	Sh. A. Sudhakar, Head WQM-I Division, CPCB	:	Chairman of the Committee
2.	Dr. Pravin Kumar, Director (Technical), NMCG	:	Special Invitee
3.	Sh. Yogesh A. Raundal, Assistant Commissioner, Ministry of Agriculture	:	Member
4.	Shri Pankaj Kumar Sharma, Director, Central Water Commission	:	Member
5.	Sh. Thiru S.Raghupathi, Joint Chief Environmental Engineer, TNPCB	:	Member
6.	Dr Shakeel A Khan, Principal Scientist, ICAR-IARI, New Delhi	:	Member
7.	Sh. R.B Trivedi , Environment Engineer, Regional Officer-Vadodara, GPCB	:	Member
8.	Sh. Nazimuddin, DH-IPC-II Division, CPCB	:	Member
9.	Sh. J. Chandra Babu, Sc. 'E', CPCB	:	Member
10.	Sh. Vishal Gandhi, Sc. 'D', CPCB	:	Member
11.	Mrs. Suniti Parashar, Sc. 'C', CPCB	:	Member Convener
12.	Ms. Deepa Kumari, SRF, CPCB		

Address List of members of the Expert Committee

Sh. Yogesh A. Raundal Assistant Commissioner, Ministry of Agriculture, DA&FW, MoA&FW, Room No-118-B, Shastri Bhawan, New Delhi-110001	Dr Shakeel A Khan Principal Scientist, Division of Environment Science, ICAR-Indian Agricultural Research Institute, Pusa Campus, New Delhi – 110012
Dr.Pawan Labhasetwar Chief Scientist and Head WTMD Division, NEERI-Nagpur Nehru Marg, Nagpur 440 020	Sh. R.B Trivedi Environment Engineer, Regional Officer-Vadodara Gujarat Pollution Control Board ERI Compound, Race Course road, Vadodara 390 007
Sh. Thiru. S.Raghupathi Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board, No.76, Mount Salai, Guindy, Chennai-600 032 E-mail- jcee2chn@tnpcb.gov.in	Sh. Pankaj Kumar Sharma, Director,River Data Compilation 2 Directorate, Central Water Commission West Block 2, First Floor, Wing No 7, Rama Krishna Puram, New Delhi 110605
Sh. Nazimuddin, DH, IPC-II Division, CPCB	Sh Vishal Gandhi Scientist D, WQM-I , CPCB
Sh. A. Sudhakar, Head-WQM-I Division, CPCB	Sh.J.C.Babu, Scientist 'E', CPCB
Dr. Pravin Kumar, Director (Technical), National Mission for Clean Ganga, Ministry of Jal Shakti, Department of Water Resources, RD & GR, 1st Floor, Major Dhyan Chand National Stadium, India Gate, New Delhi – 110002 Sh. Sanjay Kumar Singh, Scientist 'C', National River Conservation Directorate(NRCD), Ministry of Jal Shakti Department of Water Resources, RD & GR Pandit Deendayal Antyodaya Bhawan CGO Complex, Lodhi Road, New Delhi - 110 003	Shri. Paresh Kumar Duria , Town and Country Planner Town & Country Planning Organisation, Ministry of Housing and Urban Affairs, Government of India, 'E' Block, Vikas Bhawan, I.P. Estate, New Delhi – 110002

Water quality Monitoring of Irrigation Canals/ Storm Water Drains for all the 08 monitored locations carried out during 22.02.2022 to 23.02.2022

S.No.	Name of Irrigation canal/storm water drain	Sampling location	Latitude/Longitude of Monitoring location
1	Upper Ganga Canal	Muradnagar	28.77852 N,78.21598 E
2	Western Yamuna Canal	Sain Chowk, Karnal	29.70081 N, 76.959563 E
3	Bhakra Canal	Yamuna Vihar, Karnal	29.690536 N, 76.955676 E
4	Mixed Western Yamuna Canal	Panipat Bypass Road	29.327517 N,76.958363 E
5	Malin Drain	Bijnor- Haridwar Road	29.45342 N, 78.13154 E
6	Chuiya Siana	Siana	28.64581 N, 78.06921 E
7	Chuiya (Stone Nagi Road)	Stone Nagi Road	29.24785 N, 78.17094 E
8	Chuiya (D/S Mohitnagar)	Mohitnagar	29.40053 N, 78.21598 E

Analysis results (Physico-chemical and biological) of samples of Irrigation Canals/ Storm Water Drains for all the 08 monitored locations carried out during 22.02.2022 to 23.02.2022

Table 1 (i) - Analysis results (Physico-chemical and biological) of samples of Irrigation Canals/ Storm Water Drains for all the 08 monitored locations carried out during 22.02.2022 to 23.02.2022															
Water Quality parameters			**Dissolved Oxygen (mg/L)**	**pH**	**Conductivity (µmho/cm)**	**TDS (mg/l)**	**Total Hardness as CaCO3 (mg/L)**	**Boron**	**Calcium as Ca (in mg/L)**	**Magnesium as Mg (in mg/L)**	**COD (in mg/L)**	**BOD (in mg/L)**	**TC (MPN/100mL)**	**FC (MPN/100mL)**	**FSC (MPN/100mL)**
General Discharge Standards notified under EP Act, 1986-Inland Surface waters				**5.5-9**							**250 (mg/L)**	**30 (mg/L)**			
Designated Best Use Class E				**6-8.5**				**2 (mg/L)**							
S No	**Sampling point**	**Date**													
1	**Upper Ganga Canal**	22.02.2022	11.3	7.7	192	112	296	BDL	82	23	07	1.9			
2	**Malin Drain**	22.02.2022	6.9	7.9	611	356	264	BDL	71	22	10	4			
3	**Chuiya (Stone Nagi Road)**	22.02.2022	8.5	7.8	1054	598	292	BDL	109	5	62	10			
4	**Chuiya (D/S Mohitnagar)**	22.02.2022	7.6	7.7	837	478	348	BDL	112	17	56	7			

5	**Chuiya Siana**	22.02.2022	7.5	8.0	1155	646	408	BDL	70	58	48	14			
6	**Western Yamuna Canal**	23.02.2022	9.2	8.0	325	196	154	BDL	46	10	05	3	330	20	7.8
7	**Bhakra Canal**	23.02.2022	10.3	7.9	354	206	124	BDL	38	7	06	3	1700	400	79
8	**Mix Western Yamuna Canal**	23.02.2022	10	8.1	306	194	160	BDL	43	13	06	3	700	92	23

Table 2 (ii) - Analysis results (Physico-chemical and biological) of samples of Irrigation Canals/ Storm Water Drains for all the 08 monitored locations carried out during 22.02.2022 to 23.02.2022

Water Quality parameters			**Sodium-Na%**	**Sodium-Na (mg/l)**	**Potassium-K (mg/l)**	**PO_4-P (mg/l)**	**Sulfate (mg/l)**	**NO_2-N (mg/l)**	**NO_3-N (mg/l)**	**SAR**	**Ammonical Nitrogen (mg/l)**
General Discharge Standards notified under EP Act, 1986-Inland Surface waters											**50 (mg/L)**
Designated Best Use Class E										**26**	
S No	**Sampling point**	**Date**									
1	**Upper Ganga Canal**	22.02.2022	5%	5	3	0.03	49	BDL	0.5	0.2	BDL
2	**Malin Drain**	22.02.2022	28%	25	5	0.15	58	0.10	1.1	0.9	0.5
3	**Chuiya (Stone Nagi Road)**	22.02.2022	45%	71	14	0.75	77	0.51	6.3	2.6	1.1
4	**Chuiya (D/S Mohitnagar)**	22.02.2022	50%	86	9	0.12	61	0.04	0.9	2.8	1.9
5	**Chuiya Siana**	22.02.2022	30%	48	23	0.72	40	1.29	5.4	1.4	41.7

6	**Western Yamuna Canal**	23.02.2022	19%	09	03	BDL		BDL	1.2	0.4	BDL
7	**Bhakra Canal**	23.02.2022	18%	06	03	BDL		BDL	0.5	0.4	BDL
8	**Mix Western Yamuna Canal**	23.02.2022	15%	07	03	BDL		BDL	0.9	0.3	BDL

Analysis results (heavy metals) of samples of Irrigation Canals/ Storm Water Drains for all the 08 monitored locations carried out during 22.02.2022 to 23.02.2022

Table 2 (i) - Analysis results (heavy metals) of samples of Irrigation Canals/ Storm Water Drains for all the 08 monitored locations carried out during 22.02.2022 to 23.02.2022

Water Quality parameters			**As (mg/l)**	**Cd(mg/l)**	**Co(mg/l)**	**Cr (mg/l)**	**Cu (mg/l)**	**Fe (mg/l)**	**Ni(mg/l)**	**Pb (mg/l)**	**Zn (mg/l)**
General Discharge Standards notified under EP Act, 1986-Inland Surface waters			**0.2**	**1.0**		**2.0**	**3.0**	**3.0**	**3.0**	**1.0**	**5**
S No	**Sampling point**	**Date**									
1	**Upper Ganga Canal**	22.02.2022	BDL	BDL	BDL	BDL	0.01	1.50	0.14	0.01	0.05
2	**Malin Drain**	22.02.2022	0.02	BDL	BDL	0.02	0.01	11.83	1.13	0.02	0.05
3	**Chuiya (Stone Nagi Road)**	22.02.2022	0.01	BDL	BDL	0.03	0.02	10.22	0.27	0.01	0.05
4	**Chuiya (D/S Mohitnagar)**	22.02.2022	0.02	BDL	BDL	BDL	BDL	1.79	0.47	BDL	0.03
5	**Chuiya Siana**	22.02.2022	0.01	BDL	BDL	0.02	0.01	5.29	0.27	0.01	0.04
6	**Western Yamuna Canal**	23.02.2022	BDL	BDL	BDL	BDL	BDL	0.42	BDL	BDL	0.02
7	**Bhakra Canal**	23.02.2022	BDL	BDL	BDL	BDL	BDL	0.90	BDL	BDL	0.02
8	**Mix Western Yamuna Canal**	23.02.2022	BDL	BDL	BDL	0.01	BDL	0.99	BDL	BDL	0.02

Table 2 (ii) - Analysis results (Physico-chemical and biological) of samples of Irrigation Canals/ Storm Water Drains for all the 08 monitored locations carried out during 22.02.2022 to 23.02.2022											
Water Quality parameters			**Sodium-Na%**	**Sodium-Na**	**Potassium-K**	**PO_4-P**	**Sulfate**	**NO_2-N**	**NO_3-N**	**SAR**	**Ammonical Nitrogen**
General Discharge Standards notified under EP Act, 1986-Inland Surface waters											**50 (mg/L)**
Designated Best Use Class E										**26**	
S No	**Sampling point**	**Date**									
1	**Upper Ganga Canal**	22.02.2022	5%	5	3	0.03	49	BDL	0.5	0.2	BDL
2	**Malin Drain**	22.02.2022	28%	25	5	0.15	58	0.10	1.1	0.9	0.5
3	**Chuiya (Stone Nagi Road)**	22.02.2022	45%	71	14	0.75	77	0.51	6.3	2.6	1.1
4	**Chuiya (D/S Mohitnagar)**	22.02.2022	50%	86	9	0.12	61	0.04	0.9	2.8	1.9
5	**Chuiya Siana**	22.02.2022	30%	48	23	0.72	40	1.29	5.4	1.4	41.7
6	**Western Yamuna Canal**	23.02.2022	19%	09	03	BDL		BDL	1.2	0.4	BDL
7	**Bhakra Canal**	23.02.2022	18%	06	03	BDL		BDL	0.5	0.4	BDL
8	**Mix Western Yamuna Canal**	23.02.2022	15%	07	03	BDL		BDL	0.9	0.3	BDL

Analysis results (heavy metals) of samples of Irrigation Canals/ Storm Water Drains for all the 08 monitored locations carried out during 22.02.2022 to 23.02.2022

Table 2 (i) - Analysis results (heavy metals) of samples of Irrigation Canals/ Storm Water Drains for all the 08 monitored locations carried out during 22.02.2022 to 23.02.2022											
Water Quality parameters			**As (mg/l)**	**Cd(mg/l)**	**Co(mg/l)**	**Cr (mg/l)**	**Cu (mg/l)**	**Fe (mg/l)**	**Ni(mg/l)**	**Pb (mg/l)**	**Zn (mg/l)**
General Discharge Standards notified under EP Act, 1986-Inland Surface waters			**0.2**	**1.0**		**2.0**	**3.0**	**3.0**	**3.0**	**1.0**	**5**
S No	**Sampling point**	**Date**									
1	**Upper Ganga Canal**	22.02.2022	BDL	BDL	BDL	BDL	0.01	1.50	0.14	0.01	0.05
2	**Malin Drain**	22.02.2022	0.02	BDL	BDL	0.02	0.01	11.83	1.13	0.02	0.05
3	**Chuiya (Stone Nagi Road)**	22.02.2022	0.01	BDL	BDL	0.03	0.02	10.22	0.27	0.01	0.05
4	**Chuiya (D/S Mohitnagar)**	22.02.2022	0.02	BDL	BDL	BDL	BDL	1.79	0.47	BDL	0.03
5	**Chuiya Siana**	22.02.2022	0.01	BDL	BDL	0.02	0.01	5.29	0.27	0.01	0.04
6	**Western Yamuna Canal**	23.02.2022	BDL	BDL	BDL	BDL	BDL	0.42	BDL	BDL	0.02
7	**Bhakra Canal**	23.02.2022	BDL	BDL	BDL	BDL	BDL	0.90	BDL	BDL	0.02
8	**Mix Western Yamuna Canal**	23.02.2022	BDL	BDL	BDL	0.01	BDL	0.99	BDL	BDL	0.02

State-Wise Water Quality Status of Drains monitored under NWMP During 2021

S. No.	State Name	No. of Drains Monitored in 2021	pH		BOD (mg/L)		COD (mg/L)		Ammonical-N (mg/L)		Arsenic (mg/L)		Cadmium (mg/L)	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
General Discharge Standard			**5.5 - 9**		**30 mg/L**		**250 mg/L**		**50 mg/L**		**0.2 mg/L**		**1 mg/L**	
1	ANDHRA PRADESH	4	6.58	7.9	BDL	12.2	BDL	60	0.01	5.8	0.0007	0.006	BDL	0.001
2	CHANDIGARH	3	6.9	8	2.1	**421**	11	**679**	BDL	50	BDL	0.003	BDL	BDL
3	DELHI	24	6.44	8.23	20	**173**	88	**728**	-	-	-	-	-	-
4	HARYANA	1	7.2	7.9	21	28	72	88	-	-	-	-	-	-
5	HIMACHAL PRADESH	19	6.5	8.8	BDL	**110**	BDL	424	BDL	11.2	BDL	0.01	BDL	0.02
6	JAMMU & KASHMIR	1	7.6	8.2	1.5	2.2	5.1	11	0.51	0.51	-	-	-	-
7	KARNATAKA	1	7.44	8.92	1.1	4	12	76	0.4	0.4	-	-	BDL	BDL
8	MAHARASHTRA	10	5.5	8.8	1.8	**1400**	12	**4360**	0.4	**925.3**	BDL	**0.03**	BDL	BDL
9	ODISHA	4	6.5	8.5	BDL	9.3	6.5	66.1	0.4	14.56	-	-	0.0014	0.0031
10	PUNJAB	4	6.3	8	15	**209**	73	**835**	4.9	42	BDL	BDL	BDL	BDL
11	TAMIL NADU	1	6.7	7.6	5	**110**	32	**472**	2	36.4	-	-	-	-
12	TELANGANA	1	6.85	**11.01**	2.1	29	15	171	BDL	1.5	-	-	BDL	**2**

S. No.	State Name	No. of Drains Monitored in 2021	Copper (mg/L)		Lead (mg/L)		Chromium Total (mg/L)		Nickel (mg/L)		Zinc (mg/L)		Iron (mg/L)	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
General Discharge Standard			**3 mg/L**		**0.1 mg/L**		**2 mg/L**		**3 mg/L**		**5 mg/L**		**3 mg/L**	
1	ANDHRA PRADESH	4	BDL	0.003	BDL	0.001	BDL	0.004	BDL	0.002	BDL	0.015	0.01	0.079
2	CHANDIGARH	3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.053	0.144	0.13	0.72
3	DELHI	24	-	-	-	-	-	-	-	-	-	-	-	-
4	HARYANA	1	-	-	-	-	-	-	BDL	BDL	0.9	1.4	1.3	1.8
5	HIMACHAL PRADESH	19	BDL	0.03	BDL	0.1	BDL	0.22	BDL	0.1	BDL	0.85	BDL	2.44
6	JAMMU & KASHMIR	1	-	-	-	-	-	-	-	-	-	-	-	-
7	KARNATAKA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.125	0.125
8	MAHARASHTRA	10	BDL	0.26	BDL	0.01	BDL	BDL	BDL	0.81	BDL	0.59	BDL	**11.41**
9	ODISHA	4	0.002	0.022	0.006	0.074	-	-	0.009	0.049	0.004	0.069	0.249	2.404
10	PUNJAB	4	BDL	0.08	BDL	BDL	BDL	BDL	0.25	0.25	0.05	0.55	0.21	**25.67**
11	TAMIL NADU	1	-	-	-	-	-	-	-	-	-	-	-	-
12	TELANGANA	1	BDL	3	BDL	**2**	0.1	2	BDL	3	0.02	5	0.1	0.1

State – wise Water Quality Status of Canals Monitored Under NWMP in the year 2021

S. No.	State Name	No. of Stations Monitored in 2021	Name of Canal	pH		Conductivity (micro;mho/cm)		Boron (mg/L)		SAR	
				Min	Max	Min	Max	Min	Max	Min	Max
Designated Best Use Water Quality Criteria Class of Water E				**6.0 - 8.5**		**< 2250 (micro;mho/cm)**		**< 2 mg/L**		**< 26**	
1	ANDHRA PRADESH	6	Budameru, Canal, Eleru Canel, Krishna Canal, **Samarla Kota** & **Tulje Bagh**	6.6	**8.6**	198	**25200**	BDL	1	0.38	**30.39**
2	DELHI	2	Agra & W. Yamuna	7.2	7.8	1015	1731	BDL	0.4	1.02	9.6
3	GOA	2	**Cumbarjua** & Agricultural (Cuncolim Indl. Est.)	6.1	7.9	52	**46570**	BDL	**4.9**	-	-
4	GUJARAT	3	Narmada Main Canal, Tapi & Narmada Main	7.1	**8.6**	BDL	808	BDL	BDL	1	3.08
5	HARYANA	4	Gurgaon, **W. Yamuna**, **Agra Canal** & Ghaggar Canal	6.3	8.2	199	**3040**	BDL	1.1	-	-
6	KERALA	3	**Kanoli, Palakkattuthazha-Mthodu & Unthithodu**	6.2	**9.8**	64	**43500**	BDL	1.3	0.3	**59.8**
7	MANIPUR	1	Morambamarine	7.2	7.5	135	280	-	-	-	-
8	ODISHA	2	Puri & **Taladanda**	6.7	8.4	127	490	BDL	BDL	0.22	**42.64**
9	RAJASTHAN	4	Gang, Indira Gandhi, Masitawala & **Narmada Main**	7.2	**8.7**	150	447	BDL	BDL	-	-
10	TAMIL NADU	1	**Chennai Waterways**	6.6	7.7	623	**2590**	BDL	BDL	4.01	8
11	TRIPURA	6	Chandrapur, Ghandha Charra, Gilatali, Katakhal, Palatana & Samanu Charra	6.3	7.5	127	395	-	-	-	-
12	UTTARAKHAND	1	Upper Ganga	7.1	8.3	102	646	-	-	0.13	0.19
13	WEST BENGAL	2	Kharda & Noai	7.1	7.9	395	2111	BDL	BDL	-	-

Item No. 01 (Court No. 1)

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

(By Video Conferencing)

Original Application No. 1002/2018

(With reports dated 22.11.2021, 23.11.2021, 17.11.2021 & 08.11.2021)

Abhisht Kusum Gupta Applicant

Versus

State of Uttar Pradesh & Ors. Respondent(s)

Date of hearing: 23.12.2021

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

Applicant: Mr. Abhisht Kusum Gupta, Applicant in Person

Respondent(s): Mr. Satya Gopal, Additional Chief Secretary,
Mr. Sanjeev Khirwar, Principal Secretary (Env.),
Dr. K.S. Jayachandaran, Special Secretary (Env.)
with Ms. Jyoti Mendiratta, Advocate for GNCTD
Mr. Vineet Kumar, Additional DCP East Delhi

Mr. Manoj Singh, Additional Chief Secretary, (Env.), UP
Mr. Suhas LY, DM, G.B. Nagar
Mr. Praveen Kumar, IG, Meerut Range
Mr. Ganesh Prasad Saha, DCP, G.B. Nagar

Ms. Ritu Maheshwari, CEO Noida Authority with
Mr. Ravindra Kumar, Senior Advocate and Mr. Rachit Mittal, Adv.

Mr. Aman Bhalla, Advocate for CPCB
Mr. Pradeep Misra & Mr. Daleep Dhyani, Advocates for UPPCB
Mr. Narender Pal Singh, Advocate for DPCC
Mr. Balendu Shekhar, Advocate for EDMC
Ms. Sakshi Popli, Advocate for DJB

ORDER

1. The issue for consideration is the remedial action for preventing untreated sewage going to the "irrigation canal" in Sector 137, NOIDA.

Sources of such discharge include non-functional/deficient STPs in 95 high rise buildings in Noida, industries as well waste water from upstream from Delhi and Ghaziabad. The said canal joins Yamuna and then Ganga. NOIDA, Ghaziabad Nagar Nigam, Delhi Jal Board (DJB), East Delhi Municipal Corporation (EDMC) and Nagar Palika Parishad, Khoda Makanpur are the identified authorities required to take the remedial action, based on the verification report to which reference will be made hereafter. It is established that there is huge amount of water pollution much beyond prescribed norms to the detriment of environment and public health. Needless to say that the said water is used by living beings and for irrigation and pollution is source of deaths and diseases which are criminal offences under the law of the land and there are designated authorities entrusted with the task of stopping it. However, it is failure of the said authorities which has been matter of consideration in the matter.

2. The matter has been dealt with by various orders in the last more than two years, in the light of the reports of the Committee appointed by the Tribunal to ascertain the factual status. In the report of CPCB dated 01.11.2019, steps to be taken by NOIDA, Ghaziabad Nagar Nigam, Delhi Jal Board (DJB), East Delhi Municipal Corporation (EDMC) and Nagar Palika Parishad, Khoda Makanpur were recommended as follows:-

Sl. No	***Department***	***Directions issued u/s 5 of EPA, 1986***
1.	*NOIDA*	*i. To develop time bound action plan to stop discharge of untreated wastewater to 30 drains.* *ii. To intercept all drains and channelize wastewater to STPs so that no untreated wastewater is discharged to Noida drain.* *iii. To deposit an Interim Environmental Compensation of Z 1,00,00,000*

2.	*Ghaziabad Nagar Nigam*	*i. To establish sewerage network and treatment facility to treat sewage generated from Khoda village.* *ii. To Deposit an Interim Environmental Compensation of 1,00,00,000*
3.	*DJB*	*i. To initiate legal proceedings against the residents of GD colony, Gharauli village and Kondli village, Delhi having failed to take sewer connections.* *ii. To ensure that each building under their jurisdiction shall have sewer connection so that current practice of discharge of untreated sewage into storm water drainage system should be stopped.*
4.	*EDMC*	*i. To direct dairy farms to develop decentralized treatment facility so that their untreated waste shall not be discharged to DDA drainage system* *ii. To ensure that untreated dairy waste including animal dungs from Gharuli village should not be discharged into storm water drain. Challan / Legal action shall be initiated against such violators.*
5.	*Nagar Palika Parishad Khoda Makanpur*	*Show cause notice issued to explain the reasons as to why action should not be taken against Nagar Palika Parishad Khoda including levying of Environmental Compensation for discharge of untreated sewage to drainage system of Delhi. Copy of directions is attached as Annexure-I*

3. The report further stated that CPCB called a meeting of the concerned Authorities and conducted inspection noticing high level of water pollution in the drains as follows:-

Table 1: Analytical Results of Drain

Si. No.	***Sample Location***	***Physico-Chemical Parameters***				***Bacteriological Parameters***	
		pH	***COD***	***BOD***	***TSS***	***Total Coliform (MPN/100m 1)***	***Fecal Coliform (MPN/100m1)***
Water Quality of Noida Drain at different locations							
1	*Budh Vihar, Sector-11, Noida*	*7.56*	*444*	*219*	*330*	*13 X10^6*	*79 X10^5*
2	*S-14, New Kondli Road, Sector-11, Noida.*	*7.55*	*433*	*217*	*352*	*23 X10^6*	*23 X10^6*
3	*Sector-50, Noida Link Road.*	*7.72*	*169*	*68*	*84*	*11 X10^6*	*68 X10^5*
4	*Sector-137, India TV Metro Station, Noida.*	*7.78*	*186*	*71*	*65*	*13 X10^6*	*13 X10^6*

5	*Noida drain at regulator*	*7.84*	*145*	*60*	*89*	-	-
6	*Noida drain at before Confluence with river Yamuna*	*7.82*	*163*	*46*	*83*	*78 X10^5*	*78 X10^5*
Water Quality of adjoining drains of Noida Drain							
7	*Khoda village*	*7.54*	*314*	*107*	*194*	*78*	*20 X10^5*
8	*Drain merges with Noida drain at Sector-142, Advant Navis Buisness IT Park, Noida.*	*7.70*	*182*	*100*	*63*	*46 X10^6*	*46 X10^6*
Note: All units are measured in mg/I except Fecal Coliform and pH.							

BOD concentration at entrance of NOIDA, U.P is 219 mg/1 whereas Fecal coliform count is 20 X 10^5. However, concentration of BOD before confluence point is 46 mg/1 and Fecal coliform count is 78 X 10^5 MPN/100 ml. The results indicate that although there is marginal improvement in water quality as the drain travels through NOIDA but still concentration level of BOD and Fecal Coliform at the confluence point of drain with Yamuna is quite high."

4. The action taken report and recommended further action were in the form of following table:-

"4.0 SUMMARY OF ACTION TAKEN BY CONCERNED AGENCIES

Based on the inspection made, analytical results of the samples collected from drains and action taken report of concerned agencies, summarized report is placed below:

Si. No	Department	Directions of CPCB and NGT	Status report	Recommendations
1.	NOIDA	i. To develop time bound action plan to stop discharge of ii. To intercept all drains and channelize wastewater to STPs so that no untreated wastewater is discharged to Noida drain. iii. To deposit an Interim Environmental Compensation of Rs. 1,00,00,000 iv. Hon'ble NGT directed to submit furnish performance guarantees in the sum of Rs. 1 crore each to the satisfaction of CPCB undertaking to take remedial actions in terms of the directions of the CPCB, failing which the said amount will be forfeited	i. Noida authority made representation against the direction and EC imposed by CPCB on 01/07/2019. Copy attached as **Annexure-V.** ii. Reply of representation was made on 19/07/2019 and hearing was conducted on 23/07/2019 and Noida authority was further directed to ensure compliance of CPCB directions. iii. Representative of NOIDA has informed during the meeting on 01.10.2019 that committees being constituted for identification and taking action on high rise buildings discharging untreated waste and to identify villages which are discharging waste into drain **iv. Action plan in compliance to direction issued not submitted till date** v. Environment Compensation was not submitted till date. vi. Performance Bank Guarantee not submitted till date.	Noida authority shall prepare time bound action plan either to discharge of untreated waste throughaforesaid 30 drains. Alternatively, all such drains be intercepted and taken to STPs so that no untreated wastewater flows to Noida drain.

2	Ghaziabad Nagar Nigam	i. To establish sewerage network and treatment facility to treat sewage generated from Khoda village. ii. To Deposit an Interim Environmental Compensation of 1,00,00,000 iii. Hon'ble NGT directed to submit furnish performance guarantees in the sum of Rs. 1 crore each to the satisfaction of CPCB undertaking to take remedial actions in terms of the directions of the CPCB, failing which the said amount will be forfeited	i. Ghaziabad Nagar Nigam vide letter dated 24.06.2019 clarified that the Khora village falls under the jurisdiction of Nagar Palika Parishad Khoda Makanpur. Copy attached as Annexure-VI. ii. Accordingly, show cause notice issued to Nagar Palika Parishad Khoda Makanpur vide letter dated 24.09.2019.	

3.	DJB	i. To initiate legal proceedings against the residents of GD colony, Gharauli village and Kondli village, Delhi having failed to take sewer connections. ii. To ensure that each building under their jurisdiction shall have sewer connection so that current practice of discharge of untreated sewage into storm water drainage system should be stopped. iii. Hon'ble NGT directed to submit furnish performance guarantees in the sum of Rs. 1 crore each to the satisfaction of CPCB undertaking to take remedial actions in terms of the directions of the CPCB, failing which the said amount will be forfeited	i. Action plan of DJB was received vide letter dated 22/07/2019. Copy of letter is attached as **Annexure-VII.** ii. Representative of Delhi Jal Board informed that special camps were organized residents to take sewer connection. iii. 732 number of notice issued to residents of Kondli and Gharauli. It was also informed that 3 drains of PWD carrying wastewater shall be tapped and conveyed to Kondli STPs for treatment. Interception of drains will be finished by December, 2019. v. Performance Bank Guarantee not submitted till date	i. DJB shall expedite and complete the interception of 03 adjoining drain in Delhi segment by December, 2019. ii. DJB should initiate legal proceedings against residents of GD colony, Gharauli village and Kondli village on account of their reluctance and failure to take sewerage connections. iii. DJB shall ensure that each building under their jurisdiction shall have sewer connection so that current practice of discharge of untreated sewage into storm water drainage system should be stopped.

4.	EDMC	i. To direct dairy farms to develop decentralized treatment facility so that their untreated waste shall not be discharged to DDA drainage system. ii. To ensure that untreated dairy waste including animal dungs from Gharuli village should not be discharged into storm water drain. Challan/Legal action shall be initiated against such violators. iii. Hon'ble NGT directed to submit furnish performance guarantees in the sum of Rs. 1 crore each to the satisfaction of CPCB undertaking to take remedial actions in the terms of the directions of the CPCB, failing which the said amount will be forfeited.	i. EDMC has informed during the meeting that 591 Challan issued to residents of Kondli and Gharauli for disposing their wastewater into drain and Show-Cause notice is also issued to illegal dairies for discharging waste in drain. ii. East Delhi Municipal Corporation Veterinary Services Department Vide email dated 31/10/2019 provided the action taken report indicating action taken against the illegal dairy farms at Gharoli colony. Copy attached as **Annexure-VIII.** iii. Performance Bank Guarantee was not submitted. However, it was informed that same was approved by Competent Authority and will be submitted in one week time.	i. EDMC should ensure that untreated dairy waste including animal dungs from Gharuli village should not be discharged into storm water drain. Challan / Legal action shall be initiated against such violators. ii. The dairy farms be shifted to outskirt of the
5.	Nagar Palika Parishad Khoda Makanpur	Show cause notice issued to explain the reasons as to why action should not be taken against Nagar Palika Parishad Khoda including levying of Environmental Compensation for discharge of untreated sewage to drainage system of Delhi.	i. Executive officer of Khoda Nagar Parishad has informed during the meeting that at present there is no infrastructure facility to treat and tap waste from Khoda colony. ii. Further, no reply received till date.	i. Khoda Nagar Palika should developed facility to tap untreated water of Khoda village and should discharge only treated water to drainage system of Delhi. ii. Directions for submission of performance guarantee in the sum of Rs. 1 crore by Ghaziabad Nagar Nigam to CPCB may refer to Nagar Palika Parishad Khoda Makanpur.

5. The Tribunal directed action to be taken by the concerned authorities accordingly and further observed as follows:-

> **"***5. The CPCB has further recommended as follows:*
>
> *"Based on observation made by the inspection team including Dr. C.R. Babu, it is further recommended that in-situ treatment of Noida drain in Noida stretch be carried out as immediate measure for treatment of wastewater of NOIDA drain.*
>
> *As, the Noida drain falls under the jurisdiction of UP Irrigation Flood Control Department and it is suggested that in-situ treatment may be carried out jointly be NOIDA authority and UP Irrigation Flood Control Department in consultation with Dr. C.R. Babu."*
>
> *6. In view of above, UP Irrigation Flood Control Department and NOIDA Authority may take further remedial action expeditiously which may be overseen by the Principal Secretary, UP Irrigation and Flood Control Department and the Chairman, NOIDA Authority. The Chairman, NOIDA Authority will act as a nodal agency for coordination and compliance which may be further overseen and coordinated by the CPCB.*
>
> *7. The CPCB may furnish a status report in the matter before the next date by e-mail at judicial-ngt@gov.in.***"**

6. The matter was then reviewed on 06.11.2020 in the light of the reports of the NOIDA Authority and CPCB. The Tribunal, noticing serious deficiencies and statutory violations, directed remedial action within three months. Operative part of the order is reproduced below:-

> **"***1to5…..xxx……xxx……xxx*
>
> *6. In pursuance of above, NOIDA has filed reports dated 15.09.2020 and 05.11.2020 while CPCB reports are dated 15.05.2020 and 29.10.2020. It will be suffice to refer to the last reports of NOIDA and CPCB. The report of the CPCB dated 29.10.2020 is as follows:-*
>
> *"ACTION TAKEN BY CPCB*
>
> *In compliance to the directions of Hon'ble NGT, CPCB has taken following action:*
>
> *1. Directions of Hon'ble NGT communicated to CEO, NOIDA vide letters dated 19/03/2020, 12/05/2020 and*

13/08/2020 to provide progress report in the matter. Copy of letter is attached as Annexure-I.

2. *NOIDA vide letter dated 15/09/2020 has submitted updated action taken report and future action plan to CPCB for abatement of pollution of NOIDA drain. Copy of letter is attached as Annexure II*
3. *Further, CPCB has examined the proposed action plan and observations communicated to NOIDA authority vide letter dated 28/09/2020. Copy of letter is attached as Annexure-III.*
4. *CPCB communicated to Principal Secretary, Urban Development, Uttar Pradesh vide letter dated 28/09/2020 for submission of action plan for treatment of wastewater discharging from Khora Nagar Palika. Copy of letter is attached as Annexure-IV. Reply is still awaited.*
5. *CPCB also requested Delhi Jal Board (DJB) and East Delhi Municipal Corporation vide letter dated 28/09/2020 to submit the status report on action plan of untreated sewage of Kondli and Gharoli area (Delhi Catchment area) into Kondli drain. Copy of letter is attached as Annexure-V*
6. ***Delhi Jal Board vide letter dated 15/10/2020 informed that as per action plan trapping of drains contributing wastewater discharge into Kondli drain from Delhi catchment was completed in January, 2020. Copy of letter is attached as Annexure-VI."***

7. …..xxx……xxx……xxx

8. Learned counsel for the NOIDA stated that only 57 societies have been inspected out of 95 and the remaining societies are to be inspected. Wherever deficiencies have been found, action has been initiated and reference has also been made to the State PCB. Learned counsel for the DJB states that action has been taken on its part. However, there is no response from the EDMC and the Secretary Urban Development, UP in respect of action at Khoda Nagar Parishad, Makanpur.

9. Learned counsel for EDMC, on instructions says, that there is a proposal to shift the dairies but that is not possible in absence of land. We find this excuse untenable only to avoid responsibility. The plea raised is not a justification for permitting violation of law by the dairies to the detriment of the rights of the citizens. To enforce rule of law and prevent the causing of pollution and hazard to the health of the inhabitants, activities operating in violation must be forthwith stopped and compensation recovered for the violations. Prosecution may be initiated and source of pollution may be closed. DPCC must also take necessary action on its part. If the EDMC remains non-compliant, the Commissioner will be personally held responsible. Let the compliance report be file within two months by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.

10 With regard to the action against erring high-rise buildings in Noida, further steps be taken expeditiously and compensation

assessed by a joint Committee of CPCB, State PCB, NOIDA and District Magistrate, NOIDA within three months.

*11. The Secretary, Urban UP may also ensure compliance of action by the Nagar Palika Parishad, Khoda Makanpur.***"**

7. The matter was last considered on 30.07.2021 in the light of report of the NOIDA Authority dated 29.07.2021 and report of EDMC dated 08.07.2021. The report of NOIDA Authority gave follow up action. In the report of EDMC action taken against the dairies was mentioned. The Tribunal found that the action taken was hardly adequate inspite of rampant violations in Noida as well as in Delhi in breach of constitutional obligations of the statutory authorities, including the Police Authorities to the detriment of public health and the environment. Accordingly, the Tribunal directed the statutory authorities to hold inhouse meeting, plan remedial action and file action taken report. CPCB was also directed inter-alia to file a separate report about the standards applicable to discharge in drains/canals and status of sewage management in Khoda area. The operative part of the order is reproduced below:

"9. We have heard learned counsel for the parties and considered the reports. It is clear from the report of the NOIDA Authority that inspection has been carried out only on 12 more high rise societies out of 95, even though more than eight months have passed after the last order when this Tribunal was informed that 57 societies had been inspected. ***The report clearly shows that serious violation of law is continuing in the form of discharge of untreated sewage in open drain by many of the societies - some have not constructed STPs and some have not functional STPs. Thus, the Irrigation canal in question which is coming from Delhi (Kondli) and joining river Yamuna after crossing from Village Khoda and NOIDA, continues to be polluted due to sewage disposal. As per action taken report in Delhi, Dairies causing disposal of waste water and dung have been sealed. Impact of such action on recipient drains is not mentioned in absence of which claim of sealing of dairies is difficult to be accepted. There is no statement that the drains in question have been intercepted and diverted to STP and that no waste water is being discharged from Delhi. This needs to be ensured by the DJB/EDMC/DPCC. In case of Khoda Parishad, the waste water in the area needs to be collected and diverted to the STP. In Noida, treatment of sewage generated by the Societies has to be ensured and treated effluents utilised for secondary***

purposes. Standards for disposal of sewage into irrigation or storm water canal have to be of fresh water to give effect to the mandate of the Water Act. Noida drain joins river Yamuna and thus untreated sewage cannot be discharged therein.

10. There is no meaningful action of registering criminal cases and arresting concerned violators, blacklisting the entities, withdrawing statutory consents, recovering compensation for restoration measures. Many industries are discharging untreated sewage with impunity as if law of the land does not exist and crime is free. ***As already mentioned, such pollution is criminal offence not only under the Water (Prevention and Control of Pollution) Act, 1974 but also under Chapter XIV of the IPC. Adverse effect in terms of deaths and diseases is well known. The violations are not only of statutory provisions but also judgments of the Hon'ble Supreme Court inter-alia in Paryavaran Suraksha case[1] prescribing timeline within which water treatment plant have to be in place as also direction of this Tribunal requiring coercive measures against violators in the form of stopping the polluting activities, initiating prosecution and recovering of compensation. Unfortunately, not a single person is shown to have been prosecuted inspite of categorical observations in the reports of the statutory regulators****. There is no dearth of statutory powers of NOIDA Authority, District Magistrates, SEIAA, UP and State PCB as well as UP Police. Surprisingly, counsel for NOIDA stated that NOIDA is helpless as it has no power. There is, thus, clear failure of constitutional obligation of the said authorities, rendering the heads of such institutions personally accountable for such failure for the punishable crime. The said authorities have failed to realise that they are occupying the position of high trust and are meant to protect the public health and environment and not to just enjoy position and perks at the cost of miseries of the innocent citizens.* ***By their own showing they have continued to be mute spectators of serious crimes against humanity. Sufferers are helpless citizens whose constitutional right to clean environment remain on paper. We alert the higher authorities of the State to remedy the situation by action against failing heads of statutory authorities in performing their responsibility in the interest of protection of environment and public health and constitution rights of the citizens and as a measure of good governance.***

11. In view of above grim situation, ***we direct Additional Chief Secretary, Forest and Environment, UP, Secretary, Urban Development, UP, CEO, NOIDA Authority, District Magistrate, NOIDA, Vice Chairman, GDA, Police Commissioner, NOIDA, IG, Meerut (with regard to area falling in UP) and Chief Secretary, Delhi and Special Commissioner of Police, East Delhi (for area in Delhi) to hold in house meeting in coordination with concerned departments within fifteen days to take stock of the situation and plan remedial action. Action should include accountability of the erring officers, preventing discharge of pollution in the drain, coercive measures against violators - housing societies or others by registering criminal cases, initiating prosecution, assessment and recovery of***

[1] (2017) 5 SCC 326

compensation for the past violations, black listing of the concerned entities such as construction companies, in exercise of their statutory powers, following due process of law. *The Tribunal expects meaningful improvement in the situation to prevent serious violations affecting the right to life, which violations have been continuing since long, without any meaningful action. In Delhi, claim of EDMC/DPCC of sealing of Dairies needs to be verified with reference to destination of effluents. DJB needs to confirm that due to interceptions of drains, no sewage or any other effluent is discharged into drain entering Noida. Water quality of drain/ irrigation canal before entry in UP needs to be checked. In UP, it needs to be verified whether management of sewage by the Societies and by the Noida Authority and its utilization in quantifiable terms is as per norms and if not, what is remedial action and coercive measures against the violators. The efficacy of treatment may be assessed in terms of Fecal Coliform also. UP PCB has to clarify whether permission has been granted by Irrigation Department for discharge of sewage and industrial effluents into the drain and on what conditions. If so, how such conditions are being enforced. Noida has to explain Sewage management status for the area including the sewage generated by the Societies. CPCB has to file a separate report on standards applicable to discharge in drains/canals and whether standards of fresh water/ flood water apply to such situation in the light of the Water Act. Further, status of sewage management in Khoda area is also to be verified.*

12. ***The Additional Chief Secretary, Forest and Environment, UP, Secretary, Urban Development, UP, CEO, NOIDA Authority, District Magistrate, NOIDA, Vice Chairman, GDA, Police Commissioner, NOIDA, IG, Meerut and Chief Secretary, Delhi and Special Commissioner of Police, East Delhi may remain present in person by video conference along with their action taken reports****."*

8. In pursuance of above, an 'Action Plan' has been filed by the NOIDA Authority on 22.11.2021. 'Compliance report' dated 23.11.2021 has been filed by UP State PCB. 'Status report' dated 17.11.2021 has been filed by the Delhi Government and two reports dated 08.11.2021 have been filed by CPCB on standards for water quality of drains and sewage management in Khoda area. We proceed to discuss the same and issue further directions.

Action Plan of NOIDA Authority dated 22.11.2021

9. Action Plan filed by the NOIDA Authority mentions constitution of a Committee to inspect STPs, strengthening sewerage network, setting up

of more STPs, community toilets, de-sludging points, in situ treatment of drains, removing encroachments from embankment of drains, interception of sewer scheme. The plan in tabulated form is reproduced below:

"

<table>
<tr><th>Sr. No.</th><th>Action Plan with Proposed Timeline as submitted before</th><th>Follow up Action</th></tr>
<tr><td>1</td><td>A committee has been constituted to inspect high rise building's STP and to evaluate the performance of every STP. The Committee will examine whether the STP to perform standard parameter. It operates in a compliance manner and discharges only the treated effluent in the passing drain, post utilizing the treated waste-water at their end. The defaulters are to be identified and recommended for environment compensation for non-compliance of GT orders. More stringent action will be taken against the builders as per Noida Authority rules. (Time Required – 1 year).</td><td>There are total 95 nos. of Group Housing Societies, Total inspection has been carried out, as per this position as follows:-
<table>
<tr><td>1</td><td colspan="2">Nos of Group housing with fully functional STPs</td><td>72</td></tr>
<tr><td>2</td><td colspan="2">Environment Clearance cleared & U.P. Pollution Control Board has issued CTO. Their sewage connected to the Central Sewage Treatment Plant (CSTP) of Noida.</td><td>04</td></tr>
<tr><td>3</td><td colspan="2">Connected in Noida sewer line and at present their sewer is treated in Sewage Treatment Plant (STP) (Noida) as per Occupancy Certificate</td><td>07</td></tr>
<tr><td>4</td><td colspan="2">Issue regarding completion of these 4 projects of Amrapali is being monitored by Hon'ble Supreme Court.</td><td>04</td></tr>
<tr><td>5</td><td colspan="2">Under Construction project. At present no sewage is generated.</td><td>01</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Undertaking given by Builder with timeline for operationalizatio n of STP.</td><td>STP constructed but not functional</td><td>04</td><td rowspan="2">07</td></tr>
<tr><td>STP not constructed</td><td>03</td></tr>
<tr><td></td><td colspan="3">Total Nos. of Group Housing Societies</td><td>95</td></tr>
</table>
Note:
• NBCC has been deputed as the working agency to complete the 4 nos. of construction of the societies. Sewer line of Group Housing Society connected to Noida Main Sewage line for treatment at the STP.
• Criminal case filed against these 08 nos. of promoter builders. Sealing in 07 done by Noida. 05 nos. GH have committed is their respective undertaking to comply by 10.01.22 and 02 nos. GH to comply by end of Nov.-2021. At present their sewer is connected is Noida sewer line and treated is STP (Noida), therefore, no discharge of sewage in open.
Details as per Annexure-A</td></tr>
<tr><td>2</td><td>In compliance with Hon'ble NGT directions and Water Prevention Act-1976, joint inspections with UPPCB team will be conducted at different</td><td>Action taken against defaulters.
Action in Progress- Industry</td></tr>
</table>

<table>
<tr><td></td><td>sections/ location and violators to be appropriately prosecuted.
Committee shall also check untapped sewer lines of individuals/ builders/ villagers and same shall be informed to concerned department for necessary action.
(Time Required l year)</td><td>
<table>
<tr><th>Inspected Industry</th><th>Operational</th><th>Closed</th><th>ETP Installed</th><th>Compliance</th><th>Show Cause Issued/ E.C. Imposed/ Prosecution</th><th>Closure Order Issued</th></tr>
<tr><td>85</td><td>60</td><td>25</td><td>60</td><td>50</td><td>10
Rs. 79,45,000/-</td><td>0</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Proposals for strengthening of existing sewerage network amounting to Rs. 19.77 Cr. have been submitted and same are to be executed on priority basis. (Time Required – 2 Years)</td><td>10 Projects with estimate of 24.50 Cr. were identified to strengthen the existing sewage network.
8 projects worth Rs. 20.48 Cr completed.
2 projects worth Rs. 4.02 Cr. are in progress.
Expected to be completed by March-2022.
Details as per Annexure-B</td></tr>
<tr><td>4</td><td>Noida Authority in anticipation of future projected load has already planned to put more STPs of capacity 180MLD as planned by WAPCOS in place to accommodate the future load of sewerage effluent discharge of city. (Time Required-4 years)</td><td>Noida has fully functional 6 nos. of Sewage Treatment Plants (STP)
Existing Capacity of STPs is 231 MLD. Sewage generation on an average is 215 MLD.
Two new STP are under construction.
<table>
<tr><th rowspan="2">STP</th><th colspan="2">Physical Progress (%)</th><th rowspan="2">Total cost of Project (in Cr.)</th></tr>
<tr><th>Civil</th><th>Mechanical/ Electrical</th></tr>
<tr><td>80 MLD</td><td>73%</td><td>In procurement</td><td>Rs. 115.44</td></tr>
<tr><td>100 MLD</td><td>76%</td><td>22%</td><td>Rs. 143.58</td></tr>
</table>
Date of Completion as per Contract Bond 02.09.2022
Trial of STP will start in March-2022.

Details of progress are as per Annexure-C</td></tr>
<tr><td>5</td><td>100 Nos of Public Tiolets and 56 Nos. of community toilets have been constructed. In addition to that mobile toilets have been installed at slum/remote areas under ODF scheme of Govt. of India. All Toilets are regularly monitored for proper functioning and maintenance. All the community /Public Toilets are connected with the existing sewerage network.
(Work completed)</td><td>(Work Completed)

Nos. of Public Toilets : 101
Nos. of Pink Toilets : 16
(for Ladies specially)
Nos. of Community Toilets : 69
Nos. of Urinals : 120

The inspection of these public and community toilets is conducted on a regular basis.

All the toilets are fully functional and operational in a compliance manner.</td></tr>
<tr><td>6</td><td>Total 22 Nos of desludging points</td><td>Work Completed.</td></tr>
</table>

	have been constructed at last sewer manhole near SPW (Sewage Pumping Station). Sewage from different Public Toilets/slum areas is collected and discharged in these decanting points by registered sewage decanters heavy vehicles fitted with GPS. *(Work completed)*	*Total 22 nos. required as per site during desludging points have been constructed at last sewer manhole near SPS (Sewage Pumping Station). Sewage from different Public Toilets/slum areas is collected and discharged in these decanting points by registered sewage decanters.* *Note:- Presently no further desludging is required for network.* *Details of 22 nos. of de-sludging point are as per Annexure-D.*
7	*We are in process of developing in situ treatment using constructed wetland technique for Noida drain in consultation with Prof. C.R. Babu (CEMDE, University of Delhi). Six constructed wetland system each covering a stretch of 500 meter length have been proposed for abatement of organic load of Noida drain.* *(Time Required 1.5years)*	*Action Plan for the In-situ remediation and rejuvenation of Noida drain using Constructed Wetland System and by development of biodiversity park has been submitted by Dr. C.R. Babu (CEMDE, University of Delhi).* *Six constructed wetland system each covering a stretch of 500 meter length have been proposed.* *(Time Required-1.5 years)* *One nos. such wetland work has been awarded to U.P. Irrigation department on dated 18.02.2021 (as per MOU) and it is expected that work will be completed within one year. i.e17.02.2022 (as per MOU) as pilot project.* *Physical progress of 50 %.* *Further two nos. In-situ remediation wetlands have been suggested o 01/11/2021 downstream by Prof. C.R. Babu in Kondli drains and plantation on the embankment of drain to reduce air pollution. Execution would be initiated in time bound manner.* *Timeline-March, 2023* *Photographs showing construction in progress are enclosed as Annexure-E*
8	*Special drives have been carried out against encroachers on embankment of drains and same has been maintained. So disposal of untreated waste water into drains has been stopped. All encroachments on the embankment of these 30 drains will be removed within next one year.* *(Time Required- 1 year)*	*Special drives to check the embankment for the encroachment of all the 30 drains carried out by respective work circle regularly. Presently there is no encroachment on embankment of drains. Reports.* *Report related to concerned Work Circle(s) and photographs are enclosed as Annexure-F.*
9	*Noida will arrange further study by WAPCOS/EIL to evaluate feasibility of Intercepting sewer*	*Total 30 drains are merging in Kondli, UP, Irrigation drain* • *Guidence of Professor C.R Babu, Department of Environment , Delhi University has been sought to suggest remedial measure.*

	scheme as a long-term remedial measure based on the study report further action will be taken accordingly. (Time Required-3 years)	• *Professor C.R Babu inspected 15 major drains along with Noida officials & has submitted preliminary report, highlights of the same is as below :-* o *Drains are classified into 3 types based on its width as major, medium & minor.* o *Bio Remediation method has been proposed for major & medium drains. Construction of In-Setu Wetland & Plantation has also been proposed.* o *Construction of sump well has been proposed for Minor drains which would connect them to STP.* • *Detailed design, estimate & financial proposal is in preparation by the consultant, which once submitted would be examined & execution would be initiated in a time bound manner.* • *For the complete implementation of the proposed solution target of June 2023 has been set.* *Report of Prof. C.R. Babu is enclosed as Annexure-G.*

”

Compliance Report of UP State PCB dated 23.11.2021

10. UP State PCB has mentioned review meeting with concerned departments, including NOIDA, inspection of 95 STPs of the group housing societies, inspection of water polluting industries, status of discharge in irrigation canal/drains, quality of water in irrigation canal/drain and status of water treatment at Nagar Palika Parishad, Khoda Makanpur. The relevant extracts from the report are reproduced below:

“*Group Housing Societies*

All 95 group housing societies as listed by NOIDA Authority have been inspected jointly by officers of NOIDA Authority and UPPCB. Out of 95, STPs were found established in 72 societies, samples of treated effluent from all operational STPs have been drawn and analysed at NABL accredited laboratories of Board.

Status of compliance with regards to discharge standards for Fecal Coliform and other parameters for STPs of group housing societies and status of installation with regards to all 95 group housing societies has been detailed in Table 1.

No. of GHP	***STP Installed***	***STP Not Installed***	***STP Under Installation***	***Complying STP***	***Not Complying STP***	***Report Awaited***
95 (94+1 Under construction)	***72***	***19***	***3***	***12***	***55***	***4***

Table 1 *(The Discharge of all GH Societies is being tapped & treated at terminal STPs of Noida Authority)*

As is evident from above table, only 12 STPs were found to be complying with regards to discharge standards for Fecal Coliform, BOD, COD and pH among others.

Action by means of issuing show cause notice, imposition of Environmental compensation and initiating prosecution under relevant sections of Water (Prevention & Control of Pollution) Act, 1974 has been initiated against group housing societies where STPs have been found to functional but not achieving norms, not installed or not operational during joint inspection, summary is as below-

No. of GH Project	***No. of Defaulter identified***	***No. of Prosecution initiated/EC/ showcase***
95 (94+1 Under construction)	***77***	***77***

List of group housing societies along with their compliance status is annexed as ***Annexure II*** *of the report. Besides above-mentioned action, Environmental compensation of Rs. 8,39,93,000/- has already been imposed on group housing societies for past violation and status of same has been submitted in Hon'ble Tribunal.*

Industries

Presently, 85 water polluting industries are established in NOIDA and all 85 units have been re-inspected by officers of Board in September, 2021. During inspection, 25 units were found closed, out of 60 operational units samples collected from final outlet of ETPs of 10 units were found to be violating discharge standards. Action by means of issuing show cause notice, imposition of Environmental compensation and initiating prosecution under relevant sections of Water (Prevention 8z Control of Pollution) Act, 1974. Summary of status of compliance of industries and action taken against violating industries has been detailed in Table 3.

Inspected Industry	***Operational***	***Closed***	***ETP Installed***	***Compliance***	***Show cause issued/EC Imposed/ Prosecution***	***Remark***
85	***60***	***25***	***60***	***50***	***10***	***EC imposed after Hon'ble NGT order –***

						Rs. 4.25 lac against 01 unit, Rs. 8,000/- per day against 05 units, Rs. 7.500/- per day against 01 unit and Rs. 5000 per day against 03 units

Table 3: *Summary of Status of Compliance and Action Taken against Industries*

Besides above-mentioned action, Environmental compensation of Rs. 79,45,000/- has already been imposed on industries for past violation and status of same has been submitted in Hon'ble Tribunal.

Permission for Discharge in Irrigation Canal/Drain

In compliance of directions of Hon'ble Tribunal, Board vide letter dated 28.08.2021 had sought information from Irrigation department to ascertain whether any permission has been given to NOIDA for discharge of overflow and treated effluents into the irrigation canal, as per reply received from Irrigation department vide its letter dated 18.09.2021 has informed that no permission for discharge of effluents has been given by them to NOIDA or any other agency, copy of same is annexed as Annexure III of the report. Further, ***NOIDA*** *Authority has furnished a copy of letter dated 2.11.2021 by means of which they have requested irrigation department to issue them permission for discharging treated effluent of five STPs meeting discharge standards in irrigation drain, copy of same is annexed as Annexure IV of the report.*

Quality of Irrigation Canal/Drain

Regional Laboratory, NOIDA, UPPCB has been carrying out monthly monitoring of Kondli irrigation drain for general parameters only, however, in view of orders passed by Hon'ble Tribunal, monitoring has been carried out along the drain for Fecal Coliform as well besides other general parameters. Results have been presented in Table 4.

Sl. No.	***Sample Location***	***Date***	***Physico-Chemical Parameters***				***Bacteriological Parameters***	
			pH 6.5 - 9.0	***BOD (mg/l) <30***	***COD (mg/l) <250***	***TSS (mg/l) <100***	***Total Coliform (MPN/ 100 ml)***	***Fecal Coliform (MPN/100 ml) < 1000***
Water Quality of Kondli Drain at upstream and downstream								
September 2021								
U/S Kondli Drain Entry point Sector-11 (Near Hari Darshan Police Chowki) Noida		*03-09-21*	*7.44*	*48.0*	*320.0*	*157.0*	*35 X 10^5*	*14 X 10^5*
D/S Kondli Drain Before Meeting of Yamuna River (Vill-Chak Mangaraula), Noida		*09-09-21*	*Z65*	*33.0*	*232.0*	*112.0*	*28 X 10^5*	*11 X 10^5*
October 2021								
U/S Kondli Drain		*21-10-21*	*7.42*	*66.0*	*336.0*	*164.0*	*22X 104*	*26X 103*

Entry point Sector-11 (Near Hari Darshan Police Chowki) Noida							
D/S Kondli Drain Before Meeting of Yamuna River (Vill-Chak Mangaraula), Noida	*21-10-21*	*7.44*	*54.0*	*288.0*	*122.0*	*47X 103*	*21 X 103*

Table 4: Water Quality of Kondli Irrigation Canal at Entry and Exit Point of NOIDA

As is evident from the above results, though beyond standards, quality of drain with regards to general parameters as well as Fecal Coliform is better at confluence point of River Yamuna at Sector 168, NOIDA compared to its quality at Sector 11, NOIDA where it enters the geographical boundary of NOIDA. These results are in coherence with report submitted by Central Pollution Control Board, New Delhi with regards to water quality of the drain. Besides this, monitoring has also been carried out on all 30 drains from where untreated effluents enter Kondli irrigation canal in NOIDA area, during inspection 6 of these drains were found dry. Analysis results for remaining 24 drains have been presented in Table 5 below.

S. No.	***Sampling Point Collection***	***Date***	***Physico-Chemical Parameters***						***Bacteriological Parameters***	
			Colour	***Odour***	***pH***	***BOD (mg/l)***	***COD (mg/l)***	***TSS (mg/l***	***Total Coliform (MPN/ 100 ml)***	***Fecal Coliform (MPN/100 ml)***
1	*Samerville School, Sector-22, Noida*	*08.10.21*	*Turbid*	*Unpleasant*	*7.39*	*384*	*102*	*146*	*$33x10^6$*	*$12x10^5$*
2	*In front of Gate Near Police Chowki, Sector-23, Noida*	*08-10-21*	*Colourless*	*Slightly*	*7.45*	*368*	*96*	*138*	*$39 x 10^6$*	*$20x10^5$*
3	*Sector-23. Police Chowki Side, Noida*	*08-10-21*	*Turbid*	*Faint*	*7.39*	*360*	*72*	*131*	*$33 x 10^6$*	*$21 x 10^5$*
4.	*Kribhco Society, Sector-35, Noida*	*08-10-21*	*Slightly Blackish*	*Unpleasant*	*7.36*	*160*	*48*	*121*	*$11 x 10^7$*	*$14 x 10^5$*
5	*Kribhco Society, Sector-35, In front of Hariom Sweets, Noida*	*08-10-21*	*Colourless*	*Unpleasant*	*7.16*	*216*	*57*	*132*	*$41 x 10^5$*	*$27 x 10^5$*
6.	*Brijwasi Caters, Near Harijan Basti, Sector-35, Noida*	*08-10-21*		*Unpleasant*	*7.43*	*224*	*54*	*110*	*$11 x 10^6$*	*$20 x 10^5$*
7.	*Surabhi Hospital, Service Road, Sector-35, Noida*	*08-10-21*	*Blackish*	*Unpleasant*	*7.37*	*320*	*81*	*140*	*$39 x 10^6$*	*$26 x 10^6$*
8.	*Surabhi Hospital,*	*08-10-21*	*Turbid*	*Unpleasant*	*7.39*	*328*	*72*	*145*	*$24 x 10^5$*	*$14 x 10^5$*

	Sector-35, Noida									
9.	Kendriya Vihar, Sector-51, Noida	08-10-21	Turbid	Slightly Unpleasant	7.32	312	66	138	17×10^7	12×10^6
10.	Neelgiri F1, Kendriya Vihar, Gole Chakkar, Noida	08-10-21	Turbid	Odourless	7.51	248	42	118	42×10^6	40×10^6
11.	Sector-50, Beech Road, Sector-51, Gole Chakkar, Noida	08-10-21	Colourless	Slightly Unpleasant	7.22	256	45	112	79×10^5	22×10^5
12.	7X, Sector-76, Near Metro Station, Noida	08-10-21	Turbid	Slightly Unpleasant	7.46	320	78	142	46×10^6	33×10^5
13.	Bhrampal Market, Bhati Dairy, Village-Barola, Sector-49, Noida	08-10-21	Turbid	Slightly Unpleasant	7.48	392	90	172	$54x10^6$	17×10^6
14.	Barola Shamshan Ghat, Sector-49, Noida	08-10-21	Turbid	Slightly Unpleasant	7.51	240	42	118	25×10^5	15×10^3
15.	UGR, Barola, Sector-50, Noida	08-10-21	Blackish	Unpleasant	7.35	360	54	140	24×10^6	17×10^6
16.	Kajal Dairy, Samudayik Sauchalya, Sector- 50, Noida	08-10-21	Turbid	Slightly Unpleasant	7.44	312	48	124	$47x10^6$	$14x10^6$
17.	SMG Public School, Rajeev Colony, Bhangel, Noida	11-10-21	Colourless	Slightly Unpleasant	7.32	296	72	112	63×10^6	46×10^6
18.	Satnaam Kirana Store, Bhangel, Noida	11-10-21	Muddish	Slightly Unpleasant	7.39	344	102	138	26×10^6	22×10^5
19.	NSEZ, Metro Statton, Notda	11-10-21	Slightly Blackish	Unpleasant	7.41	304	75	136	38×10^5	32×10^5
20.	Bhangel Drain, Noida	11-10-21	Slightly Blackish	Unpleasant	7.59	288	54	142	28×10^7	$22 x10^6$
21.	Hosiery Drain, Noida	11-10-21	Slightly Blackish	Unpleasant	7.46	360	84	168	15×10^6	$12 x10^6$
22.	Advant' Sector-142, Noida	11.10-21	Turbid	Slightly Unpleasant	7.36	256	51	128	17×10^5	$13x10^4$
23.	Sector-135, Near Accentur Accenture Pvt. Ltd., Noida	11-10-21	Turbid	Slightly Unpleasant	7.52	248	42	110	$38x 10^6$	$24 x10^5$
24.	Near Sector-82, Noida	11-10-21	Turbid	Slightly Unpleasant	7.54	256	45	116	$47x 10^6$	$33x 10^6$

Table 5: Water Quality of Drains meeting Kondli Irrigation Canal within NOIDA region.

Further, in order to monitor the water quality of drain at entry and exit point of NOIDA region, Board has initiated process of procuring

and installing an Online Drain Monitoring System at both locations as directed in the meeting chaired by Additional Chief Secretary, Environment, Forest and Climate Change, Uttar Pradesh.

Status of Water Treatment at Nagar Palika Parishad, Khoda Makanpur

Nagar Palika Parishad, Khoda Makanpur comes under administrative jurisdiction of district Ghaziabad. The said area was classified as Gram Sabha area until 2016 and was accorded the status of Nagar Palika Parishad in the year 2016. The said area was inspected by the joint team of Central Pollution Control Board and U.P. Pollution Control Board on 14.09.2021 to ascertain the status of progress made and steps taken so as to treat domestic effluent generated from the region.

*Executive Officer, Khoda Makanpur had informed the joint team that efforts have been made to get land for establishing a STP from NOIDA Authority as well as Ghaziabad Development Authority as there is no land available within geographical boundaries of NPP for new infrastructure, however, same has not materialized and presently no plan is in place for treatment of domestic effluent generated from the region. In view of said non-compliance, show cause for imposing environmental compensation of Rs. 70,00,000/- has been given to Executive Officer, NPP, Khoda Makanpur by Board vide its letter dated 01.11.2021, copy of same is annexed as Annexure V of the report. Prosecution against Executive Officer, Nagar Palika Parishad, Khoda Makanpur, Ghaziabad is initiated.***"***

Status Report of Delhi Government dated 17.11.2021

11. Report filed by Delhi Government mentions the meeting held by the Chief Secretary on 07.09.2021 with the concerned departments to consider the issues of (i) disposal of sewer wastes in Noida drains from Kondli, Gharoli and Khoda (Ghaziabad) causing pollution in Yamuna and (ii) Sewage discharge from GD Colony, Gharauli village and Kondli village in Delhi to the drainage system of PWD, contributing to pollution to NOIDA drain. Thereafter, status of action against illegal dairies and other entities as well as operation of borewells, discharge of effluents is mentioned as follows:

"A. Operation of illegal Industries:

- *Two illegal industrial units (Jeans factory in Gharoli village and one car washing unit) were found which have been closed.*

B. Operation of illegal dairies:

- *A total of 67 dairies were sealed down in colonies of Gharoli Dairy Colony, Gharoli village and Kondli village.*

C. Operation of illegal godowns in residential area:

- *04 sealing show cause notices were issued under DMC Act, 1957 issued for violation of provision of MPD-2021 to defaulters of Gharoli Dairy colony, Mayur Vihar for misusing the said residential / non-conforming premises.*

D. Throwing of solid waste/C&D waste/other material on drain:

- *591 Challans were issued to residents of Kondli and Gharauli for disposing their wastewater into drain*

- *EDMC started door to door collection of MSW and has been processing the same in compost plant, WTE plant and malba is sent to C&D waste processing plant at Shastri Park.*

E. Operation of illegal borewells:

- *DJB has found 94 illegal borewells. List of the same have already been sent to DM (East) for further sealing action of borewells. The action taken report w.r.t. sealing received from DM (East). The ATR is enclosed as Annexure-3. DPCC has also issued show cause notice for imposition of EDC on all these illegal borewells.*

F. <u>Discharging of effluent in open drain w/o sewer line:</u>

- *Special camps were organized for sensitizing residents to take sewer connection. DJB has provided 6938 sewer connections in houses.*

- *732 notices were issued to residents of Kondli and Gharauli.*

- *All effluent/ sewage of Delhi in drains have been trapped into sewer line at 3 locations. The sewage of the sewer line is ultimately carried to Kondli STP for treatment. At present no untreated sewage of Delhi is out falling into Kondli drain.*

- *All these 3 locations have been checked by members of task force during joint inspections till 14 Oct, 21 and on 18 Oct, 21 by Commissioner - EDMC.*

- *The task force during inspections on 13.10.2021 and 14.10.2021 observed that no waste water generated from Delhi is being discharged in Noida Drain*

- *DJB informed that all the sewer connections have been laid down and additional 108 new sewer connections have been provided in the area.*

G. <u>Water quality sampling:</u>

- *Water quality analysis was done by DPCC on 14 and 18 Oct, 21. The waste water quality of all the samples drawn from the trapping points of DJB is meeting the general standards for sewer w.r.t* ***PH, TSS & BOD*** *(5.5-9-0. 6mg.1 & 350mg/1). Sampling report is annexed herewith as Annexure -4.*

H. <u>Aerial photography:</u>

- *Aerial drone survey was done on 23.10.2021 to locate illegal units/dairies through drone. No such units were found.*

- *Three points where* ***DJB*** *has trapped the wastewater was also video graphed, in which it is amply clear that no wastewater is being sent to Noida drain from Delhi.*

*Photographs taken during aerial survey are annexed herewith as Annexure -5.***"**

CPCB Reports both dated 08.11.2021

12. The first report of CPCB deals with the standards of water quality of drains but there is no mention of such standards either laid down or proposed. The report simply mentions the water quality criteria for surface water courses (for bathing waters) and the general standards for effluents. The Tribunal had asked for the standards for disposal of treated effluents, to be permitted in storm water drains or irrigation canals to maintain the water quality of drains laid down or proposed under the Environment (Protection) Act, 1986/the Water (Prevention and Control of Pollution) Act, 1974. Let the Chairman and Member Secretary, CPCB look into this aspect and ensure that appropriate standards are laid down on the subject within one month from today.

The second report is about the status of sewage management in Khoda area. The reports mentioned that there is no infrastructure in the area and waste water is flowing in the drain. UP Jal Nigam needs to

prepare appropriate DPR and Nagar Palika needs to provide land for the purpose. The extracts from the report are as follows:

> ***"****1. Presently, there is no infrastructure in the area for management of sewage which include sewerage network and sewage treatment plant.*
>
> *2. During inspection, CPCB team observed that waste-water discharges from Khoda- Makanpur Nagar Palika flows towards Delhi which finally merge with Kondli drain. Photographs depicting discharge from Khoda drain are attached as Annexure-I. Samples of waste-water of Khoda drain were also collected on 14.10.2021 and analysis report is presented in the following Table:*

Location	***Parameter***					
	pH	***TSS (mg/l)***	***COD (mg/l)***	***BOD (mg/l)***	***PO_4-P (mg/l)***	***NH_3-N (mg/l)***
Khoda drain in front of temple on Delhi Noida border.	***7.4***	***257***	***463***	***200***	***1.17***	***10***

> *Analytical results indicate that the values of the parameters namely BOD-200 mg/l, COD-463 mg/l and TSS-257 mg/l are much on the higher side. It is obvious from the characteristics of the waste-water flowing through Khoda drain that it is untreated.*
>
> *3. At present, septage wastes as collected from septic tanks of households, are disposed of into STPs at Noida, Sector 62 for treatment and rest sullage wastes are discharged into drains.*
>
> *4. Khoda- Makanpur Nagar Palika has requested UP Jal Nigam to prepare DPR on sewage management of the area. As per DPR report, Nagar Palika is divided into 07 zones and planned to install IPS (Intermediate Pumping Station) for each zone and 01 tail end STP.*
>
> *5. Nagar Palika has requested NOIDA Authority to provide vacant land for installation of STP and decision on said matter is still pending. Copy of communication made with CPCB on the matter is attached as Annexure-II.****"***

Discussion and directions

13. We have interacted with the officers present. It has come out during interaction with the CEO, NOIDA that as against claim of STPs of 72 out of 95 group housing societies being functional, the stand of State PCB is that only 12 were compliant. There is also contradiction in the narrative in the

report of the NOIDA Authority on the one hand and details mentioned in the annexures to the report. By way of illustration, in one of the charts at serial no. 77, STP is said to be working at Air Force Naval Housing Board (Jalvayu Tower), while in another annexure at serial no. 9 against the same complex, status of STP is mentioned as not constructed. The report of the NOIDA Authority mentions that sewer of complexes where STP were non-compliant have been connected to NOIDA sewer line. Number of such complexes is mentioned as 07, while it should have been 83, if only 12 out of 95 are functional and compliant. The impact of connecting sewers of group housing societies, which were required under the law to set up their STPs, will increase the load of NOIDA sewer line. It is not clear how such load will be sustained. From Annexure B, it is shown that various sewer lines are lying chocked or/are overflowing which obviously results in water pollution. This situation can hardly be held to be satisfactory though colour of compliance has been given which on scrutiny can hardly be called compliance. On the other hand, this amounts to absolving the non-compliant Project Proponents (PPs) of statutory obligations under the EC/Consents and profiteer by law violation which inter-alia amounts to an offence under Section 3 of the Prevention of Money Laundering Act, 2002 (PMLA Act, 2002) read with paragraphs 25 and 26 of Part A of the Schedule to the Act. This will also be against the 'Polluter Pays' principle as the PP has to be held accountable to meet the cost of restoration for the damage caused in violation of statutory mandate. Compensation in this regard has to be as per principles laid down in *M. C. Mehta & Anr. v. Union of India,* (1987) 1 SCC 395, *Sterlite Industries (India) Ltd. v. Union of India,* (2013) 4 SCC 575 and *Goel Ganga Developers India Pvt. Ltd. v UOI*, (2018) 18 SCC 257. Compensation has to have deterrent element having regard to financial capacity so that the law violation is not encouraged. Compensation amount needs to be credited to a separate amount for restoration and improvement of the environment. NOIDA Authority needs to take further remedial action in the matter.

14. In view of huge load of untreated sewage of group housing societies, the CSTP of Noida sewer line will have to be properly maintained and its compliance status monitored. The fact that even without STPs being installed/functional/compliant, sewer is being generated shows that the buildings have been occupied even before setting up of functional and compliant STP, in violation of EC/consent conditions. We are informed that partial occupancy certificates are issued to facilitate the builders to sell the flats which prima facie amount to offence. This policy will have to be reviewed to effectuate the mandate under the EC/Consent conditions read with Water and EP Acts. Though STPs were required to be functional before occupancy, they are either not installed or are non-functional or non-compliant. Compliance is proposed in distant future extending upto four years, without specifying the accountability/liability of the PP responsible for the situation for continuing violation in the meantime.

15. Though learned CEO has stated that she will personally monitor compliances, it may not be practical unless there is a dedicated monitoring cell manned by qualified environmental professionals, taking of performance guarantees/deposits for performance from PPs before permitting commencement of the project and also before giving occupancy certificate, engagement of accredited agencies to assist such monitoring, and effective community involvement. The Inspector General of Police, Meerut Range submitted that IPC offences are not registered due to provisions of special law – EP Act. This can be no excuse as IPC offence are also committee and taking of such action does not violate the special law. Further, Section 133 Cr.P.C. can be also invoked wherever necessary. Since earning money by committing offences under Air, Water, EP Acts amounts to offence under Section 3 of the PMLA Act, 2002, the Enforcement Directorate needs to look into the matter to proceed against violators and colluders in such offences, as per the mandate of law.

16. With regard to pollution of Kondli Irrigation drain, table 5 in the report of the State PCB shows that water quality is highly polluted. The State PCB has merely proposed procuring and installing online drain monitoring systems. The NOIDA Authority has proposed undertaking a study by WAPCOS/EIL for feasibility for intercepting sewer scheme and in situ treatment. In that regard work is said to have been allotted for one wetland. Strengthening of existing sewerage network and termination to STPs has to be properly executed. As per information given in table 3 by Noida, out of 10 projects, 8 have been completed and two are under execution. Still, 30 sewage drains are to be properly sewered terminating to preplanned STPs of 180 MLD and the utilization of treated effluents needs to be planned. Action taken in this regard is patently inadequate. Further remedial action needs to be taken. The inspection report annexed to the report of the NOIDA Authority shows that so far no treatment of waste discharged in the said drain is taking place. The discharge of effluents in the drains is without permission of the Irrigation Department. In fact, such permission was refused. The report of NOIDA Authority and State PCB has not mentioned the performance of six STPs and mode of disposal of treated effluents and their utilization.

17. With regard to preventing untreated effluents generated at Khoda Makanpur, according to State PCB affidavit, there is no plan for treatment of domestic effluents for which environmental compensation of Rs. 70 lakhs has been levied. The Additional Chief Secretary, (Env.), UP submitted that the remedial action is to be taken by the Urban Development Department and he will take up the matter with the said department. Let the Urban Development Department, UP take remedial action in the present matter and further to ensure framing and executing an appropriate policy at all locations in the State in discharge of public trust doctrine obligating the State to prevent water pollution.

18. Coming to the remedial action in Delhi, the action taken report filed on behalf of the Delhi Government has stated that no untreated sewage is generated from Delhi and discharged into the Noida drain. This aspect may be verified by the CPCB. The treatment capacity and performance of Kondli STP also needs to be verified particularly with reference to compliance with fecal coliform and utilization of treated sewage. It further needs to be ascertained whether such waste is being discharged into Shahdara drain. Though it is stated that dairies have been closed, impact of such closure on improvement of environment has not been indicated and ensuring that such dairies do not operate illegally. In case of their operation, the environmental compliance needs to be adhered. With regard to borewells, though 16 borewells are said to have been sealed, there is no information about remedial action against the remaining. Compensation needs to be assessed and recovered against persons who have illegally operated the borewells.

19. In view of above, let the NOIDA Authority, Urban Development Department, UP and Chief Secretary, Delhi and CPCB take further follow up action and file compliance status within three months by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF. NOIDA Authority may not grant any partial or completion certificates in future without ensuring compliance of EC/Consent conditions and requirements of the EP and Water Acts. UP and Delhi Police and ED may also take such action as may be found appropriate in the light of above observations.

20. We sum up our directions as follows:

NOIDA

i. Discrepancies pointed out in para 13 regarding functional status of STPs, their compliance and connectivity to sewers to be addressed and clarified considering desludging and maintenance of sewer lines.

ii. Action against violators and colluders under Section 3 of PMLA Act, 2002, IPC as well as under Section 133 of Cr. PC to be looked into.

iii. Granting partial or completion certificates must be compliant with EC/Consent conditions.

iv. Completion of ongoing sewerage network to be ensured and steps taken in respect of 30 drains and their termination to respective existing or new STPs.

v. Mode of disposal of 6 existing STPs to be compliant with standards, including fecal coliform and utilization of treated effluents to be ensured.

UP State PCB/Irrigation Department/Urban Development, UP

vi. Maintaining water quality of irrigation canal (Kondli drain) as per Water Act. STPs to be consented accordingly and regular monitoring of performance of terminal STPs as well as of group housing societies required.

vii. Khoda Nagar Palika to set up required STP and State of UP to frame and execute policy as directed in Para 17 above.

GNCTD (EDMC/DJB/DPCC)

viii. Ensuring no waste water enters from Kondli drain to Noida.

ix. Kondli STP should comply with standards and adequately cater to the need of designed capacity with proper utilization and disposal of effluents.

CPCB

x. To evolve standards and formulate policy for maintaining and restoring water quality of storm water drains/irrigation canals and other “streams” as per the Water Act, 1974.

List for further consideration on 12.04.2022.

A copy of this order be forwarded to CPCB, Chief Secretary, Delhi, Additional Chief Secretary, (Env.), UP, Secretary, Urban Development Department, UP, CEO NOIDA Authority, Vice Chairman, GDA, District Magistrate, Gautam Budh Nagar, Police Commissioner, NOIDA, I.G. Meerut, UP State PCB, UP Jal Nigam, Nagar Palika Parishad, UP, Special Commissioner of Police, East Delhi, DPCC, EDMC, DJB and Director, ED by e-mail for compliance.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Dr. Nagin Nanda, EM

December 23, 2021
Original Application No. 1002/2018
AVT & DV