



Speed Post

B-19001/Kali-East/PIAS/WQM-II/CPCB/2018-19 1406

Dated: April 24th, 2019

26M

To

Chairman
Uttar Pradesh Pollution Control Board,
Building No. TC-12V, Vibhuthi Khand,
Gomti Nagar, Lucknow - 226 010

DIRECTIONS ISSUED UNDER SECTION 18 (1) (b) OF THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974 REGARDING WATER QUALITY RESTORATION OF RIVER KALI-EAST

WHEREAS, amongst others, under Section 17 of the Water (Prevention and Control of Pollution) Act, 1974, one of the function of the State Pollution Control Board (SPCB), constituted under the Water (Prevention & Control of Pollution) Act, 1974 is to plan a comprehensive programme for prevention, control or abatement of pollution of streams and wells located in the State and to secure the execution thereof; and

WHEREAS, amongst others, under section 16 of the Water (Prevention and Control of Pollution) Act, 1974, one of the function of the Central Pollution Control Board (CPCB), constituted under Water (Prevention and Control of Pollution) Act, 1974 is to coordinate activities of the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) and to provide technical assistance and guidance to SPCBs / PCCs; and

WHEREAS, amongst others, under section 16 of the Water (Prevention and Control of pollution) Act, 1974, one of the function of the Central Pollution Control Board, is to promote cleanliness of streams and wells in different areas of the States; and

WHEREAS, the Central Government has notified standards for discharge of environmental pollutants from industries and common effluent treatment plants (CETPs), under the Environmental (Protection) Act, 1986 and rules framed there under, and

WHEREAS, the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) are empowered to stipulate standards for discharge of environmental pollutants for various categories of industries and common effluent treatment plants (CETPs) more stringent than those notified by the Central Government, under the Environmental (Protection) Act, 1986 and rules framed there under; and

WHEREAS, Water Quality of River Ganga and its tributaries has been threatened due to disposal of untreated sewage and sullage from drains and discharge of untreated/partially treated effluents from Grossly Polluting Industries (GPIs) which are mixed with drain effluents and reaching to Ganga directly or through its tributaries; and

WHEREAS, the Hon'ble Supreme Court of India in WP (375 of 2012) passed a judgement dated 22.02.2017 that

"the concerned SPCBs are mandated to carry out inspections, to verify, whether or not, each industrial unit regarding "consent to operate", has a functional primary effluent treatment plant. Such of the industrial units, which have not been able to make their primary effluent treatment plant fully operational, within the notice period, shall be restrained from any further industrial activity. This direction may be implemented by requiring the concerned electricity supply and distribution agency, to disconnect the electricity connection of the defaulting industry. We therefore hereby further direct, that in case the concerned SPCBs make a recommendation to the concerned electrical supply and distribution agency/company, to disconnect electrical supply to an industry, for the reason that its primary effluent treatment plant is not functional, it shall honor such recommendation, and shall disconnect the electricity supply to such defaulting industrial concern, forthwith,"

AND WHEREAS, CPCB in consultation with UPPCB has inventoried 101 Grossly Polluting Industries (GPIs) from sectors Chemical (Organic & Inorganic), Distillery, Sugar, Pulp & Paper, Textile, Dying, Bleaching, Slaughter House, Food & Dairy and Others categories of industry operating in state of Uttar Pradesh and having potential to discharge effluent into river Kali-East; and

WHEREAS, CPCB issued directions dated 14.12.2011 under Section 18 (1) (b) of Water (Prevention and Control of Pollution) Act, 1974 to the Uttar Pradesh Pollution Control Board (UPPCB) and directed:

- i) To identify the defaulting industries discharging their untreated/partially treated effluent either into River Kali-East or into drains subsequently joining River Kali-East and issue closure directions to those identified defaulting industries under section 33 (A) of the Water (Prevention & Control of Pollution) Act, 1974.
- ii) To ensure that slaughter house located in Meerut city treat their effluent up to prescribe effluent discharge standards to ensure mitigation of pollution of Slaughter house/Odean Nallah drain.
- iii) That Industrial pollution load of Chhoiya drain and Kadarabad drain needs to be addressed by taking appropriate action to contain industrial pollution with immediate effect.
- iv) To ensure that no industrial unit discharges its untreated/partially treated effluent either into River Kali-East or into subsequent drain.
- v) To ensure that sewage of Meerut, Hapur and other cities is conveyed to Sewage treatment plants (STPs).
- vi) UPPCB along with other concerned authorities shall evolve a comprehensive action plan for the abatement of pollution in River Kali-East.

AND WHEREAS, CPCB issued directions dated 10.03.2017 under Section 18 (1) (b) of Water (Prevention and Control of Pollution) Act, 1974 to the Uttar Pradesh Pollution Control Board (UPPCB) for restoration of water quality of River Ganga and directed:

- i) To take up water quality monitoring of River Ganga, and River Kali-East (Uttar Pradesh), along with adjoining drains on monthly basis for physico-chemical parameters, and on quarterly basis for micro pollutants (Metals & Pesticides) at the downstream of major urban centres and industrial clusters with a view to prevent pollution load on Ganga starting from March, 2017.
- ii) To regularly monitor compliance of industries and grant consent-to-operate to industries having requisite effluent treatment facilities and complying with the prescribed standards and shall update

status online through India e-track web portal hosted by CPCB. SPCB shall ensure that no industry operates without a valid consent and industries operating without consents should be closed down.

- iii) To ensure that no industry disposes coloured effluent into any drain / tributaries so that River Ganga and its tributaries do not receive any coloured effluent.

AND WHEREAS, CPCB issued directions dated 26.04.2018 under Section 18 (1) (b) of Water (Prevention and Control of Pollution) Act, 1974 to the Uttar Pradesh Pollution Control Board (UPPCB) for restoration of water quality of River Kali-East and directed:

- i) To identify the sources of pollution and ascertain reasons for high colour, high BOD and total coliforms in River Kali-East and shall take appropriate action for abatement and control of pollution in River Kali-East
- ii) To ensure that no industry disposes coloured effluent into any drain so that River Kali-East does not receive any coloured effluent.
- iii) To regularly monitor compliance by industries and grant Consent-To-Operate to industries having requisite effluent treatment facilities and complying with the prescribed standards and ensure that no industrial unit operates without having valid Consent-To-Operate and that industries operating without consents should be closed down.

AND WHEREAS, CPCB carried out water quality monitoring of River Kali-East at upstream (U/s) & downstream (D/s) locations of confluence points of drains with river in its entire stretch from Khatauli (Muzaffarnagar) to Kannauj in Uttar Pradesh at 25 locations during June, 2018 and found river water quality highly polluted. The analysis results are enclosed at **Annexure-I**; and

WHEREAS, it was observed River Kali- East was dry before confluence of Sugar Mill Nallah, near Khatauli, Muzaffarnagar and analysis of water sample of river Kali-East at downstream of Sugar Mill Nallah, Muzaffarnagar showed **Colour- 1076 Hazen, DO- Nil, BOD- 249 mg/l, COD- 584 mg/l, TSS- 235 mg/l and TDS- 1364 mg/l. High colour, BOD, COD and TDS in river water** is indicative of industrial pollution and sugar unit namely **Triveni Engineering Industries Ltd.**, located in Khatauli, Muzaffarnagar and sewage from Khatauli town is identified as potential source of pollution of river Kali-East in district Muzaffarnagar; and

WHEREAS, it was observed River Kali- East was dry in upstream of Village Saini, near Bahchaula village (near M/s Anand Triplex Board Ltd.), Meerut and analysis of water sample of river Kali-East at downstream Village Saini near M/s New Bonanza Ltd., Meerut showed **Colour- 399 Hazen, DO- Nil, BOD- 442 mg/l, COD- 748 mg/l, TSS- 354 mg/l and TDS- 2892 mg/l** which is clearly indicative of industrial pollution and eight pulp and paper units located in Saini Village, Meerut (**Annexure-II**) are identified as potential source of pollution as their effluent discharges into river Kali-East near village Saini, Meerut directly or indirectly; and

WHEREAS, analysis of water sample collected from River-Kali East at D/s of Abu Nallah – 1/Kaily Drain, Meerut (Flow-72.03 MLD, Organic load-12.7 TPD, BOD-176 mg/l, TDS-1614 mg/l) showed **Colour- 418 Hazen, DO- Nil, BOD- 10 mg/l, COD- 114 mg/l, TSS- 125 mg/l and TDS-1534 mg/l**, high TDS in river water is indicative of industrial pollution and seven GPs, four STPs (**Annexure-II**) located in Abu Nallah – 1/Kaily Drain catchment and discharge of sewage from Meerut city are identified as the potential source of pollution; and

WHEREAS, analysis of water sample collected from River-Kali East D/s of Abu Nallah-2, Meerut (Flow- 216.28 MLD, Organic load-25.1 TPD, BOD-116 mg/l, TDS-640 mg/l) at D/s of Kamalpur near Sarai Kazi, showed **Colour- 695 Hazen, DO-0.3, BOD- 81 mg/l, COD- 217 mg/l, TSS- 260 mg/l and TDS-592 mg/l** which is indicative of industrial pollution and six GPIs, four STPs (**Annexure-II**) located in Abu Nallah – 2 catchment and discharge of sewage from Meerut city are identified as potential source of pollution; and

WHEREAS, analysis of water sample collected from River-Kali East D/s of confluence point of Slaughter house drain (Odean Nallah), Meerut (Flow -252.36 MLD, Organic load-105.7 TPD, BOD-419 mg/l) at bridge on Jalalpur village, showed **Colour- 745 Hazen, DO-Nil, BOD- 120 mg/l, COD- 387 mg/l, TSS- 292 mg/l and TDS - 780 mg/l** which is indicative of industrial pollution and three GPIs, one STP (**Annexure-II**) located in catchment of Slaughter house drain (Odean Nallah) and discharge of sewage from Meerut city are identified as potential source of pollution; and

WHEREAS, three GPIs (**Annexure-II**) located in Meerut are discharging directly in Kali-East directly after confluence of Slaughter House drain/Odean Nallah; and

WHEREAS, analysis of water sample collected from River-Kali D/s of Chhoiya drain at canal road, Chhapokali, Hapur (Flow- 10.25 MLD, Organic load-0.21 TPD, BOD-20.0 mg/l) showed **Colour- 725 Hazen, DO-0, BOD- 62 mg/l, COD- 172 mg/l, TSS- 125 and TDS-860** which is indicative of industrial pollution and five GPIs (**Annexure-II**) and discharge of sewage from towns located in catchment of Chhoiya drain at Meerut district are identified as potential source of pollution; and

WHEREAS, analysis of water sample collected from River-Kali East D/s of Hapur/Partapur drain (Flow- 126.49 MLD, Organic load-7.59 TPD, BOD-60 mg/l, TDS-996 mg/l) and D/s Kadrabad drain, near Akbarpur village, Hapur (Flow- 29.33 MLD, Organic load-10.50 TPD, BOD-358 mg/l, TDS-2344 mg/l) showed **Colour- 876 Hazen, DO-Nil, BOD- 46 mg/l, COD- 206 mg/l, TSS- 177 mg/l and TDS-958 mg/l. High TDS and color in river water after confluence of Hapur/Partapur drain and kadrabadad drain** is indicative of industrial pollution and 51 GPIs, one CETP (**Annexure-II**) and discharge of sewage from towns located at Meerut, Hapur and Ghaziabad district in catchment of these two drains are identified as potential source of pollution; and

WHEREAS, two GPIs (**Annexure-II**) located in Hapur are discharging directly in Kali-East; and

WHEREAS, analysis results of water sample collected from River-Kali East D/s of Gulaothi drain (Flow- 14.54 MLD, Organic load-3.32 TPD, BOD-228 mg/l, TDS-1614 mg/l), near Gulaothi, Bulandshahar (upstream of Bulandshahar drains) showed **Colour- 778 Hazen, DO-Nil, BOD- 85 mg/l, COD- 170 mg/l, TSS- 349 mg/l and TDS-806 mg/l**; and

WHEREAS, analysis of water sample collected from River Kali-East downstream of drains of Bulandshahar (Flow- 193.89 MLD, Organic load-61.93 TPD) after confluence of Manan road nallah, Bulandshahar showed **Colour- 500 Hazen, DO-Nil, BOD- 61 mg/l, COD- 135 mg/l, TSS- 93 mg/l and TDS-934 mg/l. High TDS and color in river water after confluence of Gulaothi drain and drains of Bulandshahar** is indicative of industrial pollution and seven GPIs of Bulandshahar district located in Kali-East catchment (**Annexure-II**) and discharge of untreated sewage from towns located in Bulandshahar district are identified as potential source of pollution; and

WHEREAS, analysis result of water sample of River-Kali-East at downstream (D/s) of Wave Industry, Aligarh (Near Wave distilleries and breweries, Aligarh) showed **Colour- 285 Hazen, DO-0.6 mg/l, BOD- 19 mg/l, COD- 79 mg/l, TSS- 16 and TDS-954** high TDS is indicative of industrial pollution and three GPs (**Annexure-II**) located in Aligarh district are identified as potential source of pollution as their effluent discharges into river Kali-East near village Atrauli directly or indirectly; and

WHEREAS, analysis result of water sample of River-Kali-East after confluence of Kasganj Drain (Flow - 14.47 MLD, Organic load-1.52 TPD, BOD-105 mg/l) Near Babul Nangla village, Kasganj after release of fresh water from Lower Ganga Canal in upstream Kasganj, showed **BOD- 12 mg/l, COD- 67mg/l, TSS- 59 mg/l and TDS-752 mg/l** after dilution high TDS is which is indicative of industrial pollution and seven GPs (**Annexure-II**) and discharge of sewage from towns of Aligarh and Kasganj district located in catchment of Kasganj drain are identified as potential source of pollution; and

WHEREAS, analysis result of water sample of River-Kali-East at Khudaganj bridge state highway 29A, Kannauj showed **BOD- 14.7 mg/l, COD- 62.4 mg/l, TSS- 113 mg/l and TDS-506 mg/l** and two GP (**Annexure-II**) located in Etah district and discharge of sewage from towns located in Etah district is identified as potential source of pollution; and

WHEREAS, three drains namely Adanga Nallah (dry), Tammi Nallah (Flow-5.02 MLD, Organic load-0.09 TPD, BOD-70 mg/l, TDS-690 mg/l) and Pattah nallah (Flow-8.36 MLD, Organic load-0.09 TPD, BOD-11 mg/l, TDS-765 mg/l) have been identified carrying sewage of Kannauj city and discharging wastewater in to river Kali-East in Kannauj District; and

WHEREAS, analysis results of water sample collected from River-Kali East after confluence of Pattah Nallah near Near Amarapur village, Kannauj showed **Colour- 65 Hazen, DO-2.5 mg/l BOD- 10.9 mg/l, COD- 48.8 mg/l, TSS- 27.1 mg/l and TDS-840 mg/l** is indicative of discharge of untreated sewage; and

WHEREAS, analysis results of water sample collected from River Ganga after confluence of Kali-East near Manimau bridge, Kannauj showed **Colour- 10 Hazen, DO-8.51, BOD- 7 mg/l, COD- 26.7 mg/l, TSS- 299 mg/l and TDS-161 mg/l** indicating that river Ganga is not conforming notified bathing criteria after confluence of river Kali-East; and


It is evident that river Kali-East is highly polluted in its entire stretch due to discharge of sewage and industrial effluent directly or through drains; river Kali-East contributes pollution load into river Ganga, and 101 GPs, 13 STPs, 01 CETP and discharge of untreated sewage from towns located in river Kali-East catchment are identified as the major potential sources of pollution.

AND NOW THEREFORE, in view of above mentioned observations and in the interest of Rejuvenation of River kali-East and in exercise of the power conferred under Section 18 (1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 you are hereby directed to formulate a time bound action plan in consultation with GPs, district administrations, municipal corporations, development authority and other concerned bodies located in river Kali-East catchment along with Uttar Pradesh Jal Nigam (UPJN) for restoration of water quality of river Kali-East and to implement following suggestive measures besides other necessary pollution control measures:

1. Augmentation and upgradation of Effluent Treatment Plant (ETP) of grossly polluting industries (GPs) located in catchment of Kali-East up to tertiary treatment level. (Action: GPs)

2. In case of Distilleries, augmentation/ upgradation of ZLD system including setting up of Condensate Polishing Unit (CPU). (Action: GPIs)
3. Adoption of cleaner technology and best practices for waste minimization by GPIs. (Action: GPIs)
4. Assessment and monthly monitoring of environmental performance of GPIs and CETPs by third party and report to SPCB/CPCB. (Action: GPIs)
5. In-situ treatment of drains. (Action: GPIs)
6. Installation of wire net/geo-net at confluence point of drains. (Action: GPIs)
7. CCTV Cameras at entrance/Exit gate of ETP system. (Action: GPIs)
8. Ground water recharging/rain water harvesting. (Action: GPIs)
9. Creation of sewage treatment facility and installation of sewerage system in the towns located in catchment of river Kali-East. (Action: UP Jal Nigam/Municipal Corporations/Development authority)
10. Surveillance and monitoring of STPs to assess the performance analysis. Non-functional STPs shall made functional and optimum utilization of capacity. (Action: District Administration & UPPCB)
11. Interception and diversion of sewage to STPs. (Action: UP Jal Nigam/Municipal Corporations/Development Authority)
12. Periodic ground water quality assessment and remedial measures in case of contamination. (Action: UPPCB)
13. Treatment and disposal of septage and banning open defecation completely along the banks, in the flood plain area and river basin. The total river basin should be provided with dry/wet toilets under Swatch Bharat Abhiyan. (Action: District Administration & UPPCB)
14. Dredging/ desilting of river Kali-East and drains. (Action: GPIs and UP Jal Nigam)
15. Prohibition on dumping of municipal/industrial solid wastes and sludge on either the active flood plain of river or into the river itself. (Action: District Administration, UPPCB, municipal corporations & UP Jal Nigam)
16. All the dumped solid waste along the river should be removed immediately and disposed safely. (Action: Municipal councils & UP Jal Nigam)
17. Mass Awareness programmes and prohibition and restriction of certain activities. (Action: District administration and UPPCB)
18. To conduct inspections and assess pollution source of river Kali-East and take necessary action against the defaulters. (Action: District Administration)
19. To constitute committee at district level for each district of Kali-East under chairmanship of District Magistrate having representative from UPPCB and other stakeholders to review progress of implementation status of action plan and submission of quarterly progress report by committees to CPCB. (Action: UPPCB and District Administration)

The action taken report along with river-Kali-East water quality restoration plan shall be submitted by UPPCB to CPCB by 30th May, 2019. UPPCB shall acknowledge the receipt of the directions to CPCB immediately.


 28/5/19
(S. P. SINGH PARIHAR)
CHAIRMAN

Copy to:

1. **District Magistrate** :
District Magistrate Office
Collectorate, Near Prakash Chowk
Muzaffarnagar, Uttar Pradesh- 251001
2. **District Magistrate** :
LalkurtiBazzar, Police Lines,
Meerut, Uttar Pradesh -250001
3. **District Magistrate** :
Hapur Road, Sector 15,
Raj Nagar, Ghaziabad, Uttar Pradesh- 201002
4. **District Magistrate** :
DIET Premises, Kothi Gate,
Hapur Uttar Pradesh- 245101
5. **District Magistrate** :
Chandpur, Bulandshahar
Uttar Pradesh, 203001
6. **District Magistrate** :
Church Compound, Civil
Lines, Aligarh Uttar Pradesh, 202001
7. **District Magistrate** :
BabuGanj, Etah
Uttar Pradesh, 207001
8. **District Magistrate** :
Collectorate, KasganjSoron Road,
Kasganj, Uttar Pradesh- 207123
9. **District Magistrate** :
Kannauj
10. **Director General** : For kind information, please
National Mission for Clean Ganga,
(MOWR, RD & GR)
1st floor, Major Dhyan Chand National Stadium,
India Gate, New Delhi-110002
11. **Joint Secretary (CP Division)** : For kind information, please
Ministry of Environment, Forest & C.C
Prithvi Block, Indira Paryavaran Bhawan,
Jorbagh Road, New Delhi - 110 003

To prepare action plan and implement measures for restoration of water quality of River Kali-East & drains and constitute committee at district level and review the progress.

12. **Regional Director**
Regional Directorate
Central Pollution Control Board
PICUP Bhawan, Ground Floor, Vibhuti Khand,
Gomti Nagar, Lucknow - 226 010

: For follow up and ensuring compliance.

✓ 13. The In-charge, IT Division, CPCB

14. Master file/Guard file WQM II, CPCB Delhi


(A. SUDHAKAR)

MEMBER SECRETARY

e/c

River Kali-East water quality data (June, 2018)

S. No.	Sampling locations	Locational importance	Parameters							
			Colour (Hazen)	pH	DO (mg/l)	TSS (mg/l)	TDS (mg/L)	BOD (mg/l)	COD (mg/l)	Total Coliforms (MPN/100 ml)
Muzzafarnagar										
1	U/s to bridge on Khatauli – Miranpur road in Khatauli (~ 100 m. U/s of bridge)	U/s of Sugar Mill Nallah	1071	8.1	0	178	2092	758	2579	35×10^2
2	D/s of bridge on Miranpur – Khatauli road in Khatauli	D/s of Sugar Mill Nallah	1076	8.1	0	235	1364	249	548	16×10^6
Meerut										
3	River Kali – East U/s of Village Saini, near Bahchaula village	U/s of Pulp & Paper cluster	DRY							
4	River Kali – East D/s of Village Saini	D/s of Pulp & Paper cluster at Saini	399	7.2	0	354	2892	442	748	7×10^6
5	Bridge on River Kali – East at U/s of Gesupur village near Rali Chauhan village	U/s of Abu Nallah – 1	307	7.4	0.3	34	2874	10	136	16×10^3
6	Bridge near Gesupur village on River Kali – East	D/s of Abu Nallah – 1	418	7.5	0	125	1534	10	114	35×10^5
7	Bridge near Garh road, Kamalpur bridge	U/s of Abu Nallah – 2	294	7.5	0	64	1294	65	183	23×10^4
8	D/s of Kamalpur	D/s of Abu Nallah – 2	695	7.4	-	260	592	81	217	94×10^6

S. No.	Sampling locations	Locational importance	Parameters							
			Colour (Hazen)	pH	DO (mg/l)	TSS (mg/l)	TDS (mg/L)	BOD (mg/l)	COD (mg/l)	Total Coliforms (MPN/100 ml)
	near Sarai Kazi, D/s of 72 MLD STP	and U/s of Slaughter house drain								
9	River Kali – East at bridge on Jalalpur village	D/s of confluence point of Slaughter house drain	745	7.5	0	292	780	120	387	7×10^7
Hapur										
10	River Kali – East U/s of Chhoiya drain	U/s of Chhoiya drain	687	7.5	0	177	800	59	233	33×10^4
11	River Kali – East D/s of Chhoiya drain	D/s of Chhoiya drain	725	7.3	0	125	860	62	172	24×10^5
12	River Kali – East D/s of confluence of Hapur city drain	D/s of Hapur city drain	690	7.5	0	243	782	48	237	49×10^4
Ghaziabad										
13	River Kali – East D/s of confluence of Kadrabad drain	D/s of Hapur drain & Kadrabad drain	876	7.8	0	177	958	46	206	11×10^5
Bulandshahar										
14	River Kali-East near Gulaothi, Bulandshahar	U/s of confluence of Bulandshahar drains	778	7.2	0	349	806	85	170	92×10^5
15	River Kali – East after meeting Manan road nallah	D/s of confluence of Bulandshahar drains	500	7.3	0	93	934	61	135	16×10^5
Aligarh										
16	River Kali – East U/s of Wave Industry	Near Wave distilleries and	338	7.1	0.895	11	950	26	79	31×10^3

S. No.	Sampling locations	Locational importance	Parameters							
			Colour (Hazen)	pH	DO (mg/l)	TSS (mg/l)	TDS (mg/L)	BOD (mg/l)	COD (mg/l)	Total Coliforms (MPN/100 ml)
17	River Kali – East D/s of Wave Industry	breweries, Aligarh	285	7.1	0.59	16	954	19	79	11×10^3
Kasganj										
18	River Kali – East near Babul Nangla village	U/s of confluence of Kasganj drain	-	7.5	-	91	706	40	185	17×10^3
19		D/s of confluence of Kasganj drain	-	7.7	-	59	752	12	67	46×10^4
Kannauj										
20	Near Chhemkhali temple to Nadangapur village	U/s and D/s of Adanga Nallah	Adanga Nallah is tapped and waste water is pumped to Kannauj STP. Tammi drain was found partially tap and rest of wastewater used for irrigation purpose by farmer and drain was found dry near Sadikapur village. River is almost dry							
21	River Kali-East near Tammi House to Sadkapur Village	U/s & D/s of Tammi Nalla								
22	Khudaganj bridge state highway 29A	River Kali-East at Khudaganj	35	8.79	6.5	113	506	14.7	62.4	1.4×10^4
23	Near Amarpur village	U/s of Patta Nallah	60	8.08	5	99.3	879	11	47.8	3.5×10^6
24		D/s of Patta Nallah	65	8.14	2.5	27.1	840	10.9	48.8	9.2×10^6
25	Durjanpur village near Manimau bridge, Kannauj	River Ganga a/c with River Kali-East	10	8.51	9	299	161	7	26.7	9.3×10^3

GPIs in catchment of Kali-East with potential discharge receiving surface water body

	Stretches	River / Drains	Industries
1.	Khatauli, Muzaffarnagar to D/s of Sugar Mill Nallah	Sugar Mill Nallah	1. Triveni Engineering Industries Ltd., Khatauli (Sugar Mill)
2.	Village Saini, near Bahchaula village to D/s of Saini Village, Meerut	Saini village drain	2. Anand Duplex Ltd, unit – 1, Vill – Saini, Meerut-Mawana Road, Meerut 3. Anand Duplex Ltd, unit – II, Vill – Saini, Meerut-Mawana Road, Meerut 4. Anand Triplex Board Ltd., Vill – Saini, Mawana Road, Meerut
3.		R. Kali-East	5. Devpriya Industries, Unit - I, Vill – Saini, Mawana Road, Meerut 6. Devpriya Industries Ltd. Unit-II (Kraft & Duplex), Vill. – Saini, Mawana Road, Meerut 7. Devpriya papers Pvt. Ltd., Vill – Saini, Mawana Road, Meerut 8. Devpriya Products Ltd. Unit-1(Kraft & Duplex) Vill. – Saini, Mawana Road, Meerut 9. New Bonanza India Ltd., Nagla Shekhu Road, Vill. – Saini, Meerut-Mawana Road, Meerut
4.	Meerut Stretch-I U/s of Abu Nallah-I to D/s of Odean Nallah	Abu Nallah 1/Kaily Drain	10. Indian Potash Ltd, Sakauti Tanda, Muzaffarnagar Road, Meerut 11. Daurala Organics (A unit of D.C.M. Sri Ram Ind. Ltd.), Daurala, Meerut 12. Daurala Sugar Works, Chemical Unit, Daurala, Meerut 13. Daurala Sugar Works, Sugar Unit, Daurala, Meerut 14. Daurala Sugar Works, Distillery Unit, Daurala, Meerut 15. United Sprits Ltd., Distillery Unit, Meerut Cantt, Meerut 16. Sab Miller Distillery, Meerut Cantt, Meerut
5.		Abu Nallah 2 (Abu Nallah)	17. Ashoka Handloom, Garh Road, Meerut 18. Pashupati Textiles, Garh Road, Meerut 19. U.P. Dying & Printing Works, 68 Navchandi Ground, Meerut 20. M.S. Dyeing, Islamabad

			<p>21. Sgs Prints (Shilpy Handfab Pvt. Ltd), Garh Road, Meerut</p> <p>22. Biharilal Kargha Udyog, Garh Road, Meerut</p>
6.		Odean Nallah/ Slaughter house drain	<p>23. Modern Process House, Mohakampur, Meerut</p> <p>24. National Handloom, Mohkampur, Meerut</p> <p>25. Ashoka Handloom Ind-1, Shyamnagar, Meerut</p>
7.		R. Kali-East	<p>26. Al – Faheem Meatex Pvt. Ltd., Alipur, Hapur Road, Meerut</p> <p>27. Al – Saqib Exports Pvt. Ltd., Alipur, Hapur Road, Meerut</p> <p>28. Tanya Marketing Pvt. Ltd., Alipur, Jijmana Hapur Road, Meerut</p>
8.	Meerut Stretch-II D/s of Odean Nallah to D/s of kadrabad drain	Partapur drain / Hapur drain	<p>29. Kanta Polytex P Ltd, By Pass Road, Vedvyas Puti, Meerut</p> <p>30. Loothara Handloom Pvt.Ltd, Gangol Road, Meerut</p> <p>31. Jyoti Industries(Changed Name S.S Textiles), E-86, Udyogpuram Partapur, Meerut</p> <p>32. Kamal Dying House, B-5, Udyogpuram, Meerut</p> <p>33. Raj Kumar Textiles, A-16 Udyogpuram, Meerut</p> <p>34. Rachit Prints, B-9, 10, 11 Udyogpuram, Meerut</p> <p>35. Shakun Handifab, Partapur, Meerut</p> <p>36. Kanti Synthetics Pvt Ltd, Bypass Road, Partapur</p> <p>37. Anupam Processers, Partapur, Meerut</p> <p>38. Gangol Sahkari Dugdh Utpadak Sangh Ltd., Gangol Road, Partapur, Meerut, U.P.</p> <p>39. Laxmi Industries, Rithani, Meerut</p> <p>40. Kailash Dairy Ltd., Rithani, Delhi Road, Meerut, U.P</p> <p>41. Rama Tax Process House, Rithani, Meerut</p> <p>42. Shiva Fastners, Partapur, Meerut</p> <p>43. Janki News Print Pvt. Ltd. (Sumit Agro Products Ltd.) Panchali Baghpat Road, Meerut</p> <p>44. Star Kraft Papers Pvt.Ltd (Formerly known as Devstar Paper Pvt. Ltd. Panchali, Bagpat Road, Meerut)</p> <p>45. Kanav Paper Pvt. Ltd. (Bifurcated unit of Devpriya Fibers Pvt Ltd.), Vill. – Panchali, Baghpat Road, Meerut)</p> <p>46. Chamunda Paper Pvt. Ltd., Dheerkhera, Industrial Area, Meerut</p> <p>47. Solitare Foods Pvt. Ltd., Gangol Road, Khasra No. 376, Gangol Road Behind Shopia School, Partapur, Meerut, U.P.</p>

9.		Chhoiya drain	<p>48. Mawana Sugar Works, Mawana, Meerut.</p> <p>49. Nanglamal Sugar Complex, Distillery Unit, Nanglamal, Meerut</p> <p>50. Nanglamal Sugar Complex, Nanglamal, Meerut</p> <p>51. Anand Tissues Ltd., (Shree Venkatesh Paper Mill) Vill.-Fitkari, Meerut Mawana Road, Meerut</p> <p>52. Sangal Papers Ltd., Vill - Bhainsa, Meerut-Mawana Road, Meerut</p>
		Kadarabad Drain	<p>53. Paswara Papers(P) Ltd, Mohiuddinpur, Delhi Road, Meerut</p> <p>54. Harbansh Dairy Pvt. Ltd., Meerut Road, Mohiuddinpur, Meerut, U.P.</p> <p>55. Harbansh Lal Food Pvt. Ltd. Meerut Road, Mohiuddinpur, Meerut, U.P.</p> <p>56. Alps Industries Ltd., Vill.-Aminagar, Bhoorbaral, Partapur, Meerut</p> <p>57. Up. State Sugar Corporation Ltd, Mohiuddinpur, Meerut</p>
10	Pilakhua & Hapur stretch	R. Kali-East	<p>58. Raybon Foods P Ltd., Rampur Road, Hapur.</p> <p>59. Navbharat Duplex, Village Badnoulli, Modinagar Road, Hapur, Uttar Pradesh</p>
11		Kadarabad Drain	<p>60. S & S, P-61, Textile Centre Pilakhuwa, Hapur.</p> <p>61. Daily Foods, Modi Nagar Road, Hapur, U.P.</p> <p>62. Shiv Shankar Cotton, P-70, Textile Centre Pilakhuwa, Hapur.</p> <p>63. Shiv Shankar Dyeing, P-74, Textile Centre Pilakhuwa, Hapur</p> <p>64. Tirupati Handloom, P-67 & 68, Textile Centre Pilakhuwa, Hapur</p> <p>65. Rrc Red Rose Thred Pvt. Ltd., P-16, 17 & 18, Textile Centre Pilakhuwa, Hapur</p> <p>66. Cta Apparals Pvt. Ltd., P-26, 27, 28 & 29, Textile Centre Pilakhuwa, Hapur</p> <p>67. Sushil Tech Pvt. Ltd., P-126, 125, P-16, 17 & 18, Textile Centre Pilakhuwa, Hapur</p> <p>68. R.K.B. Towel Mfg. Co. Ltd., (Formely Control Textiles), Hapur Road Dasna, Distt-Distt.-Hapur</p> <p>69. Keshav Industries, Khasra No. 290, Delhi-Garh Road, Near Petrol Pump, Dhaulana, Pilkhua, Hapur.</p> <p>70. Pilkhua Water Proofing Company, Jindal Nagar, Hapur.</p> <p>71. Super Dyeing & Printing Works, Nh-24, Delhi-Hapur Road, Pilkhua, Hapur</p> <p>72. shri calendering works, partapur road pilakhua, hapur.</p> <p>73. Surbhi Multi Tex-Prints Pvt. Ltd., 418/3, Chijarsi Main, Nh-24, Near Mother Dairy, Pilkhua, Hapur.</p>

			74. Merino Industries Ltd., Village- Achheja, P.O.- Hapur 75. Mother Dairy Fruit & Vegetable Pvt. Ltd., 18 K.M. Stone, Pilkhua, Ghaziabad
	Modinagar, Gaziabad	Kadarabad Drain	76. Modi Distillery, Modi Nagar, Ghaziabad 77. Modi Sugar Mills, Modi Nagar, Ghaziabad 78. Ram Niwash Goyal & Sons, Sikheda Road, Modi Nagar, Ghaziabad. 79. Kripa Ram Dairy Pvt. Ltd., Village- Bhojpur, Tahsil- Modinagar, Ghaziabad 80. Ved Cellulose Ltd., 16 Km. Stone, Hapur Road, Vill- Lakhan, Po-Galand, District-Ghaziabad. 81. Modi Nagar Paper Mills, Modi Nagar, Ghaziabad 82. Kartik fabrics Pvt. Ltd., khasra no.184-185-186, Pawanpuri, murad nagar, Ghaziabad 83. Brijnathpur Sugar Mills, (Sugar Unit.), Vill- Brijnathpur, Hapur, 84. Brijnathpur Sugar Mills, (Distillery Unit), Vill- Brijnathpur, Hapur,
12	Bulandsahar stretch River Kali – East D/s of Kadrabad to D/s of Bulandsahar	1. Gulaothi Drain 2. Maman Road Nalla (Bulandshahar 1) 3. Aadil Nala 4. Chandbhari Road Nala (Bulandshahar 2) 5. Cheel ghat 6. Adil Nagar 2 7. Kasai Bada 8. Faisalabad 9. Devipura 10. Bridge Dhameda Road 11. Behind Chamunda Mandir 12. Nashal Ghat 13. Behind Shanidev Mandir	85. Gopalji Dairy Foods Pvt. Ltd., Garh Road, Syana, Distt. Bulandshahar 86. V.R.S. Foods Ltd, (Unit-3), Old Bus Stand, Gulaothi, Distt. Bulandshahar 87. V.R.S. Foods Ltd, (Unit-4), Old Bus Stand, Gulaothi, Distt. Bulandshahar 88. Triveni Engineering & Industries Ltd. (Sugar Unit) Vill. Sabitgarh, Khurja, Distt: Bulandshahar 89. Wave Industries Ltd., (Sugar Unit). Panni Nagar, Bulandshahar 90. Surya Udyog, Khurja Road, Bulandshahar 91. Anamika Sugar Mills Pvt. Ltd., Agauta, Aurangabad, Distt. Bulandshahar
13	Aligarh stretch	River Kali-East	92. Hind Agro Industries Ltd., Anupshahar Road, Aligarh 93. Wave Distillery & Breweries Ltd. (Breweries unit), Vill. – Ahmadpura, Ramghat Road, Tehsil – Atrauli, Aligarh 94. Wave Distilleries & Breweries Ltd., Vill- Ahmedpura, Ramghat Road, Tehsil – Atrauli, Distt. – Aligarh

14	Aligarh stretch	Kasganj Drain	95. Heinz India Pvt. Ltd., Manzargarhi, Anupshahar Road, Aligarh
	Kasganj		96. Ganga Dairy, Tulsipuram, Ramghat Road, Atrauli, Aligarh
	Etah		97. Kisan Sahkari Chini Mills Ltd, Satha, Aligarh 98. Anand Agrochem India Ltd., Gopi Ladhua G.T. Road, Aligarh
			99. Sterling Agro Food Industries Ltd., Kasganj
			100. Anik Industries Ltd. (Nutricia India Pvt. Ltd.), Dairy Complex, Kasganj Road, Etah 101. Unilever India Export Ltd. (Instant Tea Unit), Kasgaij Road, Etah
11	Kannauj		No GPI

Sewage treatment plants (STPs) and Common Effluent Treatment Plant (CETP) discharging into River Kali – East

S. No.	Name of STP/CETP	Capacity (MLD)	Recipient Drain
1.	STP Pallavpuram Phase I, Meerut	07	Abu Nallah 1
2.	STP Pallavpuram Phase II, Meerut	11	Abu Nallah 1
3.	STP Rakshapuram, Meerut	06	Abu Nallah 1
4.	STP GangaNagar, Meerut	10	Abu Nallah 1
5.	STP PandevNagar, Meerut	3	Abu Nallah 2
6.	STP Shardapuri Yojana Phase I, Meerut	06	Abu Nallah 2
7.	STP Shardapuri Yojana Phase II, Meerut	06	Abu Nallah 2
8.	STP Lohiya Nagar, Meerut	10	Odean Nallah/Slaughter house drain
9.	STP Ved Vyasपुरi, Meerut	15	Hapur drain/Partapur Drain
10.	STP Shatabdi Nagar, Meerut	15	Hapur drain/Partapur Drain
11.	STP Sports Goods Complex, Meerut	07	Hapur drain/Partapur Drain

12.	STP U.P. Jal Nigam, Raj Vansh Vihar Garh Road, Meerut	72	Abu Nallah 2
13.	STP, Kannauj	13	Pattah Nallah
14	CETP, Pilakhua	1.5	Kadrabad drain