NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE SENIOR MANAGER (JAL)-I
SECTOR-5, NOIDA

No: Noida/SM(Jal)-I/2023/.1446..... Dated .1-3-2023.....

To

The Consultant –Judicial-NGT (P.B.)
Email ID : judicial-ngt@gov.in

SUBJECT: UPDATES ON THE PROPOSED ACTION PLAN IN COMPLIANCE TO HON'BLE NGT DIRECTION.

Ref.: **NGT OA No. 1002/2018 titled Abhist Kusum Gupta Vs State of Uttar Pradesh & Others Hon'ble NGT order dated 03.08.2022.**

In compliance with the Hon'ble NGT direction on dt. 03.08.2022 for NOIDA. An update on the submitted action plan is hereby furnished for the ready perusal and sympathetic consideration please:

<table>
<tr><th>Sr. No.</th><th>Direction</th><th>Action</th></tr>
<tr><td>1</td><td>Point No.-21 of order dt. 03.08.2022
It is clear that out of 95 group housing societies .....if without functional STPs, the group housing societies were not allowed to occupied, the situation could have been better handled.</td><td>Details of 95 nos. Group Housing Societies STPs as below :-
<table>
<tr><th>No of GHP</th><th>STP Installed</th><th>STP not installed</th><th>STP under installation</th><th>Complying STP</th><th>Not Complying STP</th></tr>
<tr><td>95</td><td>83</td><td>12</td><td>0</td><td>69</td><td>14</td></tr>
</table>
<table>
<tr><th>S. N.</th><th>Description</th><th>Status as on Dated 01.08.22</th><th>Present Status</th></tr>
<tr><td>1</td><td>Nos. of Group Housing Installed STPs.</td><td>77</td><td>83</td></tr>
<tr><td>2</td><td>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><td>04</td></tr>
<tr><td>3</td><td>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><td>07</td></tr>
<tr><td>4 (C)</td><td>Issue regarding completion of these 4 projects of Amrapali is being monitored by Hon'ble Supreme Court.</td><td>04</td><td>-</td></tr>
<tr><td>5 (D)</td><td>Undertaking given by Builder with timeline for operationalization of STP.</td><td>03</td><td>01</td></tr>
<tr><td></td><td>Total Nos. of Group Housing</td><td>95</td><td>95</td></tr>
</table>
</td></tr>
</table>

		Societies		

Note :-

4 **NBCC has been deputed as the working agency by Hon'ble Supreme court 4 nos. group housing societies.**
04 nos of GH societies ((1) M/s Amrapali Shaphire Developers Pvt. Ltd. (Amrapali Shaphire-I), (2) M/s Amrapali Shaphire Developers Pvt. Ltd. (Amrapali Shaphire-II), (3) M/S AMRAPALI PRIENCELEY ESTATE PVT. LTD., (4) M/s Amrapali Silicon City Pvt. Ltd.) STPs Construction work is under progress, on direction of Supreme Court. Temporary occupancy certificate issued.
Installation of STP is complete.

Details as per annexure-A

In compliance of Hon'ble NGT order dt. 23.12.2021, Noida Authority has appointed of Consulting firm M/s VMC Management Consulting Pvt. Ltd., 514, DLF Tower-B, Jasola District Center, New Delhi for creation of dedicated environmental monitoring cell on letter no. Noida/CAP/2022/3401dated. 14.02.2023.

The Scope of Works As follows :

..There is not effective monitoring by Noida to perform the essential duties. It is surprising that it could not create an environment cell.

1. Identify current Environmental status.
2. Identify the Environmental compliance Gaps and action plan.
3. Develop the standard operative procedures (SOPs) for all the activities like, Integrated Water & waste Water Management including STP, ETP, Road Sweeping machines, Solid Waste Management, Green belt adequacy and to be compliant with the GAPS.
4. Establishing Environmental Monitoring parameters for Noida.
5. Developing strategy to make Noida as a City of 3R (Reduce, Reuse and Recycle).
6. Establishing Required Data Acquisition / Analytics and Reporting framework, which can be made online for the executives of the authority and available on the public domain.
7. Assisting the attorney to present before different Hon'ble Judiciary and other regulatory bodies about the environmental liability of the Authority and its execution status and future issues
8. Representing Noida Authority along with its officials at various forums for environmental policy matter.
9- Defining T&Cs for the residential projects to comply with as per environmental regulatory guidelines and notifications.
10. Capacity Building of the Noida Authority officers for smooth running of the environmental matter pertaining to Noida.
11. Preparation of brief questionnaire for audit and inspection, which shall cover the following:
a. Compliance check of all EC conditions related to integrated water resource management, i.e., w.r.t. wastewater, freshwater and groundwater management including aspect of RWH.
b. Compliance check of all the consents associated with Water (Prevention and Control of Pollution) Act. (CTE/CTO/Municipal supply permission/groundwater abstraction permission/discharge permission)
c. Record of STP Monitoring test reports maintained at the site, if any.
d. Compliance check of water balance w.r.t. Freshwater demand; wastewater generation; Treated water quantity; Recycle/reuse of treated STP water; Discharge quantity and mode of disposal; sludge handling; Treatment Capacity & technology.
12. Site visit at all the project sites in which environmental clearance is issued by SEIAA for the survey, surveillance, and monitoring for audit and inspection of compliance of EC conditions for water resource management.
13. Sampling of the waste water at the operational STP at inlet and outlet (one sample every 6 months) for compliance to the applicable pollution norms, every 6

		months. The sample collected at site shall be sent to the designated laboratory of UPPCB. Waste water quality shall be analysed for pH, Colour, BOD, COD, TDS, Faecal Coliform (FC) & Total Coliform, etc. 14. The sampling and analysis shall also involve the following (about 75-100 random samples, as per field conditions and needs based on audit and inspection): a. Analysis of water quality of fresh water sources. b. Water quality of final treated discharge water for possible reuse/reutilisation. 15. Assessment and audit of complete water balance for all the projects for which EC has been issued. 16. Preparation and submission of half yearly Inspection Report. **Details enclosed as Annexure-B**
	... No coercive steps have been like black listing, cancelling occupancy certificate/ completion certificate.	➢ Noida Authority has approved environment compensation procedure, in its 208th board meeting, dated 28.12.2022, for the group housing having area more than 20,000.00 SqM for running operation of their STP and installation of STP. The Noida authority will inform UPPCB to impose Environmental Compensation on such group housing societies as per CPCB guide lines. **Details as per annexure-C**
2.	**Point No.-29 (i) of order dt. 03.08.2022** CPCB may issue ..... The storm water drains, canals and water bodies need to be geo tagged and given UID. In any case, no consent be given for discharging effluents not meeting BOD 28 criteria of Class "B". Drains built exclusively as conveyance system (open sewer) must terminate to STPs.	The 24 drains out of 30 drains geo tagging has been done by the deputed agency NEERI & NIC (National informatics Centre) in compliance of order dt. 03.08.2022.
3	**Point No.-29 (ii) of order dt. 03.08.2022** ..... Mode of disposal should not be the drains. Effluents may go to sewers leading to STPs.	The total sewer network of Noida Authority is connected to 6 Nos main STP of Noida situated in Sector- 54,54,50,50,123,168.
4	**Point No.-29 (iii) of order dt. 03.08.2022** Thirty identified drains or any other such drain carrying sewage be diverted to existing STPs and not to Noida drain. Such drains are to be used for flood management.	In compliance Hon'ble NGT order dated 23.12.2021 regarding 30 drains merging to Kondli drain it to submit that Prof. C.R. Babu has visited and given suggestions as per this to classification of drains into 3 categories based on its with as major, medium and minor. Bio remediation method has been proposed for major and medium drains. In addition to the above, construction of in-situ wetland and plantation in main Kondli drain was also proposed. A) Construction of one no. In-Situ wetland work was awarded to U.P. Irrigation department in consultation with Prof. C R Babu (CEMDE, University of Delhi) on dated 18.02.2021 as a pilot project on Noida Drain. The work has completed on dated 30.04.2022 and is fully functional presently. One No. on line monitoring system (OLMS) is in process to be installed on both end of this completed wetland (upstream & downstream) with a facility of 24 hrs digital display. Installation of OLMS will be completed in two months. B) Two nos. In-situ remediation wetlands in Noida irrigation drain also have been

awarded as per advise of Prof. C.R. Babu. The construction of wetlands is in progress. Physical progress of both wetlands mention as below:-

Location	Total cost of project (in Cr.)	DOS	DOC	Percent Progress (%)
Near NSEZ, Dadri Crossing, Noida	Rs 14.25 Cr.	05.01.2022	04.01.2023	90%
Near Advant Tower, Sector-142, Noida		05.01.2022	04.01.2023	60%

Work will be completed on or before 30.04.2023.

Details enclosed per Annexure-D

Further about 30 drains the Noida Authority has deputed environmental expert i.e., National Environmental Engineering Research Institute (NEERI), Department of Science & Technology, Government of India, for preparation of DPR, for construction of In-situ and Ex-situ wetlands and construction of minor STPs over drains or intercepting of drains to divert to near STP. An MOU has been signed between NOIDA and NEERI on 21.07.2022. It is pertinent to mention here that, as per the said MOU NEERI has started their work at site. NEERI has submitted draft Feasibility report in January-2023.They have also started Topography survey for all drains including main Kondli drain. Detailed DPRfor all drains will be submitted in a period of 3 to 6 month phase wise. After the said report Noida Authority will call tenders & get the work done, work executed as will be directed in DPR.

Annexure- E

5 **Point No.-29 (iv) of order dt. 03.08.2022** All existing STPs and upcoming STPs need to meet standards as directed by this Tribunal vide order dated 30.04.2019 in OA No. 1069/2018, Nitin Shankar Deshpande vs. Union of India & Ors. subject to further directions of Hon'ble Supreme Court in pending proceedings.

A) All existing 08 No. STP (6 fully functional & 2 on trail run) in Noida Located Sector-50, Sector-54, Sector-123 & Setor-168 are running under Design standard SBR technology, as per order dated 30.04.2019 passed by Hon'ble National Green Tribunal, New Delhi in OA No. 1069/2018 Nitin Shankar Deshpandey Vs. UOI & Ors. Accept the parameter of fecal coliform.

Monthly examination report enclosed here with for kind perusal. On behalf of online continuous Emission monitoring system report (OCEMS). six no. of STPs have directly connected with CPCB server & rest two OCEMS provision in tendering process. Samples also taken STPs influent/effluent and duly tested by third party quality monitor Sriram Institute for Industrial Research, Delhi as in regular monthly basis, which Reports are as per norms:-

Results of Quality Analysis at Sriram Institute for Industrial Research, New Delhi

(Average Month November-2022 to January-2023)

STP & Sector	PH	TSS (mg/L)	COD (mg/L)	BOD (mg/L)	Total Nitrogen	Total Phosphorus	Fecal coliform (MPN/100 ml)
33MLD Sector-54	7.20	9.33	36.00	6.33	7.67	0.60	As per attach detail annexure
54MLD Sector-54	7.40	7.67	46.67	8.67	9.33	3.43	
34MLD Sector-50	7.20	8.00	26.67	5.00	8.33	4.27	
25MLD Sector-50	7.30	3.67	25.33	4.00	3.67	1.40	
35MLD Sector-123	7.37	4.33	26.67	4.33	6.67	1.43	
50MLD Sector-168	7.20	9.33	36.00	6.33	7.67	0.60	
100MLD Sector-168	7.40	3.00	12.00	2.00	16.00	4.00	
Average	7.29	6.47	29.90	5.24	8.48	2.25	

Effluent discharges standards for Sewage Treatment Plant							
As per NIT/ Tender	7-8	< 20	≤100	< 10	≤50	≤2	≤100
As per GO of GOI Dt. 13.10.2017	6.5 to 9.0	< 100	NA	30	NA	NA	<1000
NGT Order 1069/2018 dated 21.12.2018	6.5 to 9.0	<20	<50	<10	≤10	≤5.0	<100

- Above parameter test reports (OCEMS/Sri ram lab) are enclosed Annexure- F
- OCEMS Online Report are enclosed. Annexure- G

Analysis At a Glance

	PH	TSS (mg/ L)	COD (mg/L)	BOD (mg/L)	Total Nitrogen	Total Phospho rus	Fecal coliform (MPN/100 ml)
NGT Order 1069/2018 dated 21.12.2018	6.5 to 9.0	<20	<50	<10	≤10	≤5.0	<100
Average value of All STPs	7.29	6.47	29.90	5.24	8.48	2.25	As per attached Details annexure

Hence it is clear that all parameters are with in the range of defined norms.

B) However to control the parameter Fecal Coliform & Out-Let Parameter more effectively Noida has already floated Tender for installation TTP (Tertiary Treatment Plant) as directed by Uttar Pradesh Pollution Control Board, Noida vide letter No. 534, Dated 30.07.2022 which is to be done within five years from dated of letter i.e. 30.04.2022.

S.T.P in operation

S.No.	Running STP in Sector	MLD	Status T.T.P. (Tertiary Treatment Plant).	At all running STP (Time Line
1	54	33	Tender for installation of T.T.P. of amounting Rs. 46.60 Cr. In E-Tendering process.	December - 2023
2	54	54		
3	50	25		
4	50	34		
5	123	35		
6	168	50		

New STP

S.No.	Running STP in Sector	MLD	Status T.T.P. (Tertiary Treatment Plant).	
1	123	80	The Tender of amounting Rs. 7.91 Cr. in E-Tendering process.	December - 2023
2	168	100	Tertiary Treatment Plant Installed and operational	Operational

Details enclosed as Annexure- H

(C) It is also to inform that these S.T.P. has already added to server CPCB (Central Pollution Control Board) server through OCEMS for direct Monitoring of Out-Let Parameter.

OCEMS Status Report

S.No.	Running STP in Sector	MLD	Status OCEMS installation
1	54	33	Incompliance of UPPCB letter no.-533 dated 02.09.2020. OCEMS has been installed and made functional also connected to the CPCB Portal.
2	54	54	
3	50	25	
4	50	34	

5	123	35	To install OCEMS E-tender is in process
6	168	50	

TTP(Fiber disc filter type Tertiary Treatment Plant) report are enclosed

Annexure- I

(D) Treated Water Utilization report are as below :

(i) Details of sold STPs treated water :

Sl.	Financial Year	Treated water Quality sold out	Total Annual revenue to Noida Authority (In Lacs)
1	2021-22	293 MLD	14.66
2	2022-23	396.5 MLD As on 31.01.2023	19.82 (As on 31.01 2023)

Details enclosed as Annexure- J

(ii) Treated water used in irrigation purpose in Noida Area for green belts, parks and in wetlands as below :

STP	Year	MLD Used
Average of all 06 STPs	Month November-2022 to January-2023	43.31 in a day

Details enclosed as Annexure- K

(iii) Treated water future plan for irrigation system in one year further in noida area as below

Sl. No.	Sector	Area/use	Quality Proposed (In MLD)
01	54	Wetland in polishing pond in premises of STP Sector-54	15
02	50	1. Supply of treated water in green/ belt/Park in Sector-51, Sector-7X, Sector-112 to 122	30
03	123	To NTPC First Stage	35
04	168	Golf Course, Sector-151, Sheed Bhagat Singh, Sector-150, Along Noida Greater Noida Express-Way Green belt	20
		Green belt, Park & Wetland Sectors Along Noida Greater Noida Express-Way Green belt	20
		Total 411 MLD STP Capacity	120 MLD in a Day

Details enclosed as Annexure- L

(E) Sludge Management

Noida is in contact with consultant as well as expert for biological treatment and proper use of daily generated sludge by all STPs. EOI will be initiated soon.

6	**Point No.-29 (v) of order dt. 03.08.2022** MoU for utilization for sewage between Power Plant and Noida be executed without delay.	NTPC has to perform its obligation as per MOU which is not being done, therefore following reminders has already been served to NTPC, but still no action has been taken to full fill the MOU clause by NTPC. 1. Letter No.-NOIDA/ACEO(M)/2022/SM(JAL-OA)/1047 Dt. 10.08.2022 2. Letter No.-NOIDA/ SM(JAL-OA)/1095 Dt. 30.08.2022 3. Minuts of Meeting-NOIDA/ACEO(M)/2022/ 92 Dt. 05.09.2022 4. Letter No.-NOIDA/ SM(JAL-OA)/1121/22 Dt. 07.09.2022 5. Letter No.-NOIDA/ SM(JAL-OA)/1177/22 Dt. 22.09.2022 6. Letter No.-NOIDA/ACEO(M)/2022/SM(JAL-OA)/1248 Dt. 17.10.2022 7. Letter No.-NOIDA/ACEO(M)/2022/143 Dt. 14.12.2022 **Details enclosed as Annexure-M**

7	**Point No.-30 of order dt. 03.08.2022** Pending consideration of action against other authorities and final accountability of NOIDA Authority and DJB, they are directed to deposit respectively a sum of Rs. 100 Crore Rs. 50 Crore in a separate account with CPCB towards interim compensation.	Noida Authority filed civil Appeal No.-8547-8548 of 2022 on 15.11.2022. Upon hearing the Hon'ble Supreme Court passed order on dated 28.11.2022 as below:- 1. Permission to file the appeal is granted 2. Delay condoned 3. Issue notice, returnable in eight weeks. 4. Pending further orders, there shall be a stay of the impugned order of the National Green Tribunal dated 03, August 2022, insofar as it directs Noida and the Delhi Jal Board to deposit respectively interim compensation of Rs. 100 crores and Rs. 50 crores. Order copy enclosed as **Annexure-N**
8	ACS, UD of UP need to immediately review and ensure treatment of sewage generated by Khoda-Makanpur.	The Executive officer of Nagar Palika Khoda has been informed that there is no land available near Khoda for construction of STP in adjacent sector-55, 56, 57, 58 & 62 of Noida, hence no land can be allotted in compliance of NGTs order dt. 23.12.2021 point No- 12(5). **Annexure-O**

(Sanjay Parashar)
Senior Manager
Jal-I, Noida

ANNEXURE A

LIST OF 95 NOS. GROUP HOUSING

Sr No.	Name of Societies	Location	Present status of STPs	Sample Compliant / Remark
	Group Housings Socities Installed and Sample achieving STPs (69 Nos.)			
1/2	M/s Paras Season Haven Pvt. Ltd. GH-01D, Sector-168, Noida . (Paras Season Society)	GH-01D, Sector-168	Installed/Operational	YES
2/5	M/s Sunshine Infrawell Pvt. Ltd., Plot No.-GH-05B, Sector-78, Noida (Sunshine Helios)	GH-05B Sector-78	Installed/Operational	YES
3/7	M/s Aims Max Gardenia Developers Pvt. Ltd. (Gardenia Wellington)	GH-01, ECOCITY Sector-75	Installed/Operational	YES
4/8	Aims Max Gardenia Developers Pvt. Ltd., GH-08, Sector-75, Noida	GH-08 ECOCITY Sector-75	Installed/Operational	YES
5/9	Aims Max Gardenia Developers Pvt. Ltd., GH-12, Ecoctiy, Sector-75, Noida	GH-12 ECOCITY Sector-75	Installed/Operational	YES
6/10	M/s Valuent Developers Pvt. Ltd. Plot No.- H-169, Sector-63, Noida (Valuent Infra Developers)	GH-16 Sector-75	Installed/Operational	YES
7/11	M/s Maxblis Construction Pvt. Ltd., Plot No.-17, Ecocity, Sector-75, Noida (Max Villas GH-17)	GH-17 Sector-75	Installed/Operational	YES
8/12	M/s Paramount Towers Pvt. Ltd., Plot No.- GH-06, Sector-137, Noida (Paramount Floraville)	GH-06 Sector-137	Installed/Operational	YES
9/14	M/s Imperial Housing Venture Pvt. Ltd. 11th Floor, Paras Twin Tower, Sector-54, Gurgaon, Haryana (Paras Tierra)	GH-01 Sector-137	Installed/Operational	YES
10/17	Purvanchal Projects Pvt. Ltd. (Purvanchal Royal Park)	GH-04 Sector-137	Installed/Operational	YES
11/18	M/s Exotica Housing, Pvt. Ltd., GH-05A, Sector-137 (Frexco Prasco)	GH-05A Sector-137	Installed/Operational	YES
12/20	M/s I.V. County Pvt. Ltd., Plot No.-GH-05, Sector-121, Noida (Cleo County) M/s IVRCL INFRASTRUCTURE & PROJECT LTD.	GH-05 Sector-121	Installed/Operational	YES
13/23	M/s Perfect Propbuild Pvt. Ltd. (Antriksh Forest)	GH-03B, Sector-77	Installed/Operational	YES
14/25	M/s Sunworld Developers Pvt. Ltd., Plot No.-GH-01B, Sector-107) Noida (Sunworld Vanalika Society)	GH-01B, Sector-107	Installed/Operational	YES
15/1	M/s Claud-9 Projects Pvt. Ltd. Plot No.-229, Okhla Industrial Estate, New Delhi (Lotus Boulvard Espacia Plot No GH- 02)	GH-02 Sector-100	Installed/Operational	YES
16/33	M/s Gulshan Homz Pvt. Ltd. (Gulshan Ikbana)	GH-03A Sector-143	Installed/Operational	YES
17/42	M/s Perfect Propbuild Pvt. Ltd. (Antriksh Kanball)	GH-03B Sector-77	Installed/Operational	YES
18/3	M/s Supertech Ltd. Plot No. -B-28 & 29, Sector-58, Noida (Supertech Capetown Society)	GH-1A Sector-74	Installed/Operational	YES
19/47	M/s ATS Township Pvt. Ltd. (ATS One Hemlet)	GH-01 Sector-104	Installed/Operational	YES
20/49	M/s GSS Procon Pvt. Ltd. (Victory Crossroad)	GH-01/C Sector-143	Installed/Operational	YES

21/51	M/S RANI PROMOTERS PRIVTE LIMITED (Aakriti Shanti Niketan)	GH-01/B Sector-143B	Installed/Operational	YES
22/53	M/S LAUREATE BUILDWELL PVT. LTD. (Parks laureate)	GH-01, 02 & 03, Sector-108	Installed/Operational	YES
23/54	M/S PAN REALTORS PVT. LTD.	GH-01 Sector-70	Installed/Operational	YES
24/56	M/S SUPERTECH LTD.	C-078 SECTOR-34	Installed/Operational	YES
25/60	M/S AIMS RG ANGEL PROMOTERS PVT.LTD.	GH-03 (ECO CITY) Sector-75	Installed/Operational	YES
26/61	M/S J.M. Infratech Pvt. Ltd. (J.M. Aroma)	GH-04 (ECO CITY) Sector-75	Installed/Operational	YES
27/65	M/S APEX DREAM HOMES PVT.LTD. (Apex Athena)	GH-12A (ECO CITY), Sector-75	Installed/Operational	YES
28/66	M/S EXPRESS BUILDERS AND PROMOTERS PROVATE LIMITED (Express Zenith)	GH-02/A Sector-77	Installed/Operational	YES
29/67	M/S Indosam Infra Pvt. Lid.	GH-05 (ECO CITY) SECTOR-75	Installed/Operational	YES
30/68	M/S E-HOMES INFRASTRUCTURE PVT. LTD., (Dasnac Jwell)	GH-14 (ECO CITY) Sector-75	Installed/Operational	YES
31/69	M/S AIMS MAX GARDENIA DEVELOPERS PRIVATE LIMITED (Golf City)	GH-11 Sector-75	Installed/Operational	YES
32/89	M/s R.G. Residency Pvt. Ltd., Plot No.-GH-02, Sector-120, Noida (R.G. Buildtech)	GH-02 Sector-120	Installed/Operational	YES
33/1	M/s Granite Great Properties Ltd. C-23, Greater Kailash Enclave, Part-1, New Delhi, Lotus Boulvard	GH-03 Sector-100	Installed/Operational	YES
34/62	M/s Opulent Infradevelopers Pvt. Ltd.	GH-01/B Sector-168	Installed/Operational	YES
35/4	M/s Antriksh Developers & Promoters Pvt. Ltd., Plot No.- GH-05A, Sector-78, Noida (Antriksh Golf View –I)	GH-05A, Sector-78	Installed/Operational	YES
36/13	M/s Gulshan Homes Pvt. Ltd., Plot No.-GH-07A, Sector-137, Noida (Gulsan Vivante)	GH-07A Sector-137	Installed/Operational	YES
37/15	M/s Logix Infrastructure Pvt. Ltd. GH-02, Sector-137, (Logix Blossom County)	GH-02, Sector-137	Installed /Operational	YES
38/16	M/s Supertech Ltd. Plot No.-GH-03, Sector-137, Noida (Supertech Ecocity)	GH-03 Sector-137	Installed/Operational	YES
39/19	M/s M.P.G. Realty Pvt. Ltd., Plot No.-GH-07B, Sector-137, Noida (Ajnara Defodril)	GH-07B Sector-137	Installed/Operational	YES
40/24	M/s Great Value Projects India Ltd. Plot No.-GH-02, Sector-107, NOida (Great Value Sharnam Society)	GH-02 Sector-107	Installed/Operational	YES
41/26	Prateek Infraprojects India Pvt. Ltd. GH-01A (Beta-2) Sector-107, Noida (Prateek Edifice Society)	GH-01A (Beta-2) Sector-107	Installed/Operational	YES
42/29	M/s Logix Infratech Pvt. Ltd. Plot No.-GH-01, Sector-143, Noida (Logix Blossom Green)	GH-01 Sector-143	Installed/Operational	YES
43/30	M/s Logix city Developers Pvt. Ltd. Plot No.-GH-02, Sector-143, Noida (Logix Blossom Zest)	GH-02 Sector-143	Installed/Operational	YES
44/32	M/s Eldeco Infrastructure & Properties Ltd. , Plot No.-GH-03, Sector-119, Noida (Eldeco Amantran)	GH-03 Sector-119	Installed/Operational	YES
45/34	M/s Prateek Realtors India Pvt. Ltd. (Prateek Wisteria)	GH-01 Sector-77	Installed/Operational	YES

46/35	M/S H R ORACLE DEVELOPERS PVT. LTD. (Elite Homez)	GH-02/B Sector-77	Installed/Operational	YES
47/38	M/s Prateek Buildtech Pvt. Ltd. (Prateek Stylome)	GH-04B Sector-45	Installed/Operational	YES
48/40	M/s Gardenia Aims Developers Pvt. Ltd. (Gardenia Gallaria)	GH-01 Sector-46	Installed/Operational	YES
49/41	M/s PACL India Ltd. (Pearls Gateway Towers)	D-08A Sector-44	Installed/Operational	YES
50/43	M/s Mahagun Real Estate Pvt. Ltd. (Mahagun Society)	GH-02 Sector-78	Installed/Operational	YES
51/45	M/S COLORFUL ESATATES PVT LTD (Antriksh Golf View-II)	GH-04/B, Sector 78	Installed/Operational	YES
52/46	M/s Prateek Realtors India Pv. Ltd. (Prateek loreal)	GH-01 Sector-120	Installed/Operational	YES
53/48	M/s AGC Realty Pvt. Ltd. (Homes-121)	GH-01 Sector-121	Installed/Operational	YES
54/55	M/S HACIENDA PROJECTS PVT. LTD.	GH-01/A (ALPHA) SECTOR-107	Installed/Operational	YES
55/63	M/S IITL-NIMBUS THE HYDE PARK NOIDA	GH-03 Sector-78	Installed/Operational	YES
56/64	M/S CAPITAL INFRAPROJECTS PVT.LTD. (The Golden Palm)	GH-01/E Sector-168	Installed/Operational	YES
57/71	M/S NEXGEN INFRACON PRIVATE LIMITED (Mahagun Mezzaria)	GH-01/A Sector-78	Installed/Operational	YES
58/92	M/s IVRCL Infrastructure & Project Ltd. (Aranya)	GH-002 Sector-119	Installed/ Operational	YES
59/52	M/S GULSHAN HOMES & INFRASTRUCTURE PVT. LTD.	GH-03C, SECTOR-144	Installed/ Operational	YES
60/95	M/S FUTEC SHELTERS PVT LTD.	GH-10 (ECO CITY) SECTOR-75	Installed/Operational	YES
61/22	M/s J.M. Housing Ltd., Plot No.-GH-01C, Sector-76, Noida (JM orchid)	GH-01C, Sector-76	Installed/Operational	YES
62/36	M/s Civitech Developers Pvt. Ltd. (Civitech Sampriti)	GH-02/C Sector-77	Installed/Operational	YES
63/58	M/S THREE C PROJECTS PVT. LTD.	GH-01/A SECTOR-168	Installed/Operational	YES
64/91	M/s Assotech Ltd. (Assotech Windsor Court)	GH-04/A Sector 78	Installed/Operational	YES
65/50	M/s Sikka Infrastructure Pvt. Ltd. (Sikka Karmam Greens)	GH-01/A/1 Sector-143B	Installed/Operational	YES
66/84	M/s Amrapali Silicon City Pvt. Ltd.	GH-01A Sector 76	Installed/ Operational	YES
67/85	M/s Amrapali Shaphire Developers Pvt. Ltd. (Amrapali Shaphire-I)	GH-01 Sector-45	Installed/ Operational	YES
68/86	M/s Amrapali Shaphire Developers Pvt. Ltd. (Amrapali Shaphire-II)	GH-03 Sector-45	Installed/ Operational	YES
69/87	M/S AMRAPALI PRIENCELEY ESTATE PVT. LTD.	GH-02A, Sector-76	Installed/ Operational	YES

Group Housings with installed STPs but non achieving (14 Nos.)

70/6	M/s G.S. Promoters Pvt. Ltd., GH-01C, Sector-78, Noida (Sikka Karmik)	GH-01C, Sector-78	Installed / Not Operational	NO
71/15	Logix Bloosom County (M./s Logix Infrastructure Pvt Ltd. GH-02 Sector-137, Noida	GH-02 Secror-137	Installed / Not Operational	NO
72/21	M/s Ajnara India Ltd. Plot No.-GH-01B, Sector-74, Noida (Ajnara Grand Heritage)	GH-01B Sector-74	Installed/Operational	NO
73/29	Logix Bloosom Green (M./s Logix Infratech Pvt. Ltd. Plot No GH-01 sector-143, Noida	GH-01 Secror-143	Installed / Not Operational	NO
74/31	M/s Amarpali Zodiac Developers Pvt. Ltd., Plot No.-GH-03, Sector-120, Noida (Amarpali Zodiac)	GH-03 Sector-120	Installed / Not Operational	NO
75/39	M/s S.D.S. Infratech Pvt. Ltd. (NRI City Homes)	GH-04A Sector-45	Installed/ Operational	NO

76/44	M/S AIMS PROMOTERS PVT. LTD. (Golf Avenue-I)	GH-02 (ECO CITY) SECTOR 75	Installed/Operational	NO
77/59	M/S TODAY HOMES NOIDA PVT. LTD.	GH-01 SECTOR 135	Installed / Not Operational	NO
78/70	M/S AIMS PROMOTERS PVT. LTD. (Golf Avenue-I)	GH-02 (ECO CITY) SECTOR-75	Installed/Operational	NO
79/84	M/s Amrapali Silicon City, GH-01 Sector 76, Noida	GH-01 sector-76	Installed / Not Operational	NO
80/85	M/s Amrapali Shaphire Developers Pvt. Ltd. (Amrapali Shaphire-I)Plot No- GH-01 Sector-45, Noida	GH-01 sector-45	Installed / Not Operational	NO
81/86	M/s Amrapali Shaphire Developers Pvt. Ltd. (Amrapali Shaphire-II) Plot No- GH 03 Sector-45, Noida	GH-03 sector-45	Installed / Not Operational	NO
82/87	M/s Amrapali Princeley Estate Pvt. Ltd. Plot No- GH-02A Sector-76, Noida	GH-02A sector-76	Installed / Not Operational	NO
83/94	M/S GARDENIA INDIA LTD. (Gardenia Gateway)	GH-09 (ECO CITY) SECTOR 75	Installed / Not Operational	NO
	Environment Clearance cleared & U.P. Pollution Control Board has issued CTO. Their sewage connected to the Central Sewage Treatment Plant (CSTP) of Noida. (04 Nos.)			
	STP Not Installed			
84/73	M/s Orion Infrabuild Pvt. Ltd., Plot No.-GH-01/B, Sector-78, Noida (Aditya Urban Casa)	GH-01/B Sector 78	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)
85/74	M/s Gaursons India Ltd., Plot No.-GH-04, Sector-119, Noida (Gaur Grander)	GH-04 Sector-119	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)
86/75	M/s Celebrity Realcon Pvt. Ltd. (Aditya Celebration)	GH-01B Sector-76	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)
87/76	Divine Indian Infrastructure Pvt. Ltd., (Divine Meadows)	GH-04, Sector-108, Noida	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)
	Connected in Noida sewer line and at present their sewer is treated in Sewage Treatment Plant (STP) (Noida) as per Occupancy Certificate (07 Nos.)			
88/77	Airforce Naval Housing Board (Jalvayu Tower)	A-38A Sector-47	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)
89/78	Eden Infrastructure & Properties Ltd. (Eldeco Ananda Apartment)	D-35/1 Sector-48	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)
90/79	M/s Stellar Venture Ltd. (Stellar Green)	D-06 Sector-44	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)
91/80	M/S Bestech India (P) Ltd	A-110 Sector-52	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)
92/81	M/S MANISHA PROJECT PVT LTD	B-017 Sector-61	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)
93/82	M/s PRATEEK BUILDTECH (INDIA) PVT. LTD. (Prateek Fedora)	E-011 Sector-61	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)

94/83	M/S GARDENIA SHELTERS PVT. LTD (Gardenia Grace)	E-016A Sector-61	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP)

STP Not Operational.

95/93	M/s Skytech Construction Pvt. Ltd. Plot No.-GH-01D, Sector-76, Noida (Skytech Matrott)	GH-01D, Sector-76	Not installed	Sewerage connected to main sewer line Noida & Treated in Central Sewage Treatement Plant (CSTP). O.C. issued. FIR have been lodged.

1

ANNEXURE B

New Okhla Industrial Development Authority

Head Administrative Building, Sector- 6 Noida.

No. Noida/CAP/2022/ 3401
Date 14 - 2 - 2023

From,

Additional Chief Executive Officer,
Noida

To,

Sh. Bijan K Mishra
Director - Technical
M/s VMC Management Consulting Pvt. Ltd.
514, DLF Tower-B, Jasola District Centre, New Delhi-110025
bijan.mishra@vision360.co.in

Sub: *Appointment of Consulting firm for creation of dedicated environmental cell in NOIDA Authority*

Dear Sir,

This is with reference to our Expression of Interest vide newspaper advertisement, dated 17/11/2022 for "Appointment of Consulting firm for creation of dedicated environmental cell in NOIDA Authority" and your bid submitted for the same. We are pleased to inform that the Competent Authority has approved the appointment of M/s VMC Management Consulting Pvt. Ltd., as Consulting firm for creation of a dedicated environmental cell in NOIDA Authority. The competent authority has also accepted your offer of professional fee of Rs. 8,00,000/- plus GST per month. As per the terms & conditions mentioned in the EOI the period of the engagement of the firm with Noida Authority shall be of one year and it can be extended further on satisfactory performance of the consulting firm. The engagement of the firm shall be for a minimum period of one year.

The terms & conditions of appointment and the scope of the services of the assignment is attached herewith as Annexure-A. The scope of the services is inclusive in nature; therefore, consultant shall guide and assist the authority in implementing and ensuring of all the related compliances as applicable in the related laws thereof. If at any stage it is found that the performance of the professionals assigned to Noida Authority is not satisfactory and they are engaged in the activities detrimental to the interest of Noida Authority, the undersigned will be free to terminate the engagement with the consulting firm. However, an opportunity of hearing shall be provided before taking any action against the firm.

Kindly sign and return the duplicate copy of the award of work within 2 days of the receipt of award of work as a token of acknowledgement and acceptance thereof. The failure, delay or evasion to accept the award of work may result in cancellation of the award of work.

This letter is issued with the approval of Competent Authority.

(Prabhash Kumar)
Additional Chief Executive Officer
Noida

Copy to:-

1. CEO, Noida Authority for information.

Accepted
15/02/2023

Additional Chief Executive Officer
Noida

ANNEXURE - A

The function of environment cell will be as follows: -

1. Identify current Environmental status.
2. Identify the Environmental compliance Gaps and action plan.
3. Develop the standard operative procedures (SOPs) for all the activities like, Integrated Water & Waste Water Management including STP, ETP, Road Sweeping machines, Solid Waste Management, Green belt adequacy and to be compliant with the GAPS.
4. Establishing Environmental Monitoring parameters for Noida.
5. Developing strategy to make Noida as a City of 3R (Reduce, Reuse and Recycle).
6. Establishing Required Data Acquisition / Analytics and Reporting framework, which can be made online for the executives of the authority and available on the public domain.
7. Assisting the attorney to present before different Hon'ble Judiciary and other regulatory bodies about the environmental liability of the Authority and its execution status and future issues
8. Representing Noida Authority along with its officials at various forums for environmental policy matter.
9. Defining T&Cs for the residential projects to comply with as per environmental regulatory guidelines and notifications.
10. Capacity Building of the Noida Authority officers for smooth running of the environmental matter pertaining to Noida.
11. Preparation of brief questionnaire for audit and inspection, which shall cover the following:
    a. Compliance check of all EC conditions related to integrated water resource management, i.e., w.r.t. wastewater, freshwater and groundwater management including aspect of RWH.
    b. Compliance check of all the consents associated with Water (Prevention and Control of Pollution) Act. (CTE/CTO/Municipal supply permission/groundwater abstraction permission/discharge permission)
    c. Record of STP Monitoring test reports maintained at the site, if any.
    d. Compliance check of water balance w.r.t. Freshwater demand; wastewater generation; Treated water quantity; Recycle/reuse of treated STP water; Discharge quantity and mode of disposal; sludge handling; Treatment Capacity & technology.
12. Site visit at all the project sites in which environmental clearance is issued by SEIAA for the survey, surveillance, and monitoring for audit and inspection of compliance of EC conditions for water resource management.
13. Sampling of the waste water at the operational STP at inlet and outlet (one sample every 6 months) for compliance to the applicable pollution norms, every 6 months. The sample collected at site shall be sent to the designated laboratory of UPPCB. Waste water quality shall be analysed for pH, Colour, BOD, COD, TDS, Faecal Coliform (FC) & Total Coliform, etc.
14. The sampling and analysis shall also involve the following (about 75-100 random samples, as per field conditions and needs based on audit and inspection):
    a. Analysis of water quality of fresh water sources.
    b. Water quality of final treated discharge water for possible reuse/reutilisation.
15. Assessment and audit of complete water balance for all the projects for which EC has been issued.
16. Preparation and submission of half yearly Inspection Report.

Responsibilities of environment cell: -

1. The environment cell will report to Deputy General Manager (Jal), Noida.
2. Initially the dedicated cell will be created for one year and the term can be extended depending upon the performance of the cell.
3. The environment cell will put up monthly report on the functioning of the STPs in Noida.
4. The environment cell will be responsible for issue of notice in case the STPs are found not functional.
5. The environment cell will also be responsible to collect the sample of treated water and send it to UPPCB for testing the quality of treated water.
6. The environment cell will recommend environment compensation in case of violation of EC conditions.
7. The cell will develop the standard operative procedures (SOPs) for all the activities like, Integrated Water & Waste Water Management including STP, ETP, Road Sweeping machines, Solid Waste Management, Green belt adequacy and to be compliant with the GAPS.
8. The Environmental Cell will also be responsible for establishing required data acquisition / Analytics and Reporting framework, which can be made online for the executives of the authority and available on the public domain.
9. Assisting the attorney to present before different Hon'ble Judiciary and other regulatory bodies about the environmental liability of the Authority and its execution status and future issues.
10. Capacity Building of the Noida Authority officers for smooth running of the environmental matter pertaining to Noida.
11. The personnel of Environmental cell will make site visit at all the project sites in which environmental clearance is issued by SEIAA for the survey, surveillance, and monitoring for audit and inspection of compliance of EC conditions for water resource management.
12. They will also be responsible for sampling of the waste water at the operational STP at inlet and outlet (one sample every 6 months) for compliance to the applicable pollution norms, every 6 months. The sample collected at site shall be sent to the designated laboratory of UPPCB. Waste water quality shall be analysed for pH, Colour, BOD, COD, TDS, Faecal Coliform (FC) & Total Coliform, etc.

Note:

- GSTIN shall be additional and be applicable as per the prevailing rate.
- Working space for all man powers shall be provided by Noida Authority
- The cost involved for sample testing, sample preservation and transportation shall be paid separately to VMC Management Consulting Pvt. Ltd.
- Any travel out of office specified as base location shall be reimbursed as per actual to VMC Management Consulting Pvt. Ltd.

ANNEXURE C

नवीन ओखला औद्योगिक विकास प्राधिकरण
कार्यालय वरिष्ठ प्रबन्धक
जल खण्ड–प्रथम, सैक्टर–5, नौएडा।

पत्र सं0 नौएडा/अ0मु0का0अ0(एम)/व0प्र0(जल-I)/23/1258
दिनाँक : 18/01/2023

कार्यालय आदेश

प्राधिकरण की बोर्ड की 208वीं बैठक का कार्यवृत्त दिनाँक 28.12.2022 के मद सं0–208/10 पर वर्णित नौएडा प्राधिकरण क्षेत्र के अन्तर्गत आवंटित भूखण्डों पर 20,000 वर्ग मीटर से अधिक क्षेत्रफल वाली निर्मित ग्रुप हाउसिंग सोसईटियों में In-situ Sewerage Treatment Plant का निर्माण एवं संचालन माननीय एन0जी0टी0 द्वारा निर्धारित मानकों के अनुरूप न होने की दशा में अर्थदण्ड अधिरोपित किये जाने का प्रस्ताव संचालक मण्डल द्वारा अनुमोदित किया गया है। अनुमोदित प्रस्ताव निम्नवत् है :–

पर्यावरण वन और जलवायु परिवर्तन मंत्रालय ने 2006 में पर्यावरणीय प्रभाव आकलन के लिए अधिसूचना जारी की थी, जिसके उपरान्त बड़े पैमाने की परियोजनाओं के लिए पर्यावरणीय स्वीकृति की शर्तें लागू थी। पर्यावरण वन और जलवायु परिवर्तन मंत्रालय द्वारा वर्ष 2006 में जारी अधिसूचना में निर्माण परियोजनाओं के लिए पर्यावरणीय स्वीकृति 20000 वर्ग मीटर से अधिक निर्मित क्षेत्र वाली परियोजनाओं के लिए प्राविधानित किया गया है। नौएडा प्राधिकरण द्वारा इस श्रेणी के अंतर्गत आने वाली ग्रुप हाउसिंग परियोजनाओं का निरीक्षण किया गया है, जिसमें कई ग्रुप हाउसिंग द्वारा In-situ सीवेज शोधन और निपटान सुविधा के लिए लागू अधिनियमों और विनियमों (जल अधिनियम 1974 पर्यावरण संरक्षण अधिनियम 1986) का उल्लंघन किया जा रहा है।

वर्तमान में उ0प्र0 प्रदूषण नियन्त्रण बोर्ड द्वारा नोएडा क्षेत्र के ग्रुप हाउसिंग सोसाईटियों पर एस0टी0पी0 अकियाशील होने की स्थिति में CPCB द्वारा जारी Environmental Compensation and Action Plan के आधार पर अधिभार वसूल किया जाता है। नोएडा प्राधिकरण क्षेत्र के अन्तर्गत वर्तमान में 95 अद्द ग्रुप हाउसिंग सोसाईटियाँ संचालित है, जिसमें 78 ग्रुप हाउसिंग सोसाईटी के अन्तर्गत In-situ STPs स्थापित एवं कियाशील है, जिनके सैम्पल की जाँच समय–समय पर उ0प्र0 प्रदूषण नियन्त्रण बोर्ड द्वारा प्राधिकरण के साथ की जाती है।

उपरोक्त ग्रुप हाउसिंग सोसाईटी, जिसमें एस0टी0पी0 कियाशील न होने के कारण पर्यावरणीय क्षरण होता है एवं नौएडा नियोजित शहर के बुनियादी ढ़ाचें के नियोजन को भी प्रभावित करता है। यहाँ यह भी अवगत कराना है कि ग्रुप हाउसिंग सोसाईटियों के एस0टी0पी0 का अनुरक्षण मानकों अनुरूप न पाये जाने की स्थिति में समय–समय पर उ0प्र0 प्रदूषण नियन्त्रण बोर्ड द्वारा आर्थिक दण्ड अधिरोपित किया जाता है।

conviction for the first such failure. के अनुरूप प्रतिदिन रू0 5000/- के Environmental Compensation का प्रावधान UPPCB के माध्यम से अधिरोपित किया जाना प्रस्तावित है।

- अपार्टमेन्ट ऑनर्स एक्ट–2010 के अनुसार अपार्टमेन्ट ऑनर्स एशोसिएशन (AOA) के गठन व प्रभावी होने की दशा में समस्त पैनल्टी का भुगतान AOA के द्वारा ही किया जाएगा। अन्यथा सम्बन्धित बिल्डर का दायित्व होगा।

इसके अतिरिक्त ईनवायरमेंट क्लियरेंस या किसी अन्य नियामक /नीति/कानूनी आवश्यकता द्वारा एस.टी.पी. की स्थापना/संचालन नही करने वाली परियोजनाओं अथवा उ0प्र0 प्रदूषण विभाग द्वारा नियमित रूप से एकत्रित सैम्पल का परिणाम मानक के अनुरूप न पाये जाने पर अतिरिक्त अर्थदण्ड अधिरोपित किये जाने पर किसी प्रकार की कार्यवाही की जाती है, तो उसके लिए नौएडा प्राधिकरण की किसी भी प्रकार की जिम्मेदारी या उत्तरदायी नही होगा। सभी निर्माण परियोजनाओं को जारी ईनवायरमेंट क्लियरेंस की नियम व शर्ते सर्वमान्य होंगी, जिसका समय–समय पर परीक्षण प्राधिकरण के नियोजन विभाग द्वारा किया जाना है।

अतः उपरोक्त अनुमोदित प्रस्ताव में नियमों के आधार पर दोषी ग्रुप हाउसिंग सोसाईटियों पर गणनानुसार अर्थदण्ड अधिरोपित किये जाने की कार्यवाही सुनिश्चित करें।

उक्त आदेश तत्काल प्रभाव से लागू होंगे।

(मानवेन्द्र सिंह)
अपर मुख्य कार्यपालक अधिकारी
नौएडा

प्रतिलिपि :–

1. मुख्य कार्यपालक अधिकारी, नौएडा।
2. अपर मुख्य कार्यपालक अधिकारी (पी0)।
3. विशेष कार्याधिकारी (टी0/ए0/आई0)।
4. वित्त नियन्त्रक।
5. महाप्रबन्धक (नियोजन)।
6. उप महाप्रबन्धक (जल/सिविल/जन स्वास्थ्य)।

अपर मुख्य कार्यपालक अधिकारी
नौएडा

ANNEXURE D

प्रेषक,

अधिशासी अभियन्ता,
हैड वर्क्स खण्ड आगरा नहर
ओखला नई दिल्ली–25

प्रेषित,

वरिष्ठ प्रबन्धक
जल खण्ड प्रथम सैक्टर–5
नोएडा विकास प्राधिकरण,
जनपद गौतमबुद्धनगर।

पत्रांक– 897 /है0व0ख0/ दिनांकः 24/07/2023

विषय–मा0 एन0जी0टी0में पारित निर्णय के आदेश दिनांक 03.08.2022 के अनुपालन में।

संदर्भ– आपका पत्रांक नौएडा/व0स0/ (जल–1)/23/1383 दिनांक 17.02.2023

महोदय,

उपरोक्त विषयक संदर्भित पत्र के क्रम अवगत कराना है कि जनपद गौतमबुद्धनगर में कोण्डली मुख्य नाले पर एडवान्ट टॉवर, सैक्टर 142 एवं एन0एस0ई0जैड क्रॉसिंग के निकट डी0एस0सी0 मार्ग नौएडा पर दो अदद In Situ Constructed Wetland System निर्माण का कार्य प्रगति में है, जिसका एम0ओ0यू0 दिनांक 05.01.2022 को नौएडा एवं सिंचाई विभाग के मध्य निष्पादित हुआ, जिसके अनुसार दोनों वैटलैण्ड का निर्माण विभागीय प्रक्रिया पूर्ण करते हुए 01 वर्ष की अवधि में पूर्ण किया जाना प्रस्तावित किया गया।

इस संबंध में आपको अवगत कराना है कि एम0ओ0यू0 गठित होने के उपरान्त सिंचाई विभाग द्वारा निविदा प्रक्रिया पूर्ण करते हुए संबंधित संविदाकारों के साथ अनुबन्ध गठित करते हुए कार्य प्रारम्भ करने हेतु दिनांक 12.04.2022 नियत की गई। एम0ओ0यू0 के अनुसार दिनांक 11.04.2023 को कार्य सम्पादित किया जाना है, जिसके सापेक्ष एन0एस0ई0जैड0 क्रासिंग के निकट निर्माणाधीन वैटलैण्ड का कार्य लगभग 90 प्रतिशत तथा एडवान्ट टावर, सैक्टर–142 के निकट निर्माणाधीन वैटलैण्ड का कार्य लगभग 60 प्रतिशत पूर्ण हो गया है।

भवदीय

अधिशासी अभियन्ता
हैड वर्क्स खण्ड आगरा नहर
ओखला, नई दिल्ली–25
24/07/23

पत्रांक /हैवखं/तृदिनांक

प्रतिलिपि सहायक अभियन्ता–तृतीय, हैड वर्क्स खण्ड आगरा ओखला नई दिल्ली को उनके पत्रांक 90/स0अ0तृतीय/दिनांक 23.02.2023 के क्रम में आवश्यक कार्यवाही हेतु प्रेषित है।

अधिशासी अभियन्ता
हैड वर्क्स खण्ड आगरा नहर
ओखला, नई दिल्ली–25

प्रेषक,

अधिशासी अभियंता
हैड वर्क्स खण्ड आगरा नहर,
ओखला नई दिल्ली–25

प्रेषित,

वरिष्ठ प्रबन्धक
जल खण्ड प्रथम सैक्टर–5
नवीन ओखला औद्योगिक विकास प्राधिकरण
जनपद गौतमबुद्धनगर।

पत्रांक–941 /है0व0ख0/ दिनांक: 25/02/2023

विषय– कोण्डली ड्रेन के अन्तर्गत तैयार हो चुके वैटलैण्ड हेतु Up Stream/Down Stream में आन लाईन मोनटरिंग सिस्टम LED Display Board के साथ कन्ट्रोल रूम सहित स्थापित करने के संबंध में।

सन्दर्भः– आपका पत्रांक नौएडा/व0प्र0(व0स0– जल खण्ड प्रथम/2023/1395 दि0 20.02.2023,

महोदय,

उपरोक्त विषयक संदर्भित पत्र का अवलोकन करने का कष्ट करें, जिसके माध्यम से कोण्डली ड्रेन पर सैक्टर–50 के निकट वैटलैण्ड हेतु Up Stream/Down Stream में ऑन लाईन मोनटिरिंग सिस्टम LED Display Board कन्ट्रोल रूम सहित स्थापित करने हेतु लिखा गया है।

इस संबंध में अवगत कराना है कि आपके द्वारा संदर्भित पत्र के माध्यम से दी गई सैद्धान्तिक स्वीकृति के क्रम में तैयार हो चुके वैटलैण्ड हेतु Up Stream/Down Stream में आन लाईन मोनटरिंग सिस्टम LED Display Board के साथ कन्ट्रोल रूम सहित स्थापित करने हेतु ऑन लाईन कोटेशन आमन्त्रित करने हेतु विभागीय प्रक्रिया प्रारम्भ कर दी गई है। आमन्त्रित कोटेशन में पाये जाने वाले प्रथम न्यूनतम संविदाकार/फर्म के साथ पेपर आर्डर/अनुबन्ध गठित कर कार्य लगभग दो माह के अन्तर्गत पूर्ण करा लिया जायेगा।

भवदीय

for अधिशासी अभियंता
हैड वर्क्स खण्ड आगरा नहर,
ओखला नई दिल्ली–25

पत्रांक /हैवखं/तृदिनांक 25/02/2023

प्रतिलिपि निम्नलिखित को संदर्भित पत्र के क्रम में सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है:–

1. उपमहाप्रबन्धक (जल), नवीन ओखला औद्योगिक विकास प्राधिकरण सैक्टर–5, जनपद गौतमबुद्धनगर।
2. सहायक अभियन्ता–तृतीय, हैड वर्क्स खण्ड आगरा नहर ओखला नई दिल्ली–25 को उनके पत्रांक 93/स0अ0तृतीय/दिनांक 25.02.2023 के संदर्भ में सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है।

अधिशासी अभियंता
हैड वर्क्स खण्ड आगरा नहर,
ओखला नई दिल्ली–25

नवीन ओखला औद्योगिक विकास प्राधिकरण
कार्यालय वरिष्ठ प्रबन्धक जल खण्ड –प्रथम
सैक्टर– 5 नौएडा

नौएडा/40/0 जल खण्ड प्रथम/2023/1395
दिनांक : 20/2/23

अधिशासी अभियन्ता
हैड वर्क्स खण्ड आगरा नहर
ओखला नई दिल्ली– 110025

विषय : कोण्डली ड्रेन के अन्तर्गत तैयार हो चुके वैटलैण्ड हेतु Up Stream/Down Stream में आन लाईन मोनटिरिंग सिस्टम LED Display Board के साथ कन्ट्रोल रूम सहित स्थापित करने के सम्बन्ध में।

सन्दर्भ : पत्रांक 93/ह0व0ख0 दिनांक 10.01.2023

कृपया उपरोक्त सन्दर्भित पत्र के सम्बन्ध में अवगत कराना है कि कौण्डली ड्रेन पर सैक्टर 50 के निकट निर्मित वैटलैण्ड हेतु Up Stream/Down Stream में आन लाईन मोनटिरिंग सिस्टम LED Display Board कन्ट्रोल रूम सहित स्थापित करने हेतु प्रस्ताव रू0 80.00 लाख का प्राप्त हुआ है जिस पर कार्य कराने हेतु सक्षम स्तर से सैद्धान्तिक स्वीकृति प्राप्त कर ली गई है।

अतः सक्षम स्तर से प्राप्त सैद्धान्तिक स्वीकृति के क्रम में आपसे अनुरोध है कि उक्त के सापेक्ष विस्तृत आगणन स्वीकृत दरों के आधार पर एक सप्ताह में उपलब्ध कराने का कष्ट करें जिससे अग्रिम कार्यवाही की जा सकें।

(संजय पाराशर)
वरिष्ठ प्रबन्धक
जल खण्ड प्रथम

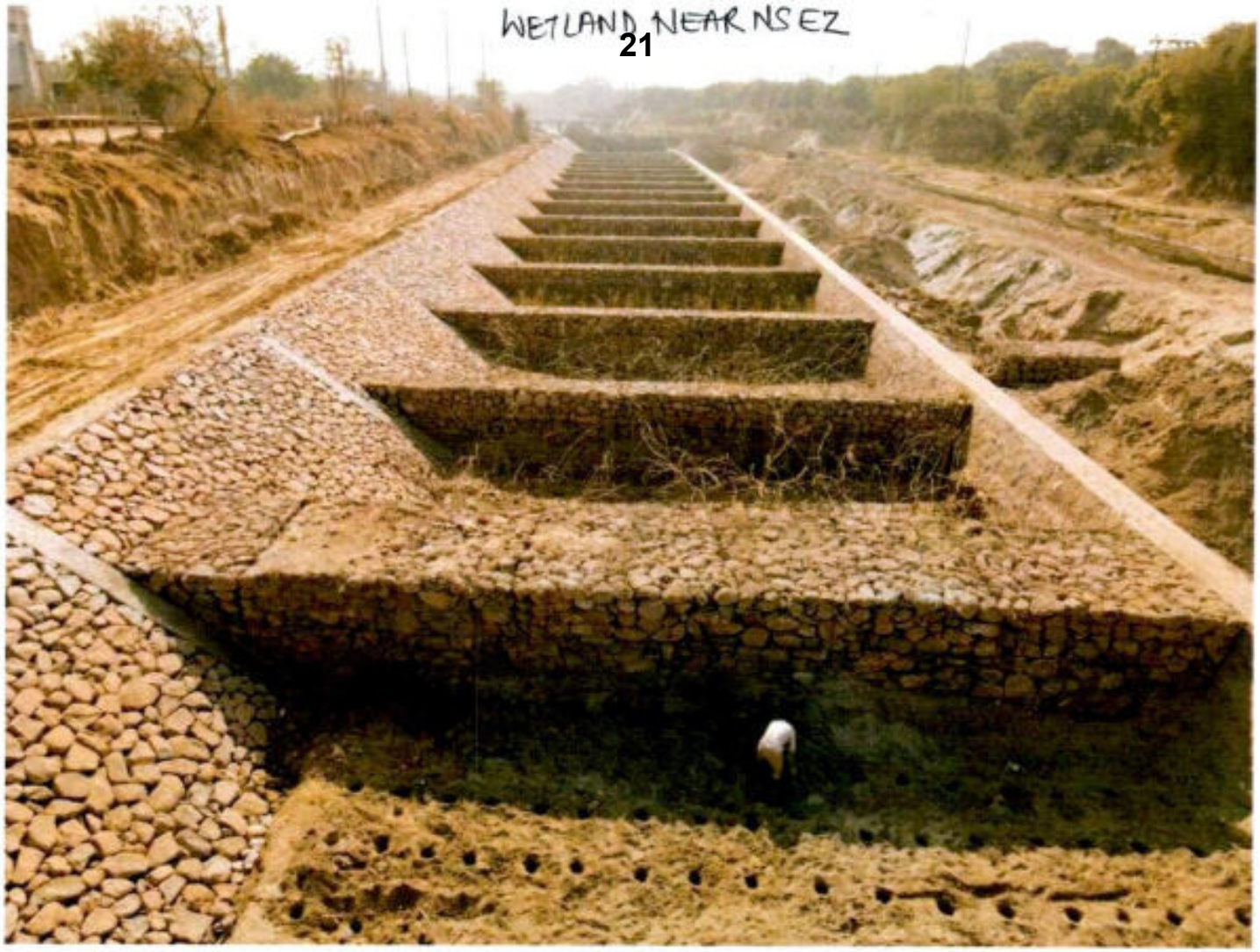
प्रतिलिपि:

1 निजी सचिव को अपर मुख्य कार्यपालक अधिकारी (एम) महोदय के सादर अवलोकनार्थ।
2 विशेष कार्याधिकारी (ए) महोदय को सादर सूचनार्थ।
3 उप महाप्रबन्धक (जल) महोदय को सादर सूचनार्थ।
4 मूल पत्रावली।

वरिष्ठ प्रबन्धक
जल खण्ड प्रथम

WETLAND NEAR NSEZ

21



WETLAND NEAR ADVANT TOWER

Draft Feasibility Report

In-situ and ex-situ treatment of domestic wastewater flowing in drains of NOIDA city

Sponsor

New Okhla Industrial Development Authority
An Integrated Industrial Township
ISO 9001 : 2000 & ISO 14001:2004 Certified

New Okhla Industrial Development Authority (NOIDA)

Submitted By

CSIR- National Environmental Engineering Research Institute (NEERI), Nagpur – 440 020

January 2023

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ANNEXURE

1.0 Introduction

New Okhla Industrial Development Authority (NOIDA) has approached CSIR-NEERI, Nagpur vide Letter No. Noida/ACEO(N)/2022/301 dated 21/01/22, to undertake treatment of sewage flowing in 30 drains of NOIDA city and, as per the order of Hon' NGT, NOIDA, to develop a time bound action plan to stop discharge of untreated wastewater to 30 drains. NOIDA has requested CSIR-NEERI for in situ treatment of 18 drains based on Bio and Phyto remediation to strengthen environment.

Accordingly, CSIR-NEERI team from Headquarter (Nagpur) has visited NOIDA during March 2022 to get the first-hand information and preliminary site visit of 18 drains that has to be treated.

Then two consecutive site visits were carried out by CSIR-NEERI in the months of October & November 2022 which accounted for site survey, flow measurements, sample collection, analysis and secondary data collection form NOIDA authority and its analysis.

Based on the subsequent detailed site visits and technical discussion held with officials of NOIDA authority, total 24 drains have been identified that are contributing the maximum amount of pollution load into the Kondali irrigation canal that requires immediate treatment at the earliest.

1.1 NOIDA City

The Government of Uttar Pradesh on April 17, 1976 vide its notification No. 415.7 – Bha-U-18-(II), Lucknow, dated 17.4.1976 under the provisions of U.P. Industrial Development Act, 1976 notified 36 villages of "Yamuna-Hindon-Delhi Border Regulated Area" as New Okhla Industrial Development Area. In order to ensure planned development of the area for industrial and allied uses the State Government also constituted a new statutory body, namely, the New Okhla Industrial Development Authority (NOIDA).

NOIDA, is a planned city located in Gautam Buddha Nagar district of the Indian state of Uttar Pradesh. Noida is also known as the Cleanest Medium City of India as per a survey in 2021. It is a satellite city of Delhi and is a part of the National Capital Region (NCR) of India. As per provisional reports of Census of India, the population of Noida in 2011 was 642,381. The city is managed by Noida Authority. The district's

administrative headquarters are in the nearby city of Greater Noida. It is considered to be India's greenest city with nearly 50% green cover, the highest of any city in India. However, sewage is still flowing in city open and closed drains being the best and green city.

The NOIDA city is surrounded by Delhi, Haryana, Faridabad, Greater NOIDA. For efficient transportation, the NOIDA city is equipped with Highways and Expressway supported with vast network of Metro rail as shown in **Figure 1.**

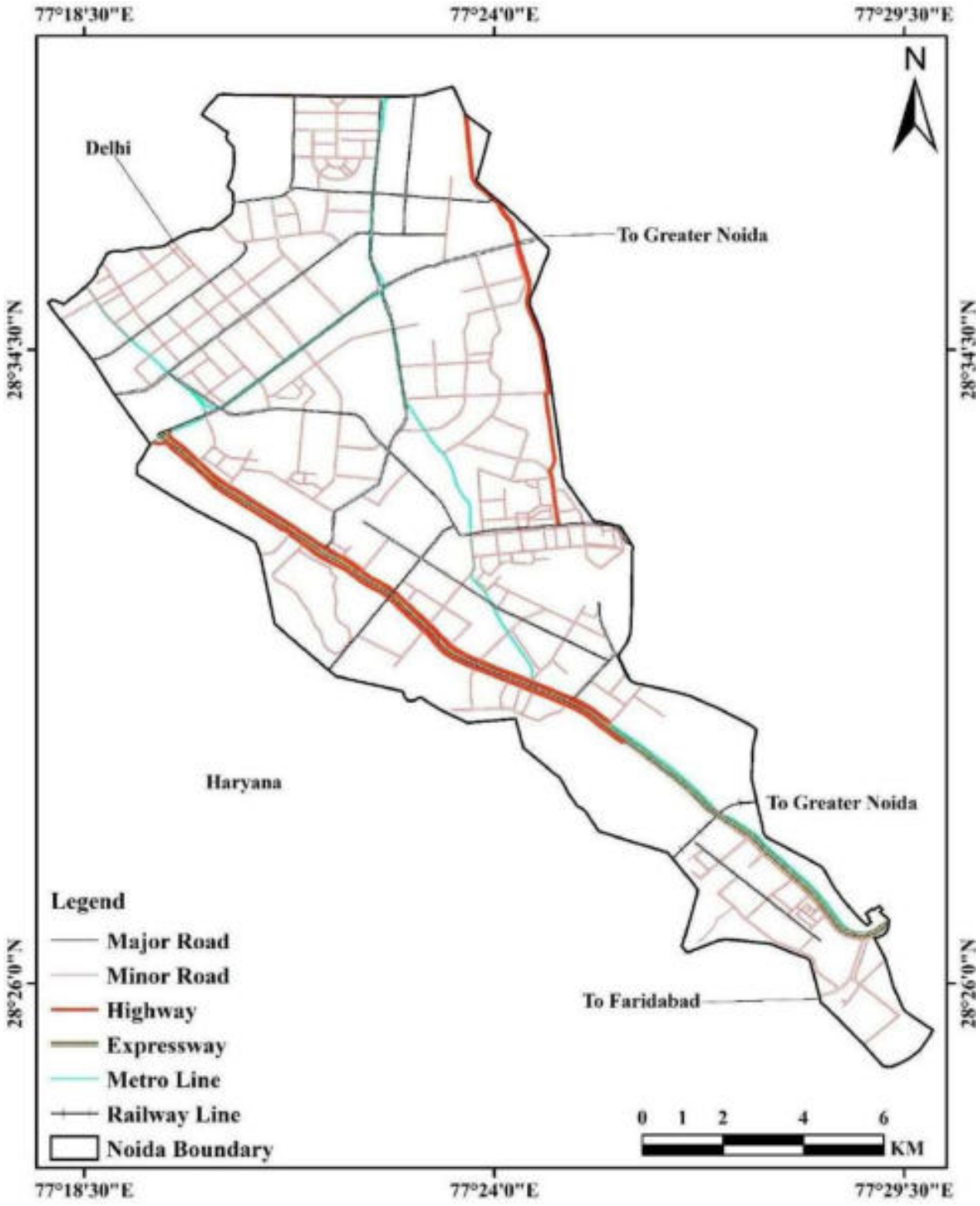


Figure 1: Base Map of NOIDA

The area of Noida is long triangular in shape bounded by the river Yamuna in the west, river Hindon in the east, National Highway no. 24 in the north and the southern portion is demarcated by the confluence of the rivers Yamuna and Hindon. These bounding natural barriers emerge obvious limitations to the future expansion of the town. The

future location pattern and disposition of activities and land uses in future in Noida will be majorly dependent on the rivers bordering on east and west as shown in **Figure 2**.

The NOIDA city is divided into multiple sectors as shown in **Figure 2**.

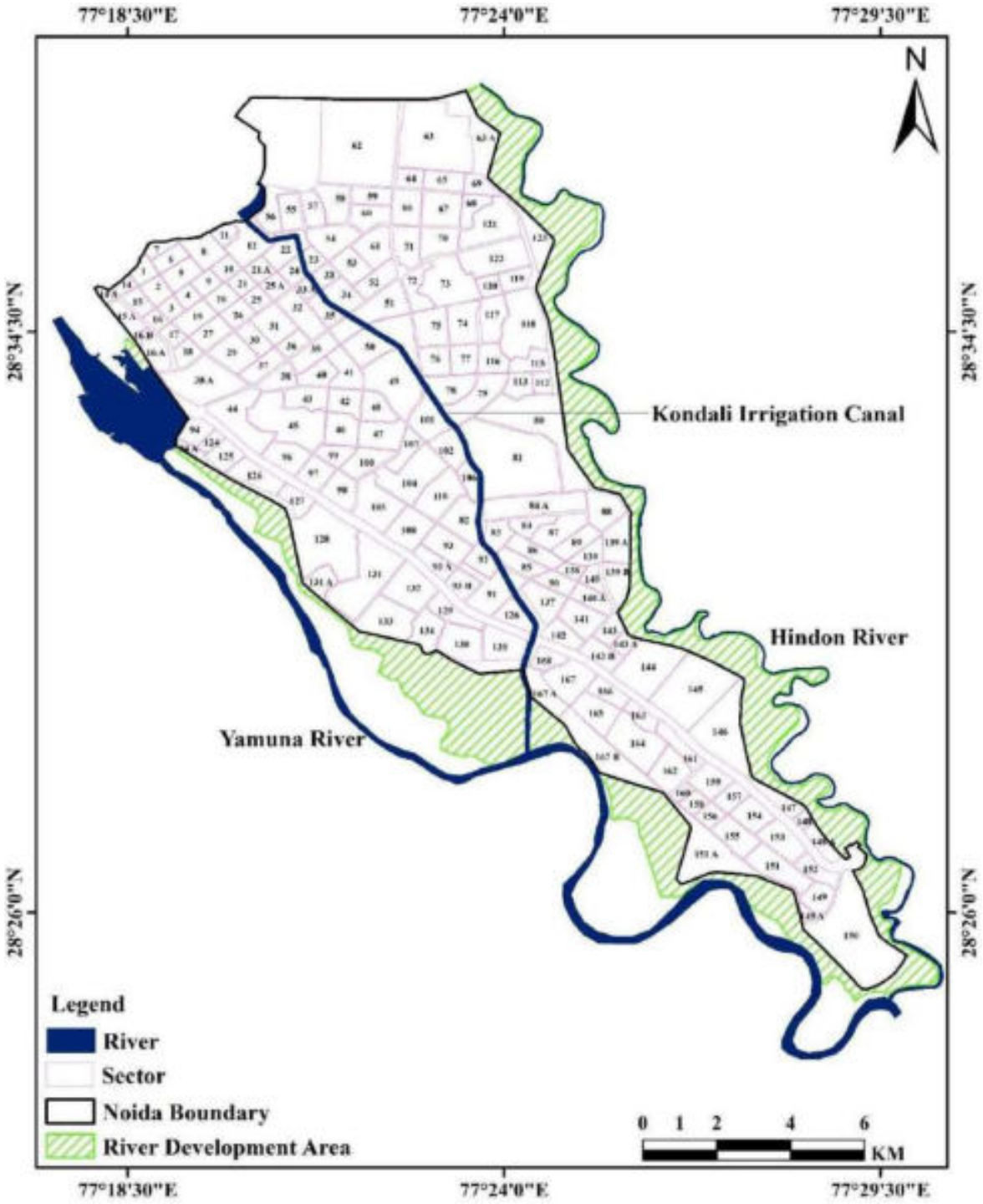


Figure 2: Sector Boundaries of NOIDA

Figure 3 displays the road network of NOIDA as per Master Plan 2031. All the Master Plans prepared & revised by the authority focussed/ featured design concept,

proposals regarding the integrated physical development of NOIDA and the zoning & subdivision regulations as shown in **Figure 2 & 3**.

Figure 3: NOIDA Road network

1.2 Development Plan

The New Okhla Industrial Development Authority (NOIDA) for the year 1991 prepared first master plan with following objectives:

I. Provide developed sites for about 10,000 small-scale industrial units.
II. Provide employment to about 41,000 industrial workers.
III. Achieve a conducive living and work environment for the workers engaged in manufacturing and allied activities, and develop an integrated township for an ultimate population of 3,75,000 workers.

This plan was then revised and a new master plan for the year 2001 was prepared; later the authority in the year 1989 again with the revision in earlier plan prepared new master plan for the year 2011. Moreover, the state government of Uttar Pradesh notified the entire area between river Hindon & Yamuna under NOIDA which engulfs 20316 Hectare land & 81 villages. The Noida Master Plan 2011 was revised in 2006 for the perspective year of 2021. In the year 2006 the state government of Uttar Pradesh approved the master plan for year 2021. Lately in the year 2011 the authority also approved the Master plan for the year 2031.

1.3 Population

According to the 1981 Census, the population of Noida was 36,972. Which was the aggregate of population of villages in Noida. Noida in the year 1991 was categorised as a Census Town (CT) housing 29 urbanised villages, with a population of 1,46,514 persons. The 1991 Census revealed that in addition to the population of 29 urbanized villages, 34,489 persons lived in the peripheral villages. Thus, in 1991 the total population of the Notified Area of Noida was 1,81,003. In 2001 a rise in the population up to 3,05,058 whereas about 10 lakhs in 2010 was witnessed. The population growth of Noida city during 1981-91 was nearly 400 per cent and from 1991-2001 it was 108 percent. This is no surprise as this period represented the burgeoning phase of the new town, founded in 1976. As per the findings of School of Planning and Architecture, New Delhi (SPA), the population of Noida had increased to 2,11,534 in 1995 moreover, as much as 20 per cent of the city's population lived in jhuggi clusters, another 48 per cent in the urban villages and only 32 per cent resided in the developed residential sectors. As per the survey by the Noida Authority and district administration

in 2008 NOIDA has about 11000 hutments. Population of Noida, as reported by the Census of India, 2001 was 305058 persons.

The average household size of Noida as per the survey of 1995 works out to 4.2. As per the aforesaid survey 70 per cent of the households have a household size of 4 to 6 persons. Out of the remaining, about 4.25 per cent have more than 6 persons per household and more than 25 per cent have less than 3 persons per household. The average household sizes of Noida Notified Area and Noida Urban Area were 4.77 and 4.44 respectively as per 2001 Census. As per the census of India 2011, the population of NOIDA amounts to 6,37,272. As per the NOIDA Master Plan 2031 projected population of NOIDA for the year 2031 is 30,74,905.

1.4 Water Supply Scheme

The tube wells, Ranney wells and Ganga water is the source of water for NOIDA development area. Presently Noida uptakes 48 MLD of Ganga water and permission from the Government of Uttar Pradesh to uptake 192 MLD of Ganga water has been granted. NOIDA has ample amount of ground water reserves, which are proposed to be exploited to meet the present and future water demands. Planning of water supply in the city is based on catering to the total demand through groundwater sources as Ganga water is not available for about 3 to 4 weeks in a year due to cleaning and maintenance of canals. However, Ganga water is needed to dilute high mineral contents of the ground water to make it potable. WAPCOS (a Government of India undertaking consultancy organization) has prepared the Master Plans of water supply and sewerage system for Noida. WAPCOS also has concluded that the overall quality of water in Noida appears to be good as no toxic substances were found in tube well water. Also, WAPCOS on the basis of available chemical composition records, have observed that the overall quality of water from tube wells / Ranney wells is good. At present in NOIDA, there are 182 tube wells generating 146 MLD water, 6 Ranney wells generating 54 MLD water, and 48 MLD Ganga water for which 40 overhead tanks, 39 underground reservoirs and 38 underground reservoirs for Ganga water. The present demand is 167 MLD and supply available is 248 MLD, thus there is no shortage of water.

The rate of water supply considered for planning of the water supply system of NOIDA is 172.5 lpcd (litres per capita per day) which includes 15% wastage/pilferage in

residential areas as per the Central Public Health and Environmental Engineering Organisation (CPHEEO) norms, and at the rate of 45 kl per Ha/day for industrial, institutional and commercial use areas similarly, total requirement of water for the entire Noida amounts to be 590 MLD. It will be necessary to have 330 MLD of Ganga water in 590 MLD water. Noida will have 240 MLD Ganga water by the year 2013, balance 90 MLD Ganga water will be available in the third phase. Considering that the Ganga water will not be available through-out the year because of cleaning and maintenance of canals, ground water sources have been planned to generate 590 MLD water. Accordingly, 430 tube wells have been planned to generate 430 MLD water, and 12 Ranney wells to generate 160 MLD water (presuming 75% capacity), thus totalling 590 MLD water. Keeping in view that one Ranney well generates 12 times more water than a tube well, precedence has been given to Ranney wells.

1.5 Drainage Network

The triangular shaped area of NOIDA is bounded by river Hindon in the east and Yamuna in the west, both flowing southwards. Apart from these two main rivers, the town area consists of numerous perennials as well as non-perennial drains. All the drainage channels naturally follow the northeast to southwest sloping pattern. The adjoining rivers to the town viz. Hindon and Yamuna are in matured stage. One non-perennial channel of Hindon, flows through the central part of the area, near Sharfabad village. The storm water of the city mainly drains in river Yamuna and partially in Hindon. The city area also houses a numerous drains and ponds. The **Hindon cut** a major manmade drain, stretching in the north-western portion of Noida, is used by the irrigation authorities to transfer the water of river Hindon into Yamuna. The outfall of this cut on river Yamuna falls on the North - western boundary of the township. The city consists of two more major drains other than Hindon cut. First of which namely **Shahdra drain** spans through the Sectors 14, 15 and 16 and drains into the river Yamuna besides Okhala Barrage. This drain drains water of East Delhi and Shahdra into the Yamuna. The second one, namely **Noida Drain** stretches in the southern part of the city and draining into the river Yamuna at upstream of the Yamuna Hindon confluence point near sector - 168. The NOIDA drain is presently an outfall channel for drains spanning in most parts of Noida city.

Based on the site visits, the drains are classified as minor, medium and major based on the width of the drain. Drain width less than 1.5m are termed as minor drains whereas drains having width between 1.5m – 4m are classified as medium drains. The drains having width more than 4m are classified as major drains. The minor, medium and major drains flowing into the Kondali irrigation canal are shown in **Figure 4**.

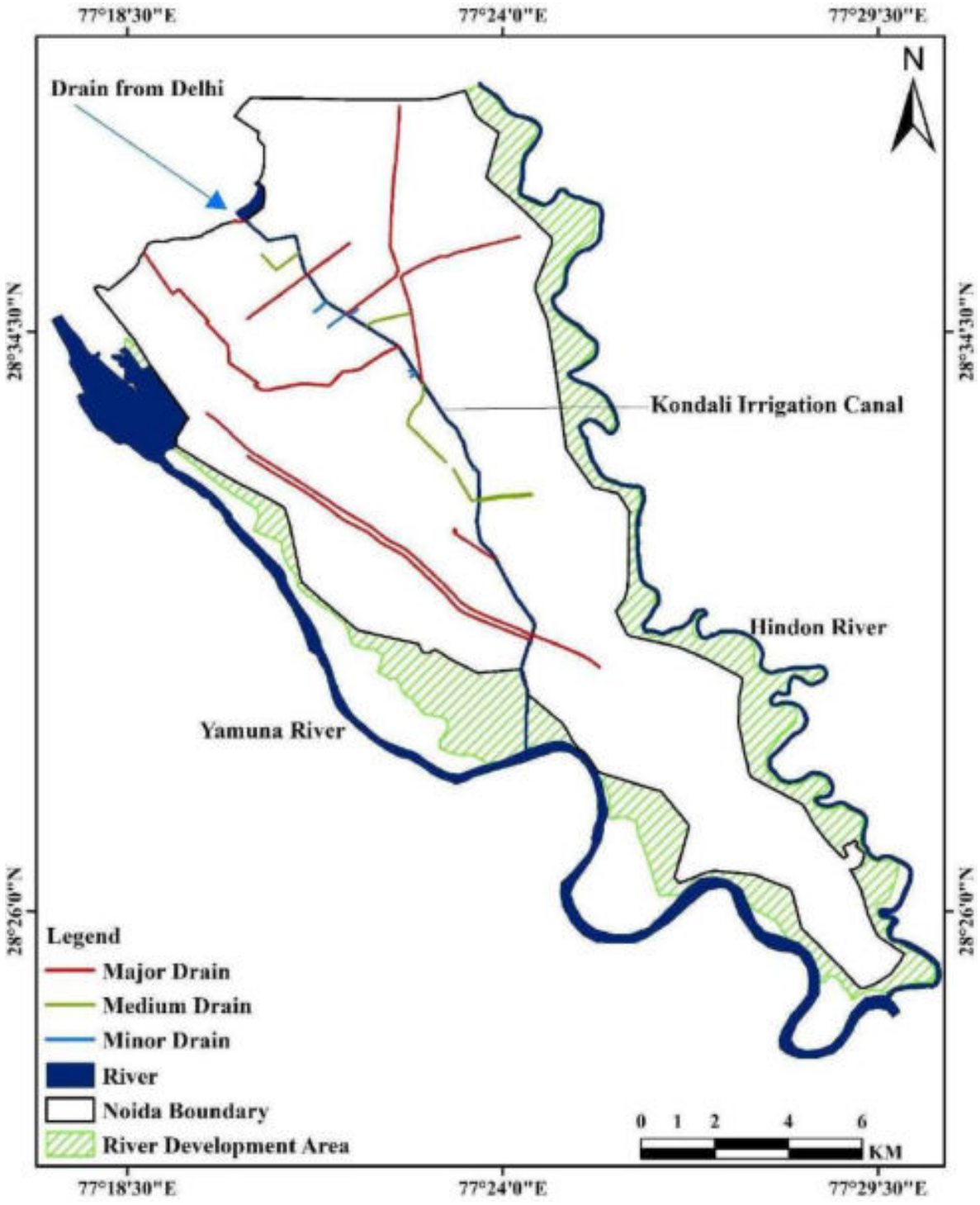


Figure 4: Course of Kondali and contributing drains in NOIDA

1.6 Existing sewerage system & sewage treatment plants (STPs)

The sewage of the NOIDA is diverted towards 4 sewerage districts having total treatment capacity of 231MLD. The sewerage drained from various sectors are collected in STPs located in Sector 54, Sector 50, Sector 123 and Sector 168. Sewerage District A, B, C, D covers 53,18, 28 and 91 number of sectors respectively which sums up to 190 sectors. STP of Sewerage District **A** is situated in Sector 54 covering sewer from 53 Sectors having total treatment capacity of 87MLD i.e. one unit of 33MLD and another unit of 54MLD. Likewise, STP of sewerage District **B**, **C** and **D** have treatment capacity of 59MLD, 35MLD and 50MLD respectively. As per the information received from NOIDA authority the details of STPs in Noida is presented in **Table 1.**

Table 1: Existing STPs in NOIDA

S.No	Sewerage District	Capacity of STP	Sector Nos.
1	Sewerage District A Sector -54	33 MLD + 54 MLD **Total- 87 MLD**	1 to 11, 11(i), 12,14,14A,15,15A,16,16A,16B,17 to 20, 21,21A, 22 to 25,25A, 26 to 35,52 to 61,71,72 and all related villages (53 Sectors)
2	Sewerage District B Sector-50	25 MLD + 34 MLD **Total- 59 MLD**	36,37,38,38A,39,40,41,42,43,44,45,46,47,48 ,49,50A,50B,51 and all related villages (18Sectors)
3	Sewerage District C Sector-123	**35 MLD**	62,62A,63,64,65,66,67,68,69,70,73,74,75,76 ,77,78,79,112,113,115,116,117,118,119,120 ,121,122,123 and all related villages (28 Sectors)
4	Sewerage District D Sector -168	**50 MLD**	80 to 84, 84A,85 to 93, 93A,93B,94,94A,95 to 108,110,124 to 139,139A,139B,140,140A,141 to 143,143A,143B,144 to 148,148A, 149, 149A,149B,150,150A,151,151A,152 to 167, 167A,167B,168 and all related villages (91Sectors)

(*Source: NOIDA Authority)

***Note: Total Functional 06 Nos. STP's Capacity=231 MLD**

NOIDA has also proposed 2 new STPs in Sector 123 and Sector 168 having treatment capacity of 80MLD and 100MLD respectively as shown in **Table 2**. **Figure 5** displays the Plan showing existing/ proposed/ under construction sewage treatment plant's locations pumping stations & catchment area of the sewerage districts.

Table 2: Future proposed STPs in NOIDA

Location	Capacity	Remark
Sector-123	80MLD	For Sewerage District C work is 92% completed.
Sector -168	100 MLD	For Sewerage District D work is completed and STP is under trial.

***Note: Total Upcoming New 02 Nos. of STPs Capacity=180 MLD**

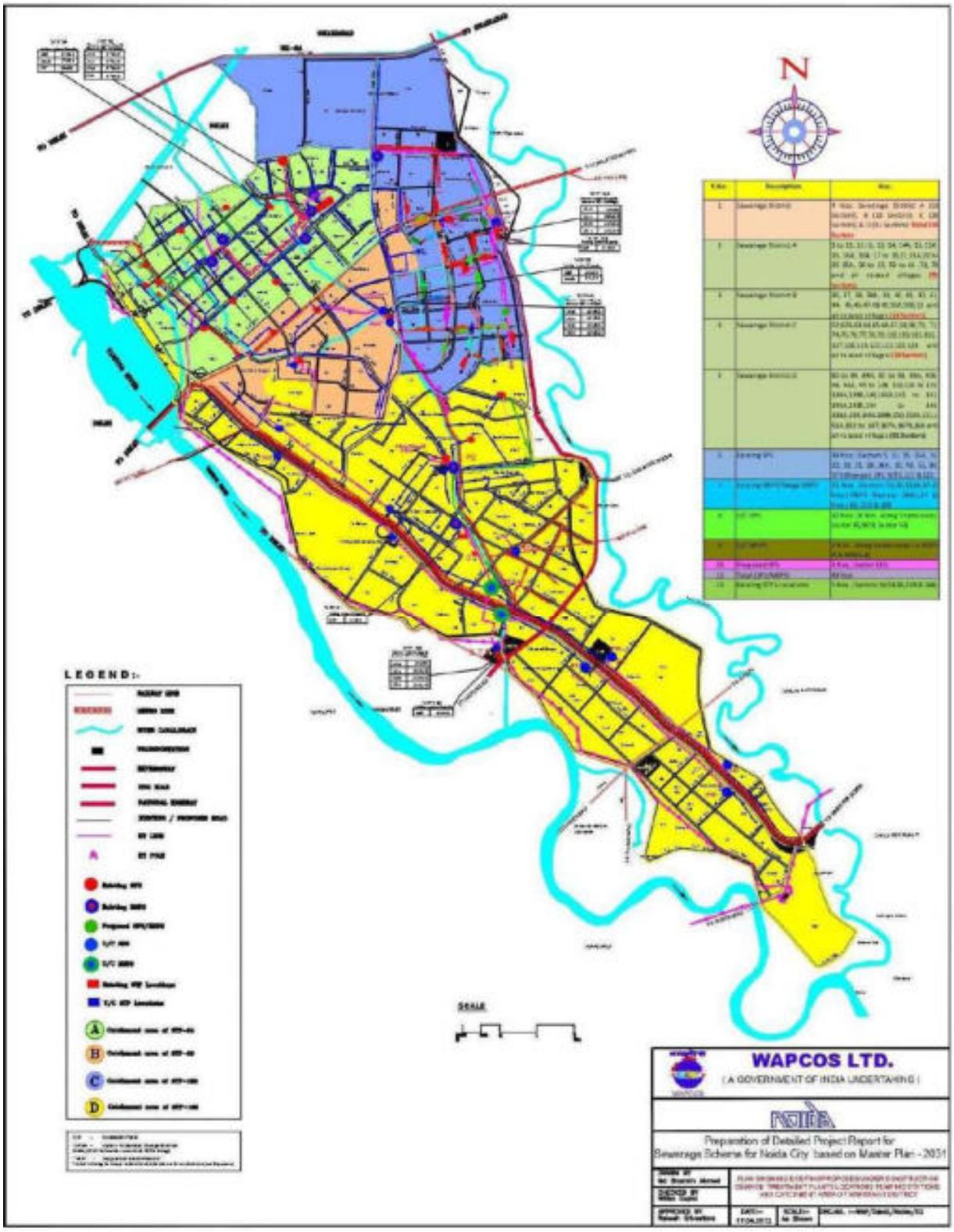


Figure 5: Sewerage scheme and STP demarcation for NOIDA

(*Source: NOIDA Authority)

NOIDA consist of 13 sewage pumping stations and 4 STPS as mentioned above. The locations of STPs and sewage pumping stations are plotted on GIS platform are illustrated in **Figure 6**.

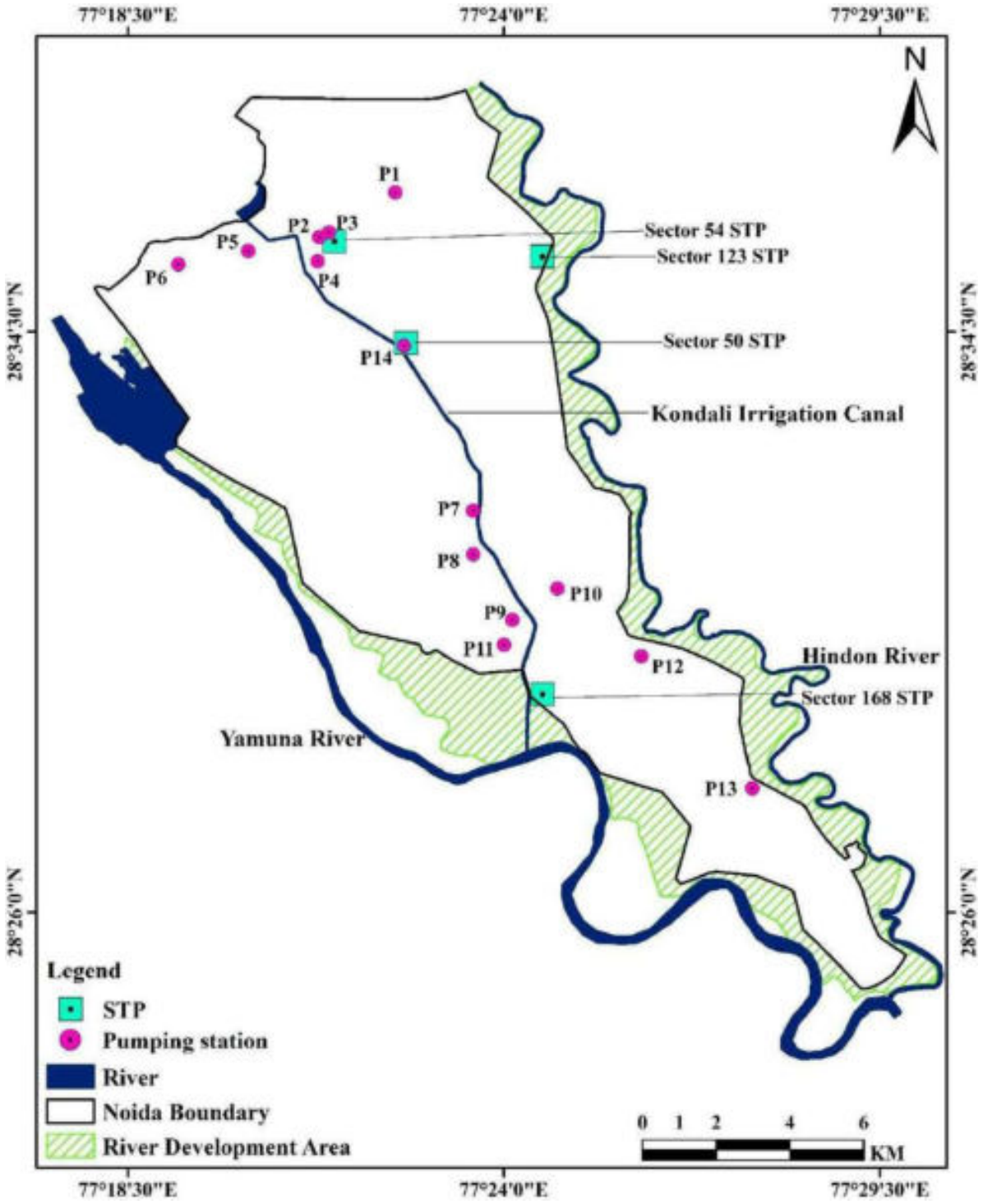


Figure 6: Location of STP and SPS in NOIDA

2.0 Site Visits

2.1 First Site Visit

On 19/10/2022 & 20/10/2022 team of CSIR-NEERI accompanied by officials from Office of Sr. Manager Jal Division 1, NOIDA Authority, visited and surveyed drains meeting into Kondali irrigation canal in NOIDA, Uttar Pradesh. The main purpose of the site visit was to analyse site-specific conditions, tracing of drains merging into Kondali irrigation canal and its flow measurements. Site visit report attached as Annexure II.

2.2 Second Site Visit

From 10/11/2022 to 12/11/2022, team of CSIR-NEERI accompanied by officials from Office of Jal Division 1, NOIDA Authority, carried out flow measurements, survey, and wastewater sample collection at the identified drains meeting into Kondali irrigation canal of NOIDA, Uttar Pradesh. Site visit report attached as Annexure III.

2.3 Site observations

The 30 locations in NOIDA around the Kondali irrigation canal were identified and surveyed as shown in **Figure 7**. Amongst these locations, four are the STP's effluent discharge points, one from In-Situ wetland treatment on Kondali canal, twenty-four are drains draining into Kondali irrigation canal & one from barrage on Kondali canal.

The details of surveyed drains consisting of Drain ID, description and co-ordinates are presented in **Table 3**.

Table 3: Details of identified drains and survey locations

Sr. No.	Drain Id	Details of Drain	Coordinates of drain merging into Kondali Canal
1	D1	– Drain coming **from Delhi**	28°36’7.136” N 77°20’13.02” E
2	D2	– Drain from **Sector 11** – Drain outfall under bridge	28°36’2.4” N 77°20’18.9” E
3	D3	– Drain from **Chora Sadatpur**, **Sector 22** – Drain outfall near **Sommer Ville School**	28°35’36.598” N 77°20’57.97” E
4	D4	– Drain from **Makanpur Sector 26** which runs parallel to Maharaja Agresen Marg – Drain outfall near NTPC Right	28°35’18.716” N 77°21’6.144” E
5	D5	– Drain from **Sector 60 and its outfall near NTPC Left** – Runs parallel **Maharaja Agresen Marg** – Receives **STP effluent** from **Sector 54**	28°35’24.906” N 77°21’14.23” E
6	STP discharge	– **Sector 54** (33+54=87 MLD) **STP** Effluent Discharge point in D5.	28°35'42.21"N 77°21'38.13"E
7	D6	– Drain from **Sector 35** (parallel to Jagannath Mandir Marg) – Drain outfall near Kribhko Colony Right	28°34'55.39"N 77°21'24.30"E
8	D7	– Drain from Morna & ISBT (parallel to Jagannath Mandir) – Marg Drain outfall near Kribhko Colony Left	28°34'55.02"N 77°21'24.62"E
9	D8	– Drain from Morna & ISBT (parallel to Golf Marg) – Drain outfall near Surbhi Hospital Right	28°34’44.80176”N 77°21’41.73275”E

Sr. No.	Drain Id	Details of Drain	Coordinates of drain merging into Kondali Canal
10	D9	– Drain from Sector 63, Hazratpur Wajidpur – Runs parallel to Vishwakarma Road turns near Sector 53 Drain outfall **Surbhi Hospital** Left	28°34’48.439” N 77°21’46.126” E
11	D10	– Drain from Sector 51, Hoshiarpur (parallel to Captain Shashikant Marg – Drain outfall in In-Situ Wetland Treatment	28°34’44.235” N 77°21’45.231” E
12	In-Situ Wetland Treatment	– On Kondali Irrigation Canal in **Sector 51.**	28°34'44.08"N 77°21'43.94"E To 28°34'35.16"N 77°21'58.79"E
13	D11	– Drain from **Sector 50** (parallel to **Indosam Road)** – Drain Outfall near **Nilgiri Public School**	28°34’36.109”N 77°22’2.337”E
14	D12	– Drain from **Hindon cut** that enters NOIDA from **Sector 7** – Runs parallel to **Harola** turns at **Sector 38 GC** again turns at **Sector 40** and runs parallel to **Agahpur** – Drain outfall opposite to **Sector 50 STP**	28°34’9.772” N 77°22’13.359” E
15	STP discharge	– **Sector 50 (25 + 34 = 59 MLD) STP Effluent Discharge point in Kondali.**	28°34’12.89”N 77°22’31.48”E
16	D13	– Drain from **Sector 49**, **Baraula** – Runs parallel to **Main Barola Road**	28°33’54.68” N 77°22’40.704” E
17	D14	– Drain from **Sector 49**, **Baraula** – Runs parallel to **Baanke Bihari Marg**	28°33’52.17” N 77°22’42.54” E

Sr. No.	Drain Id	Details of Drain	Coordinates of drain merging into Kondali Canal
18	D15	– Drain from **Sector 122** parallel to **Vikas Marg** – Drain outfall Near **NOIDA metro Sector 76 parking**	28°33’49.743” N 77°22’48.425” E
19	STP discharge	– **Sector 123 (35 MLD) STP Effluent Discharge point in D15.**	28°35'53.11"N 77°24'14.48"E
20	D16	– Drain from **Sector 102**, **Salarpur Khadar** parallel to **Dadri Main Road** turns at **Sector 101** – Drain outfall opposite to **D15 Outfall**	28°33’41.07” N 77°22’50.27” E
21	D17	– Drain from **Sector 102**, **Bhangel Begampur** – Drain outfall near **Street No. 6** and **Jeetram Colony road junction**	28°32’29.451” N 77°23’34.8” E
22	D18	– Drain from Sector 102, Salarpur Khadar, Bhangel Begampur parallel to Dadri Main Road – Drain outfall near NSEZ metro Square	28°32’1.997” N 77°23’35.742” E
23	D19	– Drain from **NEPZ**, **Phase – 2**, **Thomson Press India Limited** parallel to **Dadri Main Road** – Drain outfall besides **NSEZ Metro Station**	28°32’3.01” N 77°23’40.981” E
24	D20	– Drain from **Sector 84A**, **Hosiery Complex** parallel to **Dadri Main Road** – Drain outfall Besides **Eagle Forgings**	28°32’1.61” N 77°23’42.087” E
25	D21	– Drain from **Sector 82** & **Sector 93**, **Gejah Talattulabad** – Runs parallel to **Janpath Marg** – Drain outfall Besides Farm	28°31’12.436” N 77°23’49.171” E

Sr. No.	Drain Id	Details of Drain	Coordinates of drain merging into Kondali Canal
26	D22	– Drain from **Sector 44** – Runs parallel to NOIDA greater NOIDA Expressway – Drain outfall Near **Pumping Station** of **Sector 167A STP** besides **Shahid Mangal Pande Marg**	28°30'27.331" N 77°23'30.153" E
27	D23	– Drain from **Sector 143B**, **Garhi** – Runs parallel to **Shahid Mangal Pande Marg** – Drain outfall near **Advant IT park**	28°30'2.013" N 77°24'29.144" E
28	D24	– Drain from **Sector 126**, **Mayoor School**, **Raipur Khadar** – Drain Outfall Besides **Sardar Vallabhai Patel Marg**, Drain on which Gates are installed	28°30'21.633" N 77°23'28.631" E
29	Barrage	– Barrage on Kondali	28°29'38.244" N 77°24'17.054" E
30	STP discharge	– **Sector 168 (50 MLD) STP Effluent Discharge point in Kondali.**	28°29'9.64" N 77°24'22.36" E

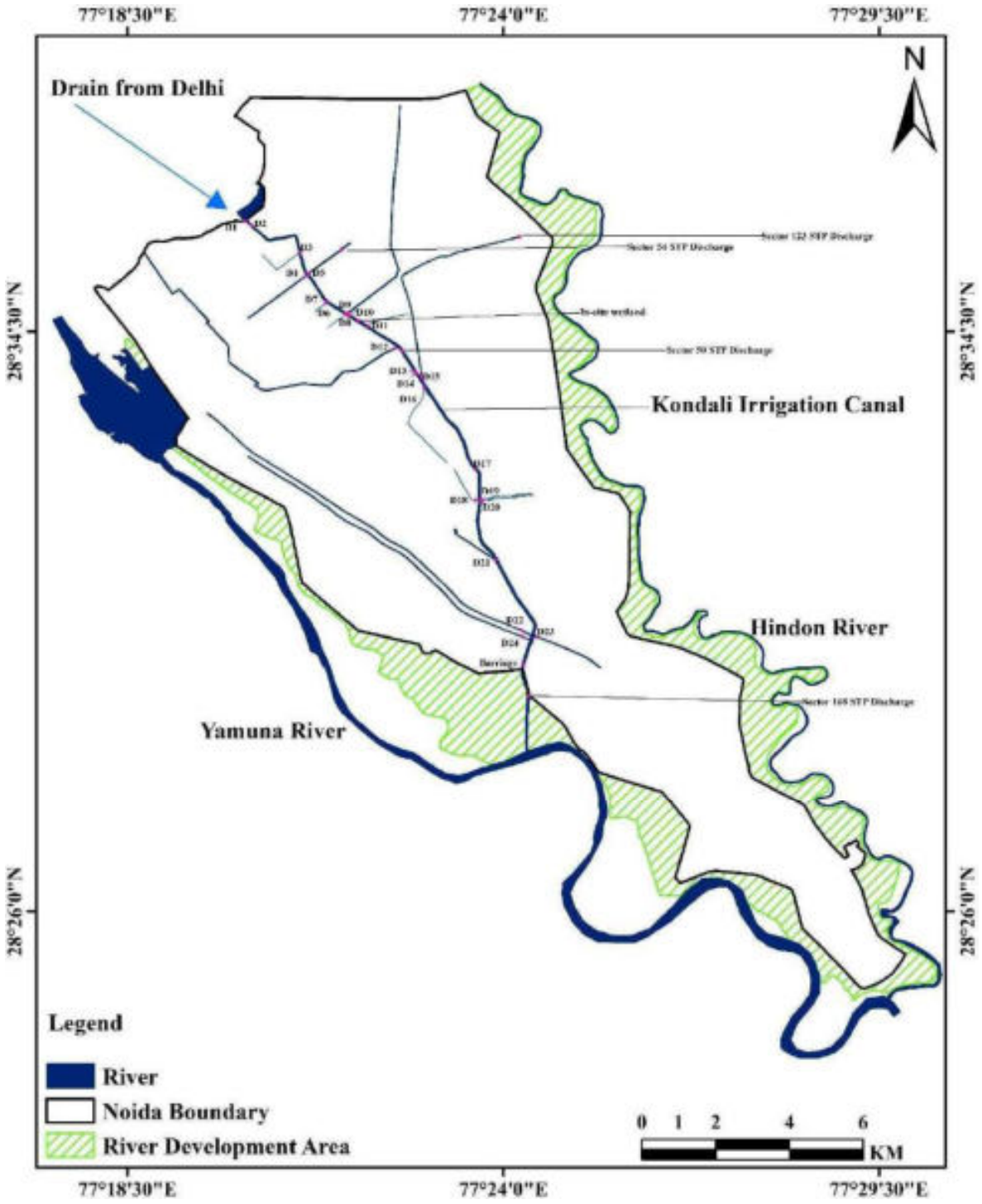


Figure 7: Identified drains and survey locations around Kondali Irrigation Canal

3.0 Classification of Drains

On the basis of detailed site visits, the drains are classified as minor, medium and major based on the width of the drain. Drain width less than 1.5m are termed as minor drains whereas drains having width between 1.5m – 4m are classified as medium drains. The drains having width more than 4m are classified as major drains. Apart from drain geometry i.e. width the drains are also classified on the basis of flow, Physicochemical Parameters of wastewater and the pollution load contributed by the drain

3.1 Classification as per Drain Geometry i.e. width

Total 24 drains contributing its wastewater load in Kondali Irrigation Canal were identified. The flow in these drains varied in proportion to the catchment of each drain and every drain having different drain geometry.

All the identified drains were hence, categorized in three categories based on their width viz:

1. Minor - Drain width < 1.5 m
2. Medium - Drain width 1.5 m to 4 m
3. Major - Drain width > 4 m.

The drain geometry details and classification is presented in **Table 4**:

Table 4: Drain geometry and classification

Sr. No.	Drain ID	Width (m)	Category
1	**D1**	**4.5**	**Major**
2	**D2**	**1.0**	**Minor**
3	**D3**	**2**	**Medium**
4	**D4**	**5.5**	**Major**
5	**D5**	**4.3**	**Major**
6	**D6**	**0.73**	**Minor**
7	**D7**	**0.53**	**Minor**
8	**D8**	**0.8**	**Minor**
9	**D9**	**7**	**Major**
10	**D10**	**Closed Drain**	
11	**D11**	**2.9**	**Medium**
12	**D12**	**14**	**Major**
13	**D13**	1.2	**Minor**
14	**D14**	1.2	**Minor**
15	**D15**	**5**	**Major**
16	**D16**	**4**	**Medium**
17	**D17**	**0.3**	**Minor**
18	**D18**	**4**	**Medium**
19	**D19**	**4**	**Medium**
20	**D20**	**3.5**	**Medium**
21	**D21**	**5**	**Major**
22	**D22**	**9**	**Major**
23	**D23**	**6.6**	**Major**
24	**D24**	**8.3**	**Major**

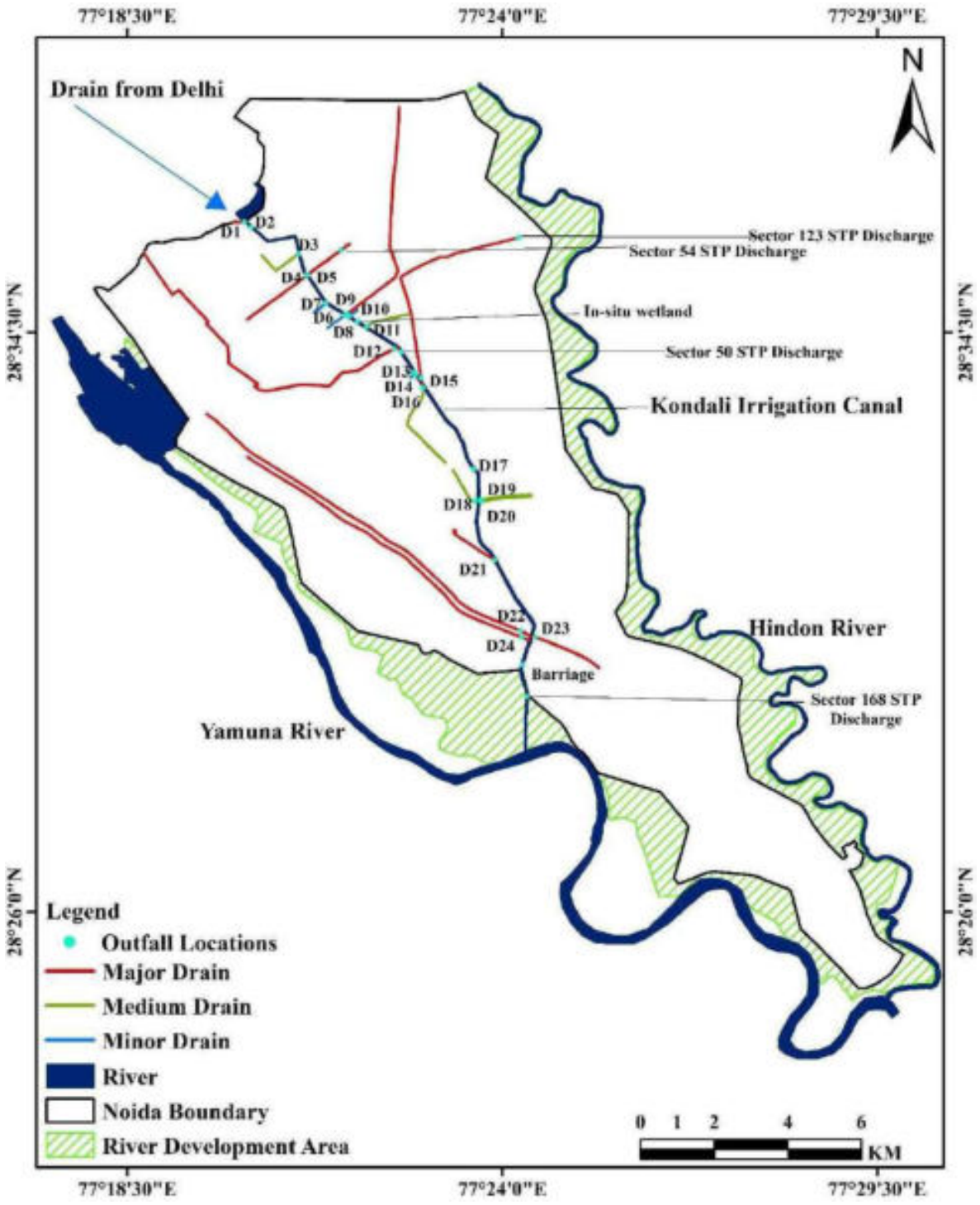


Figure 8: Identified drains classified on the basis of drain geometry

The inset analysis of the drains with their proximity with the Kondali Canal is illustrated in the **Figure 9**.

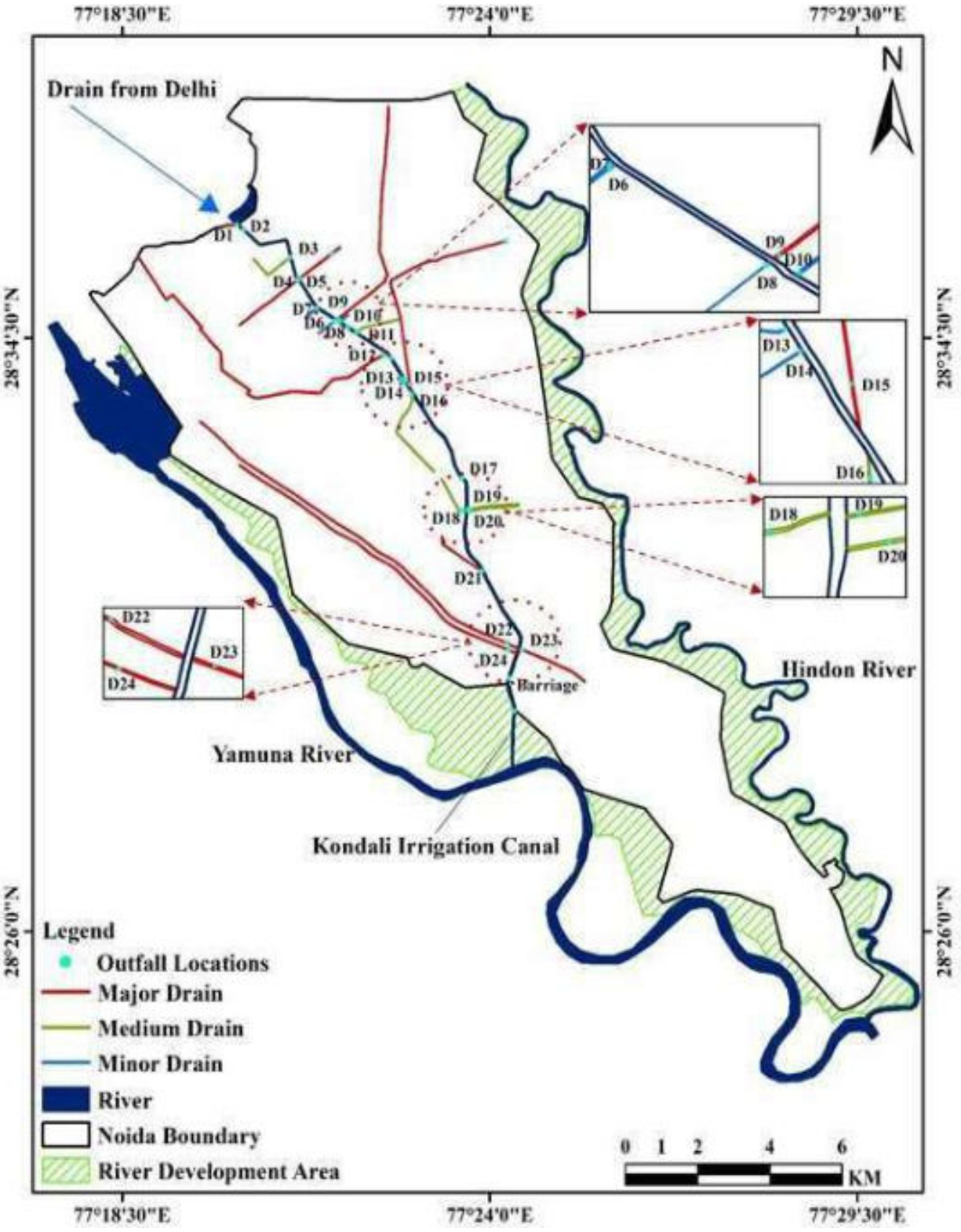


Figure 9: Inset Analysis of identified drains along Kondali canal

3.2 Classification as per flow

The flow in these drains varied in proportion to the catchment of each drain and every drain having different flow values.

Flow measurement of the drains was done through Greyline's Manta Ray Portable Area-Velocity Flow Meter.

Methodology of Greyline's Manta Ray Portable Area-Velocity Flow Meter:

The Area-Velocity method for flow calculation is recommended in CPHEEO's Manual on Water Supply and Treatment – 1999, Chapter 4 – Measurement of Flow, Point No. 4.2.2. This device measure flow in open channels, sewers, partially filled and surcharged pipes without a flume or weir. This device uses QZ02L sensor to capture the required data. For the accuracy of the flow measurement placement of the sensor in relation to flow disturbances needs to considered. The channel in which the sensor is mounted should be free of bends, tees, sudden changes in slope and there should not be objects in the flow profile in front of the sensor.

All the identified drains were hence, categorized in three categories based on their flow:

1. Low flow – < 5 MLD
2. Medium flow – 5 – 25 MLD
3. High flow > 25 MLD

The flow of the identified 24 drains are presented in **Table 5**

Table 5: Flow in the Drains

Sr. No.	Drain ID	Flow (MLD)	Category
		November 2022	
1	**D1**	99.9	High
2	**D2**	This drain was inaccessible	
3	**D3**	0.8	Low
4	**D4**	14.3	Medium
5	**D5**	125.2	High
6	**D6**	0.8	Low
7	**D7**	0.7	Low
8	**D8**	0.6	Low
9	**D9**	100.4	High
10	**D10**	Closed drains	
11	**D11**	1.4	Low
12	**D12**	92.1	High
13	**D13**	1.6	Low
14	**D14**	3.8	Low
15	**D15**	74	High
16	**D16**	19.3	Medium
17	**D17**	0.3	Low
18	**D18**	7.8	Medium
19	**D19**	10.3	Medium
20	**D20**	4.1	Low
21	**D21**	5.9	Medium
22	**D22**	29.7	High
23	**D23**	21.3	Medium
24	**D24**	26.4	High

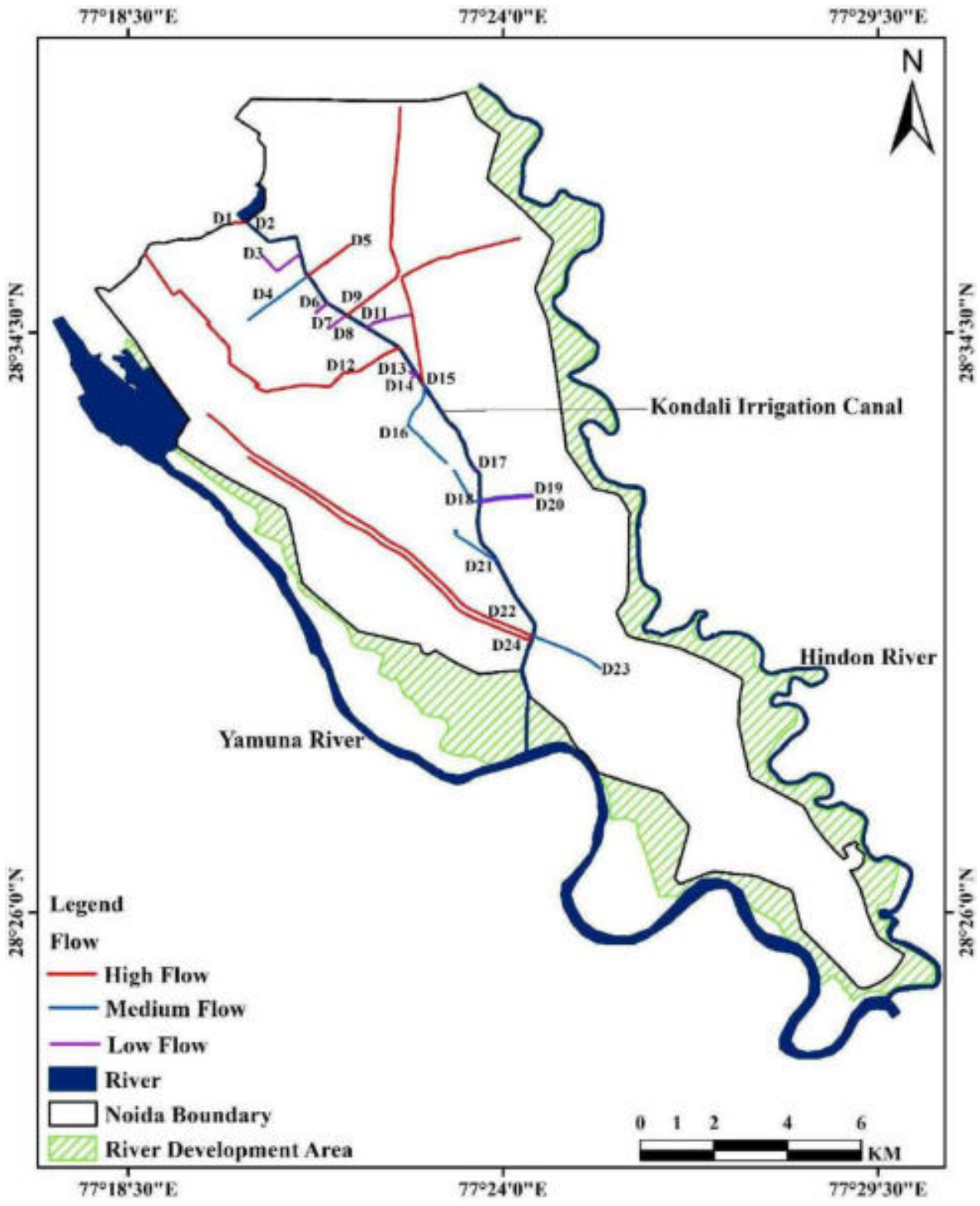


Figure 10: Identified drains classified on the basis of drain flow

3.3 Classification as per Physicochemical Parameters of Wastewater

Sampling was carried out during November 10 - 12, 2022. Wastewater samples were collected and preserved from identified drains and locations within NOIDA.

The grab samples were collected from various locations of Noida. All samples were placed directly into acid-rinsed polyethylene bottle without any filtration. Measurements of pH and dissolved solids were made onsite. All other analyses were performed in laboratories at CSIR-NEERI, Nagpur. Sample preservation was performed immediately after sample collection. The samples were preserved, processed and analysed for major ions, trace elements and nutrients according to Standard Methods for the Examination of Water and Wastewater, 23rd. ed., American Public Health Association, American Water Works Association, & Water Environment Federation, Washington, DC, 2012 (APHA 2017).

The physicochemical characteristics of the collected samples in terms of major parameters are presented in **Table 6**.

Table 6: Physicochemical characteristics of the drain samples

Sl. No.	Sampling Points	pH	TDS	TSS	BOD	COD	Chloride	TKN	Nitrate	Sulphate	Phosphate
1	D1	7.6	3082	420	139	307	1050	109	47	391	09
2	D2	7.8	1592	154	82	200	425	52	54	159	04
3	D3	7.6	1297	256	119	263	331	64	31	186	05
4	D4	8	3182	138	63	131	825	104	51	716	05
5	D5	7.9	1968	158	25	61	500	41	23	296	03
6	D6	8.2	1614	79	73	150	682	109	49	115	06
7	D7	7.8	1725	81	64	137	701	94	46	128	04
8	D8	7.7	1567	169	79	181	674	105	38	37	05
9	D9	7.6	1466	172	76	169	650	93	33	29	06
10	D10	Closed drain going into In-situ Wetland Treatment in Sector 51									
11	D11	8.1	1694	66	68	131	700	114	19	95	03
12	D12	8	1808	130	67	131	500	26	09	127	04
13	D13	7.3	2318	314	164	315	825	98	27	278	04
14	D14	7.7	2398	712	283	530	875	119	31	309	04
15	D15	8.1	1184	120	50	108	400	57	13	54	06
16	D16	7.2	2652	136	76	184	895	98	27	251	07
17	D17	7.5	2358	513	224	423	850	109	52	294	08
18	D18	7.5	2652	136	76	184	925	98	61	239	04
19	D19	7.9	1924	74	72	146	675	67	39	83	05
20	D20	7.7	3250	514	78	177	1225	41	58	1767	02
21	D21	8	3002	198	51	108	1100	88	38	199	08
22	D22	7.9	1986	178	52	123	575	93	19	243	05
23	D23	7.7	1716	260	177	346	525	109	24	131	07
24	D24	8.3	2322	208	29	61	675	31	47	284	08
25	In-situ Wetland Treatment	7.5	1592	116	114	238	475	98	51	102	05
26	STP discharge	8.1	1788	138	08	38	525	21	05	275	05
27	Barrage	7.6	1864	208	42	100	675	78	44	185	05

[#]Grab samples were collected; All parameters are expressed in mg/L except pH;

- Out of Twenty-four identified drains, samples were collected from twenty-three drains that eventually discharge into Kondali irrigation canal. All drains receive wastewater from different point and non-point sources. Each collected sample was characterized in terms of major physicochemical parameters as listed in **Table 6** the same was also traced on NOIDA's map as displayed in **Figure 9**.

- Values of pH, ranged between 7.2 to 8.3, were within the discharge standard of pH of treated sewage (6.5 – 9.0) as stipulated by the Hon'ble National Green Tribunal (EIA notification, 2019).

- Higher total dissolved solids (TDS) concentrations in drains D1, D4, D16, D18, D20 and D21 (1184 – 3250 mg/L) indicate the presence of inorganic materials including chlorides, sulphates, nitrates etc. in higher concentrations in the drain samples. Discharge of industrial effluents from the small-scale industrial setups in the nearby industries in these drains cannot be ruled out.

- Suspended solids (SS), ranging between 66 – 712 mg/L, were majorly found in the drains D1, D3, D13, D14 D17 and D20. Erosion of soil, direct disposal of trash and untreated biomass (such as cow dung etc.) contribute to higher SS. High SS may lead to reduction in carrying capacity of the drains and poor aesthetics as well.

- Organic pollution can lead to depletion of dissolved oxygen, malodour and can also have adversely affect the aquatic lives of the receiving waterbodies. Chemical oxygen demand (COD) of the analyzed samples ranged between 61 – 530 mg/L whereas bio-chemical oxygen demand (BOD) was in range of 25 – 283 mg/L. The BOD/COD ratio (>0.40) of the samples indicates that the drain waters can be treated biologically. D1, D13 and D14 drains, passing through the Barola, Bhrahmpal market area, appeared to be highly polluted with COD >300 mg/L and BOD >130 mg/L. These drains were also characterized with high SS (>300 mg/L), and nutrients (TKN: > 100 mg/L). This could be because of discharge of untreated wastewater from cattle sheds and stubbles etc. D3, D17 and D23 effluents were found to have COD (263 – 423 mg/L) and BOD (119 – 224 mg/L) typical of domestic wastewater (sewage).

- Nutrients such as, total Kjehldahl nitrogen (TKN), NO_3^{2-}- N and PO_4^{3-} - P concentration in drains ranged between 26 – 119 mg/L, 9 - 61 mg/L and 2 – 9 mg/L,

respectively. Drains D1, D13, D14 and D17 were found to have high concentration of nitrate-N (~55 mg/L) and phosphate-P (~9 mg/L). Surface runoff from the patches of farm fields and pastures, discharges from septic tanks and feedlots from the semi-urban catchments might have contributed to the high concentration of nutrients in these drains.

- TKN concentration of D1, D4, D6, D8, D11, D13, D14, D17 and D23 drains were found to be in the higher side (> 100 mg/L).
- D5 was found with the lowest organics (COD: 61 mg/L; BOD: 25 mg/L,) moderate TDS (~1900 mg/L), and TKN (41mg/L) among all 25 drains monitored. This could be because of the dilution of drain wastewater with the discharge of treated sewage from the nearest existing sewage treatment plant. The treated sewage discharge from the STP was characterized with (COD: 38 mg/L; BOD: 8 mg/L, TDS: ~1700 mg/L, and TKN: 21 mg/L) complying with the stipulated treated sewage discharge standards in terms of the indicated parameters.

Characterization of the drain samples as per the water quality parameters is given in **Table 7.**

Table 7: Characterization of the drain samples as per the water quality parameters

Sl.No.		Sampling Points	pH	TDS	SS	BOD	COD	Chloride	TKN	Nitrate	Sulphate	Phosphate
1	Slightly Polluted	D5	7.9	1968	158	25	61	500	41	23	296	3
2		D24	8.3	2322	208	29	61	675	31	47	284	8
3	Moderately Polluted	D2	7.8	1592	154	82	200	425	52	54	159	4
4		D4	8	3182	138	63	131	825	104	51	716	5
5		D6	8.2	1614	79	73	150	682	109	49	115	6
6		D7	7.8	1725	81	64	137	701	94	46	128	4
7		D8	7.7	1567	169	79	181	674	105	38	37	5
8		D9	7.6	1466	172	76	169	650	93	33	29	6
9		D11	8.1	1694	66	68	131	700	114	19	95	3
10		D12	8	1808	130	67	131	500	25.9	9	127	4
11		D15	8.1	1184	120	50	108	400	57	13	54	6
12		D16	7.2	2652	136	76	184	895	98	27	251	7
13		D18	7.5	2652	136	76	184	925	98	61	239	4
14		D19	7.9	1924	74	72	146	675	67	39	83	5
15		D20	7.7	3250	514	78	177	1225	41	58	1767	2
16		D21	8	3002	198	51	108	1100	88	38	199	8
17		D22	7.9	1986	178	52	123	575	93	19	243	5
18	Extremely Polluted	D1	7.6	3082	420	139	307	1050	109	47	391	9
19		D3	7.6	1297	256	119	263	331	64	31	186	5
20		D13	7.3	2318	314	164	315	825	108	27	278	4
21		D14	7.7	2398	712	283	530	875	119	31	309	4
22		D17	7.5	2358	513	223.5	422.5	850	108.5	52	293.5	8
23		D23	7.7	1716	260	177	346	525	109	24	131	7

#Grab samples were collected; All parameters are expressed in mg/L except pH;

Marked drains have COD <75 mg/L; BOD <30 mg/L and TKN <50 mg/L.

Marked drains have COD:75-200 mg/L; BOD:30-100 mg/L and TKN 50-100 mg/L.

Marked drains have COD > 200 mg/L; BOD > 100mg/L and TKN > 100 mg/L.

The water quality of 20 drains as per the data received from **NOIDA authority** is presented in **Table 8**. The sampling was conducted during 28-29 January 2022 by the NOIDA authority.

Table 8: Physico-Chemical Analysis of identified drains as received from NOIDA Authority

SL No.	Drain Id	Physico-chemical Parameters						Bacteriological Parameters	
		Colour	Odour	pH	COD mg/L	BOD mg/L	TSS mg/L	Total Coliform (MPN/100 mL)	Faecal Coliform (MPN/100mL)
1.	D3	Turbid	Unpleasant	7.5	448	138	166	$21X10^{6}$	$17X\ 10^{6}$
2.	D6	Colourless	Odourless	7.2	152	42	116	$33X10^{3}$	$14X10^{3}$
3.	D8	Turbid	Slightly unpleasant	7.4	288	54	134	$22X10^{7}$	$14X10^{7}$
4.	D15	Slightly Blackish	Unpleasant	7.5	304	66	140	$46X10^{6}$	$17X10^{5}$
5.	D4	Blackish	unpleasant	7.5	544	162	264	$13X10^{6}$	$33X10^{5}$
6.	D24	Colourless	odourless	7.4	184	54	106	$43X10^{7}$	$35X10^{7}$
7.	D21	Slightly Pale	Unpleasant	7.5	336	84	154	$49x10^{6}$	$33X10^{6}$
8.	D19	Slightly Blackish	Unpleasant	7.4	272	54	128	$14x10^{7}$	$46x10^{6}$
9.	D18	Blackish	Unpleasant	7.6	440	180	226	$32X10^{5}$	$21X10^{5}$
10.	D20	Slightly Blackish	Unpleasant	7.4	320	72	152	$24x10^{7}$	$13x10^{7}$
11.	D12	Turbid	Unpleasant	7.5	272	48	128	$22X10^{8}$	$27x10^{6}$
12.	D5	Blackish	Unpleasant	7.6	512	132	188	$28X10^{7}$	$11X10^{7}$
13.	D23	Pale	Unpleasant	7.5	368	60	144	$15x10^{6}$	$12X10^{6}$
14.	D10	Pale	Unpleasant	7.3	352	66	140	$22X10^{6}$	$12X10^{6}$
15.	D11	Blackish	Unpleasant	7.4	520	120	205	$49x10^{6}$	$33X10^{6}$
16.	D17	Blackish	Unpleasant	7.5	440	132	146	$35x10^{6}$	$14x10^{6}$
17.	-	Turbid	Unpleasant	7.5	304	69	120	$28x10^{6}$	$12x10^{6}$
18.	D7	Turbid	Slightly Unpleasant	7.3	272	57	138	$38\ X10^{5}$	$26x10^{5}$
19.	-	Slightly Blackish	Unpleasant	7.4	320	54	144	$26\ X10^{6}$	$13X10^{6}$
20.	D13, D14	Pale	Unpleasant	7.5	352	66	152	$17X10^{6}$	$12X10^{6}$

(Source: Noida Authority)

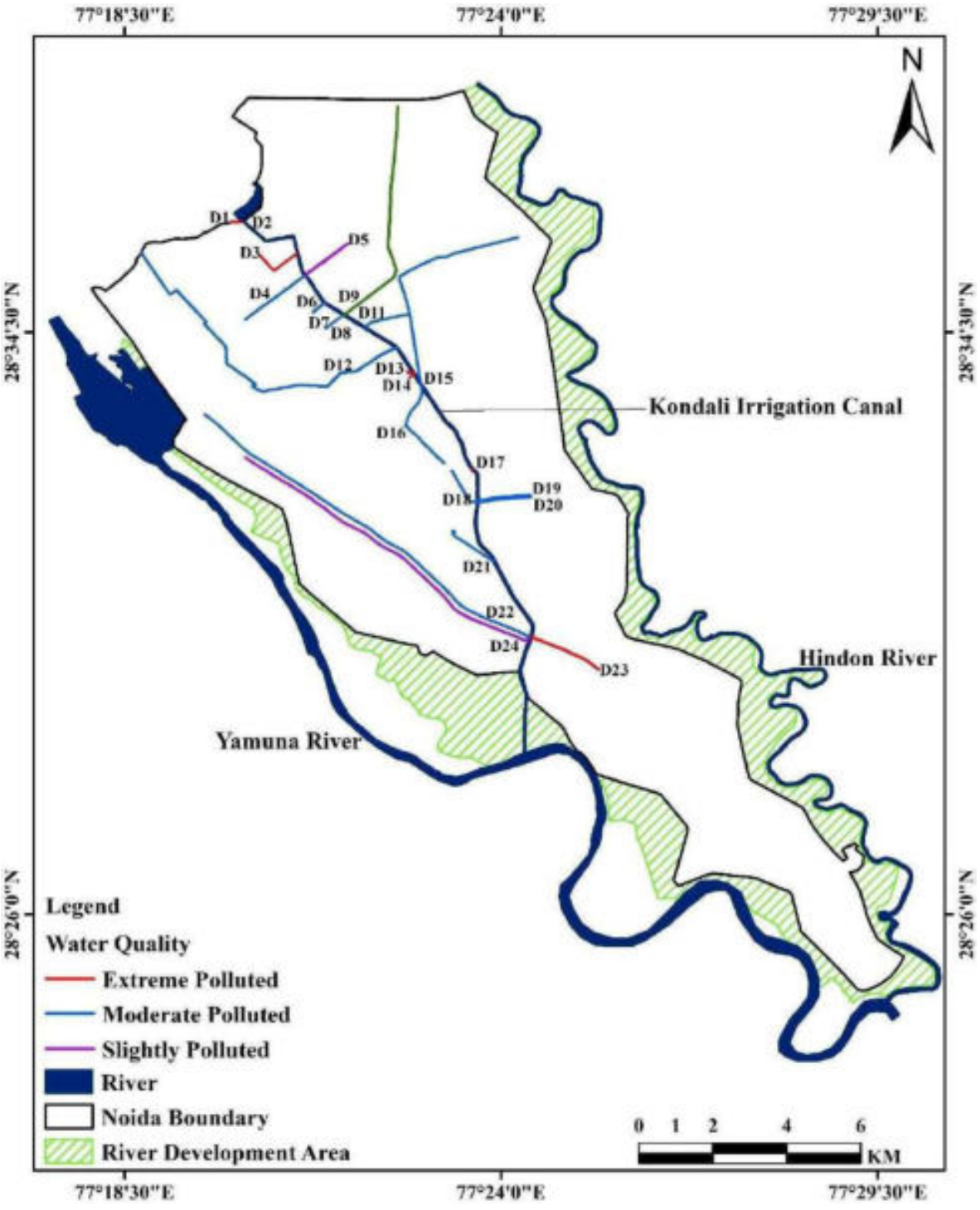


Figure 11: Identified drains classified on the basis of drain water quality

3.4 Classification as per Pollution Load

Pollution load is defined as the mass of a substance that passes a particular point of river or canal (such as a monitoring station on a drain outlet) in a specified amount of time (e.g., daily, annually). In general, load is essentially the product of water discharge and the concentration of a substance in the water.

Pollution Load = Concentration x Flow

The pollution load in terms of organic and nutrients parameters (Nitrogen and Phosphorus) are calculated based on the flow measurement and water quality parameters in the month of November 2023 as presented in **Table 9**

Table 9: Pollution Load of the identified 24 drains

Drain ID	Pollution Load in kg/d		
	Organic	Nitrogen	Phosphorus
D1	30669.3	15584.4	899.1
D2	160	84.8	3.2
D3	210.4	76	4
D4	1873.3	2216.5	71.5
D5	7637.2	8012.8	375.6
D6	120	126.4	4.8
D7	95.9	98	2.8
D8	108.6	85.8	3
D9	16967.6	12650.4	602.4
D10	Closed drain		
D11	183.4	186.2	4.2
D12	12065.1	3223.5	368.4
D13	504	200	6.4
D14	2014	570	15.2
D15	7992	5180	444
D16	3551.2	2412.5	135.1
D17	126.9	48.3	2.4
D18	1435.2	1240.2	31.2
D19	1503.8	1091.8	51.5
D20	725.7	405.9	8.2
D21	637.2	743.4	47.2
D22	3653.1	3326.4	148.5
D23	7369.8	2832.9	149.1
D24	1610.4	2059.2	211.2
Total Pollution Load	**101214**	**62455**	**3589**

Pollution load is depend on the amount of flow and wastewater characteristics. Since, flow in the identified drains are varied from 0.6 MLD to 125.2 MLD and varied water quality parameters in terms of organic and nutrients parameters, pollution load is also varied. Based on the pollution load, the identified drains are further categories as less polluted, moderately polluted and heavily polluted. The details of the categorisation is presented in **Table 10.**

Table 10: Categorisation of drains based on pollution load

Sr. No.	Pollution Category	Pollution Load kg/d	Identified Drains
1	Less polluted	< 1000	D2, D3, D6, D7, D8, D11, D13, D17
2	Moderately polluted	1000 - 10000	D4, D14, D16, D18, D19, D20, D21, D22, D24
3	Heavily polluted	> 10000	D1, D5, D9, D12, D15, D23

The graphical representation of slightly polluted, moderately polluted and extremely polluted load on the drains is illustrated in **Figure 12**.

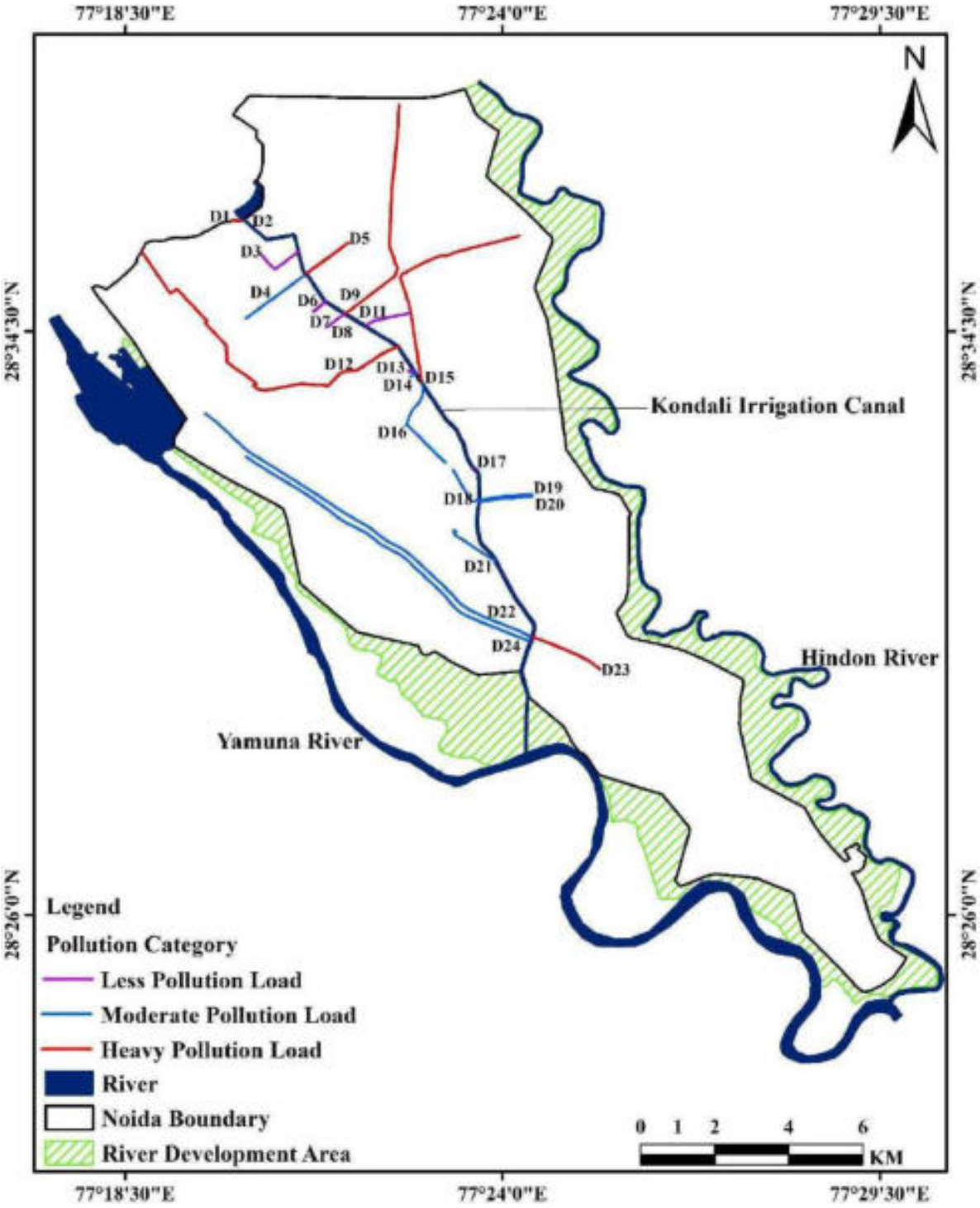


Figure 12: Characterization of the identified drains as per the pollution load

4.0 Status of Kondali Irrigation Canal

The Kondali irrigation canal faces major degradation due to solid waste dumping, discharge of untreated liquid waste and animal excreta directly into the canal. At many drain locations, solid waste can be seen accumulated in the drain as shown in Figure 10. Also, construction debris can also be observed in the drain which is needed to be arrested by the concerned department.

4.1 Discharge of wastewater

At various locations it was observed that wastewater generated was being discharged into Kondali irrigation canal through various drains and sewer mains. CSIR-NEERI has identified 24 number of such drains that contribute to maximum amount of pollution load.

a) Drain D3 b) Kribhko Colony

Figure 13: Discharge of wastewater in Kondali irrigation canal

4.2 Disposal of Solid Waste

At many locations it was found that solid waste was being dumped by inhabitants in Kondali irrigation canal and the contributing drains. This malpractice has resulted in clogging of drain at the mouth of respective drains.

a) Drain D9

b) Drain 13

c) Kondali Irrigation Canal

Figure 14: Solid Waste Dumping

4.3 Animal excreta being discharged through drains

At various locations cattle washing and flushing of excreta was spotted which needs to be controlled as shown in **Figure 15**.

a) Drain D14 b) Drain D17

Figure 15: Sights where flushing cattle wash & excreta was observed

4.4 Other Observations

It has been observed that Kondali Irrigation Canal is protected by brick masonry wall which is found to be damaged at various locations (Presented in **Figure 16**).

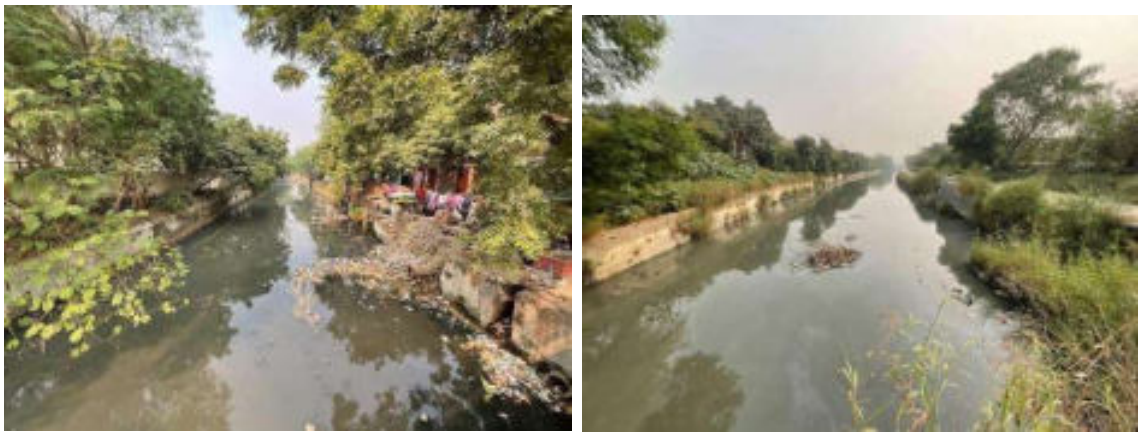


Figure 16: Damaged Embankments of Kondali Irrigation Canal

At many places it was noticed that major drains have been covered by slabs which are being utilized for commuting that need to be addressed by the concerned department (**Figure 17**).

Figure 17: Drain (D4) covered by slabs which are being used for commuting

5.0 Suggestive Measures

Based on the site visits, flow, water quality and pollution load of the drains discharging in Kondali irrigation canal, proper collection and treatment of wastewater flowing through drains is required. In order to minimize the sewage pollution coming from drains in the irrigation canal, the suggestive measures in terms of immediate, mid-term and long-term are delineated to improve the water quality of the Kondali irrigation canal.

NOIDA currently has 231 MLD capacity of commissioned sewage treatment units whereas, 180 MLD capacity of two more plants are in the process of commissioning The projected population of NOIDA for the year 2031 as per Master plan 2031 is 30,74,905. Considering the current rate of water supply i.e. 172.5 LPCD; the rate of wastewater generation is assumed to be 138 LPCD (0.8 X 172.5 = 138 LPCD). As per the projected population of NOIDA for the year 2031 the estimated quantity of wastewater generated through the town would be 425 MLD. Whereas, in present years NOIDA is equipped with STP's of total capacity 411 MLD installed at various locations. These STP's might be considered as Ex-Situ treatment option wherever possible. **Figure 18** depicts the STP location in proximity to the identified drains.

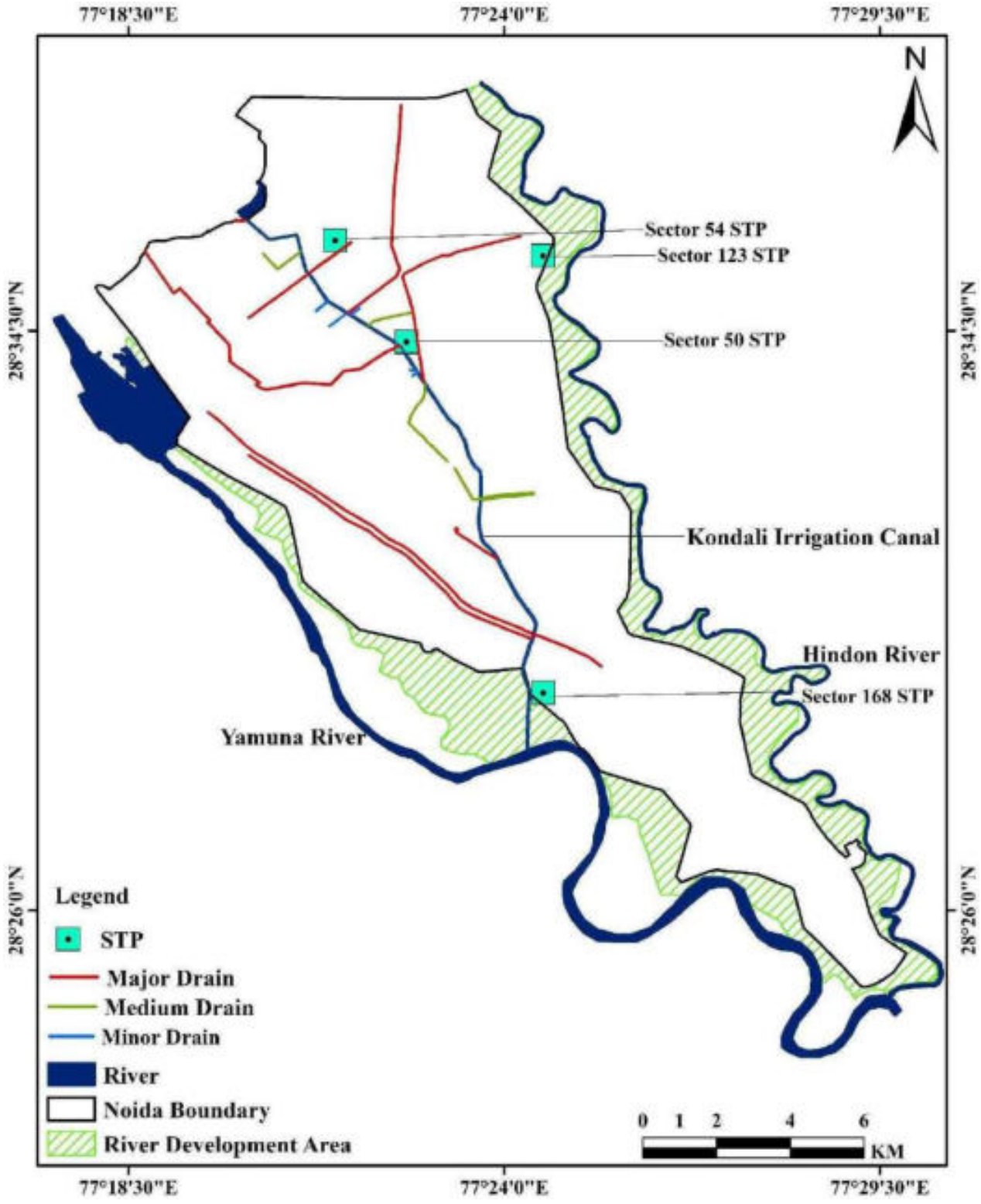


Figure 18: STPs and proximity of identified drains

Following are the details of Immediate, Mid-term and Long-terms measures.

5.1 Immediate measures

- Installation of coarse and medium screens at the identified drains merging into Kondali for the removal of floating solid waste
- Regular cleaning of screens by the concerned department
- Periodical removal of sludge and de-silting of identified drains before monsoon.
- Prohibition of solid waste, garbage and construction & demolition waste dumping in the identified drains and in Kondali irrigation canal.
- The brick masonry wall of the drains as well as Kondali Canal was found to be damaged at various locations. This needed to be looked immediately for its repair and strengthening.
- To avoid the further disposal and discharges, fencing and walkway may be proposed adjacent to the canal.

5.2 Mid-term measures

- Identification of the drains feasible for in-situ drain treatment to reduce the pollution load on Kondali irrigation canal.
- Identification of the minor drains that can be feasibly diverted to the nearest sewerage network, sewage pumping stations and STPs

5.3 Long-term measures

- Recommendation of feasible action plan regarding enhancement of sewerage scheme within the town which includes collection, transportation, treatment, safe disposal/ reuse of generated wastewater (Ex-situ treatment - Decentralised Sewage Treatment Plant).

6.0 Treatment Options

6.1 In-situ Treatment

In-Situ Drain Treatment refers to treatment of sewage by employing unit operations and unit process within the drain and without displacing/disturbing the shape/structure of Nallah.

Unit operation includes screening, grit trap and sedimentation while unit process includes aeration and phytoremediation

The in-situ treatment has been decided on the basis of flow, drain geometry and physico-chemical characterisitcis of drain.

Screen & Silt Trap is the first unit of In-situ treatment. **Screens** remove objects such as rags, paper, plastics, metals, and various floating matter to prevent clogging at the downstream of the treatment. Coarse as well as fine screens are provided before Silt Trap. **Silt Trap** is combined with the screening operation, which removes grit from the flowing sewage & allows it to settle down. Grit includes silt, sand, cinder, or other heavy solid materials “heavier” (higher specific gravity) than the organic biodegradable solids in the sewage/wastewater. When the turbulence is retarded, the suspended solids present in sewage/wastewater tend to settle down by gravity. The solid-liquid separation process separates the suspension into two phases (i) Clear supernatant leaving the top of the sedimentation pool (i.e., overflow) and (ii) Suspended Solids settling at the bottom of the sedimentation Pool. The bacteria are incapable of biodegrading organic matter in the drain/nallah within a reasonable time frame when there is no sufficient oxygen. Diffused aeration generated by solar or electric power provides oxygen to bacteria for treating and stabilizing the sewage/wastewater. Bacteria utilize the supplied oxygen in the wastewater to break down the organic matter containing carbon to form carbon dioxide and water. Hence, this self-sustaining solar energy-based aerators are required to increase the dissolved oxygen level in the wastewater and reduce odour formation.

PhytoTrap is an eco-technological horizontal bio-filtration unit which contains both physical and biological filters working together to remove suspended and dissolved impurities. Although PhytoTrap works on the principle similar to the constructed wetland, it is a modular, mobile, and single portable unit which is easy to operate and maintain. It is a small stainless cage filled with light weight filter media and wetlands plants. A zig-zag pattern of phytotraps is placed after the sedimentation unit along the drain. In PhytoTrap, Phyto stands for “phytoremediation”, a process employed by wetland plants. Concurrently, filter media traps the suspended solids and the organic matter will be degraded by microbes and nutrient uptake by plants. As a result of nutrient removal, the DO level in water increases, facilitating the growth of aerobic organisms who are able to degrade organic pollutants. **Phyto-Floraft** is the modification of constructed wetland, which is applied on the surface of the water. The plant beds are constructed on material that can float on water and then be anchored in the nallah/drain channel. Phyto-Floraft allows the developing roots of aquatic plants

to come in contact with the polluted water to degrade the contaminants. It is a three-pronged action – detritus feeding organisms consume the pollutants because they require nutrients. Secondly, wastes generated from this process are useful for green plants and thirdly, carbon is sequestered by green plants along with carbon dioxide that they absorb from the atmosphere. The plant systems act as oxygen diffusers via uptake through the leaves and its transfer through the stem to the roots. Plant roots can also secrete large amount of enzyme and organic acid to accelerate the decomposition of the macromolecular pollutants in water and improve the bioavailability of nitrogen and phosphorus. Phyto-Floraft includes a wide variety of foliage in aquatic, marsh, ornamental, herbs, grasses and terrestrial plants. Finally, disinfection unit at the end allow this treated water for various applications of gardening, floriculture, road washing and flushing.

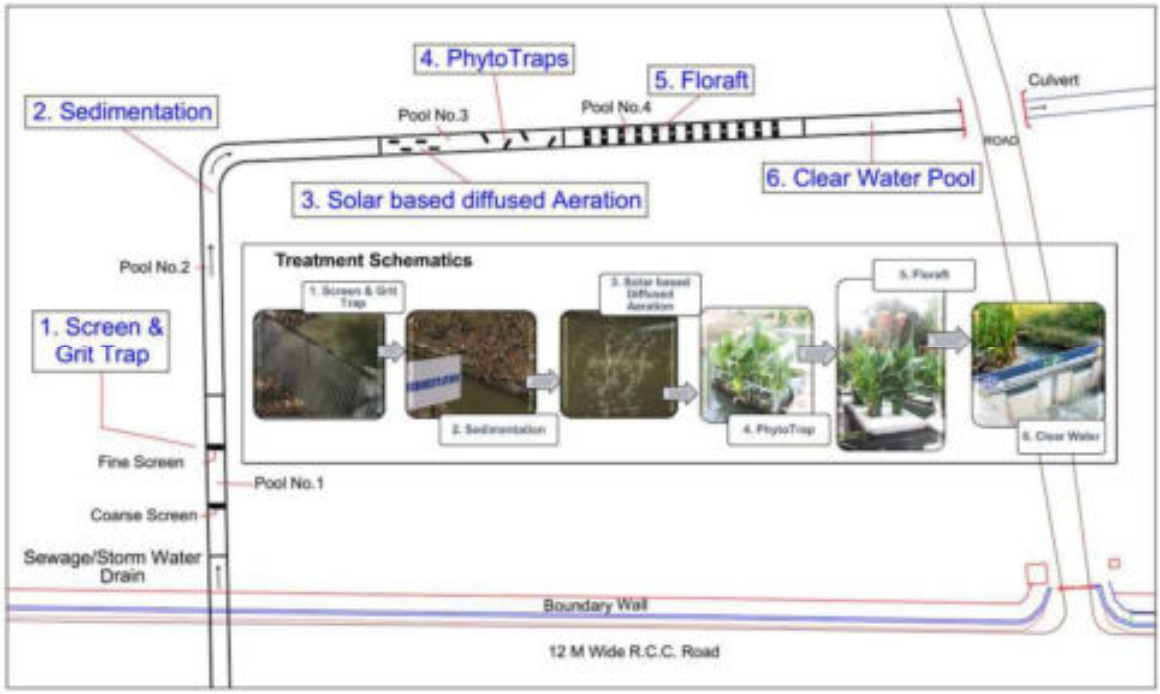


Figure 19: In-Situ Drain Treatment

6.2 Ex-situ Treatment

Ex-situ treatment refers to treating the sewage flowing into the drain by diverting its flow towards conventional Decentralized/ Centralized Sewage Treatment Plant set up in close proximity to the drain. The treatment options available are WSP, ASP, SBR, MBBR, MBR & Constructed Wetland etc.

Waste Stabilization Pond

Waste stabilization pond (WSP) utilizes shallow basins for wastewater treatments through natural processes by integrating autotrophic, heterotrophic, and phototrophic micro-organisms. WSPs are recommended by the World Health Organization (WHO) for treating agricultural and industrial wastewaters since WSPs are sustainable and require very little energy. WSPs comprises of series of ponds like anaerobic and facultative ponds for BOD removal and maturation ponds for pathogens removal. Anaerobic ponds work exceptionally well during warmer seasons. WSPs are uncovered which promotes the algae growth in presence of sunlight and nutrients present in waste which helps in organic and nutrient reduction. It is established that anaerobic ponds are 2-5 m deep with OLR of more than 100 g BOD/m2/d while CPHEEO, 2012 suggested that, anaerobic ponds are designed for OLR between 400 and 3000 kg/ha/d and detention time between 5 and 50 days. Sludge is accumulated at the bottom where it is attacked by anaerobic bacteria to breakdown the organic matter with more than 70% BOD removal at a temperature higher than 25oC and ammonia is released in the air. The facultative pond receives treated wastewater from an anaerobic pond where BOD removal takes place in presence of algal photosynthesis. The facultative pond is designed for a BOD loading rate of 480 kg/ha/d and length to width ratio of 3:1 with detention period between 5-30 days. Maturation ponds are generally 1-1.5 m deep to remove pathogens through solar radiation with OLR between 40-120 kg/ha/d (CPHEEO, 2012). Chikwue et al., 2015 carried out treatment of faecal sludge in the Choba Community, Nigeria using WSP and suggested that anaerobic ponds are not considered in design if BOD is less than 300 mg/L as an anaerobic system are used to treat high strength wastewater. Permissible organic loading rate given by CPHEEO.

Table 11: Permissible BOD Loading Rate with respect to altitude

Latitude (N) Degree	Organic loading kg BOD/ ha.d
36	150
32	175
28	200
24	225
20	250
16	275

Latitude (N) Degree	Organic loading kg BOD/ ha.d
12	300
8	325

*(Source: CPHEEO, 1993)

Additionally, there is no energy consumption for aeration, no need of heavy equipment maintenance and no frequent sludge removal, sludge treatment and disposal.

Ponds require very little maintenance, since there is no heavy electric or mechanical equipment that requires attention. The only routine maintenance needed is on the preliminary treatment (cleaning of screens and removal of sand), routine checking of pipes, weirs and other hydraulic structures, and removal of unwanted vegetation growth in embankments.

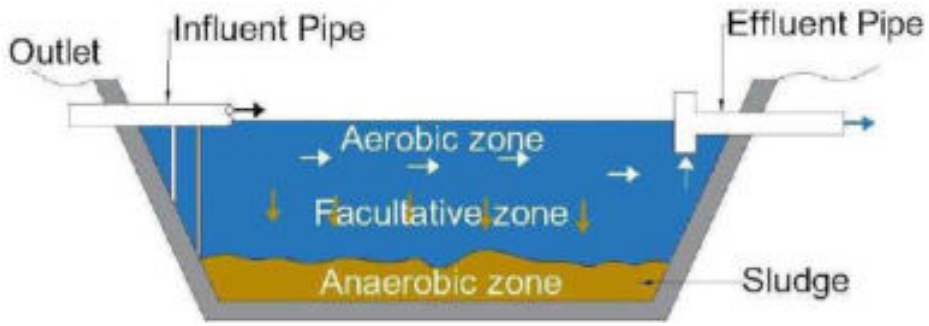


Figure 20: Waste stabilization pond

Activated Sludge Process

Aerobic suspended growth systems are of two basic types, those which employ sludge recirculation, viz., conventional activated sludge process and its modifications and those which do not have sludge recycle, viz., aerated lagoons. In both cases sewage containing organic matter is aerated in an aeration basin in which micro-organisms metabolize the soluble and suspended organic matter. Part of the organic matter is synthesized into new cells and part is oxidized to carbon dioxide and water to derive energy. In activated sludge systems the new cells formed in the reaction are removed from the liquid stream in the form of a flocculent sludge in clarifiers. A part of this activated sludge is recycled to the aeration basin and the remaining form waste or excess sludge. In aerated lagoons the microbial mass leaves with the effluent stream or may settle down in areas of the aeration basin where mixing is not sufficient. The

suspended solids concentration in the aeration tank liquor, also called mixed liquor suspended solids (MLSS), is generally taken as an index of the mass of active micro-organisms in the aeration tank. However, the MLSS will contain not only active micro-organisms but also dead cells as well as inert organic matter derived from the raw sewage. The mixed liquor volatile suspended solids (MLVSS) value is also used and is preferable to MLSS as it eliminates the effect of inorganic matter. Aerobic and facultative bacteria are the predominant micro-organisms which carry out the above reactions of organic matter i.e. oxidation and synthesis. Their cellular mass contains about 12% Nitrogen and 2% Phosphorous. These nutrients should be present in sufficient quantity in the waste or they may be added, as required, for the reactions to proceed satisfactorily. A generally recommended ratio of BOD:N:P is 100:5:1. Domestic sewage is generally balanced with respect to these nutrients.

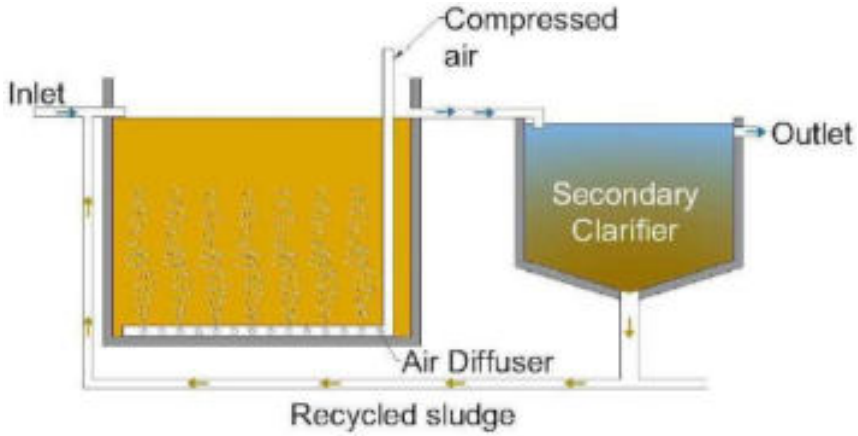


Figure 21: Activated Sludge Process

Sequential Batch Reactor

In its functional process scheme, a Sequencing Batch Reactor (SBR) is the same as the activated sludge process. The only difference is in the activated sludge process, the sewage flows through a primary clarifier, an aeration tank and then through a secondary clarifier continuously whereas in the SBR, the aeration and settling are carried out in batch mode one after the other in the same tank.

Primary clarifiers do not seem to be provided. Consequently, at least two SBR basins are needed in parallel so that when one is in aeration, the other can be in settling and decanting of the supernatant. In fact, the activated process can be referred to as continuous flow reactor (CFR). For this reason, the footprint on like-to-like basis of this type of SBR will be higher. In the CFR the suspended solids in the settling tank are constantly under simultaneous influence of opposing upward hydraulics of the overflowing treated sewage and gravitational setting of the suspended solids. In the SBR, this is got over by batch settling. In fact, the CFR can also be designed with the settling tank alone in parallel modules and in batch settling alternatively. The SBR does have some advantages and they are addressed herein. SBRs are typically configured and operated as multiple parallel basins. It aims to provide process and equipment performance, and variously include an instrumental control system that regulates timed sequences for filling, reaction, settling and effluent decanting. All these are referred to as one cycle of process control operation. It is the time duration between successive decanting sequences during which the liquid level moves from a lower water depth (bottom water level) to its fill depth (top water level) and back to its lower water depth (bottom water level). This volume progression takes place in repetitive sequences that permit reactive filling to be followed by solids liquid separation. The operational and process controls are governed as flows a. A batch reactor consisting of a single tank equipped with an inlet for raw sewage, air diffusers, with associated compressors and piping for aeration; a sludge draw-off mechanism for waste sludge; a decant mechanism to remove the supernatant after settling; and a control mechanism to time and sequence the processes. b. Decanting of the settled supernatant is carried out by equipment called as decanters. These consist of sharp-edged weir plates over which the settled supernatant overflows similar to conventional clarifier weirs.

The scum baffles are provided before these weir plates similar to the primary clarifiers. The difference between clarifiers and these decanters is that in the case of clarifiers, the water surface remains constant and the weir plates are fixed permanently at that water surface. In the case of SBRs, the water surface will keep going down as the settled sewage is withdrawn because there is no inflow during this period. Hence, the weir plate has to move simultaneously down with the water surface and the collected settled sewage has to be discharged out of the SBR basin through a fixed pipe outlet. This is achieved by unique mechanisms called decanters. There are mainly three

types of decanters namely (a) mechanized float controlled, (b) mechanized swing controlled and (c) hydraulically float controlled. These are shown in Figure 5.78 overleaf. The country has very limited experience on the performance of the various type of decanters. While selecting a decanter the competent authority may decide the type of decanter after ascertaining their field performance in the country or elsewhere in the world under similar conditions. c. Wasting of surplus sludge typically occurs during the non-mixed (aerated) stage. The sequence to take advantage of the higher concentrations of settled mixed liquor; wasting can equally take place in an aerated mixed condition. d. SBR plants consist of a minimum of two reactors in a plant. When one reactor is in the fill and aeration mode, the other reactor can be in settling and decanting mode of the cycle. e. In the reaction stage, the oxygen is supplied to the system within the time frame of the reaction cycle. f. Each single SBR basin has the same floor area for all sequences in each cycle of operation. As with CFRs, there are a number of types of SBRs all of which are easily differentiated. The main differences relate to their cyclic sequencing operation. The SBR efficiency derives from a capacity to maintain good sludge settling through batch settling. As with CFRs, nitrogen removal by biological nitrification-denitrification as also biological phosphorous removal by upstream anaerobiosis can also be built into the SBRs. Generally, the SBRs are reported in F/M ratios bordering on the extended aeration mode for the full quantity of the treated sewage. However, these can also be used with primary settling and F/M ratios like in conventional ASP in CFRs to generate bio methanation from primary and excess volatile sludges and electricity production from the methane and thus save on electricity costs.

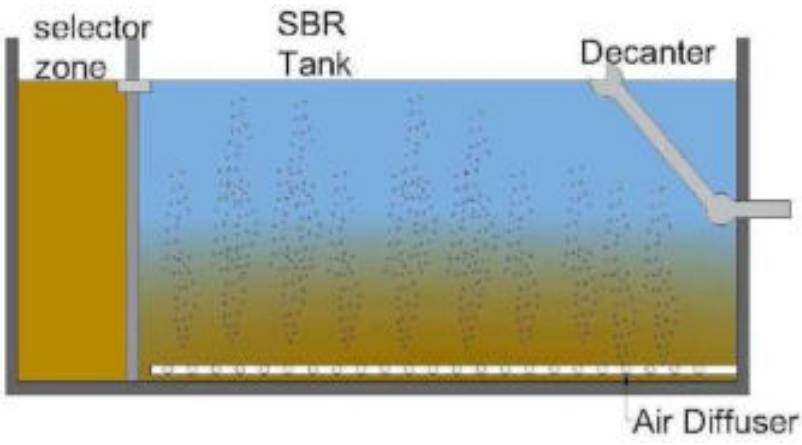


Figure 22: Sequencing Batch Reactor

Moving Bed Biofilm Reactor

The moving bed biofilm reactor (MBBR) is based on the biofilm carrier elements. Several types of synthetic biofilm carrier elements have been developed. These biofilm carrier elements are floated in the mixed liquor in the aeration tank and are kept floating by the air from the diffusers. They have a tendency to accumulate at the top zones. Hence wall mounted mixers propel the media downwards so that they again float and are in circulation in the mixed liquor. They are retained by suitably sized sieves at the outlet.

This process is intended to enhance the activated sludge process by providing a greater biomass concentration in the aeration tank and thus offer the potential to reduce the basin volume requirements. They have also been used to improve the volumetric nitrification rates and to accomplish the denitrification in aeration tanks by having anoxic zones within the biofilm depth. Because of the complexity of the process and issues related to understanding the biofilm area and activity, the processes design is empirical. There are now more than 10 different variations of the processes in which a biofilm carrier material of various types is suspended in the aeration tank of the activated sludge process. There are many examples of such activated sludge treatment process with suspended biofilm carrier in the world. In this section, some of the more widely cited processes such as the Captor®, Linpor®, Pegasus®, and Kaldnes® are described and some design considerations and parameters are cited.

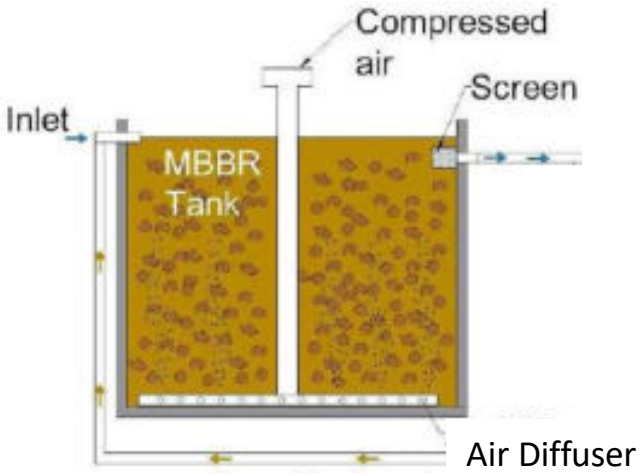


Figure 23: Moving Bed Biofilm Reactor

Membrane Bioreactor

The membrane bior [Grab your reader's attention with a great quote from the document or use this space to emphasize a key point. To place this text box anywhere on the page, just drag it.]

eactor (MBR) process is a combination of activated sludge process and membrane separation process. Low pressure membranes (ultrafiltration or microfiltration) are commonly used. Membranes can be submerged in the biological reactor or located in a separate stage or compartment and are used for liquid-solid separation instead of the usual settling process. Primary sedimentation tank, final sedimentation tank and disinfection facilities are not installed in this process. The reaction tanks comprise an anoxic tank and an aerobic tank, and the membrane modules are immersed in the aerobic tank. Pre-treated, screened influent enters the membrane bioreactor, where biodegradation takes place. The mixed liquor is withdrawn by water head difference or suction pump through membrane modules in a reaction tank, being filtered and separated into biosolids and liquid. Surfaces of the membrane are continuously washed down during operation by the mixed flow of air and liquid generated by air diffusers installed at the bottom of the reaction tank. The permeate from the membranes is the treated effluent.

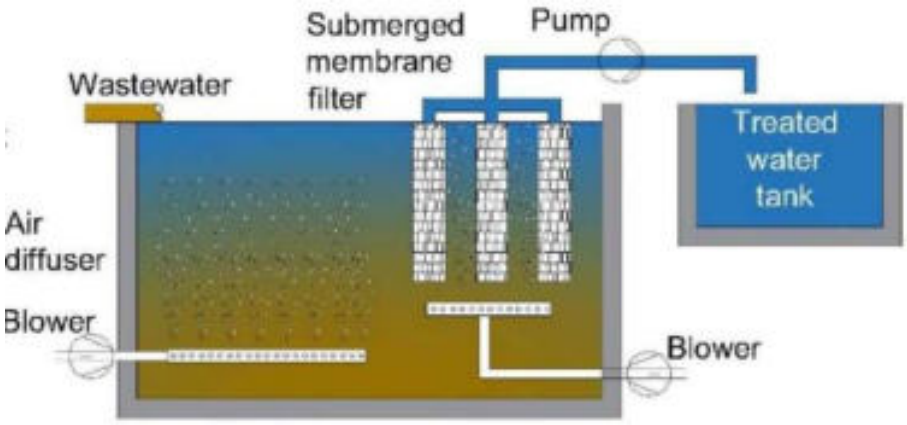


Figure 24: Membrane Bioreactor

7.0 Proposed Options

Based on the site visits, drain geometry, flow, characteristics of sewage and pollution load of the drains discharging into Kondali irrigation canal, individual treatment of identified drains is delineated. The details of feasible treatment options of identified drains are shown in **Table 12 and Figure 22.**

Table 12: Delineated treatment options for drains

ID	Drain Detail	Proposed Treatment Options
D1	Drain coming from Delhi (outfall near Smriti Van)	Huge quantity (90-100MLD) coming from Delhi which required to be trapped by their existing sewerage system and prior treatment before discharging into Kondali Irrigation Cannal.
D2	Outfall under bridge (box culvert) Drain from Sector 11	Divert to nearby sewerage system of sector 11 and from there it will go to Pumping Station P5 and respective STP. For short term measures, installation of screen at the outlet for restricting floatable solid matters in the Kondali Irrigation Canal.
D3	Outfall near Sommer Ville School (Drain from Chora Sadatpur, Sector 22)	In-Situ Drain Treatment with physical and biological units within the drain
D4	– Two drains meet this drain viz: – Drain from Makanpur which runs parallel to NOIDA road – Drain from Sector 26 which runs parallel to Maharaja Agresen Marg – Drain outfall near NTPC Right	Ex-situ treatment with decentralized sewage treatment plant (STP). This will include Collection, treatment, safe disposal / reuse of treated wastewater.
D5	– Drain from Sector 60 – Runs parallel Maharaja Agresen Marg – Receives STP effluent from Sector 54 – Drain outfall near NTPC Left	Drain is getting treated wastewater from Sector 54 STP and low BOD and COD are observed at outlet. For nutrient parameters, in-situ treatment option of screens and floating rafter may be considered.
D6	– Drain from Sector 35 – Runs parallel to Jagannath Mandir Marg	Divert to nearest sewerage system of Sector 35, since low flow in the drain

ID	Drain Detail	Proposed Treatment Options
	– Drain outfall near Kribhko Colony Right	
D7	– Drain from Morna & ISBT – Runs parallel to Jagannath Mandir Marg – Drain outfall near Kribhko Colony Left	Divert to nearest sewerage system of Sector 35, since low flow (less than 1 MLD) and less width (less than 1 m) of the drain
D8	– Drain from Morna & ISBT – Runs parallel to Golf Marg – Drain outfall near Surbhi Hospital Right	Divert to nearest sewerage system of Sector 35, since low flow (less than 1 MLD) and less width (less than 1 m) in the drain
D9	– Drain from Sector 63, Hazratpur Wajidpur – Runs parallel to Vishwakarma Road turns near Sector 53 and then runs parallel to Captain Shashikant Marg – Drain outfall Surbhi Hospital Left	Another longest open drain in Noida coming from Sector 63 with huge sewage flow. This required proper discussion and brain storming. For collection and treatment Ex-situ treatment
D10	– Drain from Sector 51, Hoshiarpur – Runs parallel to Captain Shashikant Marg – Drain outfall in In-Situ Wetland Treatment	Closed Drain (merging in to In-situ Wetland Treatment)
D11	– Drain from Sector 50 – Runs parallel to Indosam Road – Drain Outfall near Nilgiri Public School	Divert to nearest sewerage system of Sector 50 as the drain is covered

ID	Drain Detail	Proposed Treatment Options
D12	– Drain from Hindon cut that enters NOIDA from Sector 7 – Runs parallel to Harola turns at Sector 38 GC again turns at Sector 40 and runs parallel to Agahpur	Second longest open drain in Noida coming from Hindon Cut canal with huge sewage flow. This required proper discussion and brain storming. For collection and treatment Ex-situ treatment
D13	– Drain from Sector 49, Baraula – Runs parallel to Main Barola Road	Divert to existing sewerage system of Sector 49 (drain is covered with concrete slab)
D14	– Drain from Sector 49, Baraula – Runs parallel to Baanke Bihari Marg	Divert to existing sewerage system of Sector 49 (drain is covered with concrete slab)
D15	– Drain from Sector 122 – Runs parallel to Vikas Marg Drain outfall Near NOIDA metro Sector 76 parking – Discharge of treated wastewater from Sector 123 STP – from Sector 123 STP	Another longest open drain in Noida coming from Sector 63 with huge sewage flow. This required proper discussion and brain storming since STP treated wastewater discharge at the start of the drain. This drain need to be traced once again for proper in-situ or ex-situ treatment. Huge flow (around 75 MLD)
D16	– Drain from Sector 102, Salarpur Khadar parallel to Dadri Main Road runs parallel to Vishwarma Marg – Drain outfall opposite to D15 Outfall	In-Situ Drain Treatment with physical and biological units within the drain
D17	– Drain from Sector 102, Bhangel Begampur parallel to Street No. 06	Divert to nearest sewerage system, since low flow (less than 1 MLD) and less width (less than 1 m) of the drain

ID	Drain Detail	Proposed Treatment Options
	– Drain outfall near Street No. 6 and Jeetram Colony road junction	
D18	Drain from Sector 102, Salarpur Khadar, Bhangel Begampur parallel to Dadri Main Road (Drain adjacent to NSEZ metro square public toilet)	In-Situ Drain Treatment with physical and biological units within the drain
D19	Drain outfall besides NSEZ Metro Station Foot Over Bridge (FOB) Drain from NEPZ, Phase – 2, Thomson Press India Limited Runs parallel to Dadri Main Road	In-Situ Drain Treatment with physical and biological units within the drain
D20	Drain from Sector 84A, Hosiery Complex parallel to Dadri Main Road Drain outfall Besides Eagle Forgings	In-Situ Drain Treatment with physical and biological units within the drain
D21	Drain outfall Besides Farm (Sector 82 & Sector 93) Gejah Talattulabad Runs parallel to Janpath Marg	In-Situ Drain Treatment with physical and biological units within the drain
D22	Drain outfall Near Pumping Station of Sector 167A STP besides Shahid Mangal Pande Marg Drain from Sector 44	Divert to nearest STP at Sector 168 through pumping station (PS 11) at Sector 167A
D23	Advent Drain (opposite to IT park) Sector 143B.	Divert to nearby sewerage system of sector 143B and from there it will go to STP located in Sector 168.

ID	Drain Detail	Proposed Treatment Options
D24	Drain from Sector 126, Mayoor School, Raipur Khadar (Drain on which Gates are installed)	In-Situ Drain Treatment with physical and biological units within the drain

On the basis of feasibility report approved by NOIDA Authority, CSIR-NEERI will prepare Detailed Project Report (DPR) which will include detailed topographic survey of the identified drains and Kondali Irrigation Canal, detailed engineering design and drawings, bill of quantities and estimates for the proposed in-situ/ex-situ treatment scheme.

The engineering aspects i.e., Flow, Width of drain, Liquid Depth, wastewater parameters, brief description of the identified 24 drains and end barrage are presented in the **Annexure III**.

Annexure - I

Site Visit Report

In-situ and ex-situ treatment of domestic wastewater flowing in drains of NOIDA city

Sponsored By

New Okhla Industrial Development Authority
An Integrated Industrial Township
ISO 9001 : 2000 & ISO 14001:2004 Certified

New Okhla Industrial Development Authority
(NOIDA)

Submitted By

CSIR- National Environmental Engineering Research Institute
Nagpur – 440 020.

October 2022

1. Duration of Site Visit:

On 19/10/2022 & 20/10/2022 team of CSIR-NEERI accompanied by officials from Office of Sr. Manager Jal Division 1, NOIDA Authority, visited and surveyed drains meeting into Kondali irrigation canal in NOIDA, Uttar Pradesh.

2. Purpose of the Site Visit:

This site visit was carried out to view the site-specific conditions, tracing of drains merging into Kondali irrigation canal and its flow measurements.

3. Observations:

- Kondali is an Irrigation Canal that flows through the centre of NOIDA.
- The origin/ source of this canal is the depression pool at Smriti Van (As depicted in **Figure1**: Location: 28°36'9.896" N 77°20'11.722" E).

Figure 1: Depression Pool/ origin of Kondali inside Smriti Van.

- Presently this irrigational canal is carrying wastewater because the sewer/drains which is flowing within the NOIDA city carrying wastewater, which is ultimately meeting into Kondali irrigational canal and thus the canal is getting polluted
- It has also been observed that one of the drains coming from Delhi and meeting into Kondali irrigation canal in the north (shown in **Figure 2**)

Figure 2: Drain Coming from Delhi and meeting into Kondali Irrigation Canal,Noida

- Kondali on its further journey discharges/ converges into River Yamuna, contributing to the river pollution.
- During the site visit, it was found that solid waste is also being dumped at various locations on Kondali irrigation canal and its periphery.

4. Flow Measurements:

- Flow measurement of the drains was done through Greyline's Manta Ray Portable Area-Velocity Flow Meter. (Shown in Figure 3)
- Methodology of Greyline's Manta Ray Portable Area-Velocity Flow Meter:
  - The Area-Velocity method for flow calculation is recommended in CPHEEO's Manual on Water Supply and Treatment – 1999, Chapter 4 – Measurement of Flow, Point No. 4.2.2.

- This device measure flow in open channels, sewers, partially filled and surcharged pipes without a flume or weir.
- This device uses QZ02L sensor to capture the required data.
- For the accuracy of the flow measurement placement of the sensor in relation to flow disturbances needs to considered. The channel in which the sensor is mounted should be free of bends, tees, sudden changes in slope and there should not be objects in the flow profile in front of the sensor.

Figure 3: Flow Measurement of Drains at various locations.

- While measuring the Flow in different drains, it was found that huge amount Sludge/Silt etc is present at the bottom of Drains. Removal of such solids from the drain is required as it further degrades the Quality of wastewater and create unwanted gases/odour for the surroundings.
- 23 Numbers of drains discharging into Kondali Irrigation canal have been surveyed at various locations as presented in **Table 1**.
- As per the information received from Office of Sr. Manager Jal Division 1, NOIDA Authority; NOIDA has 6 Nos. of functional STPs of Total capacity 231 MLD. The treated effluent through these STPs is presently being discharged into Kondali irrigation canal. More 2 Nos. of STPs of capacity 180 MLD will be installed in the town.
- The various drains entering into Kondali Irrigation Canal is shown in **Figure 4**.

Table 1: Details of Surveyed Drain.

Sr. No.	Drain Details	Coordinates	Remarks
1	Drain Besides Smriti Van Falling into Kondali	28°36'7.021" N 77°20'12.98" E	Open Drain (coming from Delhi)
2	D1	28°35'39.23"N 77°21'1.02"E	Open Drain
3	D2	28°34'44.23" N 77°21'45.23" E	Closed drain and the outfall is at the In-situ treatment site on Kondali.
4	D3	28°33'54.74" N 77°22'42.36" E	Open Drain
5	D4	28°33'52.53" N 77°22'43.18" E	Closed Drain
6	New Drain ND19 prior to STP Outfall	28°34'13.43"N 77°22'21.23"E	Open Drain
7	D5	28°34'15.96" N 77°22'44.62" E	Open Drain
8	D6	28°34'16.10"N 77°22'44.63"E	Open Drain
9	D7	28°32'29.45" N 77°23'34.8" E	Two Open Drain converging.
10	D8	28°32'1.97" N 77°23'39.47" E	Open Drain
11	D9	28°32'2.67" N 77°23'37.68"E	Open Drain
12	D10	28°32'1.34" N 77°23'42.16"E	Open Drain
13	D11A	28°30'7.64" N 77°24'16.58"E	Open Drain
14	D11B	28°30'1.91" N 77°24'29.76" E	Open drain but was dry at the time of visit also various construction

Sr. No.	Drain Details	Coordinates	Remarks
			activities were ongoing along the stretch of this drain. (Advant Drain)
15	New Drain ND20	28°30'20.09" N 77°24'44.92" E	Open Drain
16	New Drain ND21	28°30'12.28" N 77°24'39.01"E	Open Drain
17	D12	28°30'21.70055"N 77°23'28.64864"E	Open Drain
18	D13	28°31'9.618" N 77°23'53.208" E	Open Drain
19	D14	Drain not draining into Kondali canal.	
20	D15	28°34'44.80176"N 77°21'41.73275"E	Open Drain
21	D16	28°34'48.34376"N 77°21'46.09742"E	Open Drain
22	D17	28°34'35.93921"N 77°22'2.16203" E	Open Drain
23	D18	28°34'55.821" N 77°21'24.944" E	Multiple Open storm water drains draining into Kondali (Front of Morna near Kribko colony).

(*Note: NDa11B & NDb11B are new drains a & b merging into D11B (Advant Drain))

4. Meeting and discussions:

The officials from CSIR-NEERI, Nagpur and Office of Sr. Manager Jal Division 1, NOIDA Authority who were present during site visit and meeting are as follows:

CSIR-NEERI, Nagpur	NOIDA Authority
Er. Abhishek Bisarya, Scientist, Wastewater Treatment Division, CSIR-NEERI, Nagpur	Shri Sanjay Parashar, Senior Manager, Office of Sr. Manager Jal Division 1, NOIDA Authority.
Er. Saisaurabh Asoria, Senior Project Associate, Wastewater Treatment Division, CSIR-NEERI, Nagpur.	Mr. R. K. Joshi, Junior Engineer, Office of Sr. Manager Jal Division 1, NOIDA Authority.
Er. Kaustubh Jichkar, Senior Project Associate, Wastewater Treatment Division, CSIR-NEERI, Nagpur.	Mr. Amit Kumar, Manager, Office of Sr. Manager Jal Division 1, NOIDA Authority.
Er. Chaitanya Thakre, Project Associate - II, Wastewater Treatment Division, CSIR-NEERI, Nagpur.	Mr. Virendra Singh, Junior Engineer, Office of Sr. Manager Jal Division 1, NOIDA Authority.

After the site visit and survey of drains i.e. on 19/10/2022 and 20/10/2022, CSIR-NEERI team along with officials of Jal Division 1, NOIDA briefed the progress to Shri R. P. Singh DGM Jal Division 1, NOIDA Authority.

Dr. Ritesh Vijay
Sr. Pr. Scientist & Head
Wastewater Treatment Division
CSIR-NEERI, Nagpur

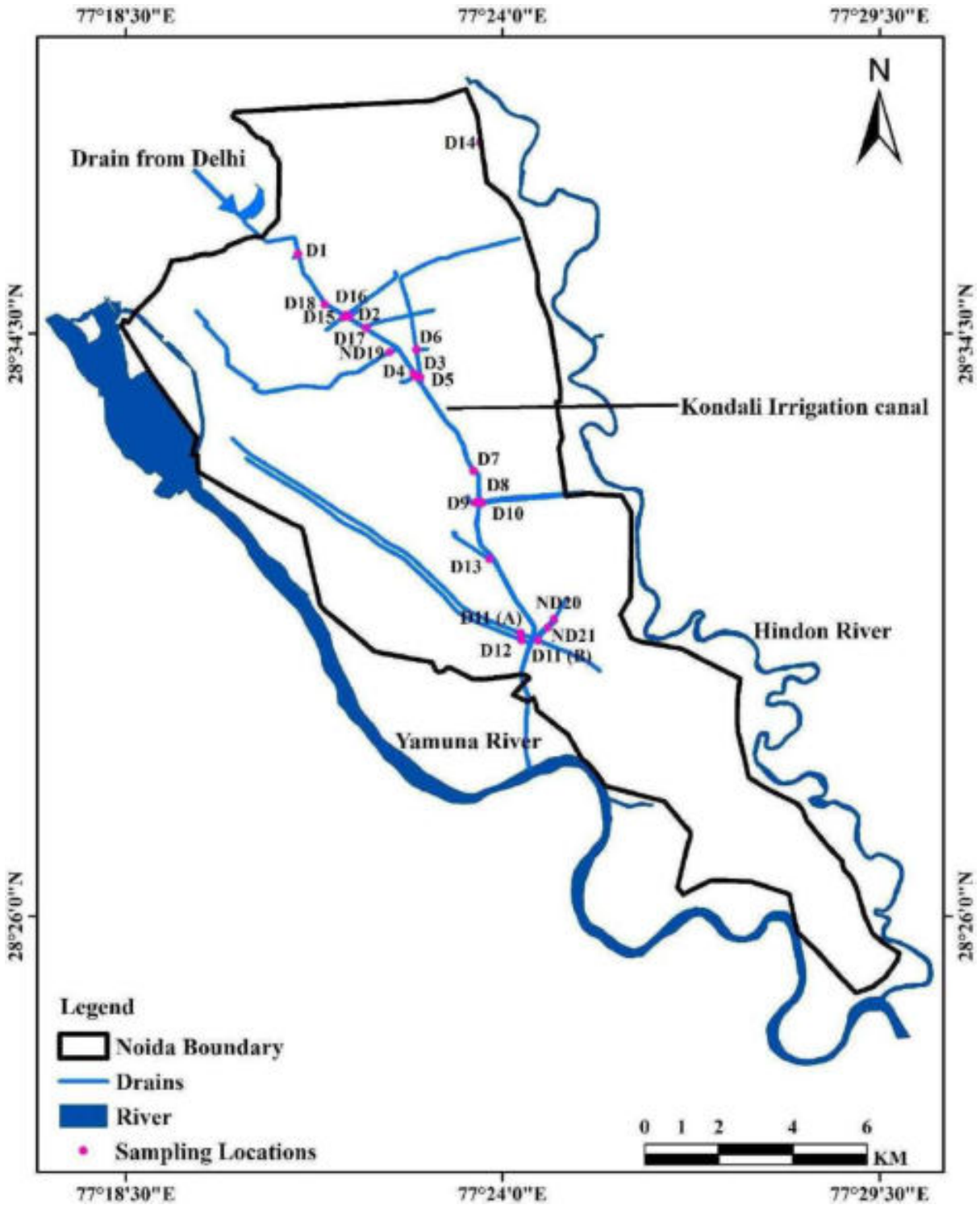


Figure 4: Kondali irrigation canal and its tributaries in NOIDA

*(Drains with **Sr. No. 1, 6, 15 & 16** as described in **Table 1** were newly traced during site survey)

Annexure - II

Progress Report

In-situ and ex-situ treatment of domestic wastewater flowing in drains of NOIDA city

Sponsored By

New Okhla Industrial Development Authority
An Integrated Industrial Township
ISO 9001 : 2000 & ISO 14001:2004 Certified

New Okhla Industrial Development Authority
(NOIDA)

Submitted By

CSIR- National Environmental Engineering Research Institute (NEERI), Nagpur – 440 020

November 2022

1. Site Visit:

From 10/11/2022 to 12/11/2022, team of CSIR-NEERI accompanied by officials from Office of Jal Division 1, NOIDA Authority, carried out flow measurements, survey, and water sample collection at the identified drains meeting into Kondali irrigation canal of NOIDA, Uttar Pradesh.

2. Purpose:

This site visit was carried out to collect water samples, inspect the site-specific conditions, trace the drains merging into Kondali irrigation canal and measurement of wastewater flowing the drains.

3. Observations:

- During this visit 25 locations along the course of Kondali irrigation canal in NOIDA were visited. The details of drains are presented in **Annexure – A**.
- These 25 locations were ategorized as:
  a) 16 Nos. of Major drains,
  b) 8 Nos. of Medium drains
  c) 1 End Barrage at Kondali irrigation canal.

Table 1: Survey and Sample Collection locations

Sr. No.	Old Nomenclature	New Nomenclature	Sampling/ Survey Coordinates	Drain Type
1	Drain from Delhi Besides Smriti Van Falling into Kondali	**D1**	28°36'7.136" N 77°20'13.02"E	**Major**
2	New drain below bridge.	**D2**	28°36'2.4" N 77°20'18.9"E	Medium
3	D1	**D3**	28°35'36.598"N 77°20'57.97"E	**Major**
4	NTPC Right	**D4**	28°35'18.716" N 77°21'6.144" E	**Major**
5	NTPC Left STP effluent Discharge)	**D5**	28°35'24.906" N 77°21'14.23" E	**Major**
6	D18 Left	**D6**	28°34'55.39"N 77°21'24.30"E	Medium
7	D18 Right	**D7**	28°34'55.02"N 77°21'24.62"E	Medium
8	D15	**D8**	28°34'44.80176"N 77°21'41.73275"E	Medium

Sr. No.	Old Nomenclature	New Nomenclature	Sampling/ Survey Coordinates	Drain Type
9	D16	**D9**	28°34’48.439” N 77°21’46.126” E	**Major**
10	D2	**D10**	28°34’44.235” N 77°21’45.231” E	Medium
11	D17	**D11**	28°34’36.109”N 77°22’2.337”E	**Major**
12	ND19	**D12**	28°34’9.772” N 77°22’13.359” E	**Major**
13	D4	**D13**	28°33’54.68”N 77°22’40.704”E	Medium
14	D3	**D14**	28°33’52.17” N 77°22’42.54” E	Medium
15	D5	**D15**	28°33’49.743” N 77°22’48.425” E	**Major**
16	New Drain outfall opposite to D5	**D16**	28°33’41.07”N 77°22’50.27”E	**Major**
17	D7	**D17**	28°32’29.451” N 77°23’34.8” E	Medium
18	D9	**D18**	28°32’1.997”N 77°23’35.742”E	**Major**
19	D8	**D19**	28°32’3.01”N 77°23’40.981”E	**Major**
20	D10	**D20**	28°32’1.61” N 77°23’42.087” E	**Major**
21	D13	**D21**	28°31’12.436” N 77°23’49.171” E	**Major**
22	D11A	**D22**	28°30’27.331” N 77°23’30.153”E	**Major**
23	D11B	**D23**	28°30’2.013” N 77°24’29.144”E	**Major**
24	D12	**D24**	28°30’21.633” N 77°23’28.631” E	**Major**
25	End Barrage	**End Barrage**	28°29’38.244” N 77°24’17.054” E	Kondali drain

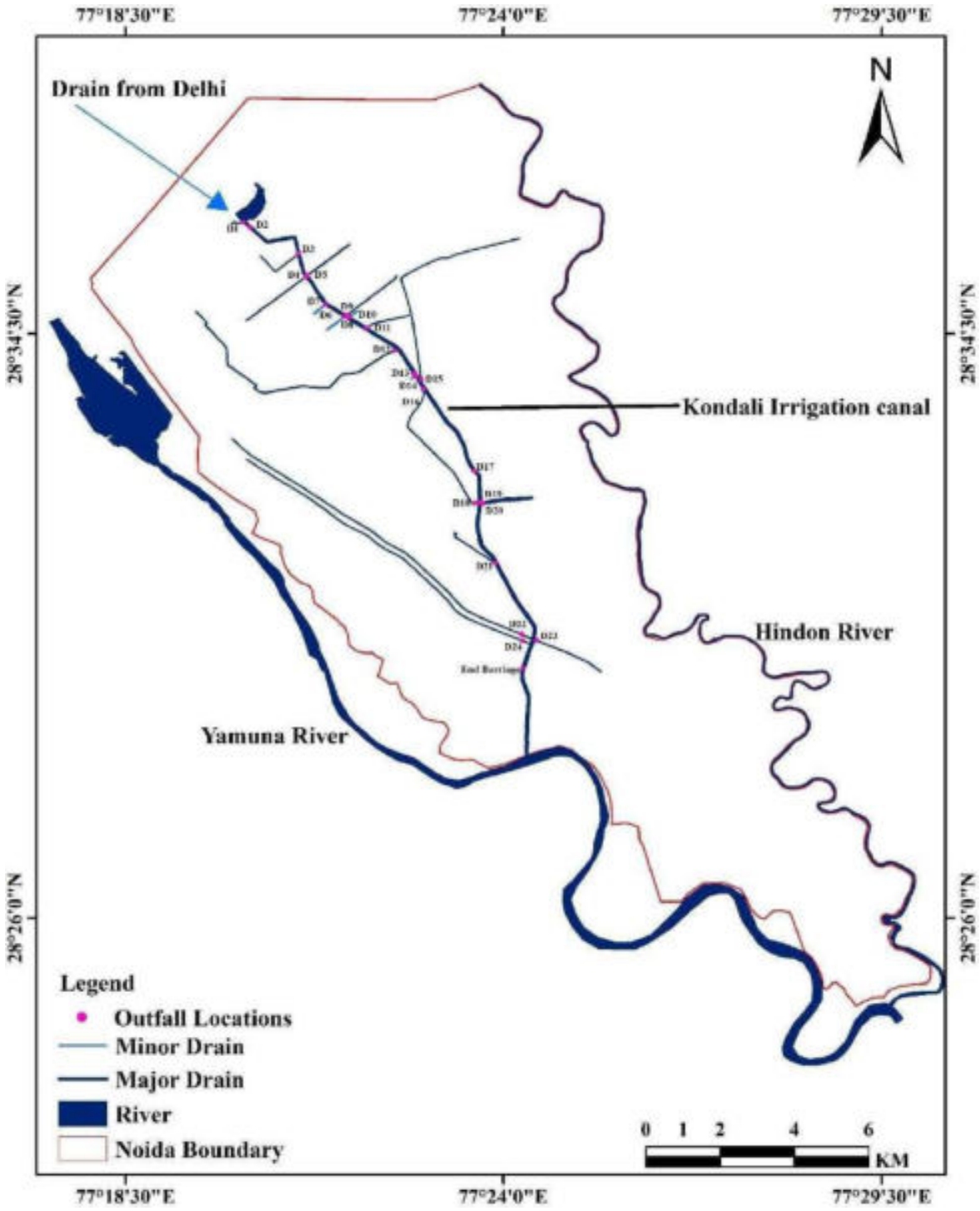


Figure 1: Outfall locations and drains discharging in Kondali irrigation canal NOIDA.

- Wastewater sample collection and flow measurement of all the drains at Kondali irrigation canal were carried out.
- Ground tracing of all the locations mentioned in second bullet have been done.
- While ground tracing, few new drains discharging into Kondali irrigation canal has also been identified which were untraced during earlier visit during 19/10/2022 to 20/10/2022.

Figure 2: Sampling and Flow Measurement

4. Meeting and discussion:

The officials from CSIR-NEERI, Nagpur and Office of Jal Division 1, NOIDA Authority were presented during the site visit and meetings as follows:

CSIR-NEERI, Nagpur	Office of Jal Division 1, NOIDA Authority
Dr. Ritesh Vijay, Sr. Pr. Scientist	Shri R. P. Singh, Deputy General Manager
Dr. Sukdeb Pal, Pr. Scientist,	Shri. Sanjay Parashar, Senior Manager
Er. Vatsal Khandelwal, Senior Project Associate	Shri. Amit Kumar, Manager
Er. Kaustubh Jichkar, Senior Project Associate,	Shri. R. K. Joshi, Junior Engineer,
Mr. Om Prakash, Project Associate	
Mr. Purushottam Tripathy, Project Associate	

5. Future scope of work:

Draft feasibility report is under preparation and require some more details and discussion to formulate the treatment scheme either in-situ treatment or ex-situ treatment based on the flow and water quality analysis. The flow calculation and water quality analysis in term of physico-chemical, biological and heavy metals parameters of the identified drains are in progress. Based on the site visits and identified drains, it has been observed that there are 16 major drains, 8 medium and many minor drains contributing sewage/wastewater in the Kondali irrigation canal.

6. Inputs requirement:

For the preparation of the feasibility report, following documents are required from Jal Division, NOIDA Authority:

- Noida city Water supply, sewer network, number of sewage pumping stations, number of STPs (designed and existing treatment capacity)
- Detailed project report for NOIDA city based on Master Plan 2031 (prepared by WAPCOS).
- Master Plan of NOIDA city 2031.
- Flow data at end barrage on Kondali irrigation canal based on installed sensor data.

Dr. Ritesh Vijay
Sr. Pr. Scientist & Head
Wastewater Treatment Division
CSIR-NEERI, Nagpur

Annexure – A

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
1	Drain from Delhi Besides Smriti Van Falling into Kondali	D1	4.5	0.61	28°36'7.136" N 77°20'13.02"E	Major

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
2	New drain below bridge.	D2	This drain was inaccessible as the outfall was below the bridge.	28°36’2.4” N 77°20’18.9”E	Minor	2

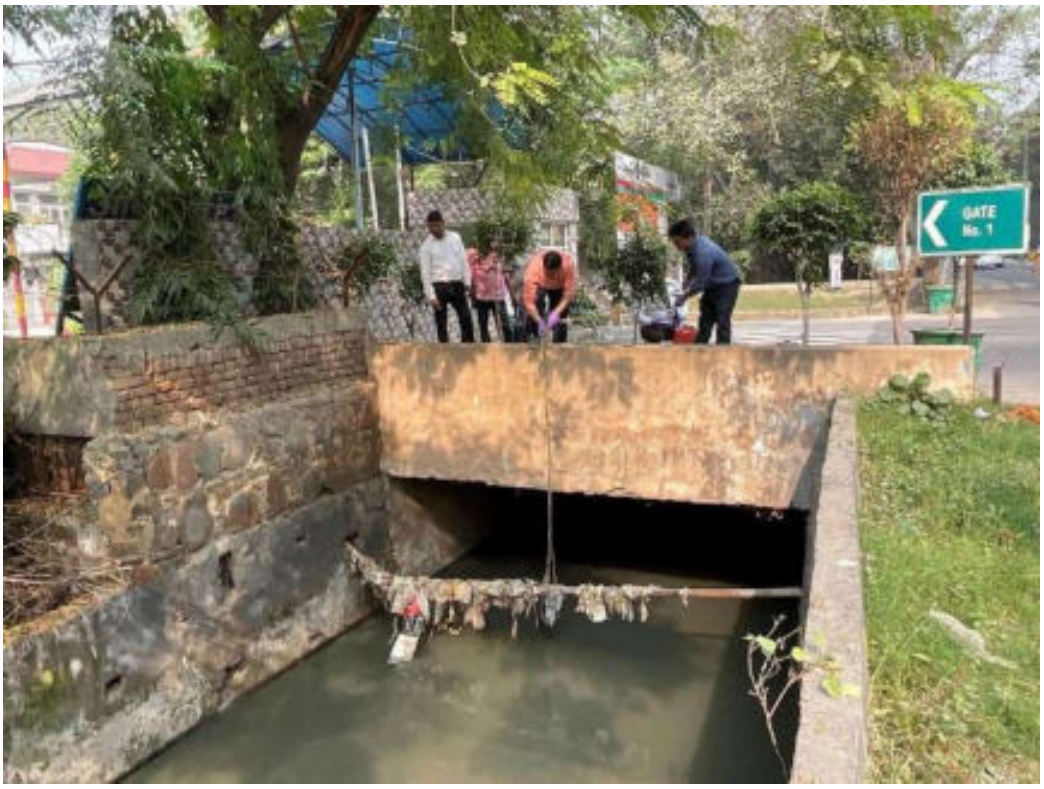
Note: This was a closed drain with its outfall located below the bridge hence was inaccessible.

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
3	D1	D3	2	0.16	28°35’36.598”N 77°20’57.97”E	Major

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
4	NTPC Right	D4	5.5	0.36	28°35'18.716" N 77°21'6.144" E	Major

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
5	NTPC Left	D5	4.3	0.73	28°35'24.906" N 77°21'14.23" E	Major

Note: STP effluent is being discharged into this drain



Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
6	D18 Left	D6	0.73	0.08	28°34'55.39"N 77°21'24.30"E	Minor

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
7	D18 Right	D7	0.53	0.05	28°34'55.02"N 77°21'24.62"E	Minor

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
8	D15	D8	0.8	0.14	28°34’44.8017” N 77°21’41.7327” E	Minor

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
9	D16	D9	7	0.91	28°34'48.439" N 77°21'46.126" E	Major

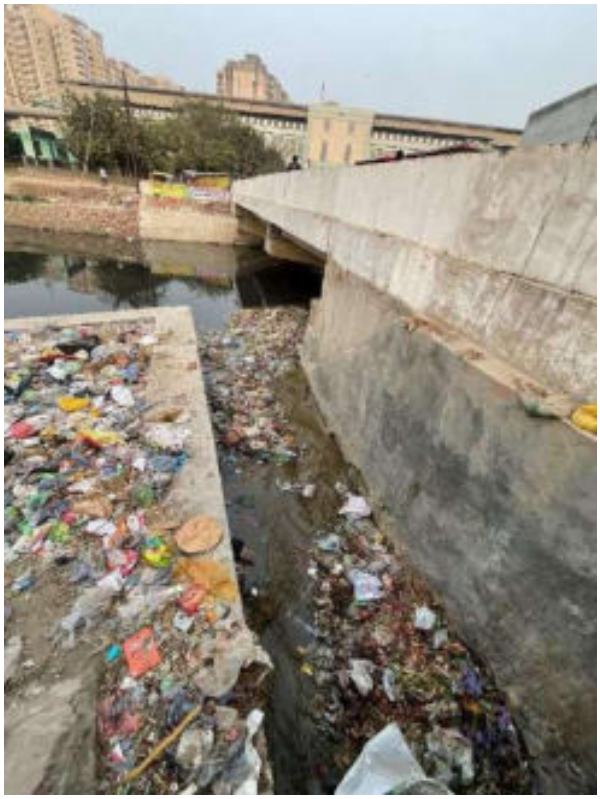
Solid waste dumping near the drain's outfall on Kondali

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
10	D2	D10	Closed drain and the outfall is at the In-situ treatment site on Kondali.		28°34'44.235" N 77°21'45.231" E	Minor

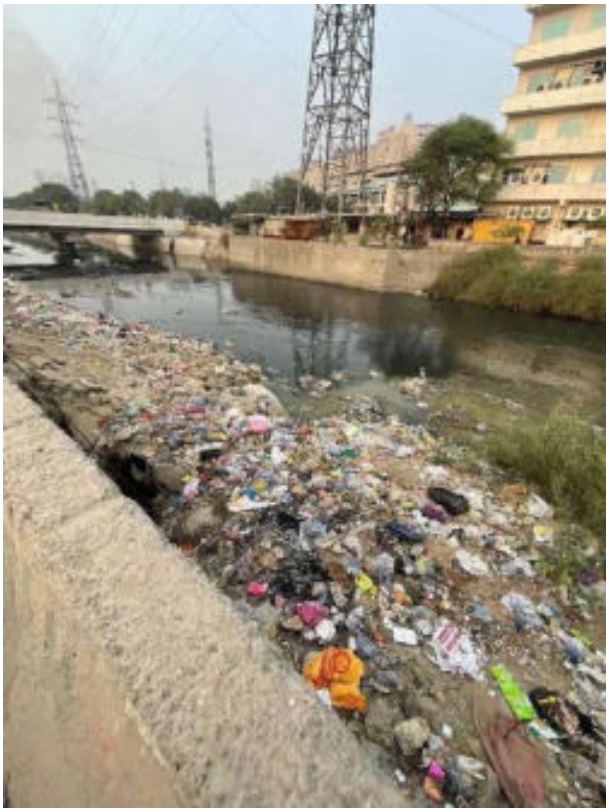
Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
11	D17	D11	2.5	0.04	28°34’36.109” N 77°22’2.337” E	Major

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
12	ND19	D12	7	0.38	28°34'9.772" N 77°22'13.359" E	Major
			7	0.38		

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
13	D4	D13	1.2	0.08	28°33'54.68"N 77°22'40.704"E	Minor



Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
14	D3	D14	1.2	0.12	28°33’52.17” N 77°22’42.54” E	Minor

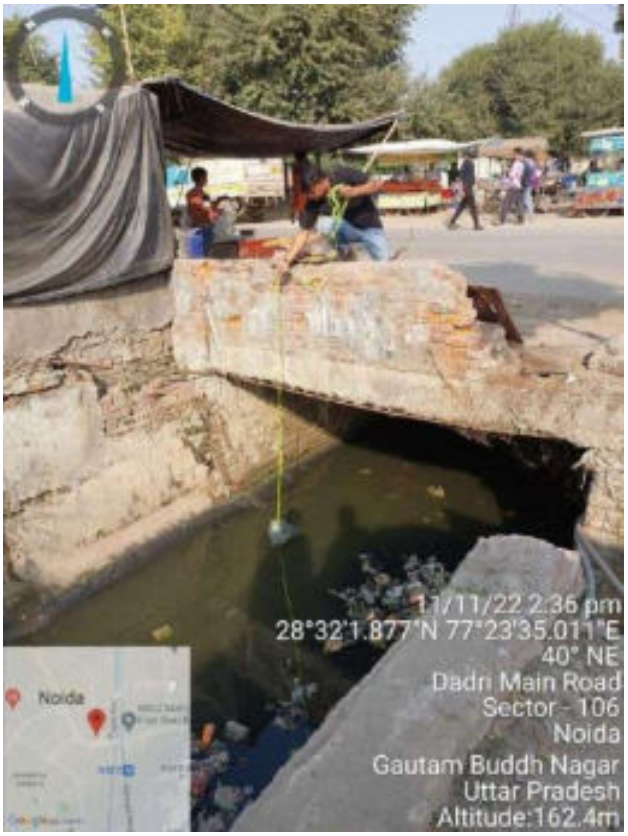


Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
15	D5	D15	5	0.31	28°33’49.743” N 77°22’48.425” E	Major

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
16	New Drain outfall opposite to D5	D16	4	0.57	28°33'41.07"N 77°22'50.27"E	Major

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
17	D7	D17	0.3	0.06	28°32'29.451" N 77°23'34.8" E	Minor

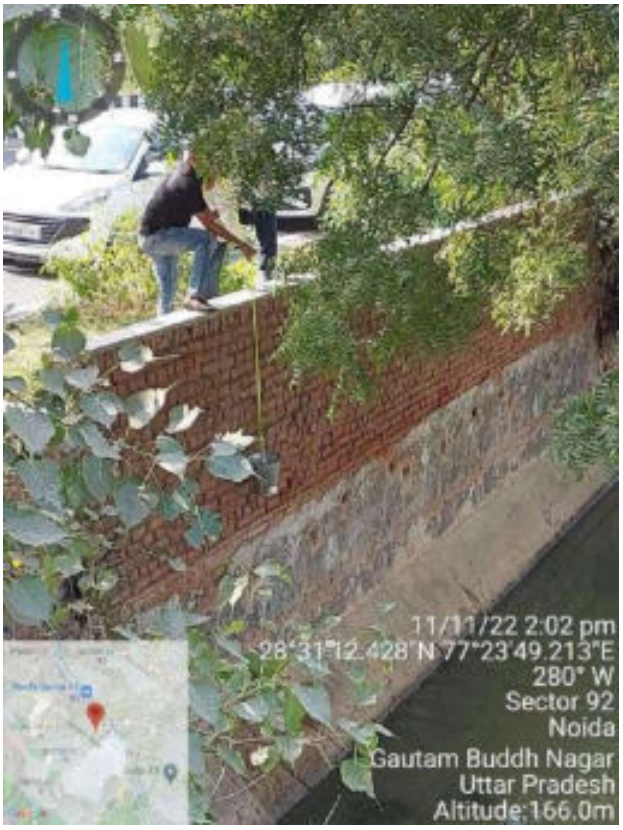
Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
18	D9	D18	4	0.1	28°32'1.997" N 77°23'35.742" E	Major



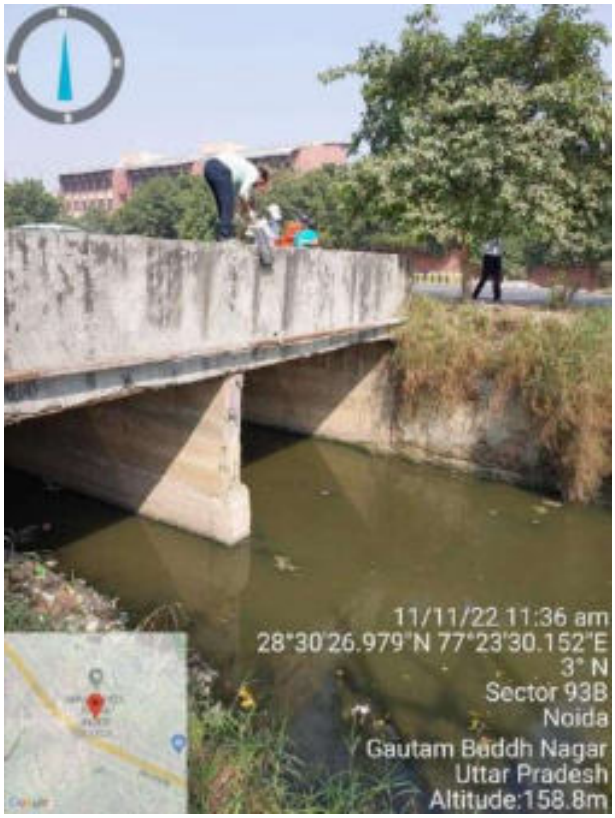
Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
19	D8	D19	4	0.10667	28°32'3.01"N 77°23'40.981"E	Major

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
20	D10	D20	1.8	0.18	28°32’1.61” N 77°23’42.087” E	Major

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
21	D13	D21	5	0.12	28°31’12.436” N 77°23’49.171” E	Major

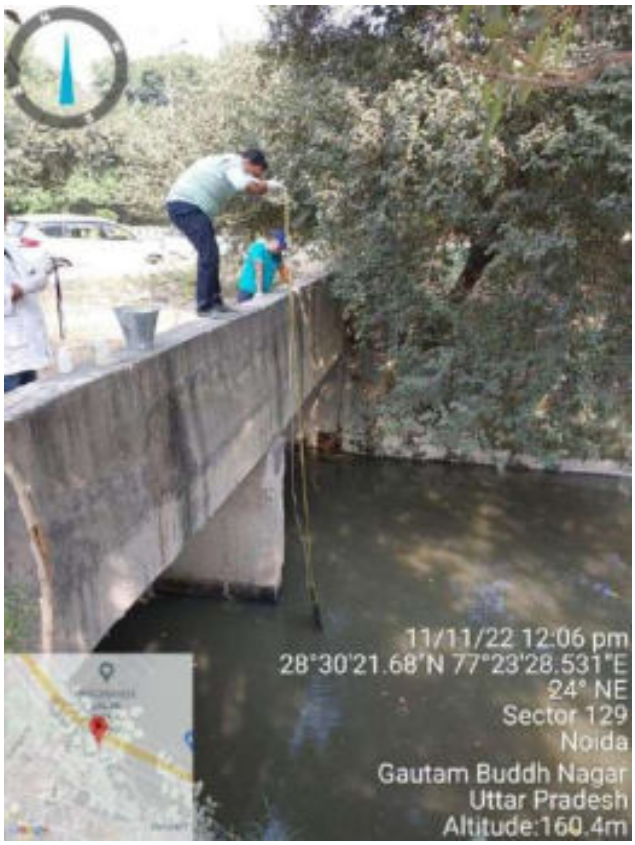


Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
22	D11A	D22	7.4	0.19	28°30’27.331” N 77°23’30.153” E	Major



Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
23	D11B	D23	2.4	0.05	28°30'2.013" N 77°24'29.144"E	Major
			4.2	0.10		

Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
24	D12	D24	8.3	0.8	28°30’21.633” N 77°23’28.631” E	Major



Sr. No.	Old Drain Label	New Drain Label	Actual Width (m)	Depth (m)	Sampling/ Survey Coordinates	Drain Type
25	Barrage on Kondali Canal	Barrage on Kondali	18	0.3	28°29’38.244” N 77°24’17.054” E	-

Annexure - III

Catalogue of Identified Drains & Proposed treatment Options

Drain 1 (D1)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D1	Drain coming from Delhi	28°36'7.136" N 77°20'13.02" E	Major	Huge quantity (90-100MLD) coming from Delhi which required to be trapped by their existing sewerage system and prior treatment before discharging into Kondali Irrigation Cannal.

Figure 1: Drain D1 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D1		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	4.5
2	Liquid Depth (m)	0.61
3	Flow (MLD)	95-100

Wastewater Parameters of D1		
Sr No	Wastewater Parameters	Value
1	pH	7.6
2	TDS (mg/l)	3082
3	SS (mg/l)	420
4	BOD (mg/l)	139
5	COD (mg/l)	307
6	TKN (mg/l)	109
7	Chloride (mg/l)	1050
8	Sulphate (mg/l)	391
9	Phosphate (mg/l)	9

(a)

(b)

(c)

Figure 2: Site Photographs of Drain D1

Drain 2 (D2)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D2	Outfall under bridge (box culvert) Drain from **Sector 11**	28°36'7.136" N 77°20'13.02" E	Minor	Divert to nearby sewerage system of sector 11 and from there it will go to Pumping Station P5 and respective STP. For short term measures, installation of screen at the outlet for restricting floatable solid matters in the Kondali Irrigation Canal.

Figure 3 : Drain D2 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D2		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	The drain was inaccessible as the outfall was below the bridge.
2	Liquid Depth (m)	
3	Flow (MLD)	

Wastewater Parameters of D2		
Sr No	Wastewater Parameters	Value
1	pH	Sample was not taken due to in accessibility of site
2	TDS (mg/l)	
3	SS (mg/l)	
4	BOD (mg/l)	
5	COD (mg/l)	
6	TKN (mg/l)	
7	Chloride (mg/l)	
8	Sulphate (mg/l)	
9	Phosphate (mg/l)	

(a)

(b)

Figure 4: Site Photographs of Drain D2

Drain 3 (D3)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D3	Outfall near **Sommer Ville School (**Drain from **Chora Sadatpur**, **Sector 22)**	28°35'36.598" N 77°20'57.97" E	Medium	**In-Situ Drain Treatment** with physical and biological units within the drain

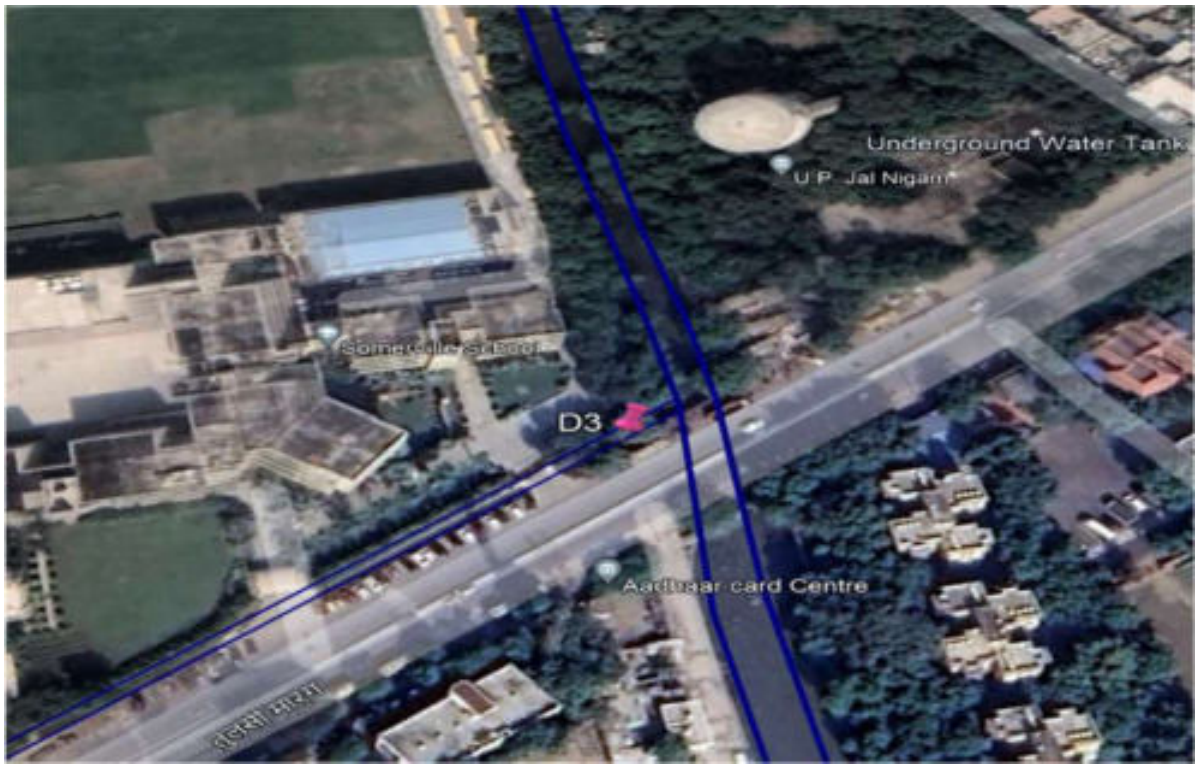


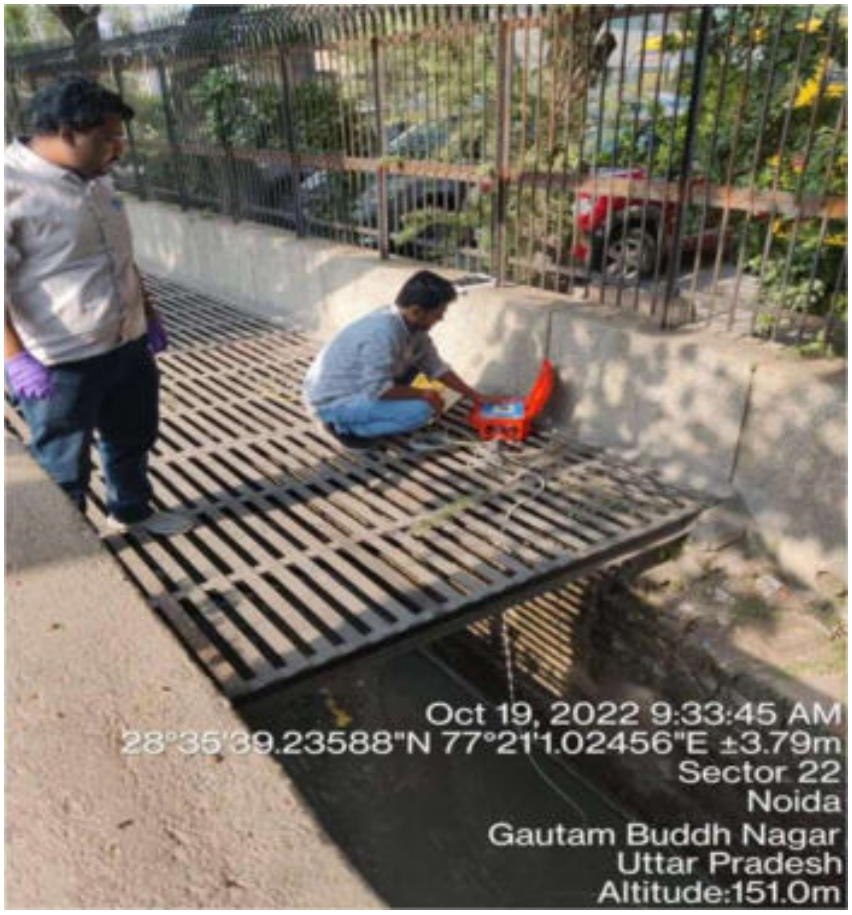
Figure 5: Drain D3 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D3		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	2
2	Liquid Depth (m)	0.16
3	Flow (MLD)	0.5 - 1

Wastewater Parameters of D3		
Sr No	Wastewater Parameters	Value
1	pH	7.6
2	TDS (mg/l)	1297
3	SS (mg/l)	256
4	BOD (mg/l)	119
5	COD (mg/l)	263
6	TKN (mg/l)	64
7	Chloride (mg/l)	331
8	Sulphate (mg/l)	186
9	Phosphate (mg/l)	5

(a) (b)



(c)

Figure 6: Site Photographs of Drain D3

Drain 4 (D4)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D4	Two drains meet this drain viz: -Drain from **Makanpur** which runs parallel to NOIDA road -Drain from **Sector 26** which runs parallel to Maharaja Agresen Marg -Drain outfall near NTPC Right	28°35'18.716" N 77°21'6.144" E	Major	**Ex-situ treatment** with decentralized sewage treatment plant (STP). This will include collection, treatment, safe disposal / reuse of treated wastewater

Figure 7: Drain D4 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D4		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	5.5
2	Liquid Depth (m)	0.36
3	Flow (MLD)	10-15

Wastewater Parameters of D4		
Sr No	Wastewater Parameters	Value
1	pH	8
2	TDS (mg/l)	3182
3	SS (mg/l)	138
4	BOD (mg/l)	63
5	COD (mg/l)	131
6	TKN (mg/l)	104
7	Chloride (mg/l)	825
8	Sulphate (mg/l)	716
9	Phosphate (mg/l)	5

(a)

(b)

(c)

Figure 8: Site Photographs of Drain D4

Drain 5 (D5)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D5	-Drain from **Sector 60** -Runs parallel **Maharaja Agresen Marg** -Receives **STP effluent** from **Sector 54** -Drain outfall near **NTPC Left**	28°35'24.906" N 77°21'14.23" E	Major	Drain is getting treated wastewater from Sector 54 STP and low BOD and COD are observed at outlet. For nutrient parameters, in-situ treatment option of screens and floating rafter may be considered.

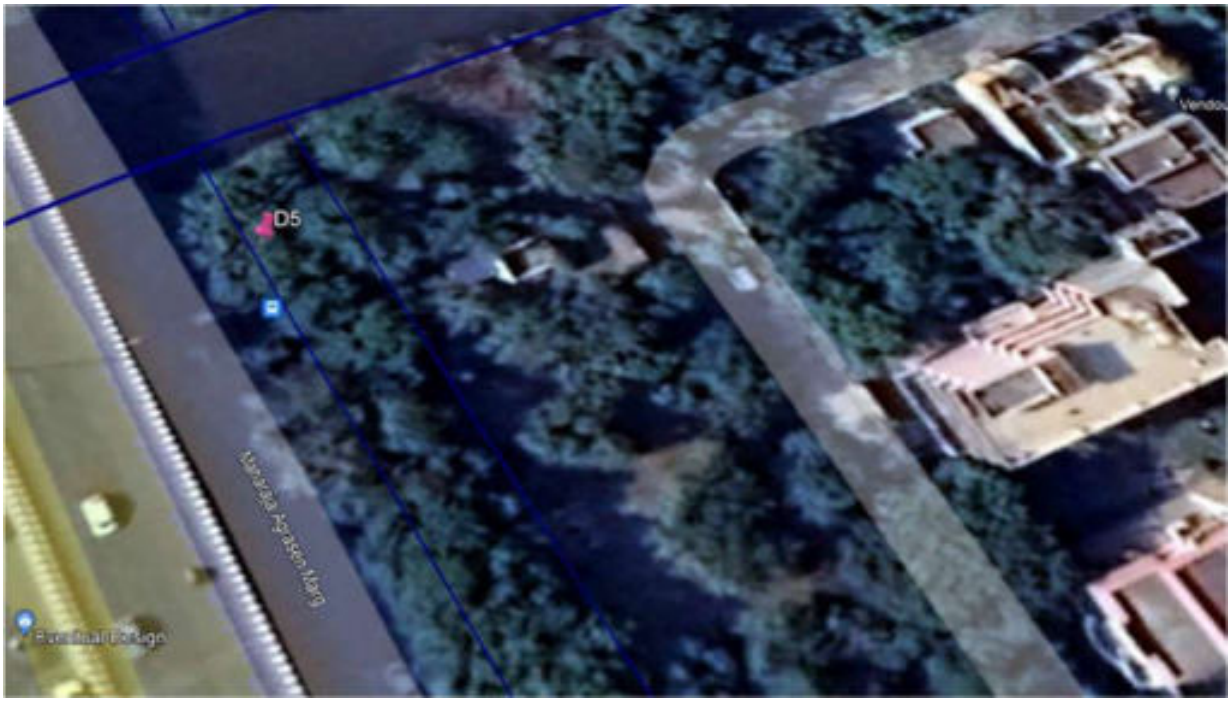


Figure 9: Drain D5 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D5		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	4.3
2	Liquid Depth (m)	0.73
3	Flow (MLD)	120- 125

Wastewater Parameters of D5		
Sr No	Wastewater Parameters	Value
1	pH	7.9
2	TDS (mg/l)	1968
3	SS (mg/l)	158
4	BOD (mg/l)	25
5	COD (mg/l)	61
6	TKN (mg/l)	41
7	Chloride (mg/l)	500
8	Sulphate (mg/l)	296
9	Phosphate (mg/l)	3

(a)

(b)

Figure 10: Site Photographs of Drain D5

STP Discharge

ID	Details	Co-ordinates	Type of Drain	Treatment Option
	Sector 54 (33+54=87 MLD) STP Effluent Discharge point in D5.	28°35'42.21"N 77°21'38.13"E	-	-

Figure 11: Sector 54 STP

(Source Google Earth)

Wastewater Parameters of STP outlet		
Sr No	Wastewater Parameters	Value
1	pH	8.1
2	TDS (mg/l)	1788
3	SS (mg/l)	138
4	BOD (mg/l)	8
5	COD (mg/l)	38
6	TKN (mg/l)	21
7	Chloride (mg/l)	525
8	Sulphate (mg/l)	275
9	Phosphate (mg/l)	5

Figure 12: Site Photographs of STP discharge

Drain 6 (D6)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D6	-Drain from **Sector 35** -Runs parallel to **Jagannath Mandir Marg** -Drain outfall near **Kribhko Colony Right**	28°34'55.39"N 77°21'24.30"E	Minor	Divert to nearest sewerage system of Sector 35, since low flow in the drain

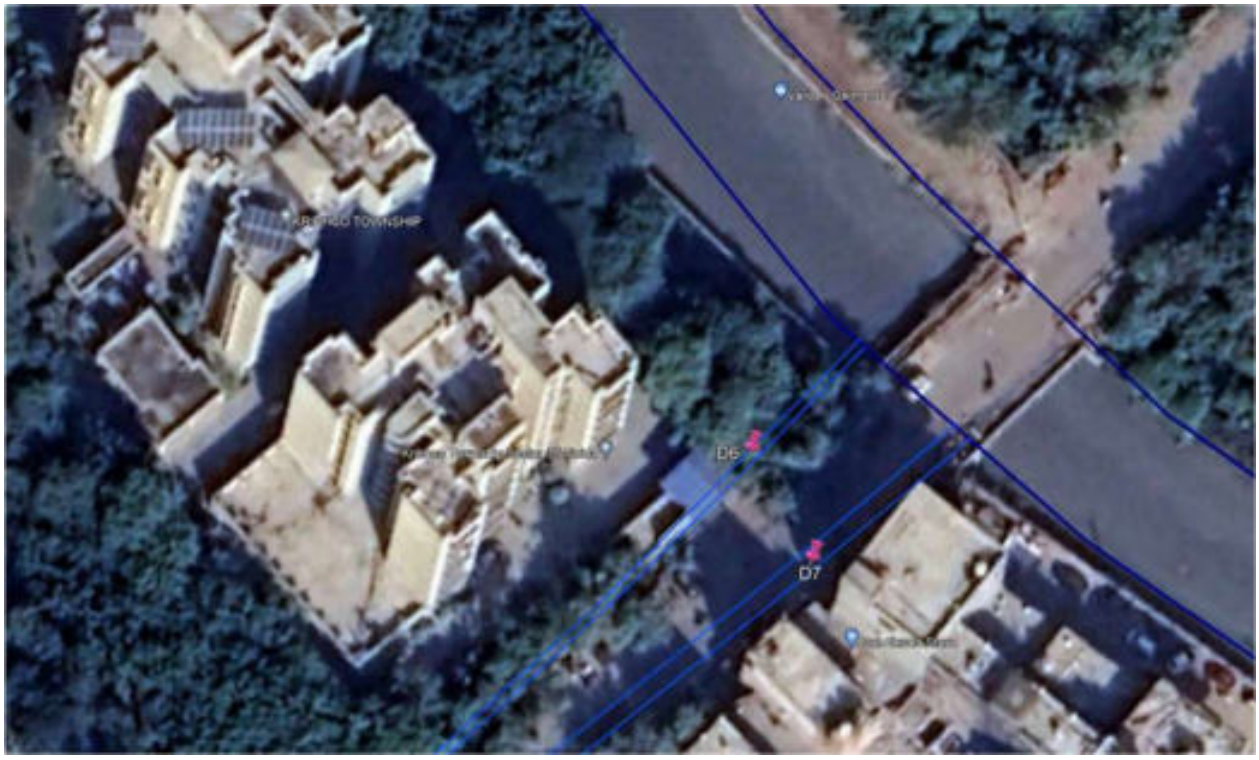
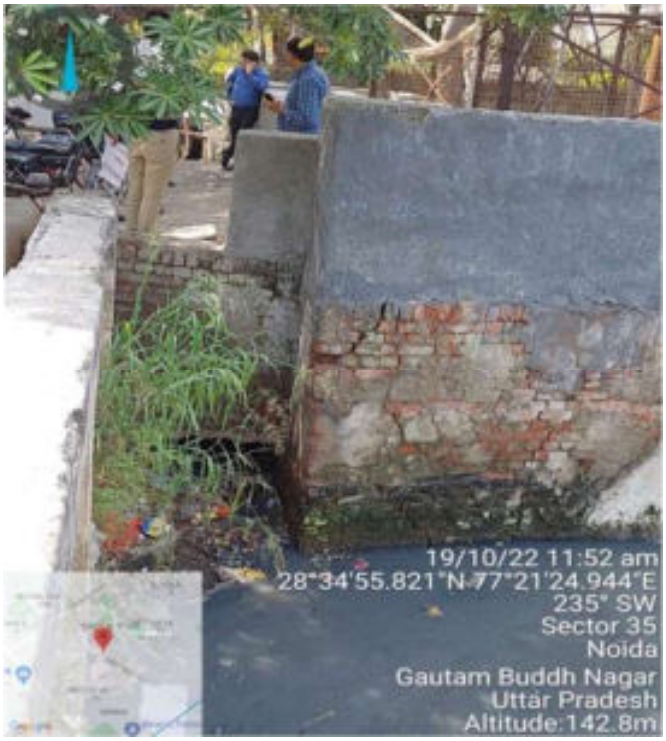


Figure 13: Drain D6 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D6		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	0.73
2	Liquid Depth (m)	0.08
3	Flow (MLD)	0.5-1.0

Wastewater Parameters of D6		
Sr No	Wastewater Parameters	Value
1	pH	8.2
2	TDS (mg/l)	1614
3	SS (mg/l)	79
4	BOD (mg/l)	73
5	COD (mg/l)	150
6	TKN (mg/l)	109
7	Chloride (mg/l)	682
8	Sulphate (mg/l)	115
9	Phosphate (mg/l)	6



(a)

(b)

Figure 14: Site Photographs of Drain D6

Drain 7 (D7)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D7	-Drain from **Morna & ISBT** -Runs parallel to **Jagannath Mandir Marg** -Drain outfall near **Kribhko Colony Left**	28°34'55.02"N 77°21'24.62"E	Minor	Divert to nearest sewerage system of Sector 35, since low flow (less than 1 MLD) and less width (less than 1 m) of the drain

Figure 15: Drain D7 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D7		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	0.53
2	Liquid Depth (m)	0.05
3	Flow (MLD)	0.5-1.00

Wastewater Parameters of D7		
Sr No	Wastewater Parameters	Value
1	pH	7.8
2	TDS (mg/l)	1725
3	SS (mg/l)	81
4	BOD (mg/l)	64
5	COD (mg/l)	137
6	TKN (mg/l)	94
7	Chloride (mg/l)	701
8	Sulphate (mg/l)	128
9	Phosphate (mg/l)	4

(a)

(b)

Figure 16: Site Photographs of Drain D7

Drain 8 (D8)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D8	-Drain from **Morna & ISBT** -Runs parallel to **Golf Marg** -Drain outfall near **Surbhi Hospital Right**	28°34'55.02"N 77°21'24.62"E	Minor	Divert to nearest sewerage system of Sector 35, since low flow (less than 1 MLD) and less width (less than 1 m) in the drain

Figure 17: Drain D8 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D8		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	0.8
2	Liquid Depth (m)	0.14
3	Flow (MLD)	0.50-1.00

Wastewater Parameters of D8		
Sr No	Wastewater Parameters	Value
1	pH	7.7
2	TDS (mg/l)	1567
3	SS (mg/l)	169
4	BOD (mg/l)	79
5	COD (mg/l)	181
6	TKN (mg/l)	105
7	Chloride (mg/l)	674
8	Sulphate (mg/l)	37
9	Phosphate (mg/l)	5

(a)

(b)

Figure 18: Site Photographs of Drain D8

Drain 9 (D9)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D9	-Drain from **Sector 63, Hazratpur Wajidpur** -Runs parallel to **Vishwakarma Road** turns near **Sector 53** and then runs parallel to **Captain Shashikant Marg** -Drain outfall **Surbhi Hospital Left**	28°34'48.439" N 77°21'46.126" E	Major	Another longest open drain in Noida coming from Sector 63 with huge sewage flow. This required proper discussion and brain storming. For collection and treatment Ex-situ treatment

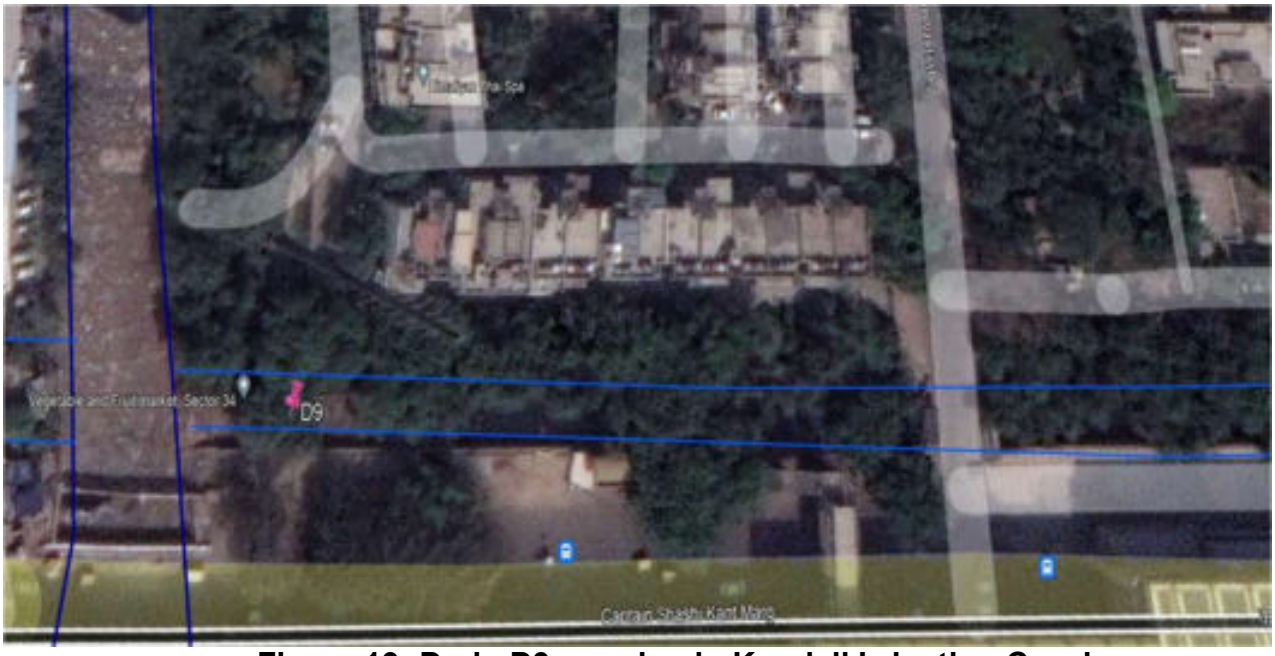


Figure 19: Drain D9 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D9		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	7
2	Liquid Depth (m)	0.91
3	Flow (MLD)	90- 100

Wastewater Parameters of D9		
Sr No	Wastewater Parameters	Value
1	pH	7.6
2	TDS (mg/l)	1466
3	SS (mg/l)	172
4	BOD (mg/l)	76
5	COD (mg/l)	169
6	TKN (mg/l)	93
7	Chloride (mg/l)	650
8	Sulphate (mg/l)	29
9	Phosphate (mg/l)	6

(a)

(b)

(c)

Figure 20: Site Photographs of Drain D9

Drain 10 (D10)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D10	-Drain from **Sector 51**, **Hoshiarpur** -Runs parallel to **Captain Shashikant Marg** -Drain outfall in In-Situ Wetland Treatment	28°34'44.235" N 77°21'45.231" E	Minor	Closed Drain (merging in to In-situ Wetland Treatment)

Figure 21: Drain D10 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D10		
Sr No	Engineering Parameters	Value
1	Actual Width (m)	Closed drain and the outfall is at the In-situ treatment site on Kondali.
2	Wet Width (m)	
3	Depth (m)	
4	Velocity (m/sec)	
5	Flow (MLD)	

Wastewater Parameters of D10		
Sr No	Wastewater Parameters	Value
1	pH	Closed Drain
2	TDS (mg/L)	
3	SS (mg/L)	
4	BOD (mg/L)	
5	COD (mg/L)	
6	TKN (mg/L)	
7	Chloride (mg/l)	
8	Sulphide (mg/l)	
9	Phosphate (mg/l)	

Figure 22: Site Photographs of Drain D10

In-Situ Wetland Treatment

ID	Details	Co-ordinates	Type of Drain	Treatment Option
-	On Kondali Irrigation Canal in Sector 51	**In- situ Start**: 28°34'44.08"N 77°21'43.94"E **In- situ End**: 28°34'35.16"N 77°21'58.79"E	-	

Figure 23: In-Situ Wetland treatment in Kondali Irrigation Canal

(Source Google Earth)

Wastewater Parameters of In-situ Wetland Treatment (OUTLET)		
Sr No	Wastewater Parameters	Value
1	pH	7.5
2	TDS (mg/l)	1592
3	SS (mg/l)	116
4	BOD (mg/l)	114
5	COD (mg/l)	238
6	TKN (mg/l)	98
7	Chloride (mg/l)	475
8	Sulphate (mg/l)	102
9	Phosphate (mg/l)	5

(a) (b)

(c)

Figure 24: Site Photographs of In-Situ Drain Treatment in Kondali Irrigation Canal

Drain 11 (D11)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D11	-Drain from **Sector 50** -Runs parallel to **Indosam Road** -Drain Outfall near **Nilgiri Public School**	28°34'36.109"N 77°22'2.337" E	Medium	Divert to nearest sewerage system of Sector 50 due to covered.

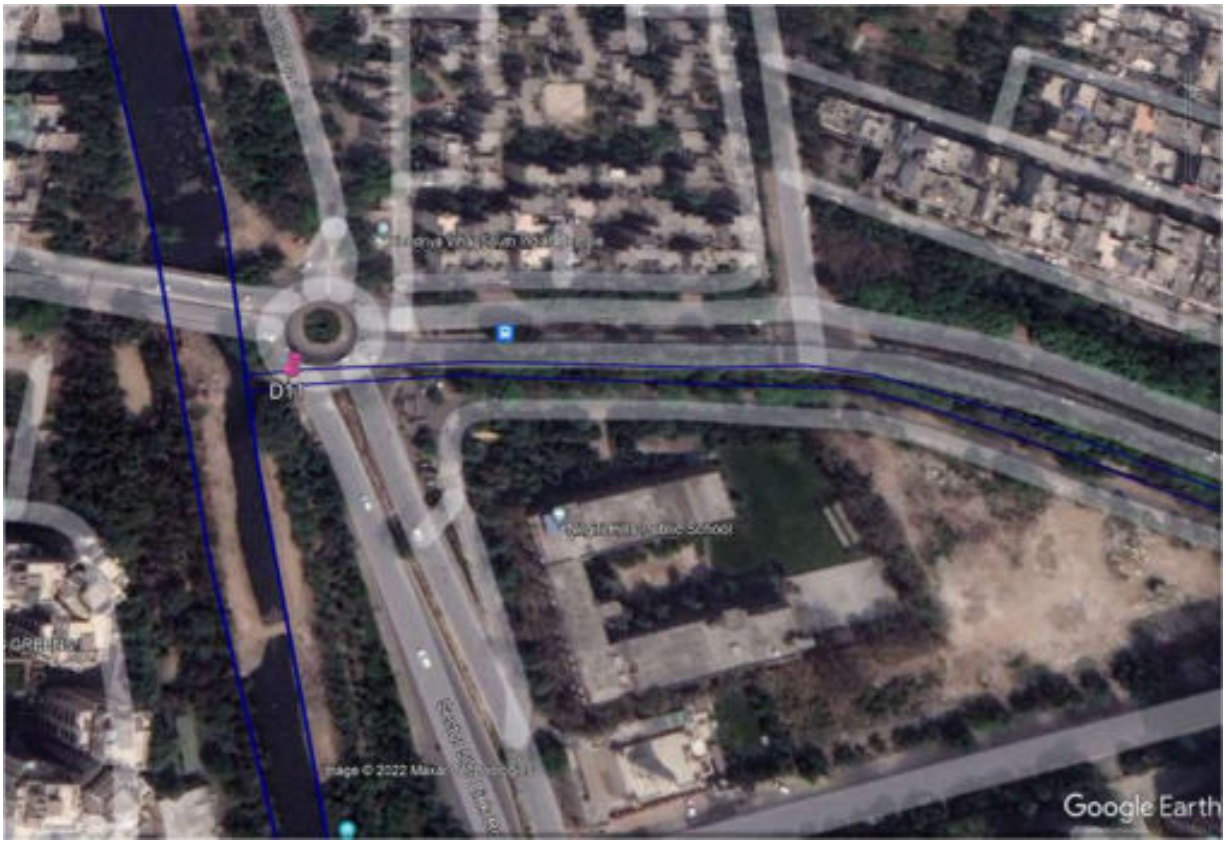


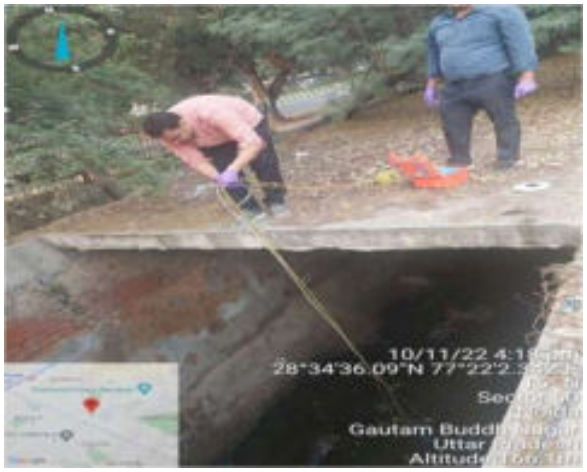
Figure 25: Drain D11 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D11		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	2.9
2	Liquid Depth (m)	0.04
3	Flow (MLD)	1.00 – 2.00

Wastewater Parameters of D11		
Sr No	Wastewater Parameters	Value
1	pH	8.1
2	TDS (mg/l)	1694
3	SS (mg/l)	66
4	BOD (mg/l)	68
5	COD (mg/l)	131
6	TKN (mg/l)	114
7	Chloride (mg/l)	700
8	Sulphate (mg/l)	95
9	Phosphate (mg/l)	3

(a)



(b)

(c)

Figure 26: Site Photographs of Drain D11

Drain 12 (D12)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D12	-Drain from **Hindon cut** that enters NOIDA from **Sector 7** -Runs parallel to **Harola** turns at **Sector 38 GC** again turns at **Sector 40** and runs parallel to **Agahpur**	28°34'9.772" N 77°22'13.359" E	Major	Second longest open drain in Noida coming from Hindon Cut canal with huge sewage flow. This required proper discussion and brain storming. For collection and treatment Ex-situ treatment

Figure 27: Drain D12 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D12		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	14
2	Liquid Depth (m)	0.38
3	Flow (MLD)	90 - 95

Wastewater Parameters of D12		
Sr No	Wastewater Parameters	Value
1	pH	8
2	TDS (mg/l)	1808
3	SS (mg/l)	130
4	BOD (mg/l)	67
5	COD (mg/l)	131
6	TKN (mg/l)	25.9
7	Chloride (mg/l)	500
8	Sulphate (mg/l)	127
9	Phosphate (mg/l)	4

(a)

(b)

Figure 28: Site Photographs of Drain D12

Drain 13 (D13)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D13	-Drain from **Sector 49**, **Baraula** -Runs parallel to **Main Barola Road**	28°33'54.68" N 77°22'40.704" E	Minor	Divert to existing sewerage system of Sector 49 (drain is covered with concrete slab)

Figure 29: Drain D13 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D13		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	1.2
2	Liquid Depth (m)	0.08
3	Flow (MLD)	1.50-2.00

Wastewater Parameters of D13		
Sr No	Wastewater Parameters	Value
1	pH	7.3
2	TDS (mg/l)	2318
3	SS (mg/l)	314
4	BOD (mg/l)	164
5	COD (mg/l)	315
6	TKN (mg/l)	98
7	Chloride (mg/l)	825
8	Sulphate (mg/l)	278
9	Phosphate (mg/l)	4

(a)

(b)

Figure 30: Site Photographs of Drain D13

Drain 14 (D14)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D14	-Drain from **Sector 49**, **Baraula** -Runs parallel to **Baanke Bihari Marg**	28°33'52.17" N 77°22'42.54" E	Minor	Divert to existing sewerage system of Sector 49 (drain is covered with concrete slab)

Figure 31: Drain D14 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D14		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	1.2
2	Liquid Depth (m)	0.12
3	Flow (MLD)	3-4

Wastewater Parameters of D14		
Sr No	Wastewater Parameters	Value
1	pH	7.7
2	TDS (mg/l)	2398
3	SS (mg/l)	712
4	BOD (mg/l)	283
5	COD (mg/l)	530
6	TKN (mg/l)	119
7	Chloride (mg/l)	875
8	Sulphate (mg/l)	309
9	Phosphate (mg/l)	4

(a)

(b)

(c)

Figure 32: Site Photographs of Drain D14

Drain 15 (D15)

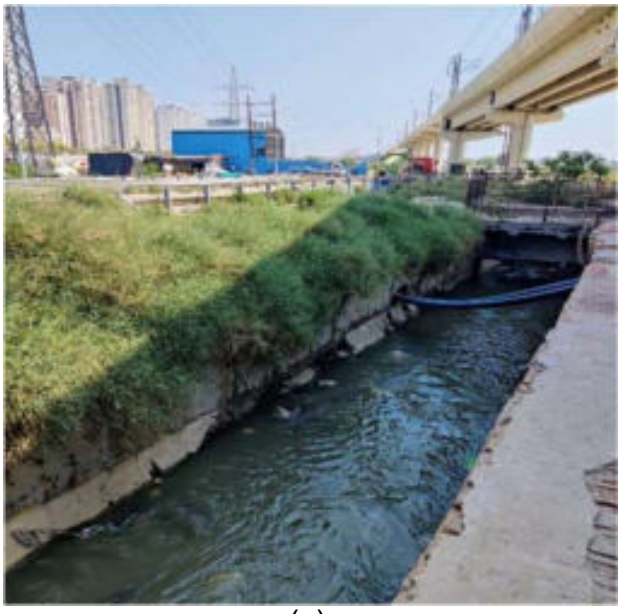
ID	Details	Co-ordinates	Type of Drain	Treatment Option
D15	-Drain from **Sector 122** -Runs parallel to **Vikas Marg** Drain outfall Near **NOIDA metro Sector 76 parking** **-Discharge of treated wastewater from Sector 123 STP**	28°33'49.743" N 77°22'48.425" E	Major	Another longest open drain in Noida coming from Sector 63 with huge sewage flow. This required proper discussion and brain storming since STP treated wastewater discharge at the start of the drain. This drain need to be traced once again for proper in-situ or ex-situ treatment. Huge flow (around 75 MLD)

Figure 33: Drain D15 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D15		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	5
2	Liquid Depth (m)	0.31
3	Flow (MLD)	70-75

Wastewater Parameters of D15		
Sr No	Wastewater Parameters	Value
1	pH	8.1
2	TDS (mg/l)	1184
3	SS (mg/l)	120
4	BOD (mg/l)	50
5	COD (mg/l)	108
6	TKN (mg/l)	57
7	Chloride (mg/l)	400
8	Sulphate (mg/l)	54
9	Phosphate (mg/l)	6



(a)

(b)

(c)

Figure 34: Site Photographs of Drain D15

Drain 16 (D16)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D16	-Drain from **Sector 102**, **Salarpur Khadar** parallel to **Dadri Main Road** runs parallel to **Vishwarma Marg** -Drain outfall opposite to **D15 Outfall**	28°33'41.07"N 77°22'50.27"E	Medium	**In-Situ Drain Treatment** with physical and biological units within the drain

Figure 35: Drain D16 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D16		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	4
2	Liquid Depth (m)	0.57
3	Flow (MLD)	19-23

Wastewater Parameters of D16		
Sr No	Wastewater Parameters	Value
1	pH	7.2
2	TDS (mg/l)	2652
3	SS (mg/l)	136
4	BOD (mg/l)	76
5	COD (mg/l)	184
6	TKN (mg/l)	98
7	Chloride (mg/l)	895
8	Sulphate (mg/l)	251
9	Phosphate (mg/l)	7

Figure 36: Site Photographs of Drain D16

Drain 17 (D17)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D17	-Drain from **Sector 102**, **Bhangel Begampur** parallel to **Street No. 06** -Drain outfall near **Street No. 6** and **Jeetram Colony road junction**	28°32'29.451" N 77°23'34.8" E	Minor	Divert to nearest sewerage system, since low flow (less than 1 MLD) and less width (less than 1 m) of the drain

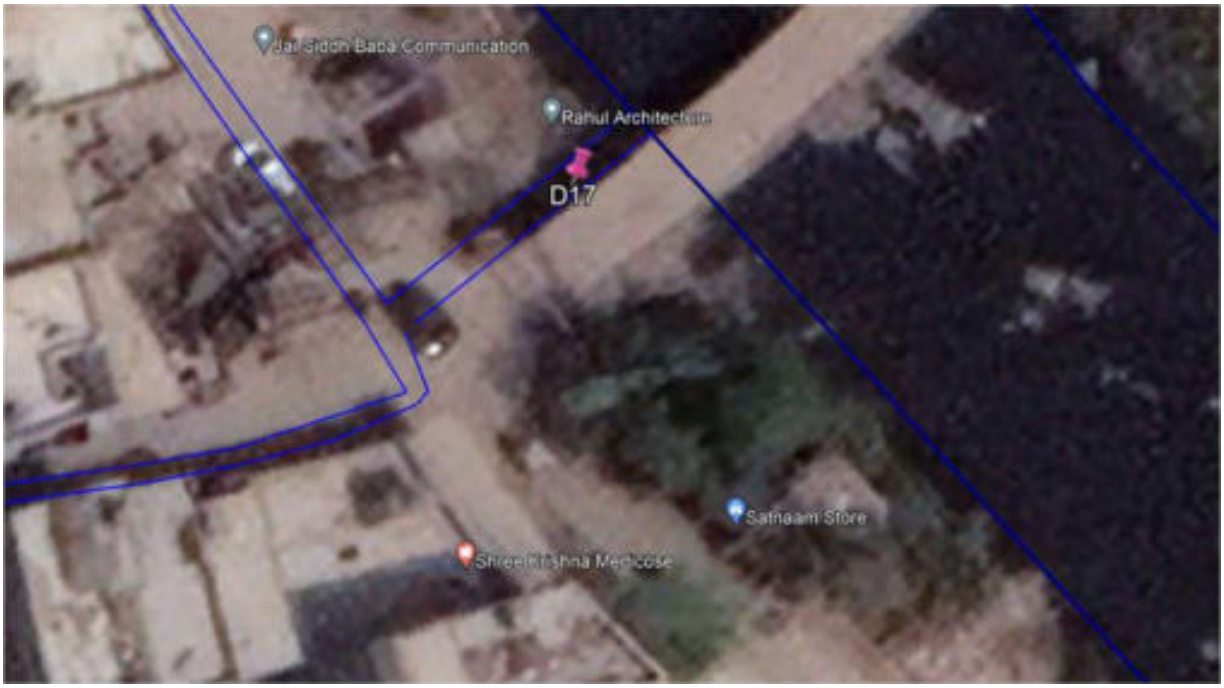


Figure 37: Drain D17 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D17		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	0.3
2	Liquid Depth (m)	0.06
3	Flow (MLD)	0.25-0.75

Wastewater Parameters of D17		
Sr No	Wastewater Parameters	Value
1	pH	7.5
2	TDS (mg/l)	2358
3	SS (mg/l)	513
4	BOD (mg/l)	223.5
5	COD (mg/l)	422.5
6	TKN (mg/l)	108.5
7	Chloride (mg/l)	850
8	Sulphate (mg/l)	293.5
9	Phosphate (mg/l)	8

(a)

(b)

(c)

Figure 38: Site Photographs of Drain D17

Drain 18 (D18)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D18	Drain from **Sector 102**, **Salarpur Khadar**, **Bhangel Begampur** parallel to **Dadri Main Road** (Drain adjacent to **NSEZ metro square** public toilet)	28°32'1.997" N 77°23'35.742" E	Medium	In-Situ Drain Treatment with physical and biological units within the drain

Figure 39: Drain D18 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D18		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	4
2	Liquid Depth (m)	0.1
3	Flow (MLD)	5-9

Wastewater Parameters of D18		
Sr No	Wastewater Parameters	Value
1	pH	7.5
2	TDS (mg/l)	2652
3	SS (mg/l)	136
4	BOD (mg/l)	76
5	COD (mg/l)	184
6	TKN (mg/l)	98
7	Chloride (mg/l)	925
8	Sulphate (mg/l)	239
9	Phosphate (mg/l)	4

(a)

(b)

(c)

Figure 40: Site Photographs of Drain D18

Drain 19 (D19)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D19	-Drain outfall besides **NSEZ Metro Station Foot Over Bridge (FOB)** -Drain from **NEPZ**, **Phase – 2**, **Thomson Press India Limited** -Runs parallel to **Dadri Main Road**	28°32'3.01" N 77°23'40.981" E	Medium	In-Situ Drain Treatment with physical and biological units within the drain

Figure 41: Drain D19 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D19		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	4
2	Liquid Depth (m)	0.11
3	Flow (MLD)	6.00-11.00

Wastewater Parameters of D19		
Sr No	Wastewater Parameters	Value
1	pH	7.9
2	TDS (mg/l)	1924
3	SS (mg/l)	74
4	BOD (mg/l)	72
5	COD (mg/l)	146
6	TKN (mg/l)	67
7	Chloride (mg/l)	675
8	Sulphate (mg/l)	83
9	Phosphate (mg/l)	5

(a)

(b)

(c)

Figure 42: Site Photographs of Drain D19

Drain 20 (D20)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D20	-Drain from **Sector 84A**, **Hosiery Complex** parallel to **Dadri Main Road** -Drain outfall Besides **Eagle Forgings**	28°32'1.61" N 77°23'42.087" E	Medium	In-Situ Drain Treatment with physical and biological units within the drain

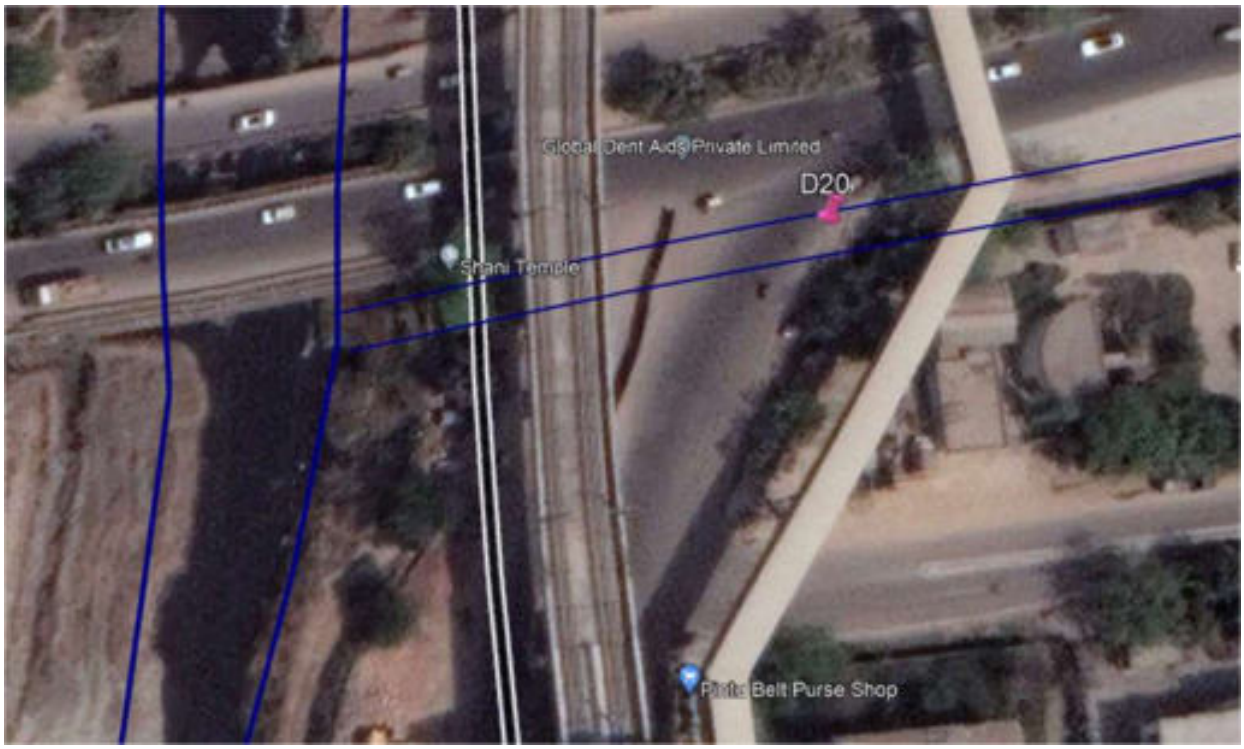


Figure 43: Drain D20 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D20		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	3.5
2	Liquid Depth (m)	0.18
3	Flow (MLD)	3.00-5.00

Wastewater Parameters of D20		
Sr No	Wastewater Parameters	Value
1	pH	7.7
2	TDS (mg/l)	3250
3	SS (mg/l)	514
4	BOD (mg/l)	78
5	COD (mg/l)	177
6	TKN (mg/l)	41
7	Chloride (mg/l)	1225
8	Sulphate (mg/l)	1767
9	Phosphate (mg/l)	2

(a)

(b)

(c)

Figure 44: Site Photographs of Drain D20

Drain 21 (D21)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D21	-Drain outfall Besides Farm (**Sector 82** & **Sector 93) Gejah Talattulabad** -Runs parallel to **Janpath Marg**	28°31'12.436" N 77°23'49.171" E	Major	In-Situ Drain Treatment with physical and biological units within the drain

Figure 45: Drain D21 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D21		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	5
2	Liquid Depth (m)	0.12
3	Flow (MLD)	3.00-8.00

Wastewater Parameters of D21		
Sr No	Wastewater Parameters	Value
1	pH	8
2	TDS (mg/l)	3002
3	SS (mg/l)	198
4	BOD (mg/l)	51
5	COD (mg/l)	108
6	TKN (mg/l)	88
7	Chloride (mg/l)	1100
8	Sulphate (mg/l)	199
9	Phosphate (mg/l)	8

(a)

(b)

(c)

Figure 46: Site Photographs of Drain D21

Drain 22 (D22)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D22	Drain outfall Near **Pumping Station** of **Sector 167A STP** besides **Shahid Mangal Pande Marg** Drain from **Sector 44**	28°30'27.331" N 77°23'30.153" E	Major	Divert to nearest STP at Sector 168 through pumping station (PS 11) at Sector 167A

Figure 47: Drain D22 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D22		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	9.0
2	Liquid Depth (m)	0.19
3	Flow (MLD)	25-30

Wastewater Parameters of D22		
Sr No	Wastewater Parameters	Value
1	pH	7.9
2	TDS (mg/l)	1986
3	SS (mg/l)	178
4	BOD (mg/l)	52
5	COD (mg/l)	123
6	TKN (mg/l)	93
7	Chloride (mg/l)	575
8	Sulphate (mg/l)	243
9	Phosphate (mg/l)	5

(a)

(b)

(c)

Figure 48: Site Photographs of Drain D22

Drain 23 (D23)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D23	Advent Drain (opposite to IT park) **Sector 143B**.	28°30'2.013" N 77°24'29.144" E	Major	Divert to nearby sewerage system of sector 143B and from there it will go to STP located in Sector 168.

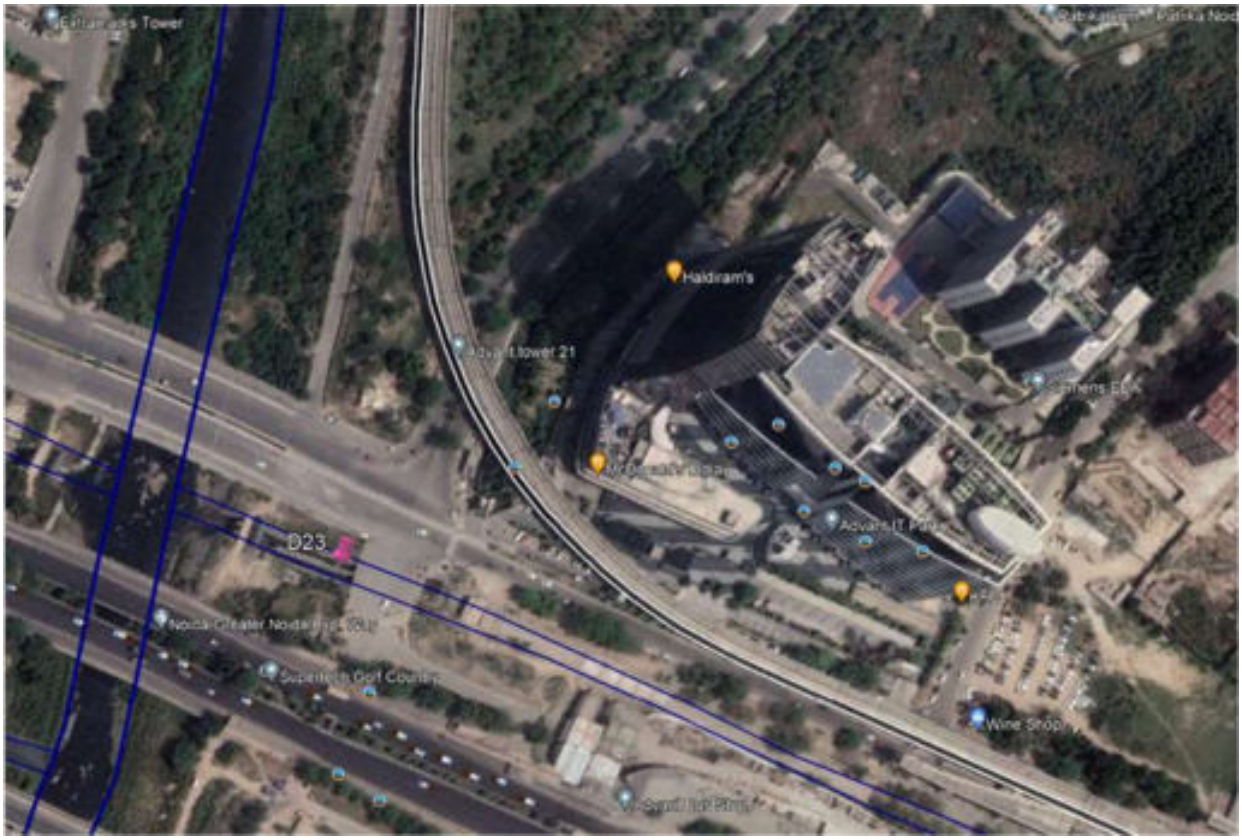


Figure 49: Drain D23 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D23		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	2.4 + 4.2
2	Liquid Depth (m)	0.05 + 0.1
3	Flow (MLD)	21-27

Wastewater Parameters of D23		
Sr No	Wastewater Parameters	Value
1	pH	7.7
2	TDS (mg/l)	1716
3	SS (mg/l)	260
4	BOD (mg/l)	177
5	COD (mg/l)	346
6	TKN (mg/l)	109
7	Chloride (mg/l)	525
8	Sulphate (mg/l)	131
9	Phosphate (mg/l)	7

(a)

(b)

Figure 50: Site Photographs of Drain D23

Drain 24 (D24)

ID	Details	Co-ordinates	Type of Drain	Treatment Option
D24	Drain from **Sector 126**, **Mayoor School**, **Raipur Khadar (Drain on** which Gates are installed)	28°30'21.633" N 77°23'28.631" E	Major	In-Situ Drain Treatment with physical and biological units within the drain

Figure 51: Drain D24 merging in Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of D24		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	8.3
2	Liquid Depth (m)	0.8
3	Flow (MLD)	24-27

Wastewater Parameters of D24		
Sr No	Wastewater Parameters	Value
1	pH	8.3
2	TDS (mg/l)	2322
3	SS (mg/l)	208
4	BOD (mg/l)	29
5	COD (mg/l)	61
6	TKN (mg/l)	31
7	Chloride (mg/l)	675
8	Sulphate (mg/l)	284
9	Phosphate (mg/l)	8

(a)

(b)

(c)

Figure 52: Site Photographs of Drain D24

End Barrage

ID	Details	Co-ordinates	Type of Drain	Treatment Option
	Barrage on Kondali	28°29'38.244" N 77°24'17.054" E		

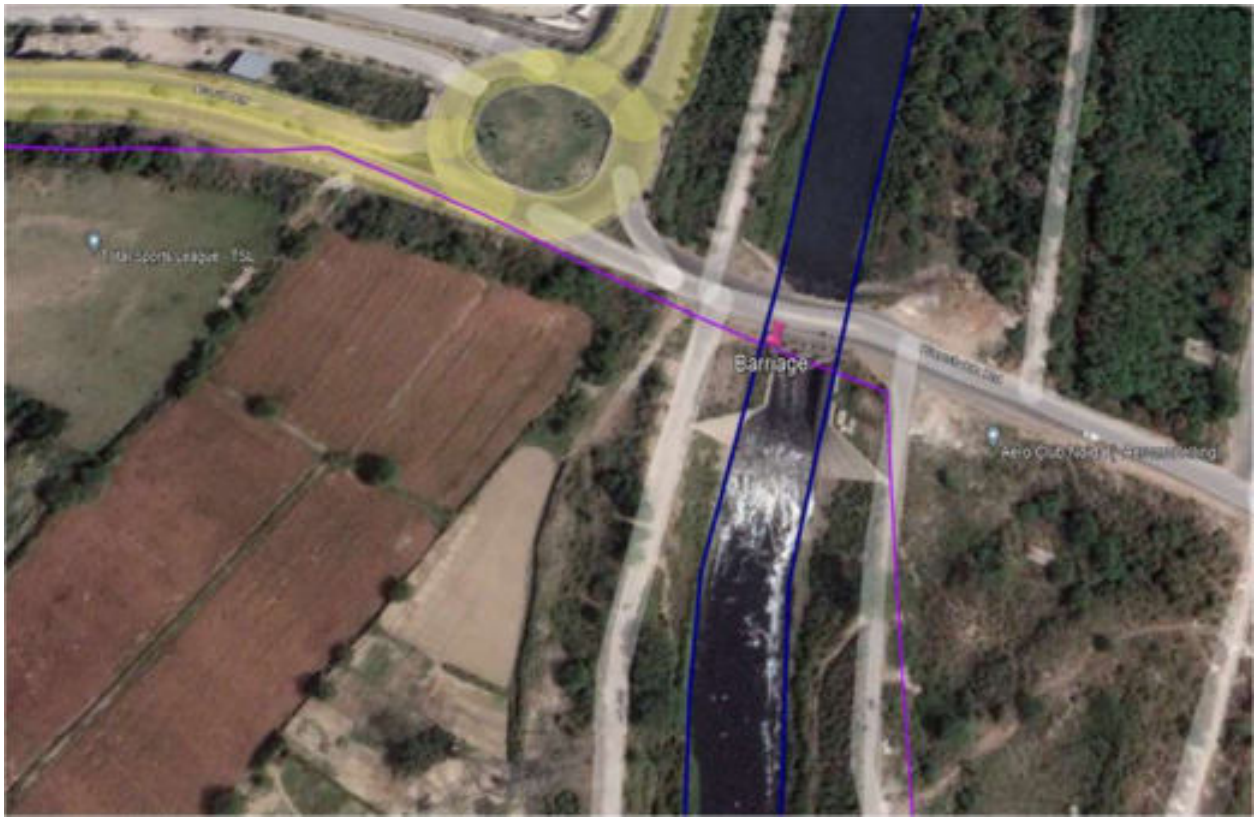


Figure 53: End Barrage on Kondali Irrigation Canal

(Source Google Earth)

Engineering Parameters of End Barrage		
Sr No	Engineering Parameters	Value
1	Width of drain (m)	18
2	Liquid Depth (m)	0.3
3	Flow (MLD)	680-690

Wastewater Parameters of End Barrage		
Sr No	Wastewater Parameters	Value
1	pH	7.6
2	TDS (mg/l)	1864
3	SS (mg/l)	208
4	BOD (mg/l)	42
5	COD (mg/l)	100
6	TKN (mg/l)	78
7	Chloride (mg/l)	675
8	Sulphate (mg/l)	185
9	Phosphate (mg/l)	5

(a)

(b)

Figure 54: Site Photographs of End Barrage on Kondali

Executive Summary

In-situ and ex-situ treatment of domestic wastewater flowing in drains of NOIDA city

(Feasibility Report)

Sponsor

New Okhla Industrial Development Authority
An Integrated Industrial Township
ISO 9001 : 2000 & ISO 14001:2004 Certified

New Okhla Industrial Development Authority (NOIDA)

Submitted By

CSIR- National Environmental Engineering Research Institute
Nagpur – 440 020

February 2023

Executive Summary on Feasibility Report

In-situ and ex-situ treatment of domestic wastewater flowing in drains of NOIDA city

Introduction

Jal division of New Okhla Industrial Development Authority (NOIDA) has approached Director CSIR-NEERI, Nagpur through Letter No.Noida/ACEO(N)/2022/301dated 21/01/22 stating that in NOIDA city untreated sewage is flowing in 30 drains and as per the order of Hon' NGT, NOIDA has to develop a time bound action plan to stop discharge of untreated wastewater to 30 drains and to intercept all drains and channelize wastewater to STPs so that no untreated wastewater is discharged to NOIDA drain. With respect to this, NOIDA has requested CSIR-NEERI to strengthen environment by providing in situ treatment of 30 drains based on Bio and Phyto remediation.

With respect to this team of CSIR-NEERI, Nagpur and Jal Division officials, NOIDA have visited the Kondali irrigation canal and the drains merging into the canal several times during May to December 2022. The main purpose of the detailed site visits was identification and tracking of the drains merging into Kondali Irrigation Canal, flow measurement of the drains and collection of drain wastewater samples for water quality analysis.

Site observations

The 30 locations in NOIDA around the Kondali irrigation canal were identified and surveyed as shown in **Figure 1**. Out of which four are the STP's effluent discharge points, one is In-Situ wetland treatment on Kondali canal, 24 are drains draining into Kondali irrigation canal & one is barrage on Kondali canal.

From the detailed site visits, it was found that there are 24 drains that needs to be treated at the earliest so that the pollution load into Kondali Irrigation Canal, can be minimized.

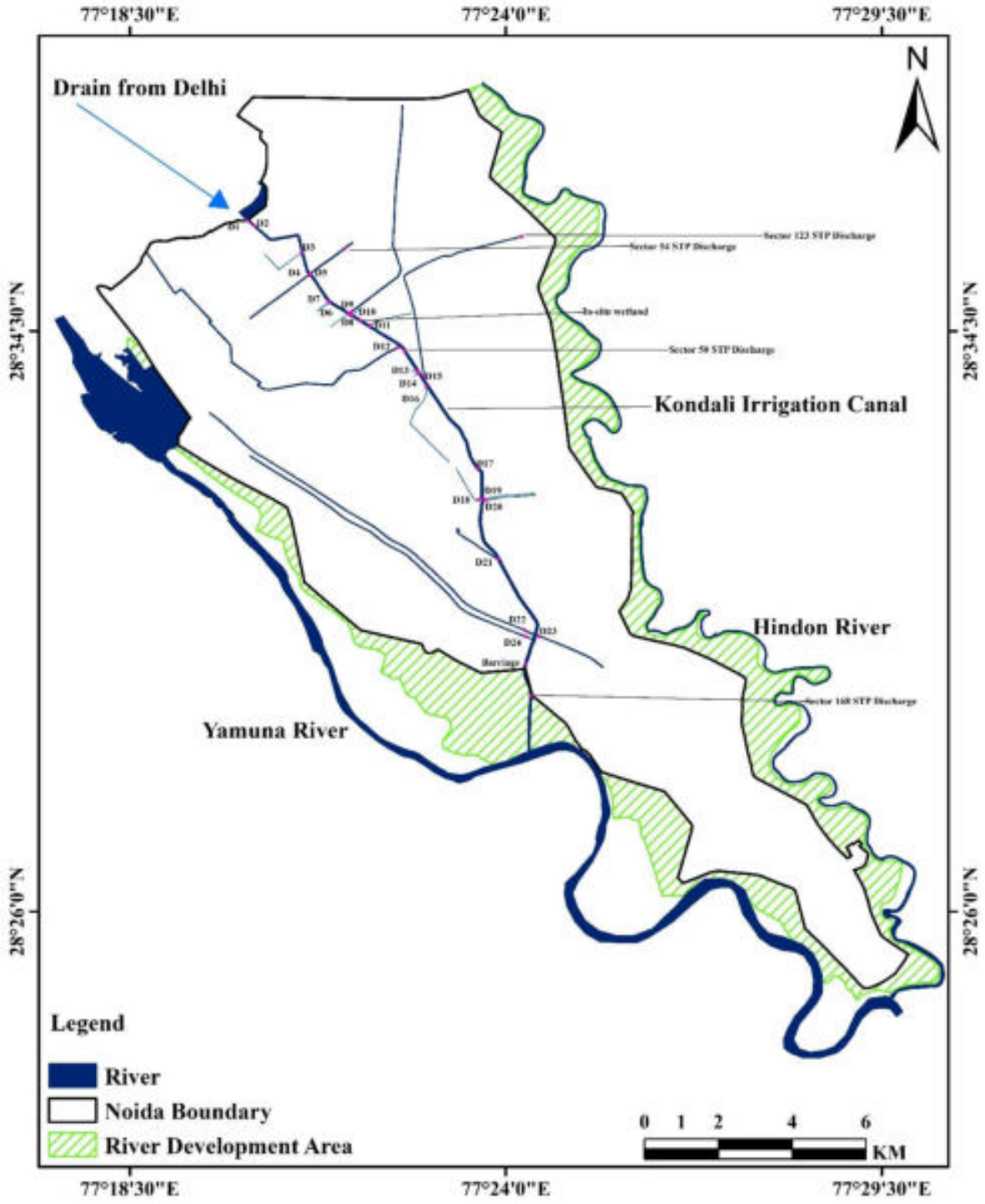


Figure 1. Identified drains and survey locations around Kondali Irrigation Canal

Classification of Drains

As per the site visits and monitoring, the drains are classified on the bases of geometry, flow and wastewater characteristics and treatment.

Geometry: as per the drain width, drains are classified in three categories (**Figure 2**):

- Minor drain - width < 1.5 m
- Medium drain - width between 1.5 m to 4 m
- Major drain - width > 4 m.

Flow: as per the drain flow, drains are classified in three categories (**Figure 3**):

- **Low flow drain** – flow < 5 MLD
- **Medium flow drain** – flow between 5 – 25 MLD
- **High flow drain** - flow > 25 MLD

Wastewater characteristics: as per the wastewater characteristics, drains are classified in three categories (**Figure 4**)

- **Less polluted –** drains with COD <75 mg/L; BOD <30 mg/L and TKN <50 mg/L.
- **Moderately polluted –** drain with COD:75-200 mg/L; BOD:30-100 mg/L and TKN 50-100
- **Highly polluted -** COD > 200 mg/L; BOD > 100mg/L and TKN > 100 mg/L.

Pollution Load: as per the pollution load in the drains, they are classified in three categories (Figure 5)

- **Less polluted –** drain with pollution load < 1000 kg/d
- **Moderately polluted –** drain with pollution load – between 1000 – 10000 kg/d
- **Highly polluted -** drain with pollution load – > 10000 kg/d

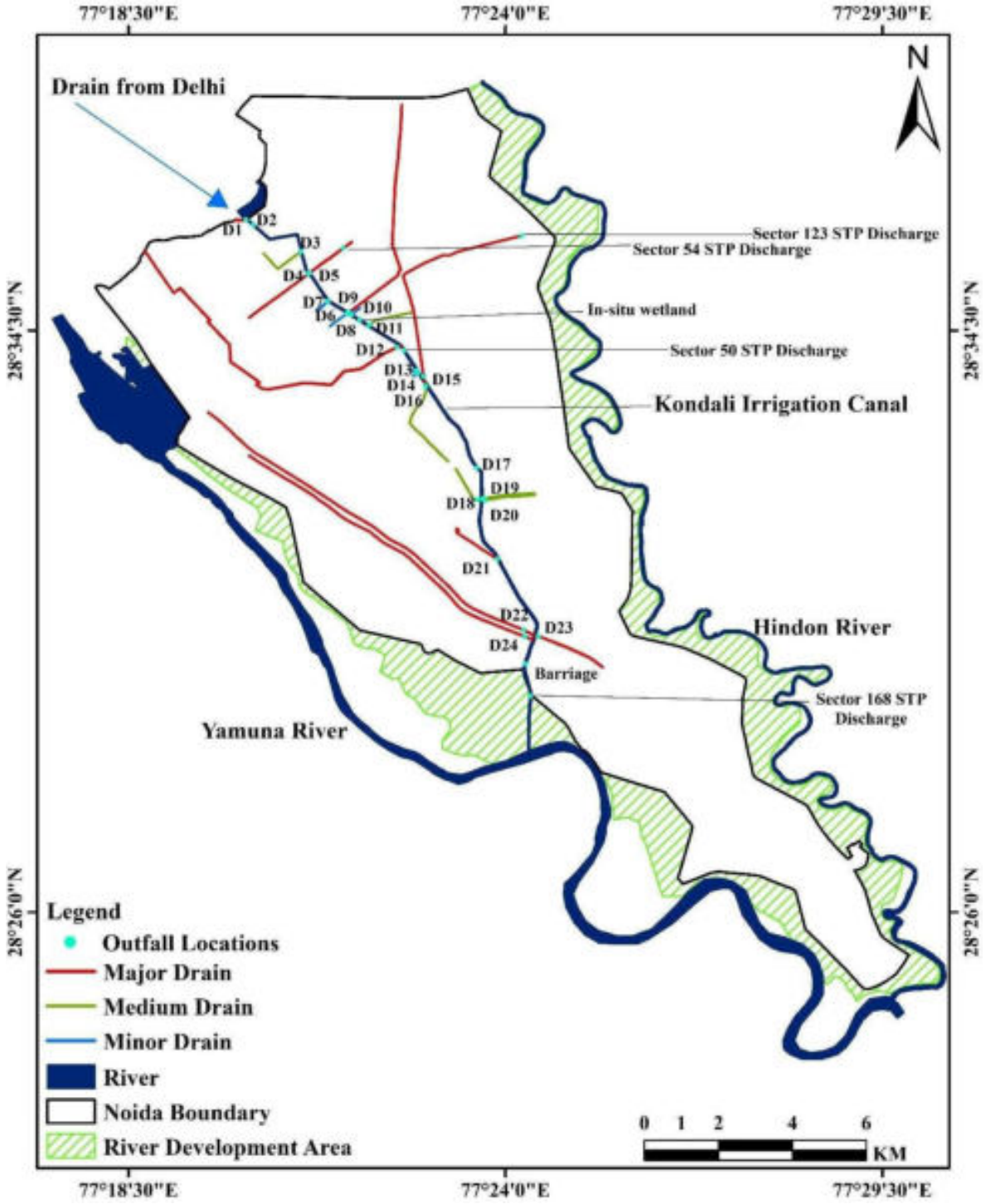


Figure 2: Classification of the identified drains as per drain geometry

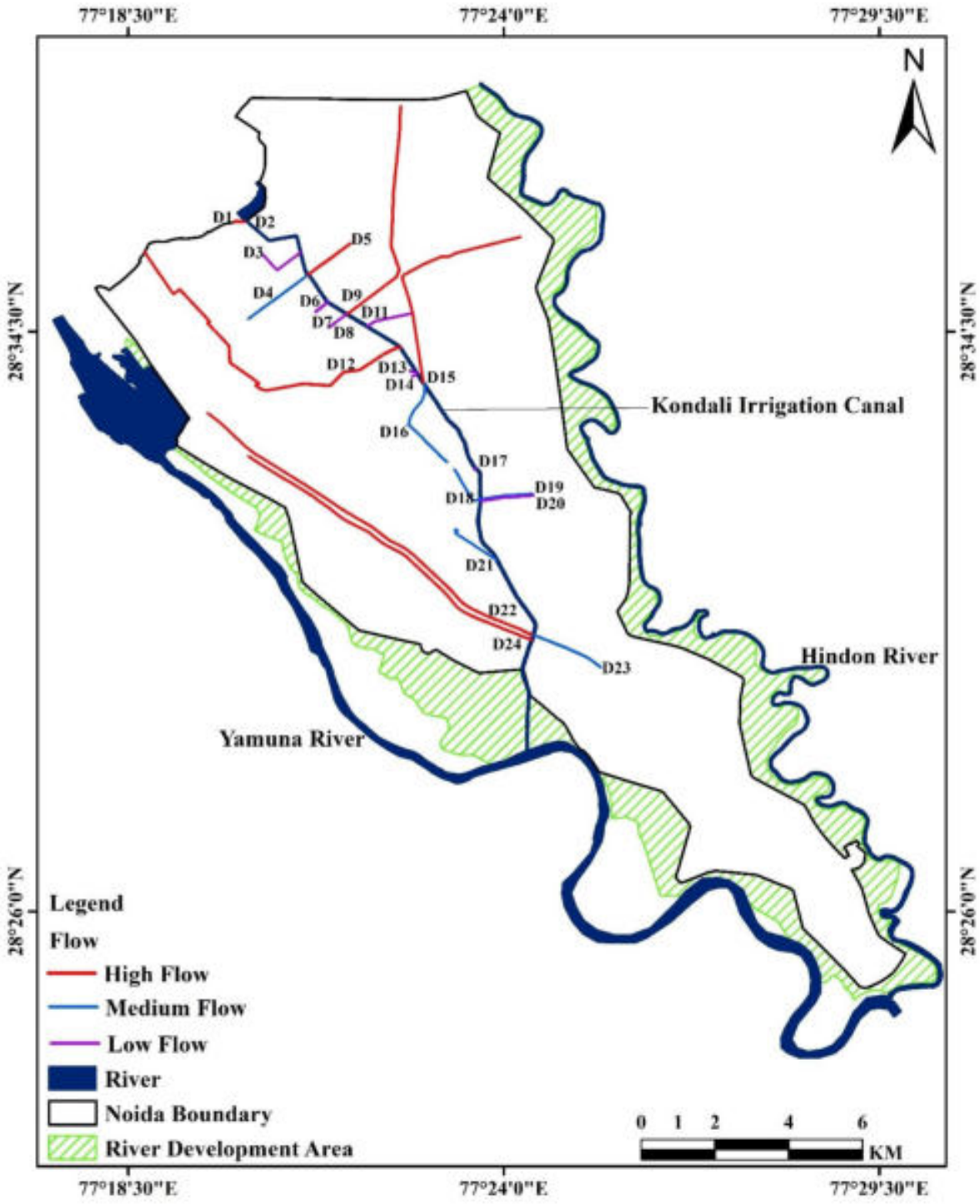


Figure 3: Classification of the identified drains as per flow

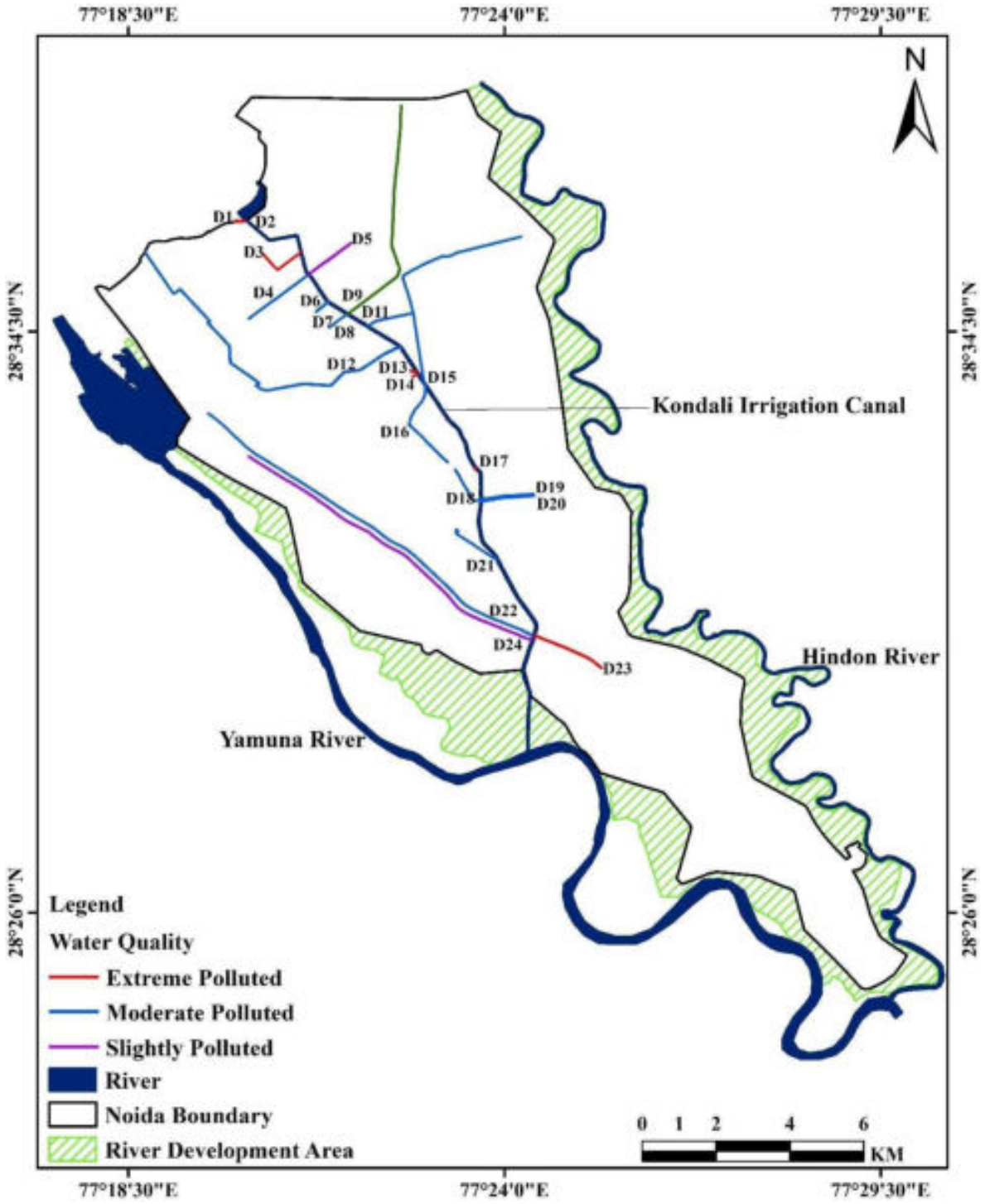


Figure 4: Classification of the identified drains as per the wastewater characteristics

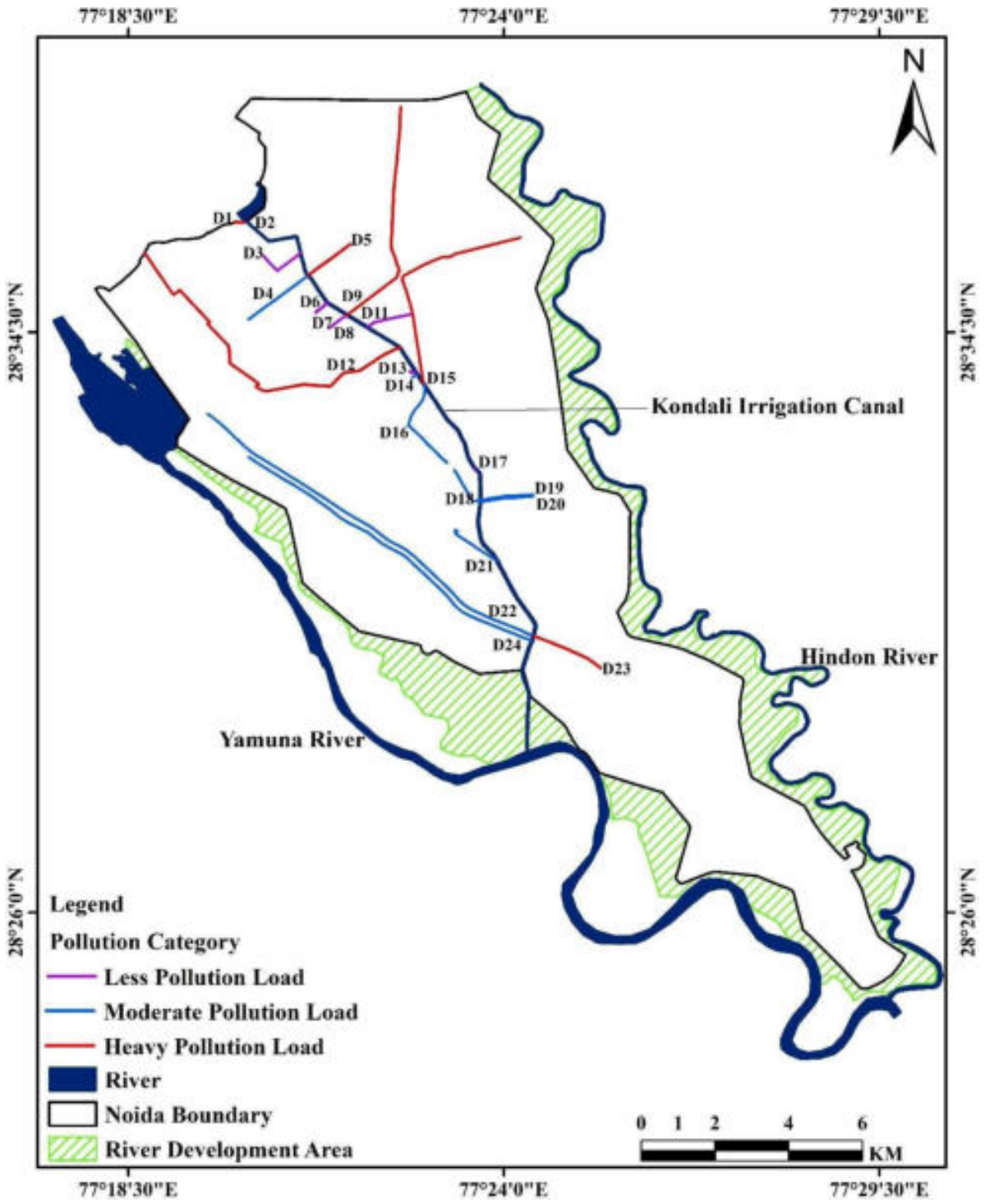


Figure 5: Classification of the identified drains as per the pollution load

Recommendations and suggestive measures

Based on the detailed site visits, monitoring and technical discussions with officials of Jal division NOIDA, various immediate, mid- term and long-term measures are suggested for the identified 24 drains. The detailed treatment options for individual drains are delineated in **Annexure I** and site photographs of the drains are presented in **Annexure II**.

Immediate measures

- Installation of medium and coarse at the identified drains merging into Kondali Irrigation Canal for the removal of floating solid waste.
- Regular cleaning of screens by the concerned department
- Periodical removal of sludge and de-silting of identified drains before monsoon.
- Prohibition of solid waste, garbage and construction & demolition waste dumping in the identified drains and also in Kondali Irrigation Canal.
- The brick masonry wall of the drains as well as Kondali Irrigation Canal was found to be damaged at various locations in the identified stretch. This neededto be looked immediately for its repair and strengthening.
- To avoid the further disposal and discharges, fencing and walkway may be proposed adjacent to the Kondali Irrigation canal for its regular inspection and maintenance.

Mid-term measures

- In-situ drain treatment of the identified drains (**as mentioned in Table below**) for reduction of the pollution load on Kondali irrigation canal.
- Minor drains are identified (**as mentioned in Table below**) that can be divertedto the nearest sewerage network, sewage pumping stations and STPs.

Long-term measures

- Recommendation of feasible action plan regarding enhancement of sewerage scheme within the town which includes collection, transportation, treatment, safe disposal/ reuse of generated wastewater
- Ex-situ treatment through Decentralized Sewage Treatment Plant needs to be identified along the Drain D-9 and D-12 due to its high flow.

CSIR-NEERI will prepare Detailed Project Report (DPR) on the basis of feasibility report approved by NOIDA Authority. DPR will include detailed topographic survey of the identified drains and Kondali Irrigation Canal, detailed engineering design and drawings, bill of quantities and estimates for the proposed in-situ and ex-situ treatmentscheme.

Annexure I

Delineated treatment options for drains

ID	Drain Detail	Proposed Treatment Options
D1	Drain coming from Delhi (outfall nearSmriti Van)	Huge quantity (90-100MLD) coming from Delhi which required to be trapped by their existing sewerage system and prior treatment before discharging into Kondali Irrigation Cannal.
D2	Outfall under bridge (box culvert) Drain from Sector 11	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** Divert to nearby sewerage system of sector 11 andfrom there it will go to Pumping Station P5 and respective STP.
D3	Outfall near Sommer Ville School (Drain from Chora Sadatpur, Sector 22)	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** In-Situ Drain Treatment with physical and biologicalunits within the drain
D4	– Two drains meet this drain viz: – Drain from Makanpur which runs parallel to NOIDA road – Drain from Sector 26 which runs parallel to Maharaja AgresenMarg – Drain outfall near NTPC Right	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into **Long-term Measures:** Ex-situ treatment with decentralized sewagetreatment plant (STP). This will include Collection, treatment, safe disposal / reuse of treated wastewater.
D5	– Drain from Sector60 – Runs parallel Maharaja Agresen Marg – Receives STP Effluent fromSector 54 – Drain outfall near NTPC Left	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into **Mid-Term Measures:** Drain is getting treated wastewater from Sector 54STP and low BOD and COD are observed at outlet. For removal of nutrient parameters, in-situ treatment option of screens and floating rafter may be considered.
D6	– Drain from Sector35 – Runs parallel to Jagannath Mandir Marg – Drain outfall near	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain

ID	Drain Detail	Proposed Treatment Options
	Kribhko Colony Right	**Mid-Term Measures:** Divert to nearest sewerage system of Sector 35,since low flow in the drain
D7	– Drain from Morna & ISBT – Runs parallel to Jagannath Mandir Marg – Drain outfall near Kribhko ColonyLeft	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** Divert to nearest sewerage system of Sector 35, since low flow (less than 1 MLD) and less width (lessthan 1 m) of the drain
D8	– Drain from Morna & ISBT – Runs parallel to Golf Marg – Drain outfall near Surbhi HospitalRight	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** Divert to nearest sewerage system of Sector 35, since low flow (less than 1 MLD) and less width (less than 1 m) in the drain
D9	– Drain from Sector 63, HazratpurWajidpur – Runs parallel to Vishwakarma Road turns nearSector 53 and thenruns parallel toCaptain Shashikant Marg – Drain outfall Surbhi Hospital Left	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Long-Term Measures:** Another longest open drain in Noida coming from Sector 63 with huge sewage flow. This required proper discussion and brain storming. For collection and treatment Ex-situ treatment
D10	– Drain from Sector51, Hoshiarpur – Runs parallel toCaptain Shashikant Marg – Drain outfall in In-Situ Wetland Treatment	Closed Drain (merging in to In-situ WetlandTreatment)
D11	– Drain from Sector50 – Runs parallel to Indosam Road – Drain Outfall nearNilgiri PublicSchool	Divert to nearest sewerage system of Sector 50 as the drain is covered.
D12	– Drain from Hindon cut that enters NOIDA fro mSector 7 – Runs parallel to Harola turns atSector 38 GC again turns at Sector	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Long-Term Measures:**

ID	Drain Detail	Proposed Treatment Options
	40 and runs parallel to Agahpur	Second longest open drain in Noida coming from Hindon Cut canal with huge sewage flow. This required proper discussion and brain storming for collection and Ex-situ treatment
D13	– Drain from Sector49, Baraula – Runs parallel to Main Barola Road	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** Divert to existing sewerage system of Sector 49(drain is covered with concrete slab)
D14	– Drain from Sector 49, Baraula – Runs parallel to Baanke BihariMarg	Divert to existing sewerage system of Sector 49(drain is covered with concrete slab)
D15	– Drain from Sector122 – Runs parallel to Vikas Marg Drain outfall Near NOIDA metro Sector 76 parking – Discharge of treated wastewater from Sector 123STP	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Long-Term Measures:** Another longest open drain in Noida coming from Sector 63 with huge sewage flow. This required proper discussion and brain storming since STP treated wastewater discharge at the start of the drain. This drain needs to be traced once again for proper in-situ or ex-situ treatment. Huge flow (around 75 MLD)
D16	– Drain from Sector102, Salarpur Khadar parallel toDadri Main Road runs parallel to Vishwarma Marg – Drain outfall opposite to D15 Outfall	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** In-Situ Drain Treatment with physical andbiological units within the drain
D17	– Drain from Sector102, Bhangel Begampur parallel to Street No. 06 – Drain outfall near Street No. 6 and Jeetram Colony road junction	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid Term Measures:** Divert to nearest sewerage system, since low flow (less than 1 MLD) and less width (less than 1 m) of the drain
D18	Drain from Sector 102, Salarpur Khadar, Bhangel Begampur parallel to Dadri Main Road (Drain adjacent to NSEZ metro square public toilet)	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid Term Measures:** In-Situ Drain Treatment with physical andbiological units

ID	Drain Detail	Proposed Treatment Options
		within the drain
D19	Drain outfall besides NSEZ Metro Station Foot Over Bridge (FOB) Drain from NEPZ, Phase – 2, Thomson Press India Limited Runs parallel to Dadri Main Road	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid Term Measures:** In-Situ Drain Treatment with physical and biological units within the drain
D20	Drain from Sector 84A, Hosiery Complex parallel toDadri Main Road Drain Outfall Besides Eagle Forgings	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid Term Measures:** In-Situ Drain Treatment with physical and biological units within the drain
D21	Drain outfall Besides Farm (Sector 82 & Sector 93) Gejah Talattulabad Runs parallel to Janpath Marg	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** In-Situ Drain Treatment with physical and biologicalunits within the drain
D22	Drain outfall Near Pumping Station of Sector 167A STP besides Shahid Mangal Pande Marg Drain from Sector 44	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** Divert to nearest STP at Sector 168 throughpumping station (PS 11) at Sector 167A
D23	Advent Drain (opposite to IT park) Sector 143B.	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** Divert to nearby sewerage system of sector 143B and from there it will go to STP located in Sector 168.
D24	Drain from Sector 126, Mayoor School, Raipur Khadar (Drain on which Gates are installed)	**Immediate Measures:** Screens should be installed at the outlet of the drain for restricting floatable solid matters in theKondali Irrigation Canal Regular cleaning and maintenance of screen Removal of sludge from the drains Prohibition of dumping of solid waste into the drain **Mid-Term Measures:** In-Situ Drain Treatment with physical and biologicalunits within the drain

Annexure II - Site Photographs

Average of Three month (Oct-22 to Dec.-2022)

EXTERNAL/Third Party MONTHLY ANALYSIS REPORT OF OUTLET (By Shriram Institute for Industrial Research)

Month	STP		Sec.	Capacity		pH	Total Suspended Solids, mg/l	Chemical Oxygen Demand, mg/l (at 20°C for 5 days)	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	Mixed liquor suspended solids, mg/l (In terms of TSS)	Total Nitrogen (as P), mg/l	Total Phosphorous (as P), mg/l	MPN Fecal Coliform per 100 ml	Ref.PN.
Average of Three month (Oct-22 to Dec.-2022)	33	MLD	54	87	MLD	7.20	9.33	36.00	6.33	9.33	7.67	0.60		
	54	MLD				7.40	7.67	46.67	8.67	7.67	9.33	3.43		
	34	MLD	50	59	MLD	7.20	8.00	26.67	5.00	8.00	8.33	4.27		
	25	MLD				7.30	3.67	25.33	4.00	3.67	3.67	1.40		
	35	MLD	123	35	MLD	7.37	4.33	26.67	4.33	4.33	6.67	1.43		
	80	MLD	123	80	MLD	7.20	10.00	112.00	22.00	10.00	17.00	3.90		
	50	MLD	168	50	MLD	7.17	12.00	61.33	11.67	12.00	13.00	2.57		
	100	MLD	168	100	MLD	7.40	3.00	12.00	2.00	3.00	16.00	4.00		

J.E.

Manager 22/02

Sr.Manager (Jal-OA)

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

SUMMARY OF LAB TEST REPORT

EXTERNAL/Third Party MONTHLY ANALYSIS REPORT OF OUTLET (By Shriram Institute for Industrial Research)

Month		STP		Sec.	Capacity		pH	Total Suspended Solids, mg/l	Chemical Oxygen Demand, mg/l (at 20°C for 5 days)	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	Mixed liquor suspended solids, mg/l (in terms of TSS)	Total Nitrogen (as P), mg/l	Total Phosphorous (as P), mg/l	MPN Fecal Coliform per 100 ml	Ref.PN.
Oct.	2022	33	MLD	54	87	MLD	6.50	22.00	44.00	8.00	22.00	13.00	0.90	542 Organisms	
		54	MLD				7.00	12.00	35.00	7.00	12.00	5.00	5.00	700 Organisms	
		34	MLD	50	59	MLD	7.20	5.00	16.00	3.00	5.00	5.00	5.00	348 Organisms	
		25	MLD				7.20	4.00	24.00	4.00	4.00	3.00	2.00	345 Organisms	
		35	MLD	123	35	MLD	7.30	10.00	32.00	5.00	10.00	9.00	1.50	900 Organisms	
		50	MLD	168	50	MLD	6.70	18.00	40.00	7.00	18.00	9.00	0.70	278 Organisms	
Average of month (Oct.-2022)							6.98	11.83	32.00	5.67	11.83	7.33	2.52		
Nov.	2022	33	MLD	54	87	MLD	7.20	1.00	4.00	Not Detected	1.00	1.00	0.40	< 2 Organisms	
		54	MLD				7.40	7.00	28.00	5.00	7.00	10.00	4.70	< 2 Organisms	
		34	MLD	50	59	MLD	7.20	5.00	20.00	4.00	5.00	8.00	4.00	700 Organisms	
		25	MLD				7.30	2.00	16.00	2.00	2.00	3.00	0.20	348 Organisms	
		35	MLD	123	35	MLD	7.30	1.00	8.00	1.00	1.00	6.00	0.60	542 Organisms	
		50	MLD	168	50	MLD	7.60	8.00	32.00	6.00	8.00	13.00	3.10	900 Organisms	
Average of month (Nov.-2022)							7.33	4.00	18.00	3.00	4.00	6.83	2.17		
Dec	2022	33	MLD	54	87	MLD	7.90	5.00	60.00	11.00	5.00	9.00	0.50	< 2 Organisms	
		54	MLD				7.80	4.00	76.00	14.00	4.00	13.00	0.60	< 2 Organisms	
		34	MLD	50	59	MLD	7.20	14.00	44.00	8.00	14.00	12.00	3.80	< 2 Organisms	
		25	MLD				7.40	5.00	36.00	6.00	5.00	5.00	2.00	< 2 Organisms	
		35	MLD	123	115	MLD	7.50	2.00	40.00	7.00	2.00	5.00	2.20	900 Organisms	
		89	MLD	123		MLD	7.20	10.00	112.00	22.00	10.00	17.00	3.90	542 Organisms	
		50	MLD	168	150	MLD	7.60	10.00	80.00	16.00	10.00	16.00	4.80	1600 Organisms	
		100	MLD	168		MLD	7.40	3.00	12.00	2.00	3.00	16.00	4.00	< 2 Organisms	
Average of month (Dec.-2022)							7.50	6.63	57.50	10.75	6.63	11.63	2.73		

J.E.

Manager

22/02

Sr.Manager (Jal-OA)
DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

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ULR NO. : TC544423000000427F

TEST REPORT

NO : C1/0000313840

TC-5444

Issued To :
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NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-O/A)

Date : 16-01-2023
Job No : 2212-1-411-1900
Booking No : RG2223/1/8411
Booking Date : 23-12-2022
Customer Ref No. : LETTER NO. NOIDA/ S.M./(JAL-O/A)/1344/2022
Customer Ref Dt. : 07-11-2022

Sample Description: **Job No. 2212-1-411-1900**

ONE GRAB TAPE SEALED SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 23.12.2022, FROM NOIDA AUTHORITY, MARKED AS "STP CCT OUTLET WATER, 54 MLD, SEC-54, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.8	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	4	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	76	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	14	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	4	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	13	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphorous (as P), mg/l	0.6	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml (Detection Limit: Two or more than two organisms per 100 ml)	<2 Organisms	IS: 1622:1981, RA-2019

****

D.O.R: 26.12.2022
D.O.S: 26.12.2022
D.O.C: 16.01.2023

AUTHORISED SIGNATORY
EMPLOYEE CODE:(C1422)

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ULR NO. : TC544423000000428F

TEST REPORT

NO : C1/0000313841

TC-5444

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SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-OA)

Date : 16-01-2023
Job No : 2212-1-411-1901
Booking No : RG2223/1/8411
Booking Date : 23-12-2022
Customer Ref No. : LETTER NO. NOIDA/ S.M./(JAL-O/A)/1344/2022
Customer Ref Dt. : 07-11-2022

Sample Description: **Job No. 2212-1-411-1901**

ONE GRAB TAPE SEALED SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 23.12.2022, FROM NOIDA AUTHORITY, MARKED AS "STP CCT OUTLET WATER, 33 MLD, SEC-54, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.9	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	5	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	60	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	11	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	5	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	9	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphorous (as P), mg/l	0.5	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml (Detection Limit: Two or more than two organisms per 100 ml)	<2 Organisms	IS: 1622:1981, RA-2019

****

D.O.R: 26.12.2022
D.O.S: 26.12.2022
D.O.C: 16.01.2023

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ULR NO. : TC544423000000216F

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NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-OA)

Date : 07-01-2023
Job No : 2212-1-411-1904
Booking No : RG2223/1/8411
Booking Date : 23-12-2022
Customer Ref No. : LETTER NO. NOIDA/S.M./(JAL-O/A)/1344/2022
Customer Ref Dt. : 07-11-2022

Sample Description: Job No. 2212-1-411-1904

ONE TAP SEALED GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 23.12.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 50 MLD, SEC-168, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.6	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	10	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	80	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 3 days)	16	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	10	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	16	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphorous (as P), mg/l	4.8	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform / 100 ml	1600 Organisms	IS 1622 : 1981, RA2019

DOR: 23.12.2022
DOS: 23.12.2022
DOC: 07.01.2023

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EMPLOYEE CODE: 4105

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NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-O/A)

Date : 07-01-2023
Job No : 2212-I-411-1902
Booking No : RG2223/I/8411
Booking Date : 23-12-2022
Customer Ref No. : LETTER NO. NOIDA/S.M./(JAL-O/A)/1344/2022
Customer Ref Dt. : 07-11-2022

Sample Description: **Job No. 2212-I-411-1902**

ONE TAP SEALED GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 23.12.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 34 MLD, SEC-50, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.2	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	14	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	44	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	8	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	14	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	12	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphorous (as P), mg/l	3.8	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform / 100 ml (Detection Limit: Two or more than two organisms/100 ml)	<2 Organisms	IS 1622 : 1981, RA2019

DOR: 23.12.2022
DOS: 23.12.2022
DOC: 07.01.2023

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ULR NO. : TC544423000000215F

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NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-OA)

Date : 07-01-2023
Job No : 2212-1-411-1903
Booking No : RG2223/1/8411
Booking Date : 23-12-2022
Customer Ref No. : LETTER NO. NOIDA/ S.M./(JAL-O/A)/1344/2022
Customer Ref Dt. : 07-11-2022

Sample Description: Job No. 2212-1-411-1903

ONE TAP SEALED GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 23.12.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 25 MLD, SEC-25, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.4	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	5	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	36	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	6	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	5	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	5	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphorous (as P), mg/l	2.0	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform / 100 ml (Detection Limit: Two or more than two organisms/100 ml)	<2 Organisms	IS 1622 : 1981, RA2019

DOR: 23.12.2022
DOS: 23.12.2022
DOC: 07.01.2023

—End of Report—

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EMPLOYEE CODE: (4105)

GG-01(Rev-05)

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TEST REPORT

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SECTOR-
NOIDA
UTTAR PRADESH (201301)
Kind Attn: MR. RAKESH KUMAR, SR. MANAGER (JAL-OA)

Date : 30-12-2022
Job No : 2212-1-411-1286
Booking No : RG2223/1/8212
Booking Date : 16-12-2022
Customer Ref No. : LETTER NO. NOIDA/ S.M./(JAL-O/A)/1344/2022
Customer Ref Dt. : 07-12-2022

Sample Description: Job.No. 2212-1-411-1286

ONE GRAB TAPE SEALED SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 16.12.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER, 100 MLD, SEC-168, NOIDA" WAS RECEIVED.

SNo	Tests	Results	Protocol
1	pH	7.4	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	3	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	12	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 3 days)	2	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	3	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	16	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	4.0	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform / 100 ml (Detection Limit: Two or more than two organisms per 100 ml)	<2 Organisms	IS 1622 : 1981, RA2019

DOR: 17.12.2022
DOS: 17.12.2022
DOC: 30.12.2022

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EMPLOYEE CODE: C1422-1

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ULR NO. : TC544422000016810F

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SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR SR. MANAGER (JAL-OA)

Date : 27-12-2022
Job No : 2212-I-411-1285
Booking No : RG2223/I/8212
Booking Date : 16-12-2022
Customer Ref No. : LETTER NO. NOIDA/S.M./(JAL-O/A)/1344/2022
Customer Ref Dt. : 07-12-2022

Sample Description: **Job No. 2212-I-411-1285**

ONE GRAB TAPE SEALED SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 16.12.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER, 80 MLD, SEC-123, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.2	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	10	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	112	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 3 days)	22	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	10	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	17	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	3.9	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	542 Organisms	IS: 1622:1981, RA-2019

DOR: 17.12.2022
DOS: 17.12.2022
DOC: 27.12.2022

—End of Report—

Date
AUTHORISED SIGNATORY
EMPLOYEE CODE:(4105)

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ULR NO. : TC544422000016145F

TEST REPORT

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TC-5444

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NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR SR. MANAGER (JAL-OA)

Date : 12-12-2022
Job No : 2211-1-411-2727
Booking No : RG2223/1/7732
Booking Date : 28-11-2022
Customer Ref No. : NOIDA/SM (JAL-OUTER)/45/20
Customer Ref Dt. : 29-05-2020

Sample Description: Job No. 2211-1-411-2727

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.11.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 54 MLD, SEC-54, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.4	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	7	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	28	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	5	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	7	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	10	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	4.7	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml (Two or more than two organisms per 100 ml)	<2 Organisms	IS: 1622:1981, RA-2019

DOR: 28.11.2022
DOS: 28.11.2022
DOC: 12.12.2022

—End of Report—

AUTHORISED SIGNATORY
EMPLOYEE CODE:(4105)

Note: The results relate only to the items tested / calibrated above.

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ULR NO. : TC544422000016146F

TEST REPORT

NO : C1/0000310539

TC-5444

Issued to
Client Code : (NOIDA0INS571)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (OA)
SEC.R&S
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-OA)

Date : 12-12-2022
Job No : 2211-I-411-2728
Booking No : RG2223/I/7732
Booking Date : 28-11-2022
Customer Ref No. : NOIDA/SM (JAL-OUTER)/15/20
Customer Ref Dt. : 29-05-2020

Sample Description: **Job No. 2211-I-411-2728**

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.11.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 33 MLD, SEC-54, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH,	7.2	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	1	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	4	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days) (Detection Limit: 1 mg/l)	Not Detected	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	1	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	1	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	0.4	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml (Two or more than two organisms per 100 ml)	<2 Organisms	IS: 1622:1981, RA-2019

DOR: 28.11.2022
DOS: 28.11.2022
DOC: 12.12.2022

—End of Report—

AUTHORISED SIGNATORY
EMPLOYEE CODE:(4105)

GC-01(Rev-05)

Note: The results relate only to the items tested / calibrated above.

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ULR NO. : TC544422000016147F

TEST REPORT

NO : C1/0000310541

Issued To :
Client Code : (NODA01N0871)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-OA)

Date : 12-12-2022
Job No : 2211-1-411-2729
Booking No : RG2223/1/7732
Booking Date : 28-11-2022
Customer Ref No. : NOIDA/SM (JAL-OUTERY/45/20
Customer Ref Dt. : 29-05-2020

Sample Description: Job No. 2211-1-411-2729

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.11.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 50 MLD, SEC-168, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.6	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	8	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	32	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	6	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	8	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	13	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	3.1	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	900 Organisms	IS: 1622:1981, RA-2019

DOR: 28.11.2022
DOS: 28.11.2022
DOC: 12.12.2022

—End of Report—

AUTHORISED SIGNATORY
EMPLOYEE CODE: (4105)

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ULR NO. : TC544422000016095F

TEST REPORT

NO : C1/0000310420

TC-5444

Issued To :
Client Code : (NODA01N0871)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-OA)

Date : 09-12-2022
Job No : 2211-1-411-2726
Booking No : RG2223/1/7732
Booking Date : 28-11-2022
Customer Ref No. : NOIDA/SM (JAL-OUTER)/45/20
Customer Ref Dt. : 29-05-2020

Sample Description: **Job No. 2211-1-411-2726**

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.11.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 34 MLD, SEC. 50, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.2	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	5	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	20	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	4	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	5	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	8	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	4.0	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	700 Organisms	IS: 1622:1981, RA-2019

DOR: 28.11.2022
DOS: 28.11.2022
DOC: 09.12.2022

—End of Report—

AUTHORISED SIGNATORY

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ULR NO. : TC544422000016094F

TEST REPORT

NO : C1/0000310419

TC-5444

Issued To :
Client Code : (NODA01SV871)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (OA)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. PAKESH KUMAR,SR. MANAGER (JAL-OA)

Date : 09-12-2022
Job No : 2211-1-411-2725
Booking No : PO2223/1/7732
Booking Date : 28-11-2022
Customer Ref No. : NOIDA/SM (JAL-OUTER)/45/20
Customer Ref Dt. : 29-05-2020

Sample Description: **Job No. 2211-1-411-2725**

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.11.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 25 MLD, SEC. 50, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.3	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	2	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	16	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	2	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	2	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	3	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	0.2	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	348 Organisms	IS: 1622:1981, RA-2019

DOR: 28.11.2022
DOS: 28.11.2022
DOC: 09.12.2022

—End of Report—

AUTHORISED SIGNATORY
EMPLOYEE CODE: 4105

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ULR NO. : TC544422000016093F

TEST REPORT

NO : C1/0000310418

TC-5444

Issued To :
Client Code : (NOIDA01N0571)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-OA)

Date : 09-12-2022
Job No : 2211-1-411-2724
Booking No : RG2223/1/7732
Booking Date : 28-11-2022
Customer Ref No. : NOIDA/SM (JAL-OUTERY/45/20
Customer Ref Dt. : 29-05-2020

Sample Description: **Job No. 2211-1-411-2724**

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.11.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 35 MLD, SEC-123, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.3	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	1	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	8	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	1	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	1	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	6	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	0.6	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	542 Organisms	IS: 1622:1981, RA-2019

DOR: 28.11.2022
DOS: 28.11.2022
DOC: 09.12.2022

—End of Report—

Manager, Outer Agency
Dy. No. 2230
Date 15/12
Sector-5, NOIDA

AUTHORISED SIGNATORY
EMPLOYEE CODE:(4105)

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ULR NO. : TC544422000014898F

TEST REPORT

NO : C1/0000307818

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Issued To :
Client Code : (NODA01N0871)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-O/A)

Date : 15-11-2022
Job No : 2210-1-411-1984
Booking No : RG2223/I/6887
Booking Date : 28-10-2022
Customer Ref No. : NOIDA/SM (JAL-OUTLET)/45/20
Customer Ref Dt. : 29-05-2022

Sample Description: Job No. 2210-1-411-1984

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.10.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 25 MLD, SEC-50, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.2	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	4	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	24	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	4	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	4	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	3	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	2.0	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	345 Organisms	IS: 1622:1981, RA-2019

DOR: 28.10.2022
DOS: 28.10.2022
DOC: 15.11.2022

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EMPLOYEE CODE: C1422

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ULR NO. : TC544422000014897F

TEST REPORT

NO : C1/0000307816

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Issued To :
Client Code : (NODA01N0871)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR SR. MANAGER (JAL-O/A)

Date : 15-11-2022
Job No : 2210-I-411-1983
Booking No : RG2223/I/6887
Booking Date : 28-10-2022
Customer Ref No. : NOIDA/SM (JAL-OUTERY/45/20
Customer Ref Dt. : 29-05-2022

Sample Description: **Job No. 2210-I-411-1983**

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.10.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 34 MLD, SEC-50, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.2	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	5	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	16	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	3	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	5	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	5	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	5.0	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	348 Organisms	IS: 1622:1981, RA-2019

DOR: 28.10.2022
DOS: 28.10.2022
DOC: 15.11.2022

—End of Report—

AUTHORISED SIGNATORY
EMPLOYEE CODE: C/1422

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ULR NO. : TC544422000014899F

TEST REPORT

NO : C1/0000307821

TC-5444

Issued To :
Client Code : (NODA01N0871)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-O/A)

Date : 15-11-2022
Job No : 2210-1-411-1985
Booking No : RG2223/1/6887
Booking Date : 28-10-2022
Customer Ref No. : NOIDA/SM (JAL-OUTER)/45/20
Customer Ref Dt. : 29-05-2022

Sample Description: **Job No. 2210-1-411-1985**

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.10.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 54 MLD, SEC-54, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.0	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	12	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	36	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	7	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (in terms of TSS)	12	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	5	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	5.0	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	700 Organisms	IS: 1622:1981, RA-2019

DOR: 28.10.2022
DOS: 28.10.2022
DOC: 15.11.2022

—End of Report—

AUTHORISED SIGNATORY

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ULR NO. : TC544422000014900F

TEST REPORT

NO : C1/0000307823

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NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-O/A)

Date : 15-11-2022
Job No : 2210-I-411-1986
Booking No : RQ2223/I/6887
Booking Date : 28-10-2022
Customer Ref No. : NOIDA/SM (JAL-OFFICE)/4520
Customer Ref Dt. : 29-05-2022

Sample Description: **Job No. 2210-I-411-1986**

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.10.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 33 MLD, SEC-54, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	6.5	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	22	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	44	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l. (at 20°C for 5 days)	8	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	22	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	13	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	0.9	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	542 Organisms	IS: 1622:1981, RA-2019

DOR: 28.10.2022
DOS: 28.10.2022
DOC: 15.11.2022

---End of Report---

AUTHORISED SIGNATORY
EMPLOYEE CODE: C1/427

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qad@shriraminstitute.org

ULR NO. : TC544422000014901F

TEST REPORT

NO : C1/0000307825

TC-5444

Issued To :
Client Code : (NODA01N0871)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-O/A)

Date : 15-11-2022
Job No : 2210-1-411-1987
Booking No : RG2223/1/6887
Booking Date : 28-10-2022
Customer Ref No. : NOIDA/SM (JAL-OUTERY/45/20
Customer Ref Dt. : 29-05-2022

Sample Description: Job No. 2210-1-411-1987

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.10.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 50 MLD, SEC-168, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	6.7	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	18	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	40	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	7	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	18	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	9	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	0.7	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	278 Organisms	IS: 1622:1981, RA-2019

DOR: 28.10.2022
DOS: 28.10.2022
DOC: 15.11.2022

—End of Report—

AUTHORISED SIGNATORY
EMPLOYEE CODE: (C1422)

GC-01(Rev-05)

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ULR NO. : TC544422000014896F

TEST REPORT

NO : C1/0000307814

Issued To :
Client Code : (NODA01N0871)
NEW OKHLA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER JAL (O/A)
SECTOR-5
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAKESH KUMAR,SR. MANAGER (JAL-O/A)

Date : 15-11-2022
Job No : 2210-1-411-1982
Booking No : PG2223/11/0327
Booking Date : 28-10-2022
Customer Ref No. : NOIDA/SM (JAL)/ETP/4529
Customer Ref Dt. : 29-10-2022

Sample Description: **Job No. 2210-1-411-1982**

ONE GRAB SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON 28.10.2022 FROM NOIDA AUTHORITY MARKED AS "STP CCT OUTLET WATER 35 MLD, SEC-123, NOIDA" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.3	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	10	IS: 3025 Pt-17-1984, RA 2017
3	Chemical Oxygen Demand, mg/l	32	APHA 23rd Ed., 5220
4	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	5	APHA 23rd Ed., 5210
5	Mixed liquor suspended solids, mg/l (In terms of TSS)	10	IS: 3025 Pt-17-1984, RA 2017
6	Total Nitrogen (as N), mg/l	9	IS: 3025 Pt-34-1988, RA 2019
7	Total Phosphate (as P), mg/l	1.5	IS: 3025 Pt-2-2019
8	MPN Fecal Coliform per 100 ml	900 Organisms	IS: 1622:1981, RA-2019

DOR: 28.10.2022
DOS: 28.10.2022
DOC: 15.11.2022

Manager, Outer Agency Dr. No. 4/21 Date 01/12/22

—End of Report—

01/12

AUTHORISED SIGNATORY
EMPLOYEE CODE: C 1422

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असाधारण
EXTRAORDINARY
भाग II—खण्ड 3—उप-खण्ड (i)
PART II—Section 3—Sub-section (i)
प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 843] नई दिल्ली, शुक्रवार, अक्तूबर 13, 2017/आश्विन 21, 1939
No. 843] NEW DELHI, FRIDAY, OCTOBER 13, 2017/ASVINA 21, 1939

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 13 अक्तूबर, 2017

सा.का.नि. 1265(अ).—केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 6 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, पर्यावरण (संरक्षण) नियम, 1986 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात् :—

1. संक्षिप्त नाम और प्रारम्भ :—(1) इन नियमों का संक्षिप्त नाम पर्यावरण (संरक्षण) संशोधन नियम, 2017 है।

(2) ये राजपत्र में उनके प्रकाशन की तारीख को प्रवृत्त होंगे।

2. पर्यावरण (संरक्षण) नियम, 1986 की अनुसूची-1 में, क्रम संख्यांक 104 और उससे सम्बन्धित प्रविष्टियों के पश्चात्, निम्नलिखित क्रम संख्यांक और प्रविष्टियां अन्तःस्थापित की जाएंगी, अर्थात् :—

क्र. सं.	उद्योग	मानदंड	मानक	
1	2	3	4	
	बहिर्स्राव निस्सारण मानक (निपटान के सभी ढंगों को लागू)			
"105	मल उपचार संयंत्र (एसटीपी)		अवस्थान	साद का निम्नलिखित से अधिक न होना
			(क)	(ख)
		पीएच	देश में कहीं भी	6.5-9.0
		जैव-रासायनिक ऑक्सीजन मांग (बीओडी)	महानगर अरुणाचल प्रदेश, असम, मणिपुर, मेघालय, मिजोरम, नागालैण्ड, त्रिपुरा, सिक्किम, हिमाचल प्रदेश, उत्तराखंड, जम्मू-कश्मीर राज्यों और	

		अंदमान और निकोबार द्वीप, दादरा और नगर हवेली, दमण और दीव और लक्षद्वीप के सिवाय, सभी राज्यों की राजधानी।	
		ऊपर उल्लिखित से भिन्न क्षेत्र/प्रदेश	30
	पूर्ण निलंबित ठोस पदार्थ (मिलीग्राम)	महानगर अरुणाचल प्रदेश, असम, मणिपुर, मेघालय, मिजोरम, नागालैंड, त्रिपुरा, सिक्किम, हिमाचल प्रदेश, उत्तराखंड, जम्मू-कश्मीर राज्यों और अंदमान और निकोबार द्वीप, दादरा और नगर हवेली, दमण और दीव और लक्षद्वीप के सिवाय, सभी राज्यों की राजधानी।	<50
		ऊपर उल्लिखित से भिन्न क्षेत्र/प्रदेश	<100
	फेकल कॉलीफार्म (एमपी) (अनिवार्य संख्या प्रति 100 मिलीलिटर एमपीएन/100 मिलीलिटर	देश में कहीं भी	<1000

*मुम्बई, दिल्ली, कोलकाता, चेन्नई, बैंगलूरु, हैदराबाद, अहमदाबाद और पुणे महानगर है।

टिप्पण :

(i) पीएच और फैकल कॉलीफार्म के सिवाय, मिलीग्राम/लिटर में सभी मूल्य।

(ii) ये, मानक अवशोषों में निस्सारण और भूमि निपटान/अनुप्रयोगों के लिए लागू होंगे।

(iii) फैकल कॉलीफार्म के लिए मानक औद्योगिक प्रयोजनों के लिए उपचारित बहिर्स्राव के उपयोग के सम्बन्ध में लागू नहीं होंगे।

(iv) ये मानक 1 जून, 2019 को या उसके पश्चात् कमीशन किए जाने वाले सभी मल उपचार संयंत्रों (एसटीपी) को लागू होंगे और पुराने/विद्यमान मल उपचार संयंत्र (एसटीपी) राजपत्र में इस अधिसूचना के प्रकाशन की तारीख से पांच वर्ष की अवधि के भीतर इन मानकों को प्राप्त करेंगे।

(v) समुद्र में उपचारित बहिर्स्राव के निस्सारण के मामले में, इसे उचित समुद्री सुझाव के माध्यम से किया जाएगा और विद्यमान सट निस्सारण को समुद्री सुझावों में संपरिवर्तित किया जाएगा और इन मामलों में, जहां समुद्री सुझाव निस्सारण के बिन्दु पर 150 गुणा न्यूनतम आरम्भिक तनुकरण और निस्सारण बिन्दु से दूर 100 मीटर के किसी बिन्दु पर 1500 गुणा न्यूनतम तनुकरण प्रदान करना है, तब विद्यमान सक्रियम साधारण निस्सारण मानकों में विनिर्दिष्ट किए गए अनुसार लागू होंगे।

(vi) उपचारित बहिर्स्राव का पुनःउपयोग/पुनःचक्रण तथा उन मामलों में, जहां उपचारित बहिर्स्राव के भाग का पुनःउपयोग और पुनःचक्रण किया जाना है जिसमें मानवीय सम्पर्क की सम्भावना अन्तर्वलित है, क्रूर तथा विनिर्दिष्ट मानक लागू होंगे।

(vii) केन्द्रीय प्रदूषण नियंत्रण बोर्ड/राज्य प्रदूषण नियंत्रण बोर्ड/प्रदूषण नियंत्रण समितियां, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 5 के अधीन स्थानीय परिवेश को ध्यान में रखते हुए, अधिक कठोर सक्रियम मानों का मनोनयन करेंगी।

[फा. सं. क्यू-15017/2/2008/-सीपीसीबी]

अरुण कुमार मेहता, अवर सचिव

[अनुवाद : मूल नियम भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (i) में का.आ. सं. 844(अ), तारीख 19 नवम्बर, 1986 द्वारा प्रकाशित किए गए थे और तत्पश्चात् उसमें निम्नलिखित अधिसूचनाओं द्वारा संशोधन किए गए थे, अर्थात् :— का.आ. 433(अ), तारीख 18 अप्रैल, 1987; सा.का.नि. 176(अ), तारीख 2 अप्रैल, 1996; सा.का.नि. 97(अ), तारीख 18 फरवरी, 2009, सा.का.नि. 149(अ), तारीख 4 मार्च, 2009, सा.का.नि. 543(अ), तारीख 22 जुलाई, 2009; सा.का.नि. 739(अ), तारीख 9 सितम्बर, 2010; सा.का.नि. 809(अ), तारीख 4 अक्तूबर, 2010; सा.का.नि. 215(अ), तारीख 15 मार्च, 2011; सा.का.नि. 221(अ), तारीख 18 मार्च, 2011, सा.का.नि. 354(अ), तारीख 2 मई, 2011; सा.का.नि. 424(अ), तारीख 1 जून, 2011; सा.का.नि. 446(अ), तारीख 13 जून, 2011; सा.का.नि. 152(अ), तारीख 16 मार्च, 2012; सा.का.नि. 266(अ), तारीख 30 मार्च, 2012; सा.का.नि. 277(अ), तारीख 31 मार्च, 2012; सा.का.नि. 820(अ), तारीख 9 नवम्बर, 2012; सा.का.नि. 176(अ), तारीख 18 मार्च, 2013; सा.का.नि. 535(अ), तारीख 7 अगस्त, 2013; सा.का.नि. 771(अ), तारीख 11 दिसम्बर, 2013; सा.का.नि. 2(अ), तारीख 2 जनवरी, 2014; सा.का.नि. 229(अ), तारीख 28 मार्च, 2014; सा.का.नि. 232(अ), तारीख 31 मार्च, 2014; सा.का.नि. 325(अ), तारीख 7 मई, 2014; सा.का.नि. 612(अ), तारीख 25 अगस्त, 2014; सा.का.नि. 789(अ), तारीख 11 नवम्बर, 2014; का.आ. 3305(अ), तारीख 7 दिसम्बर, 2015; का.आ. 4(अ), तारीख 1 जनवरी, 2016; सा.का.नि. 35(अ), तारीख 14 जनवरी, 2016; सा.का.नि. 281(अ), तारीख 7 मार्च, 2016; सा.का.नि. 496(अ), तारीख 9 मई, 2016; सा.का.नि. 497(अ), तारीख 10 मई, 2016; सा.का.नि. 978(अ), तारीख 10 अक्तूबर, 2016; और अंतिम बार अधिसूचना संख्यांक सा.का.नि. 1016(अ), तारीख 28 अक्तूबर, 2016 द्वारा संशोधित किए गए थे।]

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 13th October, 2017

G.S.R. 1265(E).—In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:-

1. **Short title and commencement.**—(1) These rules may be called the Environment (Protection) Amendment Rules, 2017.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Environment (Protection) Rules, 1986, in Schedule I, after serial number 104 and the entries relating thereto, the following serial number and entries shall be inserted, namely:—

Sl. No.	Industry	Parameters	Standards	
1	2	3	4	
		Effluent discharge standards (applicable to all mode of disposal)		
			Location	Concentration not to exceed
			(a)	(b)
"105	Sewage Treatment Plants (STPs)	pH	Anywhere in the country	6.5-9.0
		Bio-Chemical Oxygen Demand (BOD)	Metro Cities*, all State Capitals except in the State of Arunachal Pradesh, Assam, Manipur, Meghalaya Mizoram, Nagaland, Tripura Sikkim, Himachal Pradesh, Uttarakhand, Jammu and Kashmir, and Union territory of	20

			Andaman and Nicobar Islands, Dadar and Nagar Haveli Daman and Diu and Lakshadweep	
			Areas/regions other than mentioned above	30
		Total Suspended Solids (TSS)	Metro Cities*, all State Capitals except in the State of Arunachal Pradesh, Assam, Manipur, Meghalaya Mizoram, Nagaland, Tripura Sikkim, Himachal Pradesh, Uttarakhand, Jammu and Kashmir and Union territory of Andaman and Nicobar Islands, Dadar and Nagar Haveli Daman and Diu and Lakshadweep	<50
			Areas/regions other than mentioned above	<100
		Fecal Coliform (FC) (Most Probable Number per 100 milliliter, MPN/100ml	Anywhere in the country	<1000

*Metro Cities are Mumbai, Delhi, Kolkata, Chennai, Bengaluru, Hyderabad, Ahmedabad and Pune.

Note :

(i) All values in mg/l except for pH and Fecal Coliform.

(ii) These standards shall be applicable for discharge into water bodies as well as for land disposal/applications.

(iii) The standards for Fecal Coliform shall not apply in respect of use of treated effluent for industrial purposes.

(iv) These Standards shall apply to all STPs to be commissioned on or after the 1st June, 2019 and the old/existing STPs shall achieve these standards within a period of five years from date of publication of this notification in the Official Gazette.

(v) In case of discharge of treated effluent into sea, it shall be through proper marine outfall and the existing shore discharge shall be converted to marine outfalls, and in cases where the marine outfall provides a minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100 meters away from discharge point, then, the existing norms shall apply as specified in the general discharge standards.

(vi) Reuse/Recycling of treated effluent shall be encouraged and in cases where part of the treated effluent is reused and recycled involving possibility of human contact, standards as specified above shall apply.

(vii) Central Pollution Control Board/State Pollution Control Boards/Pollution Control Committees may issue more stringent norms taking account to local condition under section 5 of the Environment (Protection) Act, 1986".

[F. No. Q-15017/2/2008-CPW]

ARUN KUMAR MEHTA, Addl. Secy.

Note : The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3,Sub-section (i) *vide* number S.O. 844 (E), dated the 19th November, 1986 and subsequently amended *vide* the following notifications, namely:—

S.O. 433 (E), dated the 18th April 1987; G.S.R. 176(E) dated the 2nd April, 1996; G.S.R. 97 (E), dated the 18th February, 2009; G.S.R. 149 (E), dated the 4th March , 2009; G.S.R. 543(E), dated the 22nd July,2009; G.S.R. 739 (E), dated the 9th September, 2010; G.S.R. 809(E), dated the 4th October, 2010, G.S.R.

Item No. 06 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 1069/2018
(M.A. Nos. 1792/2018 & 1793/2018)

Nitin Shankar Deshpande Applicant(s)

Versus

Union of India & Ors. Respondent(s)

Date of hearing: 21.12.2018

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Appellant(s): Mr. Krishnan Venugopal, Senior Advocate, Mrs. Ekta Sikri and Ms. K. Gayatri, Advocates

For Respondents (s): Mr. Divya Prakash Pande, Advocate for MoEF&CC

ORDER

1. Challenge in this application is to the Notification dated 13.10.2017, amending the Environment (Protection) Rules, 1986, Schedule – I. In the said Schedule, *inter-alia*, standards for emission or discharge of pollutants are prescribed. Serial number 105 has been added to lay down revised standards for the STPs as follows:-

> "G.S.R. 1265(E).—In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:-
>
> 1. Short title and commencement –
>
> (1) These rules may be called the Environment (Protection) Amendment Rules, 2017.
> (2) They shall come into force on the date of their publication in the Official Gazette.
>
> 2. In the Environment (Protection) Rules, 1986, in Schedule – I, after serial number 104 and the entries relating thereto, the following serial number and entries shall be inserted, namely:

Sl. No.	Industry	Parameters	Standards	
1	2	3	4	
		Effluent discharge standards		
105	Sewage Treatment Plants (STPs)		Location	Concentration not to exceed
			(a)	(b)
		pH	Anywhere in the country	6.5-9.0
		Bio-Chemical Oxygen Demand (BOD)	Metro Cities*, all State Capitals except in the State of Arunachal Pradesh, Assam, Manipur, Meghalaya Mizoram, Nagaland, Tripura Sikkim, Himachal Pradesh, Uttarakhand Jammu and Kashmir, and Union Territory of Andaman and Nicobar Islands, Dadar Nagar Haveli Daman Diu and Lakshadweep	20
			Areas/regions other than mentioned above	30
		Total Suspended Solids (TSS)	Metro Cities*, all State Capitals except in the State of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Sikkim, Himachal Pradesh, Uttarakhand, Jammu and Kashmir and Union Territory of Andaman and Nicobar Islands, Dadar and Nagar Haveli Daman Diu and Lakshadweep	<50
			Areas/regions other than mentioned above	<100
		Fecal Coliform (FC) (Most probable Number pe 100 milli liter, MPN/100ml	Anywhere in the country	<1000

*Metro Cities are Mumbai, Delhi, Kolkata, Bengaluru, Hyderabad, Ahmedabad and Pune

Note:

(i) All values in mg/l except for pH and Fecal Colifrom.

(ii) These standards shall be applicable for discharge into water bodies as well as for land disposal/applications.

(iii) The standards for Fecal Coliform shall not apply in respect of use of treated effluent for industrial purposes.

(iv) These standards shall apply to all STPs to be commissioned on or after the 01st June, 2019 and the old/existing STPs shall achieve

	these standards within a period of five years from date of publication of this notification in the Official Gazette.
(v)	In case of discharge of treated effluent into sea, it shall be through proper marine outfall and the existing shore discharge shall be converted to marine outfalls, and in cases where the marine outfall provides a minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100 meters away from discharge point, then, the existing norms shall apply as specified in the general discharge standards.
(vi)	Reuse/Recycling of treated effluent shall be encouraged and in cases where part of the treated effluent is reused and recycled involving possibility of human contact, standards as specified above shall apply.
(vii)	Central Pollution Control Board/State Pollution Control Boards/Pollution Control Committees may issue more stringent norms taking account to local condition under section 5 of the Environment (Protection) Act, 1986".

2. The grievance of the applicant that the standards have been drastically diluted and relaxed which will lead to widespread degradation of water quality, in violation of the Article 21 and 48A of the Constitution and Section 3 (1) of the Environment (Protection) Act, 1986 which envisage protection and improvement of quality of environment.

3. The Environment (Protection) Act, 1986 has been enacted to give effect to the international obligations with reference to Article 253 of the Constitution and powers are conferred to take measures for improvement in the quality of environment. The same are coupled with the duty to uphold such standards as are necessary for protection of the environment.

4. Untreated or partially treated sewage is a major source of pollution. Experts on the subject have recognized huge gap in the sewage generated and treated resulting in untreated sewage being dumped into the water bodies. What is required is to take steps to enhance the treatment capacities.

5. The Hon'ble Supreme Court in the case *Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors.*[1] directed taking of steps to achieve the said standards. This has been reiterated in order

[1] (2017) 5 SCC 326

of the Tribunal[2]. Draft notifications based on Expert Committee deliberations were issued by the MoEF&CC on 24.11.2015 proposing standards, *inter-alia*, for BOD, TSS and FC. As against the said standards, there is a huge dilution in the final notification dated 13.10.2017, which is depicted in the following chart:-

Sr. No.	Parameters	Old Norms 1986	Draft Norms Nov., 15	MoEF & CC Notification October 2017
1.	Biochemical Oxygen Demand (BOD) (mg/l)	<30	<10	<30 and <20 (metro cities)
2.	Chemical Oxygen Demand (COD) (mg/l)	<250	50	No limit
3.	Total Suspended Solids (TSS) (mg/l)	<100	<20	<100 and <50 (metro cities)
4.	Total Nitrogen (mg/l)	<100	<10	No limit
5.	Ammonical Nitrogen (mg/l)	<50	<5	No limit
6.	Total Phosphorus (mg/l)	No limit	No limit	No limit
7.	Fecal Coliform MPN/100 ml	No limit	<100	<1000

6. The applicant represented to the Ministry on 16.11.2017. Thereafter, he moved this Tribunal by way of original Application No. 312/2018. Notice was issued on 15.05.2018. The application was disposed of on 17.07.2018 with the direction that representation of the applicant which was filed on 16.11.2017 be decided on or before 31.07.2018 by the Ministry of Environment and Forest and Climate Change (MoEF&CC).

7. Vide order dated 10.08.2018, the MoEF&CC rejected the representation with the observation that adequate due diligence had been applied and the notification was issued

[2] M.C. Mehta Vs. Union of India, O.A. No. 200 of 2014 order dated 13.07.2017

thereafter detailed technical analysis. Examination of international standards had also been undertaken. The Notification also permits CPCB/State PCBs/ PCCs to issue more stringent norms in the light of the above Notification. It was further stated that:

> *"vi). While you have compared with the general standards it is to state that new standards have been laid with regard to pH in place of 5.5 to 9.0 STP standards is prescribed 6.5 to 9.0, BOD prescribed in general standards is 350 mg/l (public sewers), while STP standards is prescribed 20 mg/l for metropolitan cities and 30 mg/l for all other regions of the country. With regard to TSS, the STP standards prescribed <50 mg/l for metropolitan cities and <100 mg/l for other regions while general standards prescribed 100 mg/l for inland surface water and 600 mg/l for public sewers and 200 mg/l for Land for irrigation. With regard to fecal coliform standard prescribed, it is mentioned that this standard has ben stipulated for the first time in the country which is much stringent than any of the standards for the developed countries which is less than 1000 MPN/ 100m)."*

8. Our attention has been drawn to the directions of the CPCB dated 21.04.2015 under Section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 requiring the SPCBs to make it mandatory for local bodies to set up sewerage systems for treatment and disposal of sewage to meet the prescribed standards which are as follows:-

EFFLUENT DISCHARGES STANDARDS FOR SEWAGE TREATMENT PLANT

S. No.	Parameters	Parameters Limits (standards for New STPs Design after notification date)*
1.	pH	6.5-9.0
2.	BOD (mg/l)	Not more than 10
3.	COD (mg/l)	Not more than 50
4.	TSS (mg/l)	Not more than 20
5.	NH_4 N (mg/l)	Not more than 5
6.	N-total (mg/l)	Not more than 10
7.	Fecal Coliform (MPN/100ml)	Less than 100

9. Further, in the 12th Expert Meeting held on 08.05.2017 in the MoEF&CC the Expert Committee approved as follows:-

"After detailed discussions following was suggested and approved by the Expert Committee:

i) In respect of BOD, it was noted that stringent norms of 10 mg/l should be applied to Metropolitan Cities and States Capitals considering the degradation of quality of water bodies. However, the other cities/town may be permitted to the limit of 20 mg/l in treated effluent from STPs. Hence, the proposed standards were approved by the Committee, however, it was suggested that the old/existing STPs may be given 5 years period to achieve compliance from date of publication of notification; whereas the new STPs commissioned on or after 01/06/2017, have to comply from the date of publication of notification. The issue related to applying of proposed standards for cities/town where BOD in receiving water body exceeds 6mg/l was discussed in detail and also approved by the Committee.

ii) In respect Total Suspended Solids (TS), pH, Total-Nitrogen and Fecal Coliform, the proposed standards of <20 mg/l, 6.5-9.0, 10 mg/l and <230 MPC/100 ml respectively were approved by the Expert Committee after detailed discussions.

iii) It was decided that the matter related to Phosphate standards is more relevant to the soap/detergent industries and may be dealt separately. In respect of standard for Ammonical Nitrogen, it was decided that it is not needed to be notified at the moment as notifying the Total Nitrogen to 10mg/l would serve the purpose.

iv) The Expert Committee also suggested that each STP should install Online Monitoring Device for the purpose of better monitoring of the performance of plant. Also, there should be guidelines for the sludge management and handling for the sludge generated while treatment of sewage.

v) In respect of issue related to the disposal of treated effluent in Marine Coastal Water, it was decided that the discharge in to sea should be through proper marine outfall and the effluent should be away from the beaches. The marine outfall shall

follow the existing general discharge standards. Hence, the Committee approved the footnote proposed in the draft notification.

vi) It was decided that reuse/recycling of treated effluent shall be encouraged. In cases where part of the treated effluent is reused and recycled involving possibility of human contact, standards as proposed in the draft notification shall be applied."

10. In view of the above, relaxed standards will deteriorate the water quality which will not be fit for the best designated use. Instead of protecting the environment, impugned notification will degrade the environment. The notification is a retrograde step.

11. The applicant, sums up the adverse effect of the diluted parameters as follows:-

"(i) ***Effects of Organic Matter (BOD) (Revised from 10 mg/l to 30 mg/l)***

Biochemical Oxygen Demand (BOD):	***Effects of excess BOD load on environment:***
The organic or polluting strength of wastewater is measured in terms of BOD (Biochemical oxygen Demand), which is the amount of oxygen needed by aerobic (Oxygen using) bacteria for the oxidation (Break-down) of organic matter	*i. Due to disposal of partially treated wastewater quality of Surface & Ground water bodies deteriorates to a great extent. Further when the water is used from the same source; it is harmful for human consumption.* *ii) This excess BOD will consume oxygen present in the water body which will lead to development of bacterial growth and disturbance of ecosystem present in the same (fish death, algal boom etc.)*

(ii) Effects of Chemical Oxygen Demand (Revised from 50 mg/l to No Limit)

Chemical Oxygen Demand (COD):	***Effects of excess COD load on environment:***
COD is the amount of oxygen required for chemical oxidation (Break-down) of organic matter.	*When the water is used from the source where treated sewage is disposed; it is harmful for human consumption.* *Accumulation of non-degradable and degradable chemicals/matters in water bodies.*

(iii) Effects of Total Suspended Solids (revised from 10mg/l to 100 mg/l)

Suspended Solids:	*Effects:*
The portion of organic material that does not dissolve but remains suspended in the water is known as suspended solids.	*i. Provides hiding space for disease causing micro-organisms.* *ii. Silting in receiving water bodies.* *iii. Deterioration of water quality and aesthetics of receiving water bodies.*

(iv) Effects of Faecal Coliform (Revised from 100 MPN/100 ml to 1000 MPN/100ml

Effects of microbial contamination
Use of contaminated water at downstream of disposal point by human communities leads to diseases and epidemics such as Diarrhea, Dysentery, Cholera, gastroenteritis, enteric fever, Hepatitis B etc.

As per the CPCB water quality criteria for streams, for outdoor bathing (Class of water B) the total coliform shall be less than 500 MPN per 100 ml of water and Biochemical oxygen demand (BOD) shall be less than 3 mg/l.

However, as per impugned notification the discharge standards for BOD and coliform are specified as < 20 mg/L and < 1000 MPN/100 mL respectively.

The relaxation given in the above- mentioned parameters compared with earlier discharge standards are encouraging the use of receiving water body as a source of dilution for domestic sewage. However, receiving water bodies shall not be used as source of dilution for maintaining its water quality and aesthetics. Also, its use as dilution source can further aggravate the water borne diseases in downstream region and surrounding region of disposal point".

(v) Effects of Fecal Coliform (Revised from 100 MPN/100 ml to 1000 MPN/100ml

Effects of Nitrogen and Phosphorous:	
i.	*Eutrophication (Algal boom in receiving water body – which deteriorates its water quality and aesthetics rendering it unit for daily use.*
ii.	*Accumulation of nutrients.*

Nitrogen and Phosphorous are limiting nutrients for the growth of micro-organisms in aquatic ecosystem. If the partially treated/untreated domestic wastewater having considerable

amounts of nutrients in it is released into an aquatic ecosystem, it causes algae to grow faster than the ecosystem can handle. Significant increase in algae harm water quality, food resources and habitats, and decreases the oxygen that fish and other aquatic life need to survive. Large growth of algae is called algal blooms and they can severely reduce or eliminate oxygen in the water leading to illness in fish and death of large number of fish. Some algal blooms (eutrophication) are harmful to humans because they produce elevated toxins and bacterial growth that can make people sick if they come into contact with the polluted water, consumed tainted fish or shellfish or drink contaminated water."

12. Reference has been also been made to the report of the CPCB on River Stretches for Restoration of Water Quality published in 2015. In the preface to said report, the Chairman CPCB stated as follows:-

"The Water quality management is one of the many environmental problems in India. Increasing demand of water for human consumption, irrigation and growing industrial activities has impacted the water quality of rivers due to declining flows in rivers and depleting water levels of subsurface resources. Bio-chemical Oxygen Demand (BOD) has been considered as principle parameters for identification of monitoring locations in exceedance to the criteria limit. The present study highlights three water quality issues in 275 rivers comprising of 302 stretches in 27 States in 2 UTs. The water data indicates that organic pollution as indicated by Biochemical Oxygen Demand (BOD) continues to be the major water quality issue. This is mainly due to discharge of untreated domestic wastewater from the urban centres of the country. The municipal corporations at large are not able to treat increasing load of multiple sewage flowing into water bodies. Secondly the receiving water bodies also do not have adequate water for dilution....."

13. Reference has then been made to the order of this Tribunal on the subject of polluted river stretches dated 20.09.2018 in Original Application No. 673/2018 in the matter of News item published in *"The Hindu" authored by Shri Jacob Koshy titled "More river stretches are now critically polluted : CPCB".*

14. The applicant has also referred to order of this Tribunal dated 13.07.2017 in the case of M.C. Mehta v. Union of India directing as follows:-

"All the existing STPs as well as the STPs to be designed and constructed should satisfy the existing standards. The new STPs should be designed and construed in manner in which

they should be able to achieve more stringent norms, if prescribed in future... the said STP shall be constructed and completed to ensure that it meets the prescribed values, particularly, in relation to BOD, faecal coliform and all other parameters. It should be designed to achieve suggested values of BOD at 10 mg/l and 230 MPN/100 ml of Faecal Coliform, as directed by CPCB and MoEF & CC".

15. Learned counsel for the applicant states that the impugned notification violates Article 21 of the Constitution and its operation is extremely harmful for public at large as well as to the environment, in as much as the notification has diluted three important standards for effluent – BOD, TSS and FC, leaving the environment to the mercy of the increased pollution. It is, thus, prayed that impugned notification be held in abeyance and standards laid down as per directions dated 21.04.2015, 09.10.2015, 15.12.2016 and 19.04.2017 by the CPCB be maintained.

16. Issue Notice to the MoEF&CC. Learned Counsel Mr. Divya Prakash Pande, accepts notice for MoEF&CC and seeks time to reply to the main application as well as interim application. The applicant is directed to furnish a set of papers to MoEF&CC and CPCB and file an affidavit of service within one week from today.

17. To consider the matter further, it is necessary to have a report of Expert Committee. Accordingly, we constitute an Expert Committee as follows:-

    1. Director or his nominee (Senior Prof. of Environmental Engineering) IIT Kanpur and IIT Roorkee.
    2. Senior representative of NEERI.
    3. Senior Scientist nominated by CPCB.

    The nodal agency for coordination and follow up will be CPCB.

18. The Expert Committee may give its report within two months after going into various aspects of the alleged dilution of norms and its likely impact on the recipient environment and public health. While examining the matter, the Committee shall examine the issues such as assimilative capacities of our river systems, e-flows and related aspects. The Expert Committee shall also examine the best available technologies and best practices being followed besides the need of its replication in India keeping in view the economic viability and resource position. While making the recommendations, the Committee can refer to the CPCB Report on "River Stretches for Restoration of Water Quality, 2014-15" and the order of this Tribunal on the subject of polluted river stretches dated 20.09.2018 in Original Application No. 673/2018 in the matter of News item published in *"The Hindu" authored by Shri Jacob Koshy titled "More river stretches are now critically polluted : CPCB"*.

19. The report may be furnished by the CPCB to the MoEF&CC as well as to this Tribunal by email at ngt.filing@gmail.com on or before 31.03.2019. It will be open to MoEF&CC to take a fresh view in the light of the report and furnish its comments by e-mail before the next date. The registry may forward the report to the applicant also, who may file his comments, if any, before the next date.

20. We are *prima facie* of the view having regard to the above narration, serious consideration of the subject is necessary. Apart from there being a *prima facie* case in favour of stay of the impugned notification, balance of convenience also is in favour of stay being granted. Operation of the impugned notification will be extremely harmful for public at large. On

stay being granted, pre-revised standards will prevail and grant of stay will cause no harm to anyone. If stay is not granted, there will be irreparable loss to the public health at large as well as to the environment.

21. Till the matter is considered further, operation of the impugned notification will remain stayed.

List for further consideration on 16.04.2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

December 21, 2018
Original Application No. 1069/2018
A

ANNEXURE G

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

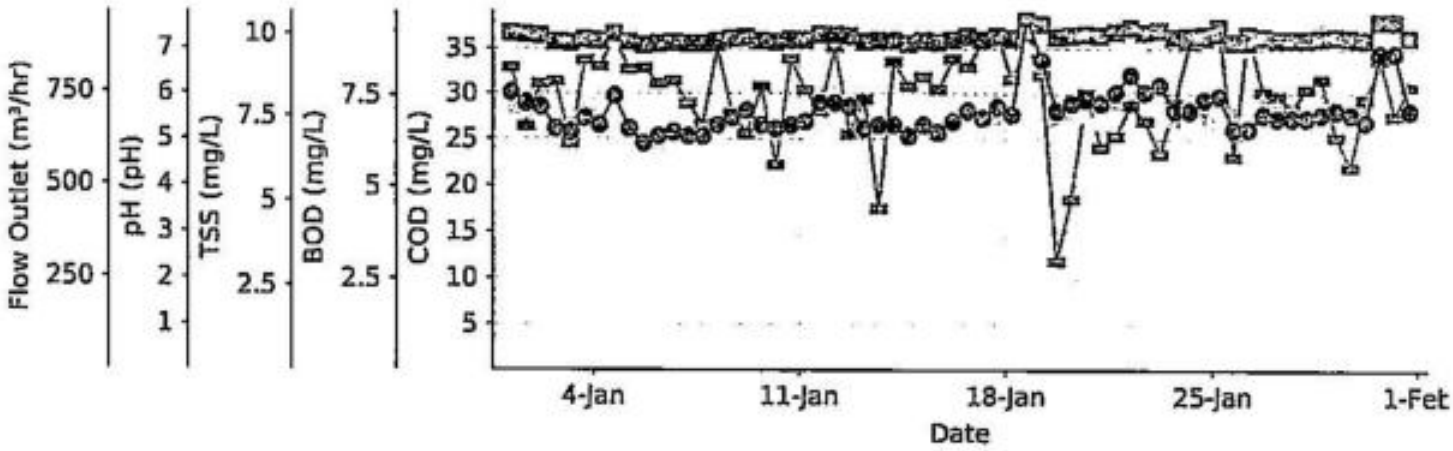
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
33 MLD Sewage Treatment Plant	Sector 54 Noida Gautam Budh Nagar - 201301, Noida, UP-201301	STP1_Outlet	BOD, COD, Flow Outlet, TSS, pH	01-Jan-2023 00:00	31-Jan-2023 23:59	12 hours	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP1_Outlet	COD	N/A	250 mg/L
STP1_Outlet	BOD	N/A	30 mg/L
STP1_Outlet	TSS	N/A	100 mg/L
STP1_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
01-Jan-2023 05:30:00:000	36.8	7.6	7.8	7.1	819.9
01-Jan-2023 17:30:00:000	36.6	7.3	7.7	7.2	657.2
02-Jan-2023 05:30:00:000	36.5	7.2	8.0	7.1	774.3
02-Jan-2023 17:30:00:000	35.8	6.6	7.2	7.1	780.4
03-Jan-2023 05:30:00:000	35.7	6.5	7.4	7.2	613.2

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
03-Jan-2023 07:30:00:000	36.1	6.9	7.9	7.2	841.0
04-Jan-2023 05:30:00:000	35.9	6.7	7.5	7.1	823.1
04-Jan-2023 17:30:00:000	36.7	7.5	8.3	7.1	904.1
05-Jan-2023 05:30:00:000	35.8	6.6	7.0	7.1	815.2
05-Jan-2023 17:30:00:000	35.4	6.2	6.4	7.1	819.0
06-Jan-2023 05:30:00:000	35.6	6.4	6.8	7.2	775.9
06-Jan-2023 17:30:00:000	35.7	6.5	7.0	7.2	782.1
07-Jan-2023 05:30:00:000	35.6	6.4	6.8	7.2	719.8
07-Jan-2023 17:30:00:000	35.6	6.4	6.9	7.2	663.5
08-Jan-2023 05:30:00:000	35.9	6.7	7.3	7.3	878.1
08-Jan-2023 17:30:00:000	36.2	6.9	7.6	7.3	692.8
09-Jan-2023 05:30:00:000	36.3	7.1	7.7	7.3	638.4
09-Jan-2023 17:30:00:000	35.9	6.7	7.2	7.3	766.6
10-Jan-2023 05:30:00:000	35.8	6.6	7.1	7.3	552.5
10-Jan-2023 17:30:00:000	36.0	6.7	7.5	7.3	843.7
11-Jan-2023 05:30:00:000	36.0	6.8	7.5	7.3	756.7
11-Jan-2023 17:30:00:000	36.6	7.3	8.2	7.2	700.2
12-Jan-2023 05:30:00:000	36.6	7.3	8.3	7.2	877.1
12-Jan-2023 17:30:00:000	36.4	7.2	8.0	7.1	637.2
13-Jan-2023 05:30:00:000	35.8	6.6	7.2	7.2	731.5
13-Jan-2023 17:30:00:000	35.9	6.7	7.3	7.2	436.8
14-Jan-2023 05:30:00:000	35.9	6.7	7.4	7.2	836.5
14-Jan-2023 17:30:00:000	35.6	6.4	7.2	7.2	767.2
15-Jan-2023 05:30:00:000	35.9	6.7	7.4	7.1	794.5
15-Jan-2023 17:30:00:000	35.8	6.5	7.1	7.2	758.8
16-Jan-2023 05:30:00:000	36.1	6.8	7.6	7.2	843.7
16-Jan-2023 17:30:00:000	36.4	7.1	7.9	7.2	821.9
17-Jan-2023 05:30:00:000	36.1	6.9	7.4	7.3	890.7
17-Jan-2023 17:30:00:000	36.4	7.2	7.5	7.2	914.3

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
18-Jan-2023 05:30:00:000	36.2	7.0	7.5	7.2	786.2
18-Jan-2023 17:30:00:000	39.0	9.7	10.5	7.0	889.5
19-Jan-2023 05:30:00:000	37.8	8.5	9.4	7.1	798.3
19-Jan-2023 17:30:00:000	36.3	7.1	7.5	7.3	297.2
20-Jan-2023 05:30:00:000	36.5	7.3	7.7	7.3	461.0
20-Jan-2023 17:30:00:000	36.6	7.4	7.6	7.3	747.0
21-Jan-2023 05:30:00:000	36.5	7.3	7.4	7.3	601.8
21-Jan-2023 17:30:00:000	36.9	7.6	8.0	7.3	632.0
22-Jan-2023 05:30:00:000	37.4	8.1	8.4	7.3	717.0
22-Jan-2023 17:30:00:000	36.9	7.6	8.4	7.3	673.2
23-Jan-2023 05:30:00:000	37.1	7.8	8.7	7.3	584.6
23-Jan-2023 17:30:00:000	36.3	7.1	7.5	7.3	720.9
24-Jan-2023 05:30:00:000	36.4	7.1	7.3	7.3	884.6
24-Jan-2023 17:30:00:000	36.6	7.4	7.5	7.4	892.8
25-Jan-2023 05:30:00:000	36.7	7.5	8.0	7.3	943.8
25-Jan-2023 17:30:00:000	35.8	6.6	7.6	7.2	576.9
26-Jan-2023 05:30:00:000	35.8	6.6	7.2	7.0	922.9
26-Jan-2023 17:30:00:000	36.3	7.0	8.0	7.3	752.6
27-Jan-2023 05:30:00:000	36.1	6.9	7.8	7.5	740.9
27-Jan-2023 17:30:00:000	36.1	6.9	7.8	7.7	709.3
28-Jan-2023 05:30:00:000	36.1	6.9	7.7	7.8	759.6
28-Jan-2023 17:30:00:000	36.2	7.0	7.9	7.7	787.3
29-Jan-2023 05:30:00:000	36.3	7.1	8.0	7.8	630.8
29-Jan-2023 17:30:00:000	36.2	7.0	7.9	7.8	547.7
30-Jan-2023 05:30:00:000	36.0	6.8	7.6	7.8	731.9
30-Jan-2023 17:30:00:000	38.0	8.7	9.5	7.2	842.8
31-Jan-2023 05:30:00:000	38.0	8.7	9.8	7.3	686.6
31-Jan-2023 17:30:00:000	36.3	7.1	8.0	7.3	768.1

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

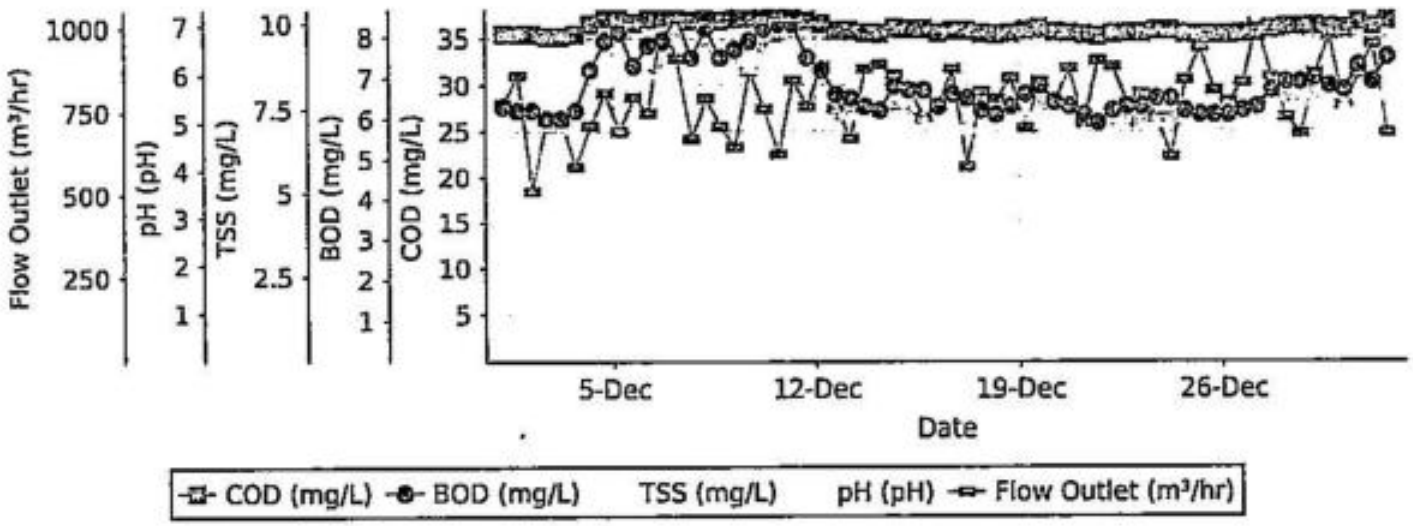
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
33 MLD Sewage Treatment Plant	Sector 54 Noida Gautam Budh Nagar - 201301, Noida, UP-201301	STP1_Outlet	BOD, COD, TSS, pH, Flow Outlet	01-Dec-2022 00:00	31-Dec-2022 23:59	12 hours	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP1_Outlet	COD	N/A	250 mg/L
STP1_Outlet	BOD	N/A	30 mg/L
STP1_Outlet	TSS	N/A	100 mg/L
STP1_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
01-Dec-2022 05:30:00:000	35.5	6.3	7.5	7.1	776.0
01-Dec-2022 17:30:00:000	35.4	6.2	7.7	7.0	859.4
02-Dec-2022 05:30:00:000	35.4	6.2	7.7	7.0	510.6
02-Dec-2022 17:30:00:000	35.2	6.0	7.1	7.0	726.2
03-Dec-2022 05:30:00:000	35.2	6.0	7.0	7.1	721.0

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
03-Dec-2022 17:30:00:000	35.4	6.2	7.5	7.1	585.8
04-Dec-2022 05:30:00:000	36.5	7.2	8.8	7.1	708.9
04-Dec-2022 17:30:00:000	37.1	7.9	9.3	7.2	807.3
05-Dec-2022 05:30:00:000	37.4	8.1	10.2	7.0	691.4
05-Dec-2022 17:30:00:000	36.6	7.3	8.3	7.1	795.1
06-Dec-2022 05:30:00:000	37.0	7.8	8.6	7.1	747.3
06-Dec-2022 17:30:00:000	37.2	7.9	8.8	7.0	1025.2
07-Dec-2022 05:30:00:000	37.8	8.5	9.9	6.9	910.3
07-Dec-2022 17:30:00:000	36.8	7.5	8.8	7.1	668.1
08-Dec-2022 05:30:00:000	37.4	8.2	9.6	7.1	791.1
08-Dec-2022 17:30:00:000	36.8	7.5	8.5	7.3	707.9
09-Dec-2022 05:30:00:000	37.0	7.7	9.0	7.2	644.3
09-Dec-2022 17:30:00:000	37.1	7.9	8.8	7.1	871.9
10-Dec-2022 05:30:00:000	37.5	8.2	9.4	7.1	760.0
10-Dec-2022 17:30:00:000	37.6	8.3	9.7	7.1	623.4
11-Dec-2022 05:30:00:000	37.6	8.3	9.8	7.2	844.9
11-Dec-2022 17:30:00:000	36.8	7.5	8.9	7.1	767.1
12-Dec-2022 05:30:00:000	36.5	7.2	9.0	7.0	890.1
12-Dec-2022 17:30:00:000	35.8	6.6	7.4	7.1	762.0
13-Dec-2022 05:30:00:000	35.7	6.5	7.4	7.1	671.1
13-Dec-2022 17:30:00:000	35.5	6.3	7.2	7.2	879.8
14-Dec-2022 05:30:00:000	35.4	6.2	7.0	7.2	891.3
14-Dec-2022 17:30:00:000	36.0	6.8	7.7	7.1	861.7
15-Dec-2022 05:30:00:000	35.9	6.7	7.4	7.2	824.9
15-Dec-2022 17:30:00:000	35.9	6.7	7.2	7.2	733.9
16-Dec-2022 05:30:00:000	35.5	6.3	6.8	7.2	766.9
16-Dec-2022 17:30:00:000	35.8	6.6	7.0	7.1	878.9
17-Dec-2022 05:30:00:000	35.7	6.5	7.0	7.2	586.0
17-Dec-2022 17:30:00:000	35.4	6.2	6.8	7.2	810.5

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
18-Dec-2022 05:30:00:000	35.3	6.1	6.8	7.2	789.2
18-Dec-2022 17:30:00:000	35.5	6.3	6.9	7.2	851.3
19-Dec-2022 05:30:00:000	35.8	6.6	7.4	7.1	700.8
19-Dec-2022 17:30:00:000	36.0	6.8	7.7	7.1	842.4
20-Dec-2022 05:30:00:000	35.6	6.4	7.2	7.2	778.2
20-Dec-2022 17:30:00:000	35.5	6.3	7.0	7.2	879.9
21-Dec-2022 05:30:00:000	35.3	6.1	6.8	7.2	714.3
21-Dec-2022 17:30:00:000	35.1	5.9	6.5	7.2	904.9
22-Dec-2022 05:30:00:000	35.4	6.2	7.0	7.2	885.7
22-Dec-2022 17:30:00:000	35.5	6.3	7.2	7.2	775.5
23-Dec-2022 05:30:00:000	35.5	6.3	7.2	7.2	805.1
23-Dec-2022 17:30:00:000	35.8	6.5	7.2	7.1	733.4
24-Dec-2022 05:30:00:000	35.7	6.5	7.3	7.2	616.4
24-Dec-2022 17:30:00:000	35.4	6.2	6.9	7.2	846.9
25-Dec-2022 05:30:00:000	35.3	6.1	6.9	7.2	941.5
25-Dec-2022 17:30:00:000	35.3	6.1	6.8	7.2	815.0
26-Dec-2022 05:30:00:000	35.3	6.1	6.8	7.2	780.8
26-Dec-2022 17:30:00:000	35.4	6.2	7.0	7.2	838.5
27-Dec-2022 05:30:00:000	35.5	6.3	7.2	7.2	1009.0
27-Dec-2022 17:30:00:000	35.9	6.7	7.5	7.1	854.1
28-Dec-2022 05:30:00:000	36.1	6.9	7.9	7.1	734.3
28-Dec-2022 17:30:00:000	36.1	6.9	7.8	7.1	683.9
29-Dec-2022 05:30:00:000	36.2	7.0	8.0	7.1	865.1
29-Dec-2022 17:30:00:000	36.0	6.8	8.0	7.1	976.0
30-Dec-2022 05:30:00:000	35.9	6.7	7.6	7.0	765.8
30-Dec-2022 17:30:00:000	36.6	7.3	8.0	7.1	860.8
31-Dec-2022 05:30:00:000	36.1	6.9	7.3	6.9	951.1
31-Dec-2022 17:30:00:000	36.7	7.5	8.1	7.0	686.4

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

State: UP

Category: Sewage Treatment Plant

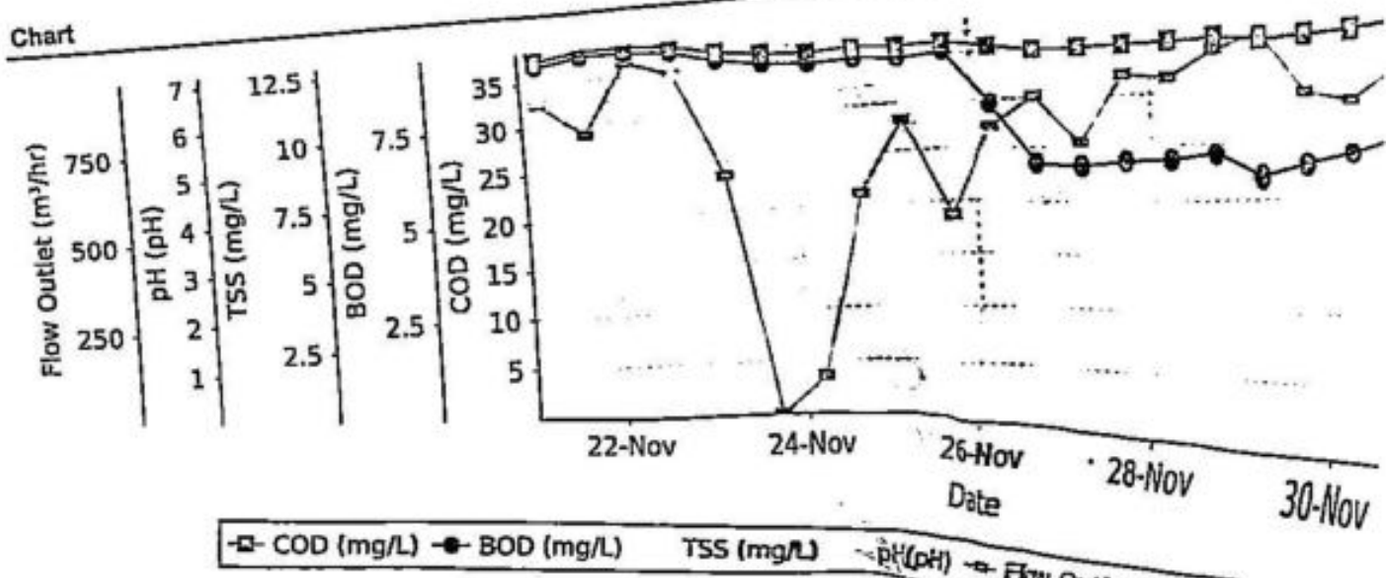
Report Type: Single Industry Single Station Report

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
33 MLD Sewage Treatment Plant	Sector 54 Noida Gautam Budh Nagar - 201301, Noida, UP-201301	STP1_Outlet	TSS, COD, BOD, Flow Outlet, pH	01-Nov-2022 00:00	30-Nov-2022 23:59	12 hours	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP1_Outlet	COD	N/A	250 mg/L
STP1_Outlet	BOD	N/A	30 mg/L
STP1_Outlet	TSS	N/A	100 mg/L
STP1_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
21-Nov-2022 05:30:00:000	37.5	9.2	11.2	7.0	821.0
21-Nov-2022 17:30:00:000	38.3	9.4	12.6	7.0	730.5
22-Nov-2022 05:30:00:000	38.3	9.4	12.6	7.0	922.6
22-Nov-2022 17:30:00:000	38.0	9.3	11.8	7.0	879.5
23-Nov-2022 05:30:00:000	37.0	9.0	11.2	7.1	594.2

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
23-Nov-2022 07:30:00:000	36.4	8.8	10.8	7.1	0.0
24-Nov-2022 05:30:00:000	36.0	8.7	10.3	7.2	90.3
24-Nov-2022 17:30:00:000	36.2	8.7	10.8	7.2	534.3
25-Nov-2022 05:30:00:000	36.2	8.7	10.5	7.1	711.3
25-Nov-2022 17:30:00:000	36.3	8.8	10.3	7.1	469.9
26-Nov-2022 05:30:00:000	35.6	7.4	8.8	7.1	690.7
26-Nov-2022 17:30:00:000	35.0	5.9	6.9	7.1	760.5
27-Nov-2022 05:30:00:000	35.0	5.8	7.1	7.1	639.2
27-Nov-2022 17:30:00:000	35.1	5.9	7.0	7.1	808.7
28-Nov-2022 05:30:00:000	35.1	5.9	6.9	7.1	795.8
28-Nov-2022 17:30:00:000	35.2	6.0	7.9	7.0	855.6
29-Nov-2022 05:30:00:000	34.7	5.5	7.2	7.1	891.1
29-Nov-2022 17:30:00:000	34.9	5.7	7.0	7.2	744.7
30-Nov-2022 05:30:00:000	35.0	5.9	6.9	7.2	718.4
30-Nov-2022 17:30:00:000	35.4	6.2	7.3	7.1	787.7

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

Report Type: Single Industry Single Station Report

State: UP

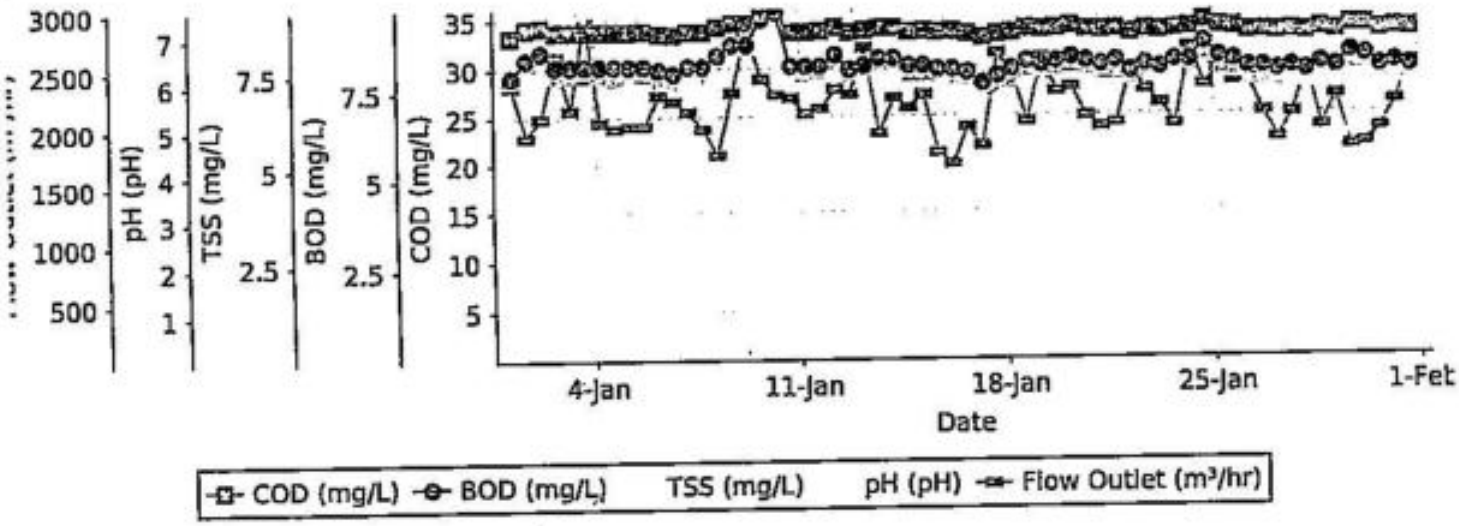
Category: Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
54 MLD STP Sector 54 Noida	54 MLD STP Sector 54 Noida, Gautam Budh Nagar - 201301, Noida, UP-201301	STP1_Outlet	BOD, COD, TSS, Flow Outlet, pH	01-Jan-2023 00:00	31-Jan-2023 23:59	12 hours	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP1_Outlet	COD	N/A	250 mg/L
STP1_Outlet	BOD	N/A	30 mg/L
STP1_Outlet	TSS	N/A	100 mg/m?
STP1_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
01-Jan-2023 05:30:00:000	33.3	7.9	7.4	7.4	2350.7
01-Jan-2023 17:30:00:000	34.1	8.4	7.8	7.4	1910.4
02-Jan-2023 05:30:00:000	34.3	8.6	8.0	7.4	2079.1
02-Jan-2023 17:30:00:000	33.8	8.2	7.5	7.4	2612.3
03-Jan-2023 05:	33.8	8.2	7.5	7.4	2147.2

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
30:00:000					
03-Jan-2023 17:30:00:000	33.8	8.2	7.5	7.5	2951.0
04-Jan-2023 05:30:00:000	33.8	8.2	7.5	7.5	2037.3
04-Jan-2023 17:30:00:000	33.8	8.2	7.4	7.5	1982.4
05-Jan-2023 05:30:00:000	33.8	8.2	7.5	7.5	2003.9
05-Jan-2023 17:30:00:000	33.9	8.2	7.5	7.5	2003.8
06-Jan-2023 05:30:00:000	33.6	8.1	7.3	7.5	2271.7
06-Jan-2023 17:30:00:000	33.5	8.0	7.3	7.5	2222.9
07-Jan-2023 05:30:00:000	33.8	8.2	7.7	7.6	2129.1
07-Jan-2023 17:30:00:000	33.8	8.2	7.5	7.4	1977.2
08-Jan-2023 05:30:00:000	34.3	8.5	8.0	7.4	1745.0
08-Jan-2023 17:30:00:000	34.7	8.8	8.2	7.4	2294.1
09-Jan-2023 05:30:00:000	34.7	8.8	8.2	7.4	2815.5
09-Jan-2023 17:30:00:000	35.8	9.5	9.0	7.4	2413.0
10-Jan-2023 05:30:00:000	36.0	9.7	9.1	7.4	2274.2
10-Jan-2023 17:30:00:000	33.7	8.2	7.5	7.4	2248.4
11-Jan-2023 05:30:00:000	33.7	8.2	7.5	7.4	2110.8
11-Jan-2023 17:30:00:000	33.8	8.2	7.6	7.4	2151.4
12-Jan-2023 05:30:00:000	34.2	8.5	8.0	7.4	2320.4
12-Jan-2023 17:30:00:000	33.7	8.1	7.5	7.4	2279.7
13-Jan-2023 05:30:00:000	33.9	8.2	7.6	7.4	2678.5
13-Jan-2023 17:30:00:000	34.1	8.4	7.8	7.4	1932.0
14-Jan-2023 05:30:00:000	34.1	8.4	7.8	7.4	2245.6
14-Jan-2023 17:30:00:000	33.7	8.2	7.5	7.4	2156.7
15-Jan-2023 05:30:00:000	33.8	8.2	7.5	7.5	2272.9
15-Jan-2023 17:30:00:000	33.7	8.1	7.5	7.5	1755.4
16-Jan-2023 05:30:00:000	33.7	8.1	7.4	7.5	1655.7
16-Jan-2023 17:30:00:000	33.5	8.0	7.4	7.5	1983.7
17-Jan-2023 05:30:00:000	33.1	7.7	7.0	7.4	1813.1

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
17-Jan-2023 17:30:00:000	33.4	7.9	7.2	7.4	2623.9
18-Jan-2023 05:30:00:000	33.6	8.1	7.3	7.5	2449.9
18-Jan-2023 17:30:00:000	34.0	8.3	7.6	7.5	2028.4
19-Jan-2023 05:30:00:000	33.9	8.2	7.5	7.5	2588.7
19-Jan-2023 17:30:00:000	34.0	8.3	7.6	7.5	2291.7
20-Jan-2023 05:30:00:000	34.2	8.4	7.7	7.5	2327.2
20-Jan-2023 17:30:00:000	33.9	8.3	7.6	7.5	2071.1
21-Jan-2023 05:30:00:000	33.8	8.2	7.5	7.6	1975.7
21-Jan-2023 17:30:00:000	33.9	8.3	7.5	7.6	2006.8
22-Jan-2023 05:30:00:000	33.5	8.0	7.3	7.6	2489.1
22-Jan-2023 17:30:00:000	33.8	8.2	7.6	7.6	2301.4
23-Jan-2023 05:30:00:000	33.7	8.1	7.5	7.5	2180.0
23-Jan-2023 17:30:00:000	33.9	8.3	7.8	7.5	1993.0
24-Jan-2023 05:30:00:000	34.0	8.3	7.7	7.5	2664.0
24-Jan-2023 17:30:00:000	34.7	8.8	8.0	7.6	2336.9
25-Jan-2023 05:30:00:000	34.1	8.4	7.6	7.6	2470.8
25-Jan-2023 17:30:00:000	34.0	8.3	7.5	7.5	2364.0
26-Jan-2023 05:30:00:000	33.6	8.1	7.3	7.5	2376.7
26-Jan-2023 17:30:00:000	33.6	8.1	7.3	7.5	2094.7
27-Jan-2023 05:30:00:000	33.5	8.0	7.2	7.5	1860.7
27-Jan-2023 17:30:00:000	33.6	8.1	7.2	7.6	2081.9
28-Jan-2023 05:30:00:000	33.5	8.0	7.2	7.5	2491.5
28-Jan-2023 17:30:00:000	33.8	8.2	7.4	7.5	1966.6
29-Jan-2023 05:30:00:000	33.6	8.1	7.3	7.5	2236.1
29-Jan-2023 17:30:00:000	34.2	8.5	7.7	7.5	1788.2
30-Jan-2023 05:30:00:000	34.1	8.4	7.7	7.5	1813.9
30-Jan-2023 17:30:00:000	33.6	8.1	7.4	7.4	1946.3
31-Jan-2023 05:30:00:000	33.8	8.2	7.5	7.4	2182.0
31-Jan-2023 17:30:00:000	33.7	8.1	7.3	7.5	2518.3

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

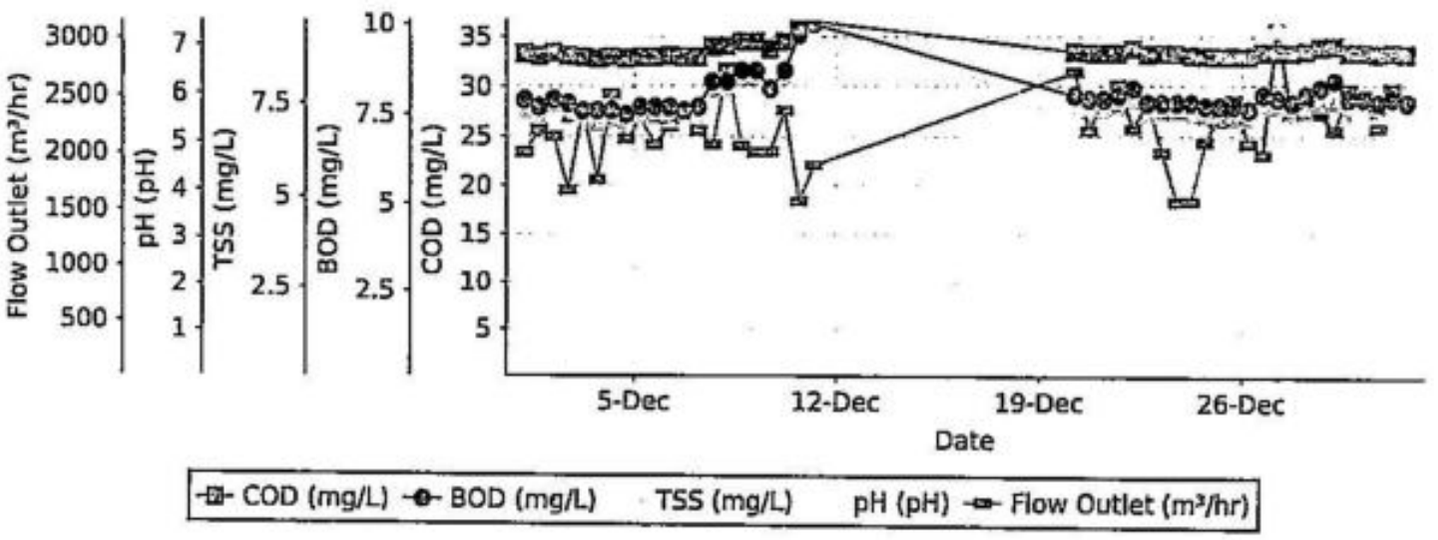
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
54 MLD STP Sector 54 Noida	54 MLD STP Sector 54 Noida, Gautam Budh Nagar - 201301, Noida, UP-201301	STP1_Outlet	COD, TSS, BOD, Flow Outlet, pH	01-Dec-2022 00:00	31-Dec-2022 23:59	12 hours	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP1_Outlet	COD	N/A	250 mg/L
STP1_Outlet	BOD	N/A	30 mg/L
STP1_Outlet	TSS	N/A	100 mg/m?
STP1_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
01-Dec-2022 05:30:00:000	33.3	7.9	7.3	7.2	2010.8
01-Dec-2022 17:30:00:000	33.1	7.7	7.2	7.2	2202.4
02-Dec-2022 05:30:00:000	33.4	7.9	7.5	7.2	2150.3
02-Dec-2022 17:30:00:000	33.1	7.8	7.2	7.2	1680.1
03-Dec-2022 05:	33.0	7.6	7.1	7.2	2387.2

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
30:00:000					
03-Dec-2022 17:30:00:000	32.8	7.6	7.0	7.2	1774.0
04-Dec-2022 05:30:00:000	33.0	7.6	7.1	7.2	2511.8
04-Dec-2022 17:30:00:000	32.8	7.5	7.0	7.2	2123.8
05-Dec-2022 05:30:00:000	33.0	7.7	7.2	7.2	2303.0
05-Dec-2022 17:30:00:000	33.0	7.7	7.2	7.3	2081.6
06-Dec-2022 05:30:00:000	33.1	7.7	7.1	7.3	2233.7
06-Dec-2022 17:30:00:000	33.0	7.6	7.4	7.2	2356.1
07-Dec-2022 05:30:00:000	33.0	7.7	7.2	7.2	2196.5
07-Dec-2022 17:30:00:000	34.0	8.4	7.9	7.3	2073.4
08-Dec-2022 05:30:00:000	34.1	8.4	7.9	7.3	2737.0
08-Dec-2022 17:30:00:000	34.5	8.7	8.2	7.3	2064.4
09-Dec-2022 05:30:00:000	34.5	8.7	8.2	7.3	2011.8
09-Dec-2022 17:30:00:000	33.8	8.2	7.7	7.3	2015.6
10-Dec-2022 05:30:00:000	34.5	8.7	8.2	7.3	2370.1
10-Dec-2022 17:30:00:000	36.1	9.7	9.3	7.3	1584.7
11-Dec-2022 05:30:00:000	36.6	10.0	9.6	7.3	1897.4
20-Dec-2022 05:30:00:000	33.5	8.0	7.3	7.3	2698.5
20-Dec-2022 17:30:00:000	33.4	7.9	7.4	7.3	2197.0
21-Dec-2022 05:30:00:000	33.3	7.9	7.3	7.3	2471.5
21-Dec-2022 17:30:00:000	33.4	8.0	7.4	7.3	2591.6
22-Dec-2022 05:30:00:000	33.8	8.2	7.6	7.3	2211.8
22-Dec-2022 17:30:00:000	33.2	7.8	7.2	7.3	2443.5
23-Dec-2022 05:30:00:000	33.3	7.8	7.3	7.3	2006.6
23-Dec-2022 17:30:00:000	33.3	7.8	7.3	7.3	1580.3
24-Dec-2022 05:30:00:000	33.1	7.8	7.2	7.4	1583.4
24-Dec-2022 17:30:00:000	33.0	7.7	7.1	7.4	2088.2
25-Dec-2022 05:30:00:000	33.0	7.7	7.1	7.4	2344.3
25-Dec-2022 17:30:00:000	33.0	7.7	7.1	7.5	2456.6

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

cpcb

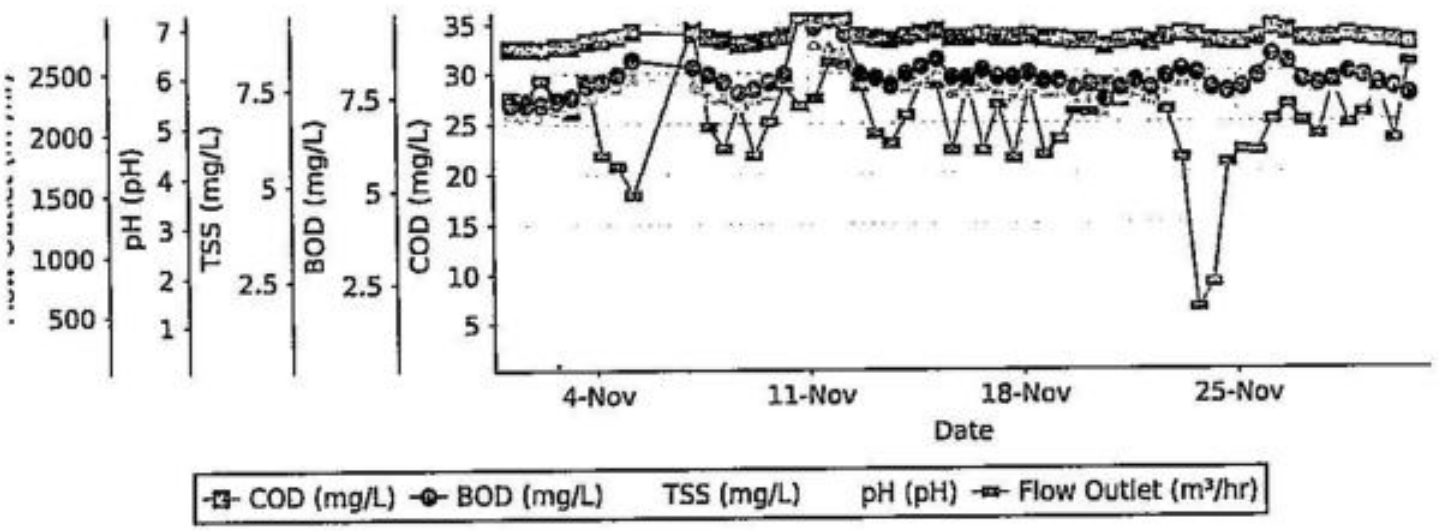
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
54 MLD STP Sector 54 Noida	54 MLD STP Sector 54 Noida, Gautam Budh Nagar - 201301, Noida, UP-201301	STP1_Outlet	pH, BOD, Flow Outlet, COD, TSS	01-Nov-2022 00:00	30-Nov-2022 23:59	12 hours	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP1_Outlet	COD	N/A	250 mg/L
STP1_Outlet	BOD	N/A	30 mg/L
STP1_Outlet	TSS	N/A	100 mg/m?
STP1_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
01-Nov-2022 05:30:00:000	32.5	7.3	6.9	7.3	2293.3
01-Nov-2022 17:30:00:000	32.5	7.3	6.8	7.2	2277.8
02-Nov-2022 05:30:00:000	32.4	7.3	6.8	7.2	2422.7
02-Nov-2022 17:30:00:000	32.7	7.4	7.0	7.2	2288.3
03-Nov-2022 05:	32.7	7.5	7.1	7.2	2146.9

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
30:00:000					
03-Nov-2022 17:30:00:000	33.2	7.8	7.3	7.2	2428.2
04-Nov-2022 05:30:00:000	33.4	7.9	7.5	7.2	1806.9
04-Nov-2022 17:30:00:000	33.7	8.1	7.6	7.2	1717.2
05-Nov-2022 05:30:00:000	34.2	8.5	7.8	7.3	1486.7
07-Nov-2022 05:30:00:000	34.0	8.3	7.6	7.2	2877.0
07-Nov-2022 17:30:00:000	33.6	8.1	7.3	7.2	2034.7
08-Nov-2022 05:30:00:000	33.4	7.9	7.3	7.2	1863.5
08-Nov-2022 17:30:00:000	32.9	7.6	7.1	7.2	2216.7
09-Nov-2022 05:30:00:000	33.1	7.7	7.3	7.2	1804.7
09-Nov-2022 17:30:00:000	33.3	7.9	7.4	7.2	2084.5
10-Nov-2022 05:30:00:000	33.7	8.1	7.8	7.2	2376.7
10-Nov-2022 17:30:00:000	36.0	9.7	9.4	7.2	2210.2
11-Nov-2022 05:30:00:000	35.6	9.4	8.7	7.2	2268.6
11-Nov-2022 17:30:00:000	35.9	9.6	8.6	7.2	2573.2
12-Nov-2022 05:30:00:000	35.3	9.2	8.5	7.2	2553.9
12-Nov-2022 17:30:00:000	33.7	8.1	8.0	7.2	2367.1
13-Nov-2022 05:30:00:000	33.5	8.0	7.8	7.2	1976.5
13-Nov-2022 17:30:00:000	33.3	7.8	7.5	7.2	1898.2
14-Nov-2022 05:30:00:000	33.6	8.1	7.6	7.2	2131.3
14-Nov-2022 17:30:00:000	33.9	8.3	7.7	7.2	2401.6
15-Nov-2022 05:30:00:000	34.2	8.5	7.9	7.2	2382.4
15-Nov-2022 17:30:00:000	33.5	8.0	7.4	7.2	1843.3
16-Nov-2022 05:30:00:000	33.5	8.0	7.4	7.2	2387.2
16-Nov-2022 17:30:00:000	33.8	8.2	7.6	7.2	1838.0
17-Nov-2022 05:30:00:000	33.5	8.0	7.4	7.2	2217.0
17-Nov-2022 17:30:00:000	33.5	8.0	7.3	7.2	1770.9
18-Nov-2022 05:30:00:000	33.6	8.1	7.5	7.2	2352.3
18-Nov-2022 17:30:00:000	33.4	7.9	7.4	7.2	1805.8

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Flow Outlet (m³/hr)
19-Nov-2022 05:30:00:000	33.3	7.9	7.4	7.2	1925.4
19-Nov-2022 17:30:00:000	33.1	7.7	7.2	7.2	2162.5
20-Nov-2022 05:30:00:000	33.1	7.8	7.2	7.2	2148.3
20-Nov-2022 17:30:00:000	32.6	7.4	6.9	7.2	2390.8
21-Nov-2022 05:30:00:000	33.1	7.7	7.3	7.2	2230.7
21-Nov-2022 17:30:00:000	33.3	7.9	7.4	7.2	2308.1
22-Nov-2022 05:30:00:000	33.0	7.7	7.2	7.2	2246.2
22-Nov-2022 17:30:00:000	33.5	8.0	7.5	7.2	2167.7
23-Nov-2022 05:30:00:000	33.8	8.2	7.7	7.2	1775.3
23-Nov-2022 17:30:00:000	33.6	8.1	7.5	7.2	539.9
24-Nov-2022 05:30:00:000	33.1	7.7	7.5	7.3	750.3
24-Nov-2022 17:30:00:000	33.0	7.6	7.4	7.3	1734.8
25-Nov-2022 05:30:00:000	33.0	7.7	7.5	7.2	1836.5
25-Nov-2022 17:30:00:000	33.4	8.0	7.8	7.2	1829.3
26-Nov-2022 05:30:00:000	34.4	8.6	8.5	7.2	2084.4
26-Nov-2022 17:30:00:000	34.0	8.4	8.3	7.2	2208.2
27-Nov-2022 05:30:00:000	33.3	7.9	7.6	7.2	2067.6
27-Nov-2022 17:30:00:000	33.2	7.8	7.5	7.2	1959.0
28-Nov-2022 05:30:00:000	33.3	7.9	7.5	7.2	2379.1
28-Nov-2022 17:30:00:000	33.6	8.1	7.8	7.2	2043.5
29-Nov-2022 05:30:00:000	33.4	8.0	7.7	7.2	2132.8
29-Nov-2022 17:30:00:000	33.2	7.8	7.3	7.2	2341.1
30-Nov-2022 05:30:00:000	33.1	7.7	7.2	7.2	1916.8
30-Nov-2022 17:30:00:000	32.8	7.5	7.0	7.3	2549.6

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

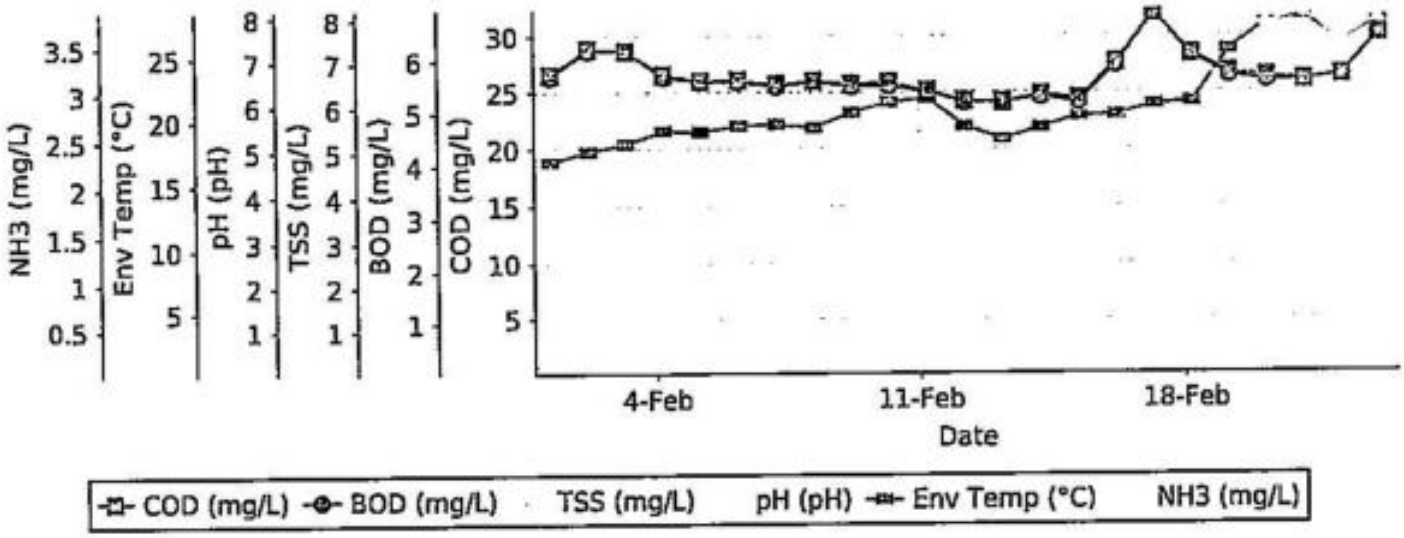
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
NOIDA AUTHORITY Location 25 MLD Sewage Treatement Plant Sector 50 Noida	Noida authority Sector - 50, Noida, Gautam Budhha Nagar, NOIDA, UP-201301	STP_Outlet	BOD, COD, Env Temp, TSS, pH, NH3	01-Feb-2023 00:00	23-Feb-2023 23:58	daily	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP_Outlet	COD	N/A	250 mg/L
STP_Outlet	BOD	N/A	30 mg/L
STP_Outlet	TSS	N/A	100 mg/L
STP_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
01-Feb-2023 05:30:00:000	26.6	5.7	4.5	7.5	16.8	2.8
02-Feb-2023 05:30:00:000	28.9	6.2	4.1	7.6	17.6	2.7
03-Feb-2023 05:30:00:000	28.7	6.2	4.7	7.6	18.2	2.4
04-Feb-2023 05:30:00:000	26.6	5.7	4.3	7.7	19.2	2.5

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
05-Feb-2023 00:30:00:000	26.0	5.6	4.1	7.8	19.1	2.6
06-Feb-2023 05:30:00:000	26.1	5.6	4.2	7.7	19.6	2.5
07-Feb-2023 05:30:00:000	25.7	5.5	4.2	7.7	19.7	2.8
08-Feb-2023 05:30:00:000	26.0	5.6	4.0	7.6	19.4	3.1
09-Feb-2023 05:30:00:000	25.7	5.5	3.8	7.6	20.6	3.2
10-Feb-2023 05:30:00:000	25.9	5.5	4.0	7.6	21.4	2.9
11-Feb-2023 05:30:00:000	25.1	5.4	3.6	7.7	21.7	3.1
12-Feb-2023 05:30:00:000	24.2	5.2	3.7	7.7	19.5	3.4
13-Feb-2023 05:30:00:000	24.1	5.2	3.8	7.8	18.5	3.6
14-Feb-2023 05:30:00:000	24.8	5.3	3.8	7.8	19.4	3.4
15-Feb-2023 05:30:00:000	24.4	5.2	3.7	7.7	20.3	3.5
16-Feb-2023 05:30:00:000	27.6	5.9	5.5	7.7	20.4	3.4
17-Feb-2023 05:30:00:000	32.0	6.9	7.2	7.8	21.2	3.6
18-Feb-2023 05:30:00:000	28.4	6.1	7.0	7.8	21.4	3.8
19-Feb-2023 05:30:00:000	26.7	5.7	6.6	7.8	25.5	2.3
20-Feb-2023 05:30:00:000	26.3	5.6	6.8	7.8	27.6	1.9
21-Feb-2023 05:30:00:000	26.0	5.6	6.4	8.1	28.2	1.9
22-Feb-2023 05:30:00:000	26.4	5.7	7.5	7.4	26.1	2.3
23-Feb-2023 05:30:00:000	30.1	6.5	8.0	6.8	27.8	2.5

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

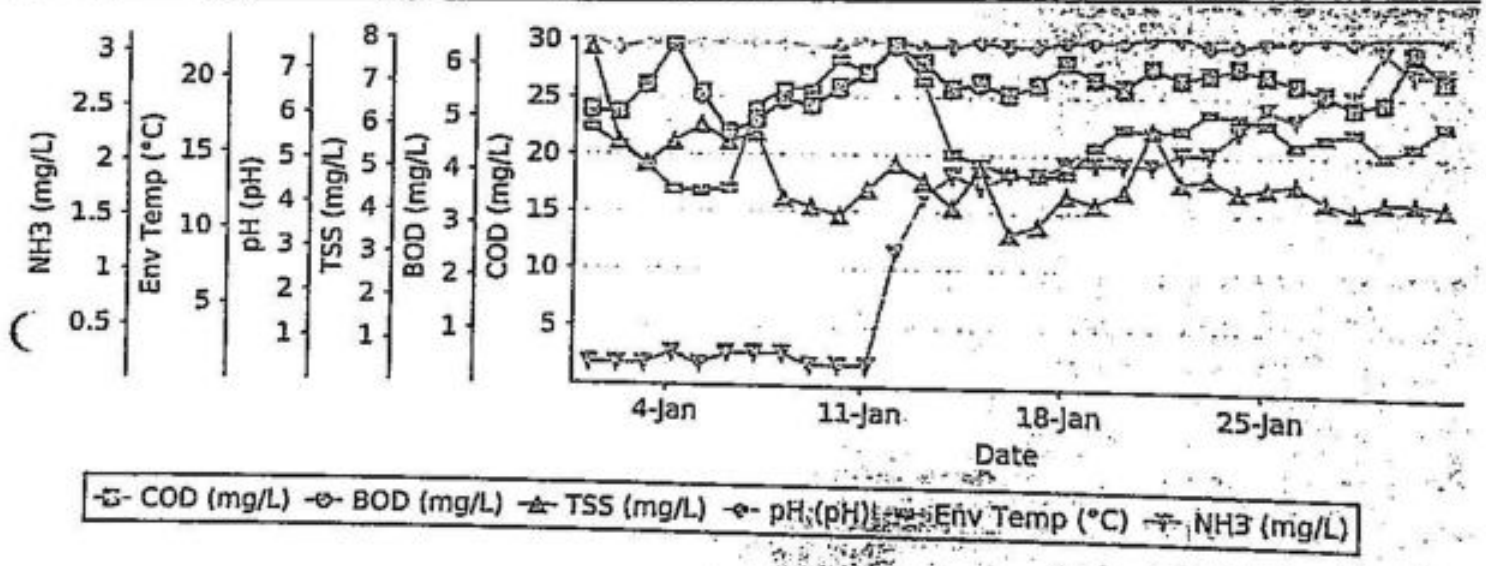
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
NOIDA AUTHORITY Location 25 MLD Sewage Treatement Plant Sector 50 Noida	Noida authority Sector - 50, Noida, Gautam Budhha Nagar, NOIDA, UP-201301	STP_Outlet	BOD, COD, Env Temp, TSS, pH, NH3	01-Jan-2023 00:00	31-Jan-2023 23:59	daily	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP_Outlet	COD	N/A	250 mg/L
STP_Outlet	BOD	N/A	30 mg/L
STP_Outlet	TSS	N/A	100 mg/L
STP_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
01-Jan-2023 05:30:00:000	24.0	5.1	7.8	7.7	16.8	0.2
02-Jan-2023 05:30:00:000	23.7	5.1	5.6	7.5	15.6	0.2
03-Jan-2023 05:30:00:000	26.1	5.6	5.1	7.6	14.3	0.2
04-Jan-2023 05:30:00:000	29.8	6.4	5.6	7.6	12.7	0.3

Time	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
05-Jan-2023 05:30:00:000	25.5	5.4	6.0	7.6	12.6	0.2
06-Jan-2023 05:30:00:000	22.0	4.7	5.6	7.6	12.8	0.3
07-Jan-2023 05:30:00:000	23.1	4.9	5.8	7.6	18.2	0.3
08-Jan-2023 05:30:00:000	24.9	5.3	4.3	7.6	19.4	0.3
09-Jan-2023 05:30:00:000	24.3	5.2	4.1	7.5	19.3	0.2
10-Jan-2023 05:30:00:000	25.9	5.5	3.9	7.5	21.2	0.2
11-Jan-2023 05:30:00:000	27.1	5.8	4.5	7.6	20.4	0.2
12-Jan-2023 05:30:00:000	29.6	6.3	5.1	7.6	22.2	1.2
13-Jan-2023 05:30:00:000	28.0	6.0	4.7	7.5	19.8	1.7
14-Jan-2023 05:30:00:000	25.8	5.5	4.1	7.5	15.1	1.9
15-Jan-2023 05:30:00:000	26.3	5.6	5.0	7.6	14.5	1.8
16-Jan-2023 05:30:00:000	25.3	5.4	3.5	7.5	13.8	1.9
17-Jan-2023 05:30:00:000	26.1	5.6	3.7	7.5	13.6	1.9
18-Jan-2023 05:30:00:000	28.0	6.0	4.4	7.6	13.8	2.0
19-Jan-2023 05:30:00:000	26.6	5.7	4.2	7.6	15.6	2.0
20-Jan-2023 05:30:00:000	25.9	5.5	4.5	7.6	16.8	2.0
21-Jan-2023 05:30:00:000	27.6	5.9	5.9	7.7	16.6	2.0
22-Jan-2023 05:30:00:000	26.6	5.7	4.7	7.7	16.7	2.1
23-Jan-2023 05:30:00:000	27.0	5.8	4.8	7.5	17.8	2.1
24-Jan-2023 05:30:00:000	27.6	5.9	4.5	7.5	17.5	2.3
25-Jan-2023 05:30:00:000	26.9	5.8	4.6	7.6	17.1	2.5
26-Jan-2023 05:30:00:000	26.2	5.6	4.7	7.6	15.7	2.4
27-Jan-2023 05:30:00:000	25.4	5.4	4.3	7.7	16.2	2.6
28-Jan-2023 05:30:00:000	24.2	5.2	4.1	7.6	16.6	2.6
29-Jan-2023 05:30:00:000	24.6	5.3	4.3	7.7	15.1	3.0
30-Jan-2023 05:30:00:000	28.7	6.2	4.3	7.7	15.7	2.8
31-Jan-2023 05:30:00:000	26.4	5.7	4.2	7.7	17.0	2.8

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

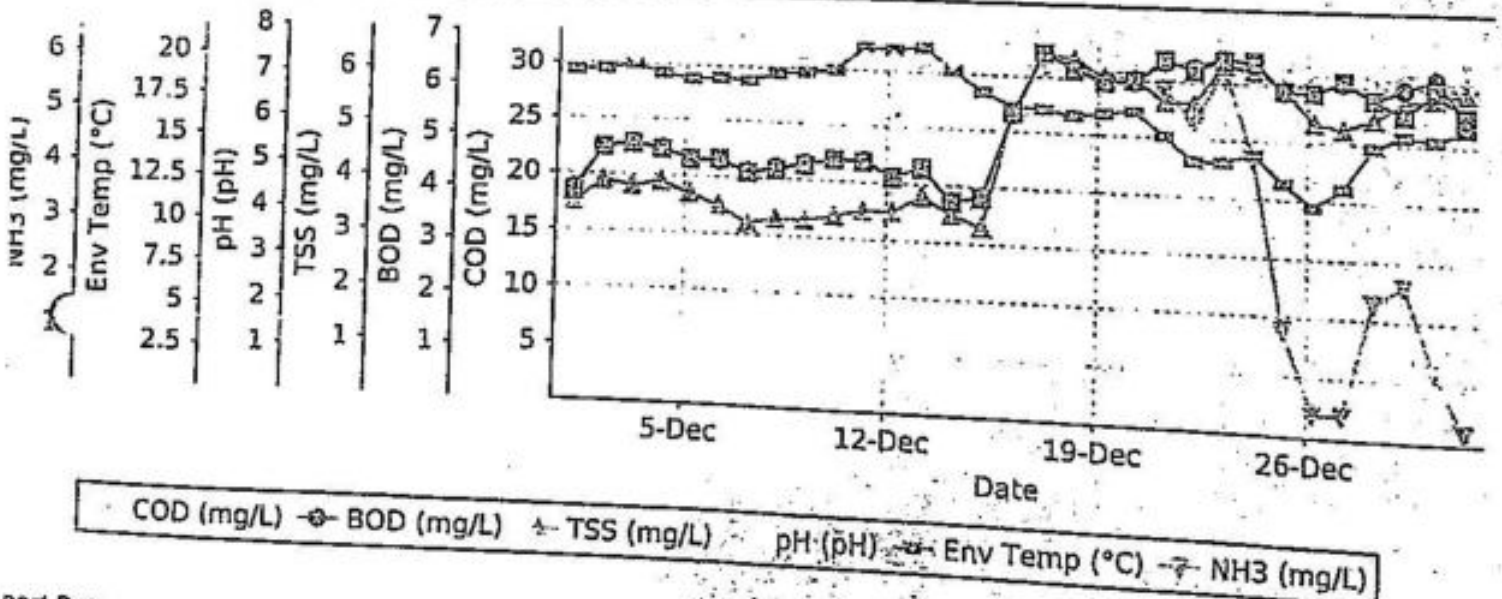
eport Type: Single Industry Single tation Report | State: UP | Category: Sewage Treatment Plan

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
NOIDA UTHORITY ocation 25 MLD Sewage Treatement Plant Sector 50 Noida	Noida authority Sector 50 Noida, Gautam Budhha Nagar, NOIDA, UP-201301	STP_Outlet	BOD, COD, Env Temp, TSS, pH, NH3	01-Dec-2022 00:00	31-Dec-2022 23:59	daily	Average/Mear

rt Thresholds

Station	Parameter	Min	Max
STP_Outlet	COD	N/A	250 mg/L
STP_Outlet	BOD	N/A	30 mg/L
STP_Outlet	TSS	N/A	100 mg/L
STP_Outlet	pH	6.5 pH	9 pH

art



port Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
01-Dec-2022 05:30:00:000	18.4	4.0	3.6	7.5	19.5	
02-Dec-2022 05:30:00:000	22.4	4.8	4.0	7.6	19.6	
03-Dec-2022 05:30:00:000	22.7	4.9	3.9	7.5	19.9	
04-Dec-2022 05:30:00:000	22.3	4.8	4.0	7.6	19.4	

Time	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
05-Dec-2022 05:30:00:000	21.5	4.6	3.8	7.5	19.1	
06-Dec-2022 05:30:00:000	21.6	4.6	3.6	7.7	19.2	
07-Dec-2022 05:30:00:000	20.4	4.4	3.3	8.0	19.1	
08-Dec-2022 05:30:00:000	20.8	4.5	3.4	7.6	19.6	
09-Dec-2022 05:30:00:000	21.3	4.6	3.4	7.5	19.7	
10-Dec-2022 05:30:00:000	21.9	4.7	3.5	7.6	19.9	
11-Dec-2022 05:30:00:000	21.8	4.7	3.6	7.6	21.3	
12-Dec-2022 05:30:00:000	20.5	4.4	3.6	7.6	21.2	
13-Dec-2022 05:30:00:000	21.4	4.6	3.9	7.5	21.4	
14-Dec-2022 05:30:00:000	18.6	4.0	3.6	7.6	20.1	
15-Dec-2022 05:30:00:000	19.0	4.1	3.4	7.6	18.9	
16-Dec-2022 05:30:00:000	26.7	5.7	5.5	7.6	18.1	
17-Dec-2022 05:30:00:000	32.2	6.9	6.6	7.5	18.0	
18-Dec-2022 05:30:00:000	30.7	6.6	6.5	7.5	17.7	
19-Dec-2022 05:30:00:000	29.8	6.4	6.2	7.5	17.9	
20-Dec-2022 05:30:00:000	30.0	6.4	6.2	7.5	18.1	
21-Dec-2022 05:30:00:000	31.9	6.8	5.8	7.7	16.7	5.9
22-Dec-2022 05:30:00:000	31.0	6.7	5.8	7.7	15.3	5.3
23-Dec-2022 05:30:00:000	32.0	6.9	6.5	7.6	15.3	6.3
24-Dec-2022 05:30:00:000	32.0	6.8	6.4	7.6	15.8	4.7
25-Dec-2022 05:30:00:000	29.5	6.3	6.1	7.7	14.2	1.8
26-Dec-2022 05:30:00:000	29.4	6.3	5.5	7.6	12.9	0.4
27-Dec-2022 05:30:00:000	30.5	6.5	5.4	7.5	14.0	0.4
28-Dec-2022 05:30:00:000	28.9	6.2	5.6	7.5	16.4	2.3
29-Dec-2022 05:30:00:000	27.6	6.4	5.9	7.5	17.1	2.6
30-Dec-2022 05:30:00:000	29.7	6.6	6.0	7.5	16.9	1.2
31-Dec-2022 05:30:00:000	27.7	5.9	6.1	7.4	17.5	0.2

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

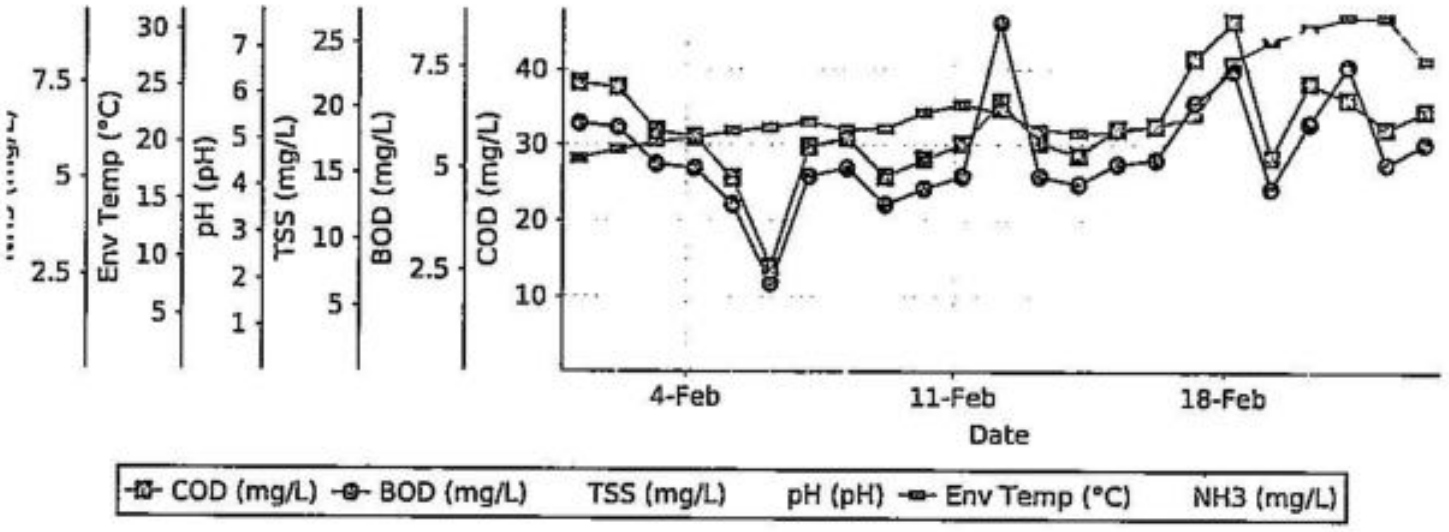
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
NOIDA AUTHORITY Location 34 MLD STP Sector 50 Noida	Noida authority sector -50 Noida, Gautam Budh Nagar,201301	STP_Outlet	BOD, pH, Env Temp, COD, TSS, NH3	01-Feb-2023 00:00	23-Feb-2023 23:59	daily	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP_Outlet	COD	N/A	250 mg/L
STP_Outlet	BOD	N/A	30 mg/L
STP_Outlet	TSS	N/A	100 mg/L
STP_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
01-Feb-2023 05:30:00:000	38.3	6.1	4.8	7.7	18.6	0.5
02-Feb-2023 05:30:00:000	37.7	6.0	5.8	7.7	19.4	0.2
03-Feb-2023 05:30:00:000	31.9	5.1	5.1	7.7	20.0	0.3
04-Feb-2023 05:30:00:000	31.1	5.0	4.2	7.7	20.4	0.3
05-Feb-2023 05:30:00:000	25.6	4.1	4.0	7.7	21.0	0.2

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
06-Feb-2023 05:30:00:000	14.0	2.2	3.6	7.7	21.3	0.2
07-Feb-2023 05:30:00:000	29.8	4.8	4.8	7.7	21.8	0.2
08-Feb-2023 05:30:00:000	30.9	5.0	4.9	7.7	21.1	0.1
09-Feb-2023 05:30:00:000	25.8	4.1	4.4	7.7	21.2	3.3
10-Feb-2023 05:30:00:000	28.1	4.5	4.7	7.7	22.6	6.6
11-Feb-2023 05:30:00:000	30.1	4.8	5.2	7.8	23.3	6.4
12-Feb-2023 05:30:00:000	35.7	8.6	5.1	7.8	22.6	6.7
13-Feb-2023 05:30:00:000	30.3	4.8	3.5	7.5	21.2	8.1
14-Feb-2023 05:30:00:000	28.6	4.6	2.0	7.4	20.8	9.0
15-Feb-2023 05:30:00:000	32.1	5.1	3.8	7.4	20.9	8.4
16-Feb-2023 05:30:00:000	32.5	5.2	4.3	7.4	21.5	7.7
17-Feb-2023 05:30:00:000	41.5	6.6	4.7	7.3	22.2	4.5
18-Feb-2023 05:30:00:000	46.5	7.4	4.4	7.3	27.2	0.7
19-Feb-2023 05:30:00:000	28.3	4.5	5.1	7.3	28.9	0.3
20-Feb-2023 05:30:00:000	38.2	6.1	5.4	7.3	30.1	0.2
21-Feb-2023 05:30:00:000	36.0	7.5	20.6	7.3	31.1	2.3
22-Feb-2023 05:30:00:000	32.1	5.1	13.1	7.3	31.0	3.6
23-Feb-2023 05:30:00:000	34.5	5.6	26.3	7.3	27.2	1.2

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

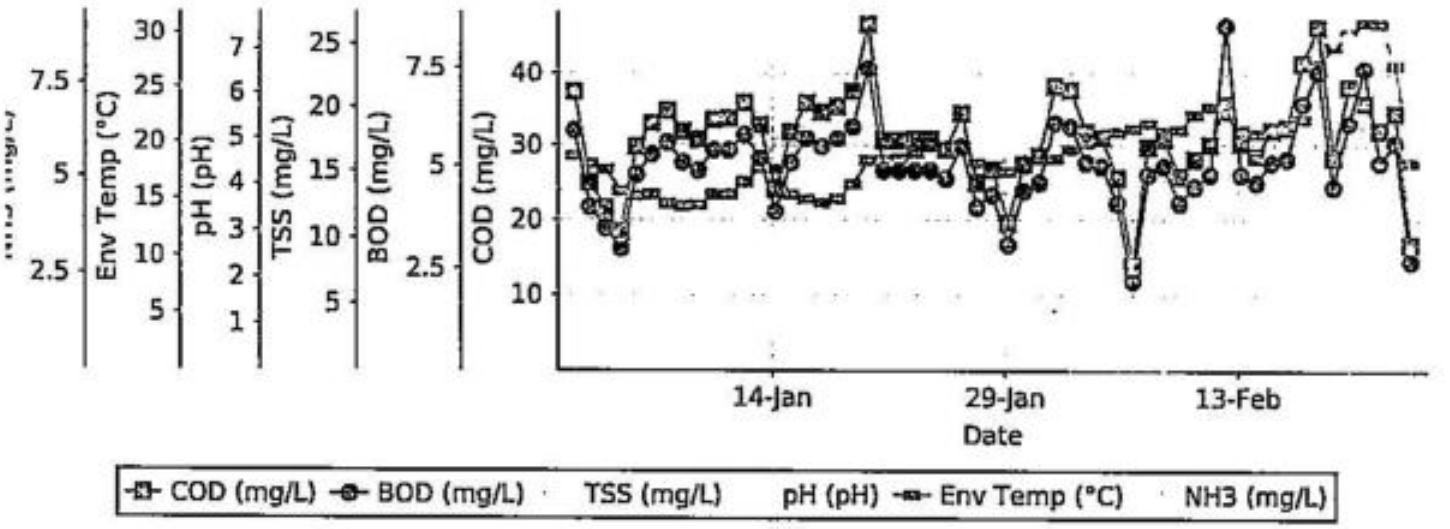
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
NOIDA AUTHORITY Location 34 MLD STP Sector 50 Noida	Noida authority sector -50 Noida, Gautam Budh Nagar,201301	STP_Outlet	pH, BOD, Env Temp, COD, TSS, NH3	01-Jan-2023 00:00	28-Feb-2023 23:59	daily	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP_Outlet	COD	N/A	250 mg/L
STP_Outlet	BOD	N/A	30 mg/L
STP_Outlet	TSS	N/A	100 mg/L
STP_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
01-Jan-2023 05:30:00:000	37.4	5.9	6.8	7.6	18.8	1.2
02-Jan-2023 05:30:00:000	24.9	4.0	4.5	7.5	18.1	1.1
03-Jan-2023 05:30:00:000	21.5	3.5	4.7	7.4	17.6	1.2
04-Jan-2023 05:30:00:000	18.4	3.0	5.2	7.5	15.7	2.0
05-Jan-2023 05:30:00:000	29.8	4.8	4.5	7.5	15.3	1.5

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
06-Jan-2023 05:30:00:000	33.1	5.3	5.9	7.7	15.4	3.1
07-Jan-2023 05:30:00:000	34.8	5.6	3.8	7.4	14.6	4.8
08-Jan-2023 05:30:00:000	31.9	5.1	4.1	7.7	14.4	4.5
09-Jan-2023 05:30:00:000	30.8	4.9	3.0	7.5	14.5	3.7
10-Jan-2023 05:30:00:000	33.5	5.4	4.1	7.4	15.4	1.6
11-Jan-2023 05:30:00:000	33.7	5.4	3.7	7.4	15.4	2.3
12-Jan-2023 05:30:00:000	35.9	5.8	3.5	7.4	16.5	4.8
13-Jan-2023 05:30:00:000	32.8	5.2	3.9	7.5	17.7	6.6
14-Jan-2023 05:30:00:000	24.2	3.9	4.0	7.4	17.6	6.0
15-Jan-2023 05:30:00:000	31.8	5.1	3.8	7.5	15.4	5.3
16-Jan-2023 05:30:00:000	35.9	5.7	4.2	7.5	15.0	6.7
17-Jan-2023 05:30:00:000	34.6	5.5	3.9	7.5	14.7	6.8
18-Jan-2023 05:30:00:000	35.4	5.7	3.6	7.4	15.0	5.3
19-Jan-2023 05:30:00:000	37.5	6.0	3.0	7.4	16.3	3.6
20-Jan-2023 05:30:00:000	46.8	7.5	6.1	7.4	18.4	5.5
21-Jan-2023 05:30:00:000	30.7	4.9	3.9	7.5	18.5	6.8
22-Jan-2023 05:30:00:000	30.7	4.9	2.3	7.4	18.6	6.7
23-Jan-2023 05:30:00:000	30.9	4.9	4.7	7.4	19.1	7.3
24-Jan-2023 05:30:00:000	30.9	4.9	5.6	7.4	19.7	6.4
25-Jan-2023 05:30:00:000	29.4	4.7	5.3	7.4	19.5	7.3
26-Jan-2023 05:30:00:000	34.4	5.5	6.5	7.4	19.7	6.9
27-Jan-2023 05:30:00:000	25.0	4.0	4.8	7.4	18.2	6.9
28-Jan-2023 05:30:00:000	26.7	4.3	3.9	7.7	17.6	6.8
29-Jan-2023 05:30:00:000	19.7	3.1	4.2	7.8	17.4	4.3
30-Jan-2023 05:30:00:000	27.4	4.4	4.3	7.7	18.3	6.3
31-Jan-2023 05:30:00:000	28.6	4.6	3.4	7.7	18.6	0.7
01-Feb-2023 05:30:00:000	38.3	6.1	4.8	7.7	18.6	0.5
02-Feb-2023 05:30:00:000	37.7	6.0	5.8	7.7	19.4	0.2
03-Feb-2023 05:30:00:000	31.9	5.1	5.1	7.7	20.0	0.3

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
04-Feb-2023 05:30:00:000	31.1	5.0	4.2	7.7	20.4	0.3
05-Feb-2023 05:30:00:000	25.6	4.1	4.0	7.7	21.0	0.2
06-Feb-2023 05:30:00:000	14.0	2.2	3.6	7.7	21.3	0.2
07-Feb-2023 05:30:00:000	29.8	4.8	4.8	7.7	21.8	0.2
08-Feb-2023 05:30:00:000	30.9	5.0	4.9	7.7	21.1	0.1
09-Feb-2023 05:30:00:000	25.8	4.1	4.4	7.7	21.2	3.3
10-Feb-2023 05:30:00:000	28.1	4.5	4.7	7.7	22.6	6.6
11-Feb-2023 05:30:00:000	30.1	4.8	5.2	7.8	23.3	6.4
12-Feb-2023 05:30:00:000	35.7	8.6	5.1	7.8	22.6	6.7
13-Feb-2023 05:30:00:000	30.3	4.8	3.5	7.5	21.2	8.1
14-Feb-2023 05:30:00:000	28.6	4.6	2.0	7.4	20.8	9.0
15-Feb-2023 05:30:00:000	32.1	5.1	3.8	7.4	20.9	8.4
16-Feb-2023 05:30:00:000	32.5	5.2	4.3	7.4	21.5	7.7
17-Feb-2023 05:30:00:000	41.5	6.6	4.7	7.3	22.2	4.5
18-Feb-2023 05:30:00:000	46.5	7.4	4.4	7.3	27.2	0.7
19-Feb-2023 05:30:00:000	28.3	4.5	5.1	7.3	28.9	0.3
20-Feb-2023 05:30:00:000	38.2	6.1	5.4	7.3	30.1	0.2
21-Feb-2023 05:30:00:000	36.0	7.5	20.6	7.3	31.1	2.3
22-Feb-2023 05:30:00:000	32.1	5.1	13.1	7.3	31.0	3.6
23-Feb-2023 05:30:00:000	34.5	5.6	26.3	7.3	27.2	1.2
24-Feb-2023 05:30:00:000	16.8	2.7	14.3	7.2	18.2	0.2

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

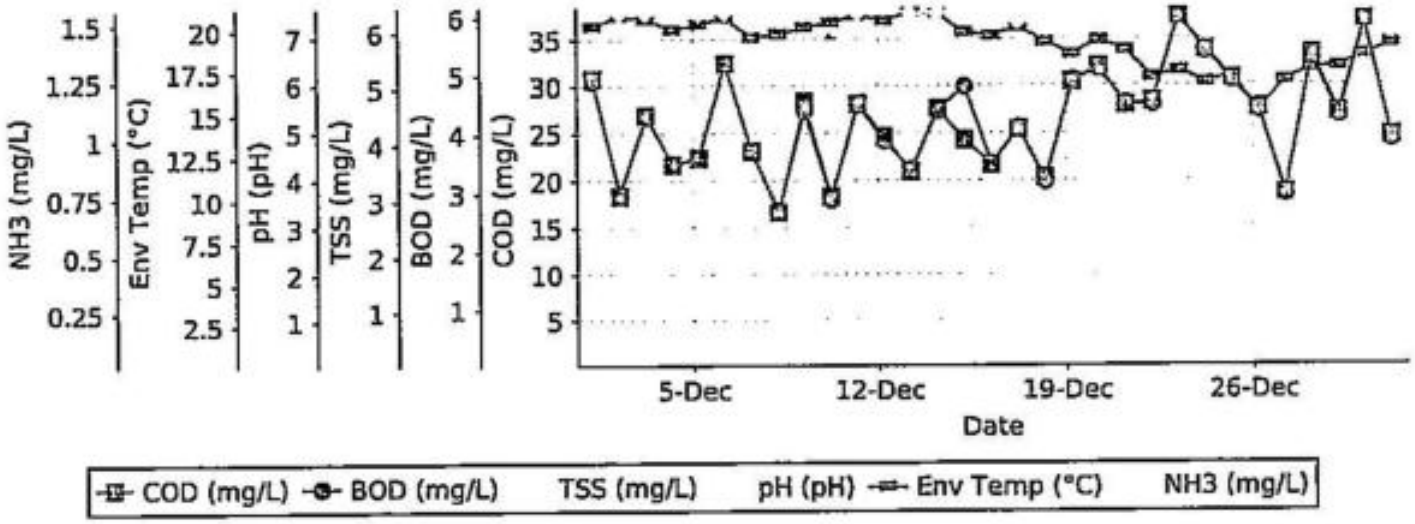
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
NOIDA AUTHORITY Location 34 MLD STP Sector 50 Noida	Noida authority sector -50 Noida, Gautam Budh Nagar,201301	STP_Outlet	pH, BOD, Env Temp, COD, TSS, NH3	01-Dec-2022 00:00	31-Dec-2022 23:59	daily	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP_Outlet	COD	N/A	250 mg/L
STP_Outlet	BOD	N/A	30 mg/L
STP_Outlet	TSS	N/A	100 mg/L
STP_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
01-Dec-2022 05:30:00:000	30.8	4.9	3.1	7.6	20.2	
02-Dec-2022 05:30:00:000	18.4	3.0	2.9	7.5	20.8	
03-Dec-2022 05:30:00:000	26.9	4.3	3.4	7.5	20.6	
04-Dec-2022 05:30:00:000	21.7	3.5	3.8	7.5	20.0	
05-Dec-2022 05:30:00:000	22.4	3.6	3.5	7.5	20.3	

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
06-Dec-2022 05:30:00:000	32.4	5.2	3.5	7.5	20.7	
07-Dec-2022 05:30:00:000	23.1	3.7	3.0	7.6	19.5	
08-Dec-2022 05:30:00:000	16.6	2.7	1.4	7.6	19.7	
09-Dec-2022 05:30:00:000	28.3	4.4	1.8	7.5	20.1	
10-Dec-2022 05:30:00:000	18.3	2.9	2.3	7.6	20.4	
11-Dec-2022 05:30:00:000	28.1	4.5	4.9	7.5	20.8	
12-Dec-2022 05:30:00:000	24.6	3.9	3.9	7.6	20.5	
13-Dec-2022 05:30:00:000	20.9	3.4	3.5	7.5	21.0	
14-Dec-2022 05:30:00:000	27.6	4.4	2.3	7.5	20.9	
15-Dec-2022 05:30:00:000	24.3	4.8	4.0	7.5	19.8	
16-Dec-2022 05:30:00:000	21.7	3.5	3.5	7.3	19.6	
17-Dec-2022 05:30:00:000	25.4	4.1	4.3	7.3	20.1	
18-Dec-2022 05:30:00:000	20.3	3.2	4.5	7.4	19.2	
19-Dec-2022 05:30:00:000	30.4	4.9	3.6	7.3	18.5	
20-Dec-2022 05:30:00:000	32.0	5.1	3.5	7.4	19.3	
21-Dec-2022 05:30:00:000	27.9	4.5	3.4	7.5	18.7	0.3
22-Dec-2022 05:30:00:000	28.3	4.5	4.9	7.4	17.1	1.5
23-Dec-2022 05:30:00:000	37.4	6.0	4.1	7.2	17.5	0.5
24-Dec-2022 05:30:00:000	33.8	5.4	4.0	7.2	16.8	0.2
25-Dec-2022 05:30:00:000	30.7	4.9	5.7	7.4	17.2	0.2
26-Dec-2022 05:30:00:000	27.6	4.4	4.2	7.5	15.2	0.2
27-Dec-2022 05:30:00:000	18.6	3.0	3.3	7.6	16.9	0.2
28-Dec-2022 05:30:00:000	33.3	5.3	4.8	7.5	17.6	0.2
29-Dec-2022 05:30:00:000	27.1	4.3	4.2	7.5	17.7	0.2
30-Dec-2022 05:30:00:000	36.9	5.9	6.2	7.5	18.4	0.2
31-Dec-2022 05:30:00:000	24.6	3.9	3.0	7.5	19.0	0.2

Central Pollution Control Board

Online Continuous Emission Monitoring System Report

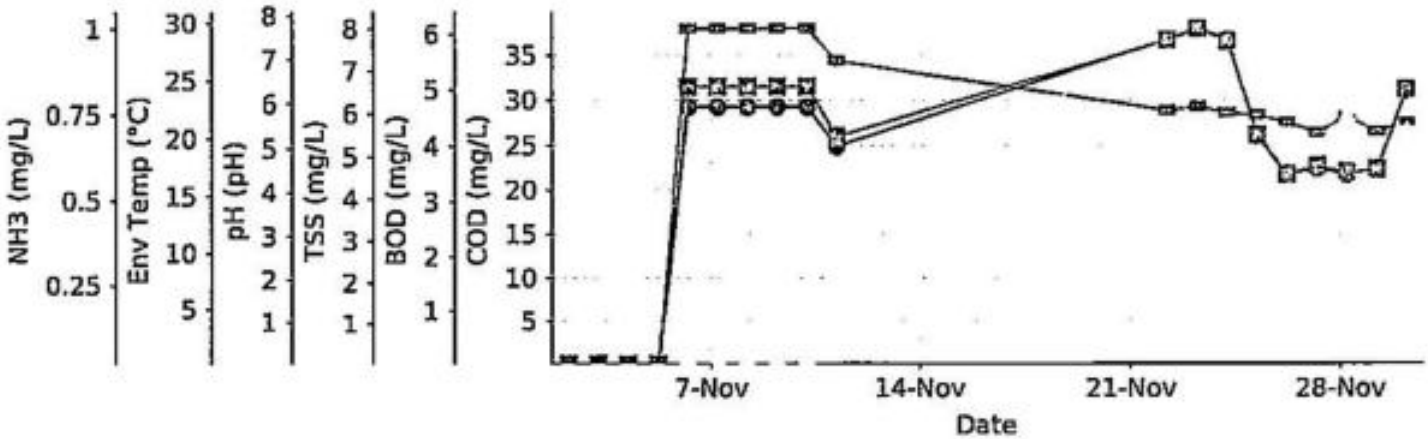
Report Type: Single Industry Single Station Report | **State:** UP | **Category:** Sewage Treatment Plant

Industry	Address	Monitoring Station	Parameters	Period From	Period To	Averaging Interval	Aggregation
NOIDA AUTHORITY Location 34 MLD STP Sector 50 Noida	Noida authority sector -50 Noida, Gautam Budh Nagar,201301	STP_Outlet	pH, BOD, Env Temp, COD, TSS, NH3	02-Nov-2022 00:00	30-Nov-2022 23:59	daily	Average/Mean

Alert Thresholds

Station	Parameter	Min	Max
STP_Outlet	COD	N/A	250 mg/L
STP_Outlet	BOD	N/A	30 mg/L
STP_Outlet	TSS	N/A	100 mg/L
STP_Outlet	pH	6.5 pH	9 pH

Chart



Report Data

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
02-Nov-2022 05:30:00:000	0.0	0.0	0.0	0.0	0.0	
03-Nov-2022 05:30:00:000	0.0	0.0	0.0	0.0	0.0	
04-Nov-2022 05:30:00:000	0.0	0.0	0.0	0.0	0.0	
05-Nov-2022 05:30:00:000	0.0	0.0	0.0	0.0	0.0	
06-Nov-2022 05:30:00:000	31.5	4.7	5.3	0.0	29.5	

Datetime	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	pH (pH)	Env Temp (°C)	NH3 (mg/L)
05-Nov-2022 05:30:00:000	31.5	4.7	5.3	0.0	29.5	
08-Nov-2022 05:30:00:000	31.5	4.7	5.3	0.0	29.5	
09-Nov-2022 05:30:00:000	31.5	4.7	5.3	0.0	29.5	
10-Nov-2022 05:30:00:000	31.5	4.7	5.3	0.0	29.5	
11-Nov-2022 05:30:00:000	26.0	4.0	4.1	2.9	26.7	
22-Nov-2022 05:30:00:000	36.7	5.9	3.6	7.7	22.4	
23-Nov-2022 05:30:00:000	38.0	6.1	8.0	7.4	22.7	
24-Nov-2022 05:30:00:000	36.6	5.9	4.6	7.4	22.2	
25-Nov-2022 05:30:00:000	26.1	4.2	4.1	7.3	22.0	
26-Nov-2022 05:30:00:000	21.7	3.5	3.9	7.3	21.4	
27-Nov-2022 05:30:00:000	22.7	3.6	5.0	7.3	20.5	
28-Nov-2022 05:30:00:000	22.0	3.5	6.0	7.3	21.9	
29-Nov-2022 05:30:00:000	22.3	3.6	6.1	7.3	20.6	
30-Nov-2022 05:30:00:000	31.2	5.0	5.6	7.5	21.4	

ANNEXURE H

S.T.P. in operation

S.No.	Running STP in Sector	MLD	Status T.T.P. (Tertiary Treatment Plant).	At all running STP (Time Line)
1	54	33	Tender in process	Dec-2023
2	54	54	Tender in process	Dec-2023
3	50	25	Tender in process	Dec-2023
4	50	34	Tender in process	Dec-2023
5	123	35	Tender in process	Dec-2023
6	168	50	Tender in process	Dec-2023

New STP

S.No.	Running STP in Sector	MLD	Status T.T.P. (Tertiary Treatment Plant).	
1	123	80	Tender in process	~~Sept-2023~~ Dec 2023
2	168	100	Tertiary Treatment Plant Providing and operational	Operational

22/02

...ORA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

2.3.3 Treated Sewage Quality:

The Contractor shall design the process in such a way that the treated effluent quality attains the following limits or even better:

S.N.	Paramete	Values	Unit
1	pH	7.0 – 8.0	
2	Biochemical Oxygen Demand (BOD5)	≤ 10	mg/l
3	Chemical Oxygen Demand (COD)	≤ 50	mg/l
4	Total Suspended Solids (TSS)	≤ 20	mg/l
5	Total Nitrogen (TN)	≤ 10	mg/l
6	Total Phosphorous (TP)	≤ 1	mg/l
7	Fecal Coliforms	≤ 100	MPN/100 ml

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

Date	24.02.2023
Job No.	2301-1-411-2744
Booking No.	[illegible]
Booking Date	31.01.2023
Customer Ref No.	LETTER NO. NOIDA [illegible] 1344/2022
Customer Ref Dt.	03.12.2022

NOIDA INDUSTRIAL DEVELOPMENT AUTHORITY
OFFICE OF THE PROJECT ENGINEER (C&A)
SECTOR-6
NOIDA
UTTAR PRADESH-201301

Sample Description: Job No. 2301-1-411-2744

ONE GRAB TAPE SEALED SAMPLE OF WATER DRAWN BY OUR REPRESENTATIVE ON [illegible] FROM NOIDA AUTHORITY STP CC OUTLET WATER, 100 MLD, SEC-168, NOIDA WAS RECEIVED

S.No.	Tests	Results	Protocol
1	pH	7.3	IS: 3025 Pt-11-2022
2	Total Nitrogen (as N), mg/l	9	IS: 3025 Pt-34-1988 RA 2019
3	Total Phosphorus (as P), mg/l	[illegible]	IS: 3025 Pt-2-2018
4	Total Suspended Solids, mg/l	[illegible]	IS: 3025 Pt-17-1984 RA 2019
5	Chemical Oxygen Demand, mg/l	32	APHA 23rd Ed. 5220
6	Biochemical Oxygen Demand, mg/l (@ 20°C for 5 days)	6	APHA 23rd Ed. 5210
7	MPN Fecal Coliform /100 ml	110000 Organisms	IS 1622-1981 RA 2019

DOR: 31.01.2023
DOS: 31.01.2023
DOC: 24.02.2023

—End of Report—

AUTHORISED SIGNATORY
EMPLOYEE CODE: 1105

1/1

Phone: 91-11-27000100, 27667267, 27657860 Fax: 91-11-27667207

See overleaf for terms & conditions

Analyzed by | Calculations Checked by | Approved by

(A unit of Shriram Scientific and Industrial Research Foundation)
19, University Road, Delhi – 110007 (India)
An ISO 9001, 14001 & 45001 Certified Institute
Website : www.shriraminstitute.org
E-mail id : customercare@shriraminstitute.org
qad@shriraminstitute.org

ULR NO: TC544422000013620F

TEST REPORT

NO : C1/0000304700

TC-5444

Issued To :
Client Code: (NODA01K0976)
KHILARI INFRASTRUCTURE PVT. LTD.
100 MLD STP SECTOR-168,
NOIDA
UTTAR PRADESH-201301
Kind Attn: MR. RAVINDER

Date : 10-10-2022
Job No : 2209-1-411-2449
Booking No : RG2223/1/6168
Booking Date : 29-09-2022
Customer Ref No. : EMAIL
Customer Ref Dt. : 24-09-2022

Sample Description: **Job No. 2209-1-411-2449**

ONE GRAB SAMPLE OF STP INLET EFFLUENT OF 100 MLD, DRAWN BY OUR REPRESENTATIVE ON 28.09.2022 FROM KHILARI INFRASTRUCTURE PVT. LTD., MARKED AS "STP INLET WATER" WAS RECEIVED.

SNo.	Tests	Results	Protocol
1	pH	7.4	IS: 3025 Pt-11-2022
2	Total Suspended Solids, mg/l	45	IS: 3025 Pt-17-1984, RA 2017
3	Total Dissolved Solids, mg/l	1816	IS: 3025 Pt-16-1984, RA 2017
4	Chemical Oxygen Demand, mg/l	148	APHA 23rd Ed., 5220
5	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	75	APHA 23rd Ed., 5210
6	Ammoniacal Nitrogen (as N), mg/l	23	IS: 3025 Pt-34-1988, RA 2019
7	Total Kjeldahl Nitrogen (as N), mg/l	24	IS: 3025 Pt-34-1988, RA 2019
8	Total Phosphorous (as PO4), mg/l	14.7	IS: 3025 Pt-2-2019 (Followed by calculation)
9	MPN Fecal Coliform/100 ml	2200000 Organisms	IS 1622:1981, RA 2019

DOR: 29.09.2022
DOS: 29.09.2022
DOC: 10.10.2022

—End of Report—

KHILARI INFRASTRUCTURE PVT. LTD.

AUTHORISED SIGNATORY
EMPLOYEE CODE:(6171)

Phone : 91-11-27000100, 27667267, 27667860 Fax : 91-11-27667207

100 MLD STP SECTOR 168 NOIDA
DR6000
S/N 2165706
Instrument Version 1.20

Parameter	Date	Operator I	Sample ID:	Sample Number	Sampling	Sampling	Program	Dilution	Lot #:	Date of Ex	Result	Unit	Name	Error	AQA	Lot #:	Date of Ex	Multiple D	Comment	Cell Numb	Wavelengt	Value1	Unit
Suspended Solids	24-02-2023 12:50						P630				442	mg/l	TSS								810	0.922	Abs
Suspended Solids	24-02-2023 12:50						P630				442	mg/l	TSS								810	0.923	Abs
Suspended Solids	24-02-2023 12:49						P630				4	mg/l	TSS								810	0.008	Abs
Suspended Solids	24-02-2023 12:49						P630				5	mg/l	TSS								810	0.011	Abs
Suspended Solids	23-02-2023 12:04						P630				374	mg/l	TSS								810	0.781	Abs
Suspended Solids	23-02-2023 12:04						P630				372	mg/l	TSS								810	0.777	Abs
Suspended Solids	23-02-2023 12:04						P630				373	mg/l	TSS								810	0.778	Abs
Suspended Solids	23-02-2023 12:03						P630				2	mg/l	TSS								810	0.003	Abs
Suspended Solids	23-02-2023 12:02						P630				2	mg/l	TSS								810	0.004	Abs
Suspended Solids	23-02-2023 12:02						P630				1	mg/l	TSS								810	0.002	Abs
Suspended Solids	23-02-2023 12:02						P630				1	mg/l	TSS								810	0.002	Abs
Suspended Solids	22-02-2023 12:43						P630				439	mg/l	TSS								810	0.916	Abs
Suspended Solids	22-02-2023 12:43						P630				438	mg/l	TSS								810	0.914	Abs
Suspended Solids	22-02-2023 12:42						P630				435	mg/l	TSS								810	0.908	Abs
Suspended Solids	22-02-2023 12:42						P630				437	mg/l	TSS								810	0.912	Abs
Suspended Solids	22-02-2023 12:37						P630				2	mg/l	TSS								810	0.004	Abs
Suspended Solids	22-02-2023 12:37						P630				2	mg/l	TSS								810	0.004	Abs
Suspended Solids	21-02-2023 12:56						P630				467	mg/l	TSS								810	0.975	Abs
Suspended Solids	21-02-2023 12:56						P630				469	mg/l	TSS								810	0.979	Abs
Suspended Solids	21-02-2023 12:54						P630				2	mg/l	TSS								810	0.004	Abs
Suspended Solids	21-02-2023 12:54						P630				2	mg/l	TSS								810	0.004	Abs
Yellowness	21-02-2023 12:14						P2325				5.1	YI											
Suspended Solids	21-02-2023 12:13						P630				5	mg/l	TSS								810	0.01	Abs
Suspended Solids	21-02-2023 12:13						P630				5	mg/l	TSS								810	0.01	Abs
Suspended Solids	20-02-2023 11:37						P630				2	mg/l	TSS								810	0.004	Abs
Suspended Solids	20-02-2023 11:37						P630				2	mg/l	TSS								810	0.004	Abs
Suspended Solids	20-02-2023 11:36						P630				408	mg/l	TSS								810	0.851	Abs
Suspended Solids	20-02-2023 11:36						P630				407	mg/l	TSS								810	0.849	Abs
Suspended Solids	19-02-2023 11:47						P630				412	mg/l	TSS								810	0.861	Abs
Suspended Solids	19-02-2023 11:47						P630				413	mg/l	TSS								810	0.862	Abs
Suspended Solids	19-02-2023 11:46						P630				4	mg/l	TSS								810	0.008	Abs
Suspended Solids	19-02-2023 11:46						P630				4	mg/l	TSS								810	0.008	Abs
Suspended Solids	19-02-2023 11:45						P630				3	mg/l	TSS								810	0.007	Abs
Suspended Solids	18-02-2023 11:56						P630				461	mg/l	TSS								810	0.961	Abs
Suspended Solids	18-02-2023 11:56						P630				460	mg/l	TSS								810	0.961	Abs
Suspended Solids	18-02-2023 11:55						P630				459	mg/l	TSS								810	0.959	Abs
Suspended Solids	18-02-2023 11:54						P630				6	mg/l	TSS								810	0.012	Abs
Suspended Solids	18-02-2023 11:53						P630				6	mg/l	TSS								810	0.012	Abs
Suspended Solids	18-02-2023 11:53						P630				2	mg/l	TSS								810	0.005	Abs
Suspended Solids	18-02-2023 11:52						P630				7	mg/l	TSS								810	0.015	Abs
Suspended Solids	18-02-2023 11:52						P630				9	mg/l	TSS								810	0.018	Abs
Suspended Solids	18-02-2023 11:52						P630				7	mg/l	TSS								810	0.015	Abs
Suspended Solids	17-02-2023 12:47						P630				453	mg/l	TSS								810	0.946	Abs
Suspended Solids	17-02-2023 12:47						P630				454	mg/l	TSS								810	0.947	Abs
Suspended Solids	17-02-2023 12:47						P630				455	mg/l	TSS								810	0.95	Abs
Suspended Solids	17-02-2023 12:45						P630				4	mg/l	TSS								810	0.009	Abs
Suspended Solids	17-02-2023 12:45						P630				4	mg/l	TSS								810	0.009	Abs
Suspended Solids	16-02-2023 12:54						P630				467	mg/l	TSS								810	0.974	Abs
Suspended Solids	16-02-2023 12:53						P630				468	mg/l	TSS								810	0.977	Abs
Suspended Solids	16-02-2023 12:53						P630				407	mg/l	TSS								810	0.849	Abs
Suspended Solids	16-02-2023 12:52						P630				304	mg/l	TSS								810	0.635	Abs
Suspended Solids	16-02-2023 12:52						P630				742	mg/l	TSS								810	1.548	Abs
Suspended Solids	16-02-2023 12:51						P630				736	mg/l	TSS								810	1.537	Abs
Suspended Solids	16-02-2023 12:51						P630				741	mg/l	TSS								810	1.547	Abs

Suspended Solids	16-02-2023 12:43	P630	5 mg/l	TSS	B10	0.009 Abs
Suspended Solids	16-02-2023 12:43	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	15-02-2023 12:57	P630	375 mg/l	TSS	B10	0.782 Abs
Suspended Solids	15-02-2023 12:56	P630	376 mg/l	TSS	B10	0.785 Abs
Suspended Solids	15-02-2023 12:55	P630	6 mg/l	TSS	B10	0.012 Abs
Suspended Solids	15-02-2023 12:55	P630	6 mg/l	TSS	B10	0.012 Abs
Suspended Solids	15-02-2023 12:54	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	15-02-2023 12:54	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	13-02-2023 11:42	P630	418 mg/l	TSS	B10	0.872 Abs
Suspended Solids	13-02-2023 11:42	P630	417 mg/l	TSS	B10	0.87 Abs
Suspended Solids	13-02-2023 11:42	P630	416 mg/l	TSS	B10	0.869 Abs
Suspended Solids	13-02-2023 11:28	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	13-02-2023 11:28	P630	2 mg/l	TSS	B10	0.003 Abs
Suspended Solids	13-02-2023 11:27	P630	1 mg/l	TSS	B10	0.003 Abs
Suspended Solids	13-02-2023 11:26	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	12-02-2023 12:13	P630	1 mg/l	TSS	B10	0.001 Abs
Suspended Solids	12-02-2023 12:13	P630	466 mg/l	TSS	B10	0.972 Abs
Suspended Solids	12-02-2023 12:13	P630	465 mg/l	TSS	B10	0.97 Abs
Suspended Solids	12-02-2023 12:11	P630	463 mg/l	TSS	B10	0.966 Abs
Suspended Solids	12-02-2023 12:11	P630	3 mg/l	TSS	B10	0.007 Abs
Suspended Solids	11-02-2023 12:58	P630	3 mg/l	TSS	B10	0.007 Abs
Suspended Solids	11-02-2023 12:57	P630	414 mg/l	TSS	B10	0.863 Abs
Suspended Solids	11-02-2023 12:43	P630	415 mg/l	TSS	B10	0.866 Abs
Suspended Solids	11-02-2023 12:43	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	10-02-2023 12:58	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	10-02-2023 12:58	P630	6 mg/l	TSS	B10	0.012 Abs
Suspended Solids	10-02-2023 12:58	P630	6 mg/l	TSS	B10	0.011 Abs
Suspended Solids	10-02-2023 12:16	P630	5 mg/l	TSS	B10	0.013 Abs
Suspended Solids	10-02-2023 12:16	P630	524 mg/l	TSS	B10	1.094 Abs
Suspended Solids	10-02-2023 12:16	P630	527 mg/l	TSS	B10	1.099 Abs
Suspended Solids	10-02-2023 12:14	P630	530 mg/l	TSS	B10	1.106 Abs
Suspended Solids	10-02-2023 12:14	P630	533 mg/l	TSS	B10	1.113 Abs
Suspended Solids	09-02-2023 12:06	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	09-02-2023 12:06	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	09-02-2023 12:06	P630	618 mg/l	TSS	B10	1.29 Abs
Suspended Solids	09-02-2023 11:56	P630	618 mg/l	TSS	B10	1.289 Abs
Suspended Solids	09-02-2023 11:56	P630	619 mg/l	TSS	B10	1.291 Abs
Suspended Solids	09-02-2023 11:54	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	08-02-2023 12:34	P630	5 mg/l	TSS	B10	0.009 Abs
Suspended Solids	08-02-2023 12:34	P630	1 mg/l	TSS	B10	0.003 Abs
Suspended Solids	08-02-2023 12:26	P630	488 mg/l	TSS	B10	1.018 Abs
Suspended Solids	08-02-2023 12:26	P630	487 mg/l	TSS	B10	1.017 Abs
Suspended Solids	07-02-2023 13:10	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	07-02-2023 13:10	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	07-02-2023 13:09	P630	7 mg/l	TSS	B10	0.015 Abs
Suspended Solids	07-02-2023 13:09	P630	7 mg/l	TSS	B10	0.015 Abs
Suspended Solids	07-02-2023 13:08	P630	6 mg/l	TSS	B10	0.014 Abs
Suspended Solids	07-02-2023 13:04	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	07-02-2023 13:04	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	07-02-2023 13:04	P630	608 mg/l	TSS	B10	1.268 Abs
Suspended Solids	06-02-2023 15:51	P630	607 mg/l	TSS	B10	1.268 Abs
Suspended Solids	06-02-2023 15:51	P630	613 mg/l	TSS	B10	1.28 Abs
Suspended Solids	06-02-2023 15:11	P630	2 mg/l	TSS	B10	0.003 Abs
Suspended Solids	06-02-2023 15:11	P630	2 mg/l	TSS	B10	0.003 Abs
Suspended Solids	06-02-2023 15:10	P630	453 mg/l	TSS	B10	0.946 Abs
Suspended Solids	06-02-2023 15:10	P630	456 mg/l	TSS	B10	0.951 Abs
Suspended Solids	06-02-2023 15:10	P630	460 mg/l	TSS	B10	0.961 Abs
Suspended Solids	06-02-2023 15:07	P630	426 mg/l	TSS	B10	0.889 Abs
		P630	431 mg/l	TSS	B10	0.899 Abs
		P630	7 mg/l	TSS	B10	0.015 Abs

Suspended Solids	06-02-2023 15:07	P630	7 mg/l	TSS	B10	0.015 Abs
Suspended Solids	06-02-2023 15:07	P630	8 mg/l	TSS	B10	0.018 Abs
Suspended Solids	04-02-2023 14:37	P630	494 mg/l	TSS	B10	1.031 Abs
Suspended Solids	04-02-2023 14:37	P630	494 mg/l	TSS	B10	1.032 Abs
Suspended Solids	04-02-2023 14:26	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	04-02-2023 14:26	P630	4 mg/l	TSS	B10	0.009 Abs
Suspended Solids	03-02-2023 12:24	P630	464 mg/l	TSS	B10	0.569 Abs
Suspended Solids	03-02-2023 12:24	P630	464 mg/l	TSS	B10	0.968 Abs
Suspended Solids	03-02-2023 12:24	P630	463 mg/l	TSS	B10	0.967 Abs
Suspended Solids	03-02-2023 12:23	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	03-02-2023 12:20	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	02-02-2023 13:03	P630	495 mg/l	TSS	B10	1.033 Abs
Suspended Solids	02-02-2023 13:03	P630	495 mg/l	TSS	B10	1.033 Abs
Suspended Solids	02-02-2023 12:58	P630	494 mg/l	TSS	B10	1.032 Abs
Suspended Solids	02-02-2023 12:58	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	28-01-2023 18:05	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	28-01-2023 18:05	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	28-01-2023 18:05	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	28-01-2023 18:04	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	28-01-2023 12:35	P630	-1 mg/l	TSS	B10	-0.003 Abs
Suspended Solids	28-01-2023 12:35	P630	396 mg/l	TSS	B10	0.827 Abs
Suspended Solids	28-01-2023 12:27	P630	355 mg/l	TSS	B10	0.827 Abs
Suspended Solids	28-01-2023 12:27	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	28-01-2023 12:25	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	28-01-2023 12:23	P630	8 mg/l	TSS	B10	0.012 Abs
Suspended Solids	27-01-2023 13:40	P630	6 mg/l	TSS	B10	0.012 Abs
Suspended Solids	27-01-2023 13:40	P630	436 mg/l	TSS	B10	0.909 Abs
Suspended Solids	27-01-2023 13:19	P630	435 mg/l	TSS	B10	0.908 Abs
Suspended Solids	27-01-2023 13:18	P630	2 mg/l	TSS	B10	0.005 Abs
Suspended Solids	27-01-2023 13:17	P630	2 mg/l	TSS	B10	0.005 Abs
Suspended Solids	27-01-2023 13:16	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	27-01-2023 13:15	P630	7 mg/l	TSS	B10	0.015 Abs
Suspended Solids	27-01-2023 13:10	P630	7 mg/l	TSS	B10	0.014 Abs
Suspended Solids	27-01-2023 13:10	P630	6 mg/l	TSS	B10	0.012 Abs
Suspended Solids	27-01-2023 12:37	P630	511 mg/l	TSS	B10	1.067 Abs
Suspended Solids	27-01-2023 12:37	P630	510 mg/l	TSS	B10	1.065 Abs
Suspended Solids	27-01-2023 11:36	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	27-01-2023 11:36	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	27-01-2023 11:22	P630	276 mg/l	TSS	B10	0.577 Abs
Suspended Solids	27-01-2023 11:22	P630	279 mg/l	TSS	B10	0.582 Abs
Suspended Solids	26-01-2023 12:38	P630	6 mg/l	TSS	B10	0.012 Abs
Suspended Solids	26-01-2023 12:38	P630	6 mg/l	TSS	B10	0.012 Abs
Suspended Solids	26-01-2023 12:38	P630	469 mg/l	TSS	B10	0.978 Abs
Suspended Solids	26-01-2023 12:23	P630	470 mg/l	TSS	B10	0.98 Abs
Suspended Solids	26-01-2023 12:23	P630	467 mg/l	TSS	B10	0.975 Abs
Suspended Solids	26-01-2023 12:23	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	26-01-2023 12:22	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	25-01-2023 12:45	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	25-01-2023 12:45	P630	0 mg/l	TSS	B10	0 Abs
Suspended Solids	25-01-2023 12:45	P630	412 mg/l	TSS	B10	0.86 Abs
Suspended Solids	25-01-2023 12:33	P630	412 mg/l	TSS	B10	0.86 Abs
Suspended Solids	25-01-2023 12:32	P630	411 mg/l	TSS	B10	0.858 Abs
Suspended Solids	24-01-2023 12:53	P630	3 mg/l	TSS	B10	0.007 Abs
Suspended Solids	24-01-2023 12:53	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	24-01-2023 12:51	P630	344 mg/l	TSS	B10	0.717 Abs
Suspended Solids	24-01-2023 12:25	P630	342 mg/l	TSS	B10	0.714 Abs
Suspended Solids	24-01-2023 12:25	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	24-01-2023 12:25	P630	350 mg/l	TSS	B10	0.731 Abs
		P630	350 mg/l	TSS	B10	0.73 Abs
			349 mg/l	TSS	B10	0.728 Abs

Suspended Solids	24-01-2023 12:08	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	24-01-2023 12:05	P630	4 mg/l	TSS	B10	0.007 Abs
Suspended Solids	23-01-2023 12:47	P630	424 mg/l	TSS	B10	0.884 Abs
Suspended Solids	23-01-2023 12:47	P630	424 mg/l	TSS	B10	0.885 Abs
Suspended Solids	23-01-2023 12:34	P630	3 mg/l	TSS	B10	0.007 Abs
Suspended Solids	23-01-2023 12:34	P630	3 mg/l	TSS	B10	0.007 Abs
Suspended Solids	22-01-2023 12:32	P630	490 mg/l	TSS	B10	1.022 Abs
Suspended Solids	22-01-2023 12:32	P630	489 mg/l	TSS	B10	1.021 Abs
Suspended Solids	22-01-2023 12:32	P630	488 mg/l	TSS	B10	1.019 Abs
Suspended Solids	22-01-2023 12:32	P630	490 mg/l	TSS	B10	1.023 Abs
Suspended Solids	22-01-2023 12:31	P630	402 mg/l	TSS	B10	0.838 Abs
Suspended Solids	22-01-2023 12:31	P630	404 mg/l	TSS	B10	0.843 Abs
Suspended Solids	22-01-2023 12:30	P630	635 mg/l	TSS	B10	1.327 Abs
Suspended Solids	22-01-2023 12:30	P630	634 mg/l	TSS	B10	1.324 Abs
Suspended Solids	22-01-2023 12:26	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	22-01-2023 12:26	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	22-01-2023 12:26	P630	3 mg/l	TSS	B10	0.007 Abs
Suspended Solids	21-01-2023 12:56	P630	451 mg/l	TSS	B10	0.942 Abs
Suspended Solids	21-01-2023 12:56	P630	450 mg/l	TSS	B10	0.939 Abs
Suspended Solids	21-01-2023 12:56	P630	449 mg/l	TSS	B10	0.938 Abs
Suspended Solids	21-01-2023 12:55	P630	452 mg/l	TSS	B10	0.943 Abs
Suspended Solids	21-01-2023 12:54	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	21-01-2023 12:54	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	21-01-2023 12:54	P630	9 mg/l	TSS	B10	0.019 Abs
Suspended Solids	21-01-2023 12:53	P630	8 mg/l	TSS	B10	0.016 Abs
Suspended Solids	21-01-2023 12:53	P630	8 mg/l	TSS	B10	0.016 Abs
Suspended Solids	21-01-2023 12:53	P630	10 mg/l	TSS	B10	0.021 Abs
Suspended Solids	20-01-2023 17:09	P630	10 mg/l	TSS	B10	0.022 Abs
Suspended Solids	20-01-2023 14:51	P630	238 mg/l	TSS	B10	0.497 Abs
Suspended Solids	20-01-2023 14:51	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	20-01-2023 14:50	P630	5 mg/l	TSS	B10	0.009 Abs
Suspended Solids	20-01-2023 14:49	P630	4 mg/l	TSS	B10	0.009 Abs
Suspended Solids	20-01-2023 14:49	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	20-01-2023 14:47	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	20-01-2023 14:47	P630	246 mg/l	TSS	B10	0.513 Abs
Suspended Solids	20-01-2023 14:47	P630	248 mg/l	TSS	B10	0.517 Abs
Suspended Solids	19-01-2023 13:49	P630	245 mg/l	TSS	B10	0.511 Abs
Suspended Solids	19-01-2023 12:51	P630	385 mg/l	TSS	B10	0.804 Abs
Suspended Solids	19-01-2023 12:51	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	18-01-2023 12:47	P630	2 mg/l	TSS	B10	0.003 Abs
Suspended Solids	18-01-2023 12:47	P630	410 mg/l	TSS	B10	0.857 Abs
Suspended Solids	18-01-2023 12:45	P630	411 mg/l	TSS	B10	0.858 Abs
Suspended Solids	18-01-2023 12:45	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	17-01-2023 17:03	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	17-01-2023 17:03	P630	416 mg/l	TSS	B10	0.868 Abs
Suspended Solids	17-01-2023 16:19	P630	416 mg/l	TSS	B10	0.868 Abs
Suspended Solids	17-01-2023 16:18	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	16-01-2023 12:56	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	16-01-2023 12:56	P630	423 mg/l	TSS	B10	0.883 Abs
Suspended Solids	16-01-2023 12:56	P630	428 mg/l	TSS	B10	0.894 Abs
Suspended Solids	16-01-2023 12:55	P630	426 mg/l	TSS	B10	0.89 Abs
Suspended Solids	16-01-2023 12:56	P630	433 mg/l	TSS	B10	0.904 Abs
Suspended Solids	16-01-2023 12:52	P630	425 mg/l	TSS	B10	0.887 Abs
Suspended Solids	16-01-2023 12:52	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	14-01-2023 12:33	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	14-01-2023 12:33	P630	449 mg/l	TSS	B10	0.936 Abs
Suspended Solids	14-01-2023 12:33	P630	450 mg/l	TSS	B10	0.94 Abs
Suspended Solids	14-01-2023 12:31	P630	449 mg/l	TSS	B10	0.936 Abs
Suspended Solids	14-01-2023 12:31	P630	1 mg/l	TSS	B10	0.002 Abs
		P630	1 mg/l	TSS	B10	0.003 Abs

Suspended Solids	14-01-2023 12:30	P630	1 mg/l	TSS	B10	0.001 Abs
Suspended Solids	13-01-2023 13:02	P630	446 mg/l	TSS	B10	0.931 Abs
Suspended Solids	13-01-2023 13:02	P630	445 mg/l	TSS	B10	0.931 Abs
Suspended Solids	13-01-2023 13:02	P630	446 mg/l	TSS	B10	0.931 Abs
Suspended Solids	13-01-2023 13:01	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	13-01-2023 13:01	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	13-01-2023 13:01	P630	7 mg/l	TSS	B10	0.014 Abs
Suspended Solids	13-01-2023 13:00	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	13-01-2023 13:00	P630	7 mg/l	TSS	B10	0.015 Abs
Suspended Solids	13-01-2023 13:00	P630	8 mg/l	TSS	B10	0.016 Abs
Suspended Solids	13-01-2023 12:59	P630	7 mg/l	TSS	B10	0.015 Abs
Suspended Solids	13-01-2023 12:58	P630	8 mg/l	TSS	B10	0.016 Abs
Suspended Solids	13-01-2023 12:58	P630	7 mg/l	TSS	B10	0.015 Abs
Suspended Solids	12-01-2023 14:35	P630	8 mg/l	TSS	B10	0.016 Abs
Suspended Solids	12-01-2023 14:35	P630	7 mg/l	TSS	B10	0.015 Abs
Suspended Solids	12-01-2023 14:34	P630	420 mg/l	TSS	B10	0.877 Abs
Suspended Solids	12-01-2023 14:31	P630	420 mg/l	TSS	B10	0.876 Abs
Suspended Solids	12-01-2023 14:31	P630	417 mg/l	TSS	B10	0.871 Abs
Suspended Solids	12-01-2023 12:15	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	12-01-2023 12:15	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	12-01-2023 12:15	P630	438 mg/l	TSS	B10	0.914 Abs
Suspended Solids	12-01-2023 11:27	P630	438 mg/l	TSS	B10	0.914 Abs
Suspended Solids	12-01-2023 11:27	P630	436 mg/l	TSS	B10	0.911 Abs
Suspended Solids	12-01-2023 11:12	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	12-01-2023 11:12	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	11-01-2023 12:23	P630	2 mg/l	TSS	B10	0.005 Abs
Suspended Solids	11-01-2023 12:23	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	11-01-2023 12:20	P630	412 mg/l	TSS	B10	0.86 Abs
Suspended Solids	11-01-2023 12:20	P630	412 mg/l	TSS	B10	0.86 Abs
Suspended Solids	11-01-2023 12:19	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	11-01-2023 12:19	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	10-01-2023 12:00	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	10-01-2023 12:00	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	10-01-2023 11:47	P630	424 mg/l	TSS	B10	0.007 Abs
Suspended Solids	10-01-2023 11:47	P630	424 mg/l	TSS	B10	0.886 Abs
Suspended Solids	09-01-2023 13:02	P630	1 mg/l	TSS	B10	0.884 Abs
Suspended Solids	09-01-2023 13:02	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	09-01-2023 13:00	P630	366 mg/l	TSS	B10	0.002 Abs
Suspended Solids	09-01-2023 13:00	P630	366 mg/l	TSS	B10	0.764 Abs
Suspended Solids	09-01-2023 12:56	P630	1 mg/l	TSS	B10	0.764 Abs
Suspended Solids	08-01-2023 13:00	P630	1 mg/l	TSS	B10	0.003 Abs
Suspended Solids	08-01-2023 13:00	P630	-1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	08-01-2023 12:59	P630	240 mg/l	TSS	B10	-0.002 Abs
Suspended Solids	08-01-2023 12:59	P630	240 mg/l	TSS	B10	0.501 Abs
Suspended Solids	08-01-2023 12:59	P630	411 mg/l	TSS	B10	0.501 Abs
Suspended Solids	08-01-2023 12:59	P630	410 mg/l	TSS	B10	0.857 Abs
Suspended Solids	08-01-2023 12:57	P630	407 mg/l	TSS	B10	0.857 Abs
Suspended Solids	08-01-2023 12:57	P630	410 mg/l	TSS	B10	0.849 Abs
Suspended Solids	07-01-2023 12:53	P630	5 mg/l	TSS	B10	0.856 Abs
Suspended Solids	07-01-2023 12:53	P630	5 mg/l	TSS	B10	0.011 Abs
Suspended Solids	07-01-2023 12:51	P630	358 mg/l	TSS	B10	0.011 Abs
Suspended Solids	07-01-2023 12:51	P630	358 mg/l	TSS	B10	0.748 Abs
Suspended Solids	07-01-2023 12:50	P630	2 mg/l	TSS	B10	0.747 Abs
Suspended Solids	07-01-2023 12:49	P630	2 mg/l	TSS	B10	0.005 Abs
Suspended Solids	07-01-2023 12:49	P630	1 mg/l	TSS	B10	0.005 Abs
Suspended Solids	07-01-2023 12:49	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	06-01-2023 12:15	P630	0 mg/l	TSS	B10	0.001 Abs
Suspended Solids	06-01-2023 12:15	P630	0 mg/l	TSS	B10	0 Abs
		P630	372 mg/l	TSS	B10	0 Abs
		P630	373 mg/l	TSS	B10	0.777 Abs
		P630			B10	0.778 Abs

Suspended Solids	06-01-2023 12:14	P630	4 mg/l	TSS		B10	0.009 Abs
Suspended Solids	06-01-2023 12:14	P630	4 mg/l	TSS		B10	0.009 Abs
Suspended Solids	05-01-2023 13:00	P630	226 mg/l	TSS		B10	0.472 Abs
Suspended Solids	05-01-2023 13:00	P630	226 mg/l	TSS		B10	0.473 Abs
Suspended Solids	05-01-2023 13:00	P630	225 mg/l	TSS		B10	0.47 Abs
Suspended Solids	05-01-2023 12:59	P630	526 mg/l	TSS		B10	1.058 Abs
Suspended Solids	05-01-2023 12:58	P630	2 mg/l	TSS		B10	0.005 Abs
Suspended Solids	05-01-2023 12:58	P630	2 mg/l	TSS		B10	0.004 Abs
Suspended Solids	05-01-2023 12:58	P630	3 mg/l	TSS		B10	0.005 Abs
Suspended Solids	05-01-2023 10:05	P630	1 mg/l	TSS		B10	0.001 Abs
Suspended Solids	05-01-2023 10:03	P630	160 mg/l	TSS		B10	0.335 Abs
Suspended Solids	05-01-2023 10:03	P630	160 mg/l	TSS		B10	0.333 Abs
Suspended Solids	05-01-2023 10:03	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	04-01-2023 13:00	P630	472 mg/l	TSS		B10	0.584 Abs
Suspended Solids	04-01-2023 12:59	P630	465 mg/l	TSS		B10	0.971 Abs
Suspended Solids	04-01-2023 12:58	P630	463 mg/l	TSS		B10	0.967 Abs
Suspended Solids	04-01-2023 12:58	P630	463 mg/l	TSS		B10	0.967 Abs
Suspended Solids	04-01-2023 12:58	P630	464 mg/l	TSS		B10	0.969 Abs
Suspended Solids	04-01-2023 12:58	P630	462 mg/l	TSS		B10	0.965 Abs
Suspended Solids	04-01-2023 12:53	P630	4 mg/l	TSS		B10	0.009 Abs
Suspended Solids	04-01-2023 12:53	P630	4 mg/l	TSS		B10	0.009 Abs
Suspended Solids	03-01-2023 12:35	P630	384 mg/l	TSS		B10	0.801 Abs
Suspended Solids	03-01-2023 12:35	P630	384 mg/l	TSS		B10	0.801 Abs
Suspended Solids	03-01-2023 12:35	P630	384 mg/l	TSS		B10	0.801 Abs
Suspended Solids	03-01-2023 12:03	P630	3 mg/l	TSS		B10	0.007 Abs
Suspended Solids	03-01-2023 12:03	P630	3 mg/l	TSS		B10	0.006 Abs
Suspended Solids	02-01-2023 11:13	P630	510 mg/l	TSS		B10	1.064 Abs
Suspended Solids	02-01-2023 11:13	P630	510 mg/l	TSS		B10	1.065 Abs
Suspended Solids	02-01-2023 11:13	P630	509 mg/l	TSS		B10	1.062 Abs
Suspended Solids	02-01-2023 11:13	P630	510 mg/l	TSS		B10	1.065 Abs
Suspended Solids	02-01-2023 11:10	P630	3 mg/l	TSS		B10	0.005 Abs
Suspended Solids	02-01-2023 11:10	P630	3 mg/l	TSS		B10	0.005 Abs
Suspended Solids	31-12-2022 12:27	P630	386 mg/l	TSS		B10	0.805 Abs
Suspended Solids	31-12-2022 12:27	P630	387 mg/l	TSS		B10	0.808 Abs
Suspended Solids	31-12-2022 12:27	P630	388 mg/l	TSS		B10	0.81 Abs
Suspended Solids	31-12-2022 12:11	P630	4 mg/l	TSS		B10	0.009 Abs
Suspended Solids	31-12-2022 12:10	P630	4 mg/l	TSS		B10	0.009 Abs
Suspended Solids	30-12-2022 12:29	P630	487 mg/l	TSS		B10	1.017 Abs
Suspended Solids	30-12-2022 12:29	P630	487 mg/l	TSS		B10	1.017 Abs
Suspended Solids	30-12-2022 12:26	P630	4 mg/l	TSS		B10	0.009 Abs
Suspended Solids	30-12-2022 12:26	P630	4 mg/l	TSS		B10	0.008 Abs
Suspended Solids	29-12-2022 16:32	P630	0 mg/l	TSS		B10	0.001 Abs
Suspended Solids	29-12-2022 16:31	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	29-12-2022 16:31	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	29-12-2022 12:45	P630	477 mg/l	TSS		B10	0.996 Abs
Suspended Solids	29-12-2022 12:45	P630	477 mg/l	TSS		B10	0.995 Abs
Suspended Solids	29-12-2022 12:43	P630	4 mg/l	TSS		B10	0.009 Abs
Suspended Solids	29-12-2022 12:42	P630	3 mg/l	TSS		B10	0.006 Abs
Suspended Solids	29-12-2022 12:41	P630	3 mg/l	TSS		B10	0.006 Abs
Suspended Solids	28-12-2022 15:01	P630	411 mg/l	TSS		B10	0.857 Abs
Suspended Solids	28-12-2022 15:01	P630	411 mg/l	TSS		B10	0.857 Abs
Suspended Solids	28-12-2022 14:59	P630	2 mg/l	TSS		B10	0.005 Abs
Suspended Solids	28-12-2022 14:59	P630	3 mg/l	TSS		B10	0.006 Abs
Suspended Solids	28-12-2022 14:55	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	27-12-2022 12:47	P630	405 mg/l	TSS		B10	0.845 Abs
Suspended Solids	27-12-2022 12:47	P630	403 mg/l	TSS		B10	0.84 Abs
Suspended Solids	27-12-2022 12:45	P630	2 mg/l	TSS		B10	0.003 Abs
Suspended Solids	26-12-2022 12:35	P630	359 mg/l	TSS		B10	0.749 Abs
Suspended Solids	26-12-2022 12:35	P630	360 mg/l	TSS		B10	0.751 Abs
Suspended Solids	26-12-2022 12:27	P630	6 mg/l	TSS		B10	0.013 Abs

Suspended Solids	26-12-2022 12:27	P630	6 mg/l	TSS	B10	0.002 Abs
Suspended Solids	25-12-2022 11:53	P630	357 mg/l	TSS	B10	0.746 Abs
Suspended Solids	25-12-2022 11:53	P630	357 mg/l	TSS	B10	0.748 Abs
Suspended Solids	25-12-2022 11:49	P630	2 mg/l	TSS	B10	0.005 Abs
Suspended Solids	25-12-2022 11:49	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	25-12-2022 11:49	P630	3 mg/l	TSS	B10	0.005 Abs
Suspended Solids	25-12-2022 11:14	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	25-12-2022 11:14	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	25-12-2022 11:13	P630	0 mg/l	TSS	B10	0.001 Abs
Suspended Solids	25-12-2022 11:12	P630	0 mg/l	TSS	B10	0.001 Abs
Suspended Solids	25-12-2022 11:11	P630	6 mg/l	TSS	B10	0.012 Abs
Suspended Solids	25-12-2022 11:11	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	24-12-2022 12:42	P630	431 mg/l	TSS	B10	0.9 Abs
Suspended Solids	24-12-2022 12:42	P630	431 mg/l	TSS	B10	0.9 Abs
Suspended Solids	24-12-2022 12:40	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	24-12-2022 12:40	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	23-12-2022 15:43	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	23-12-2022 15:42	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	23-12-2022 15:42	P630	4 mg/l	TSS	B10	0.009 Abs
Suspended Solids	23-12-2022 15:41	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	23-12-2022 12:46	P630	499 mg/l	TSS	B10	1.042 Abs
Suspended Solids	23-12-2022 12:46	P630	499 mg/l	TSS	B10	1.042 Abs
Suspended Solids	23-12-2022 12:46	P630	502 mg/l	TSS	B10	1.047 Abs
Suspended Solids	23-12-2022 12:45	P630	503 mg/l	TSS	B10	1.049 Abs
Suspended Solids	23-12-2022 12:36	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	23-12-2022 12:35	P630	6 mg/l	TSS	B10	0.013 Abs
Suspended Solids	23-12-2022 12:32	P630	5 mg/l	TSS	B10	0.01 Abs
Suspended Solids	23-12-2022 12:14	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	23-12-2022 12:13	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	23-12-2022 12:09	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	23-12-2022 12:09	P630	4 mg/l	TSS	B10	0.009 Abs
Suspended Solids	22-12-2022 17:03	P630	4 mg/l	TSS	B10	0.009 Abs
Suspended Solids	22-12-2022 17:03	P630	4 mg/l	TSS	B10	0.009 Abs
Suspended Solids	22-12-2022 15:15	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	22-12-2022 14:57	P630	382 mg/l	TSS	B10	0.758 Abs
Suspended Solids	22-12-2022 14:45	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	22-12-2022 14:45	P630	4 mg/l	TSS	B10	0.008 Abs
Suspended Solids	22-12-2022 13:05	P630	2 mg/l	TSS	B10	0.004 Abs
Suspended Solids	22-12-2022 13:05	P630	0 mg/l	TSS	B10	0 Abs
Suspended Solids	22-12-2022 13:01	P630	2 mg/l	TSS	B10	0.005 Abs
Suspended Solids	22-12-2022 13:01	P630	2 mg/l	TSS	B10	0.005 Abs
Suspended Solids	21-12-2022 12:20	P630	271 mg/l	TSS	B10	0.566 Abs
Suspended Solids	21-12-2022 12:20	P630	271 mg/l	TSS	B10	0.565 Abs
Suspended Solids	20-12-2022 13:08	P630	476 mg/l	TSS	B10	0.994 Abs
Suspended Solids	20-12-2022 13:05	P630	563 mg/l	TSS	B10	1.174 Abs
Suspended Solids	20-12-2022 13:03	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	20-12-2022 13:03	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	19-12-2022 15:57	P630	370 mg/l	TSS	B10	0.772 Abs
Suspended Solids	19-12-2022 15:57	P630	370 mg/l	TSS	B10	0.773 Abs
Suspended Solids	19-12-2022 15:29	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	19-12-2022 15:29	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	19-12-2022 15:26	P630	3 mg/l	TSS	B10	0.006 Abs
Suspended Solids	19-12-2022 15:05	P630	2 mg/l	TSS	B10	0.005 Abs
Suspended Solids	19-12-2022 12:53	P630	0 mg/l	TSS	B10	0 Abs
Suspended Solids	19-12-2022 12:53	P630	0 mg/l	TSS	B10	0 Abs
Suspended Solids	19-12-2022 12:53	P630	0 mg/l	TSS	B10	0 Abs
Suspended Solids	19-12-2022 12:52	P630	1 mg/l	TSS	B10	0.002 Abs
Suspended Solids	19-12-2022 12:52	P630	1 mg/l	TSS	B10	0.003 Abs
Suspended Solids	19-12-2022 12:52	P630	0 mg/l	TSS	B10	0 Abs
Suspended Solids	19-12-2022 12:47	P630	2 mg/l	TSS	B10	0.004 Abs

Suspended Solids	19-12-2022 12:20	P630	386 mg/l	TSS		B10	0.386 Abs
Suspended Solids	19-12-2022 12:18	P630	3 mg/l	TSS		B10	0.006 Abs
Suspended Solids	19-12-2022 12:18	P630	3 mg/l	TSS		B10	0.006 Abs
Suspended Solids	18-12-2022 11:35	P630	219 mg/l	TSS		B10	0.457 Abs
Suspended Solids	18-12-2022 11:35	P630	218 mg/l	TSS		B10	0.454 Abs
Suspended Solids	18-12-2022 11:32	P630	5 mg/l	TSS		B10	0.01 Abs
Suspended Solids	18-12-2022 11:32	P630	5 mg/l	TSS		B10	0.01 Abs
Suspended Solids	17-12-2022 15:45	P630	5 mg/l	TSS		B10	0.01 Abs
Suspended Solids	17-12-2022 15:45	P630	5 mg/l	TSS		B10	0.011 Abs
Suspended Solids	17-12-2022 12:43	P630	364 mg/l	TSS		B10	0.76 Abs
Suspended Solids	17-12-2022 12:43	P630	364 mg/l	TSS		B10	0.76 Abs
Suspended Solids	17-12-2022 12:40	P630	-1 mg/l	TSS		B10	-0.002 Abs
Suspended Solids	17-12-2022 12:37	P630	2 mg/l	TSS		B10	0.005 Abs
Suspended Solids	17-12-2022 12:37	P630	2 mg/l	TSS		B10	0.005 Abs
Suspended Solids	16-12-2022 16:02	P630	2 mg/l	TSS		B10	0.005 Abs
Suspended Solids	16-12-2022 16:02	P630	9 mg/l	TSS		B10	0.018 Abs
Suspended Solids	16-12-2022 16:02	P630	8 mg/l	TSS		B10	0.017 Abs
Suspended Solids	16-12-2022 15:58	P630	7 mg/l	TSS		B10	0.015 Abs
Suspended Solids	15-12-2022 16:15	P630	3 mg/l	TSS		B10	0.007 Abs
Suspended Solids	15-12-2022 16:13	P630	283 mg/l	TSS		B10	0.59 Abs
Color 465nm	14-12-2022 17:25	P630	384 mg/l	TSS		B10	0.802 Abs
Color 465nm	14-12-2022 17:23	P630	3 mg/l	TSS		B10	0.006 Abs
Color 455nm	14-12-2022 17:22	P125	50 units	PtCo		465	0.031 Abs
Color 455nm	14-12-2022 17:21	P125	1666 units	PtCo	Over meas	465	1.048 Abs
Suspended Solids	14-12-2022 17:20	P120	1683 units	PtCo	Over meas	455	1.085 Abs
Suspended Solids	14-12-2022 17:19	P120	-4 units	PtCo		455	-0.003 Abs
Suspended Solids	14-12-2022 17:18	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	14-12-2022 17:15	P630	-2 mg/l	TSS		B10	-0.004 Abs
Suspended Solids	14-12-2022 17:14	P630	309 mg/l	TSS		B10	0.645 Abs
Suspended Solids	14-12-2022 17:13	P630	0 mg/l	TSS		B10	0.001 Abs
Suspended Solids	14-12-2022 17:13	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	14-12-2022 17:12	P630	2 mg/l	TSS		B10	0.005 Abs
Suspended Solids	14-12-2022 17:03	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	14-12-2022 17:01	P630	-1 mg/l	TSS		B10	-0.003 Abs
Suspended Solids	14-12-2022 17:00	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	14-12-2022 17:00	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	14-12-2022 17:00	P630	0 mg/l	TSS		B10	0 Abs
Multi-A	17-08-2022 18:48	P630	0 mg/l	TSS		B10	0 Abs
Color 465nm	17-08-2022 15:14	P630	0 mg/l	TSS		B10	0 Abs
Suspended Solids	17-08-2022 15:12	P630	0.006 Abs	Multi-A		450	0.003 Abs
Suspended Solids	17-08-2022 15:12	P125	5 units	PtCo		465	0.003 Abs
Color 465nm	17-08-2022 15:10	P630	1 mg/l	TSS		B10	0.003 Abs
Suspended Solids	17-08-2022 15:09	P630	-1 mg/l	TSS		B10	-0.003 Abs
		P125	0 units	PtCo		465	0 Abs
		P630	0 mg/l	TSS		B10	0 Abs

Tss

Tss

Tss

ANNEXURE I

नौएडा क्षेत्र में स्थापित एवं संचालित सीवेज शोधन सयन्त्रों पर **Online Continuous Effluent Monitoring System (OCEMS)** की अद्यतन स्थिति

क्रमॉक	सैक्टर	क्षमता	विवरण
1.	54	33 MLD 54 MLD	UPPCB के पत्रांक 533/सा0 पत्रा0–138/2020 दिनॉक 02/09/2020 के अनुपालन में OCEMS स्थापित कर संचालित है तथा CPCB के Portal पर क्रियाशील कर दिया गया है।
2.	50	25 MLD 34 MLD	
3.	123	35 MLD	
4.	168	50 MLD	
5.	123	80 MLD	OCEMS स्थापित करने हेतु ई–निविदा सम्बन्धी प्रकिया प्रगतिरत् है।
6	168	100 MLD	

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

ANNEXURE J

Details of Revenue Generated From Recycled Water of S.T.P
Financial Year-2021 to 2022

S.no.	Name Of STP	Capacity (MLD)	Details of Monthly Recycled water sold (KL)												Total Quantaty of Recycled water Sold (KL)	Revenue Generated (In Rs.)
			Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22		
1	STP Sec 50, 25 & 34 MLD	25 & 34 MLD	-	-	31000	14000		11000	-	1000	-	-	-	15000	72000	360000.00
2	STP Sec 54, 33 & 54 MLD	33 & 54 MLD	-	-	-	-	4000	6500	-	-	8000	5500	20000	-	44000	220000.00
3	STP Sec 123, 35 MLD	35 MLD	-	-	15000	5000	12000	25000	12000	33000	38200	1000	-	18000	159200	796000.00
4	STP Sec 168, 50 MLD	50 MLD	-	-	-	-	10000	-	-	4000	2000	-	-	2000	18000	90000.00
Total															293200	1466000.00

Manager

Sr.Manager(JAL-OA)

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

22/02

Details of Revenue Generated From Recycled Water of S.T.P
Financial Year-2022 to 2023

Month Jan-23 tak Update hai

S.no.	Name Of STP	Capacity (MLD)	Details of Monthly Recycled water sold (KL)												Total Quantaty of Recycled water Sold (KL)	Revenue Generated (In Rs.)
			Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23		
1	STP Sec 50, 25 & 34 MLD	25 & 34 MLD	-	-	-	10000	-	-	4000	6000	13000	23000	-	-	56000.00	280000.00
2	STP Sec 54, 33 & 54 MLD	33 & 54 MLD	2000	5000	-	-	-	18000	18000	2000	13000	9000	-	-	67000	335000.00
3	STP Sec 123, 35 MLD	35 MLD	19000	18000	32000	2000	26000	3000	35000	35500	30000	27000	-	-	227500	1137500.00
4	STP Sec 168, 50 MLD	50 MLD	-	12000	-	-	-	-	-	9000	25000	-	-	-	46000.00	230000.00
Total															396500	1982500.00

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

Sr.Manager(JAL-OA)

ANNEXURE K

एस0टी0पी0 नौएडा से शोधित जल आपूर्ति का विवरण

Period:– November-22 to January -2023

क्र0	शोधित जल आपूर्ति श्रोत	स्थापित मोटर पम्प का विवरण	क्षमता (डिस्चार्ज)	आपूर्ति स्थल(सैक्टर्स / पार्क)	मोटर पम्प चलाने की अवधि(घण्टों में)	आपूर्तित शोधित जल
	Location:- STP SEC.50,54,123,168 (All 6 STPs)					
1	पाईप लाईन द्वारा		As per details			3854104 KL
2	टैंकरों द्वारा (निशुल्क)		सड़क पर छिडकाव / हार्टिकल्चर विभाग /अग्निशमन दमकल विभाग /हैल्थ विभाग /वर्क सर्किल व अन्य कार्य हेतु टैंकर			19940 KL
3	टैंकरों द्वारा (सशुल्क)		याची संविदाकार को / बिल्डर को निर्धारित राजस्व धनराशि जमा करने के उपरान्त शोधित जल की आपूर्ति की जाती है			78638 KL
	Total KL =					**3952682.00 KL**

Total (November-22 to January -2023) =(3952682 X 1000)/1000000 3952.68 ML/ month

Average/day = 43.31 MLD

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

एस0टी0पी0 नौएडा से शोधित जल आपूर्ति का विवरण

Period:– November-22 to January -2023

क्र0	शोधित जल आपूर्ति श्रोत	स्थापित मोटर पम्प का विवरण	क्षमता (डिस्चार्ज)		आपूर्ति स्थल(सैक्टर्स / पार्क)	मोटर पम्प चलाने की अवधि(घण्टों में)		आपूर्तित शोधित जल	
	STP SEC.50								
1	पाईप लाईन द्वारा	150 HP Motor -2 Nos	800	Cum / Hr	गोल्फ कोर्स / बॉटनिकल गार्डन	1977.00	Hour	800X1977X0.85 1344360	KL
2	टैंकरों द्वारा (निशुल्क)	10 HP Motor -2 Nos	सड़क पर छिडकाव / हार्टिकल्चर विभाग /अग्निशमन दमकल विभाग /हैल्थ विभाग /वर्क सर्किल व अन्य कार्य हेतु टैंकर					9020	KL
2	टैंकरों द्वारा (सशुल्क)		याची संविदाकार को / बिल्डर को निर्धारित राजस्व धनराशि जमा करने के उपरान्त शोधित जल की आपूर्ति की जाती है					8574	KL
	Total KL =							**1361954.00**	**KL**

Total (November-22 to January -2023) =(1361954 X 1000)/1000000 1361.95 ML/ month

Average/day = 14.92 MLD

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

एस0टी0पी0 नौएडा से शोधित जल आपूर्ति का विवरण

Period:– November-22 to January -2023

क्र0	शोधित जल आपूर्ति श्रोत	स्थापित मोटर पम्प का विवरण	क्षमता (डिस्चार्ज)		आपूर्ति स्थल(सैक्टर्स / पार्क)	मोटर पम्प चलाने की अवधि(घण्टों में)		आपूर्तित शोधित जल	
	STP SEC.54								
1	पाईप लाईन द्वारा	1) 150 HP Motor -2 Nos	800	Cum / Hr	Stadium Sectors 20,21,23,26,33,34,52,53 ,54,55,56 etc & Wet Land Sec-54	1800.00	Hour	800X1800.X0.85 1224000	KL
2	टैंकरों द्वारा (निशुल्क)		सड़क पर छिडकाव / हार्टिकल्चर विभाग /हैल्थ विभाग /वर्क सर्किल व अन्य कार्य हेतु टैंकर					7005	KL
3	टैंकरों द्वारा (सशुल्क)		याची संविदाकार को / बिल्डर को निर्धारित राजस्व धनराशि जमा करने के उपरान्त शोधित जल की आपूर्ति की जाती है					6764	KL
	Total KL =							**1237769.00**	**KL**

Total (November-22 to January -2023) =(1237769 X 1000)/1000000 1237.77 ML/ month

Average/day = 13.56 MLD

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

एस0टी0पी0 नौएडा से शोधित जल आपूर्ति का विवरण

Period:– November-22 to January -2023

क्र0	शोधित जल आपूर्ति श्रोत	स्थापित मोटर पम्प का विवरण	क्षमता (डिस्चार्ज)		आपूर्ति स्थल(सैक्टर्स / पाकी)	मोटर पम्प चलाने की अवधि(घण्टों में)		आपूर्तित शोधित जल
	STP SEC.123							
1	पाईप लाईन द्वारा	1) Booster motor 75/50HP -3 Nos	432	Cum / Hr	Green belt/park Along FNG Road	770.00	Hour	432X770X0.85 282744 KL
2	टैंकरों द्वारा (निशुल्क)		सड़क पर छिडकाव / हार्टिकल्चर विभाग /अग्निशमन दमकल विभाग /हैल्थ विभाग /वर्क सर्किल व अन्य कार्य हेतु टैंकर					2600 KL
3	टैंकरों द्वारा (सशुल्क)		याची संविदाकार को / बिल्डर को निर्धारित राजस्व धनराशि जमा करने के उपरान्त शोधित जल की आपूर्ति की जाती है					61250 KL
	Total KL =							**346594.00 KL**

Total (November-22 to January -2023) =(346594 X 1000)/1000000 346.59 ML/ month

Average/day = 3.80 MLD

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

एस0टी0पी0 नौएडा से शोधित जल आपूर्ति का विवरण

Period:– November-22 to January -2023

क्र0	शोधित जल आपूर्ति श्रोत	स्थापित मोटर पम्प का विवरण	क्षमता (डिस्चार्ज)		आपूर्ति स्थल(सैक्टर्स / पार्क)	मोटर पम्प चलाने की अवधि(घण्टों में)		आपूर्तित शोधित जल
	STP SEC.168							
1	पाईप लाईन द्वारा	1)150 HP Motor -2 Nos 2) 90 HP Motor -1 Nos	800	Cum / Hr	Green belt/park Along FNG Road	1475.00	Hour	800X1475X0.85 1003000 KL
2	टैंकरों द्वारा (निशुल्क)		सड़क पर छिडकाव / हार्टिकल्चर विभाग /अग्निशमन दमकल विभाग /हैल्थ विभाग /वर्क सर्किल व अन्य कार्य हेतु टैंकर					1315 KL
3	टैंकरों द्वारा (सशुल्क)		याची संविदाकार को / बिल्डर को निर्धारित राजस्व धनराशि जमा करने के उपरान्त शोधित जल की आपूर्ति की जाती है					2050 KL
	Total KL =							**1006365.00 KL**

Total (November-22 to January -2023) =(1006365 X 1000)/1000000 1006.37 ML/ month

Average/day = 11.03 MLD

23/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

(ACTION PLAN FOR FUTURE IN A YEAR FOR IRRIGATION PURPOSE)

क0 स	लोकेषन	सीवेज डिस्ट्रिक्ट एवं उनसे सम्बन्धित सैक्टरों में से सीवेज आना	कुल सैक्टरों की सं0	Average Row Sewage In-flow (MLD)	STP की क्षमता MLD	उत्सर्जित होने वाले शोधित जल की मात्रा (MLD)	शोधित जल का उपयोग
1	सैक्टर–54	सैक्टर–1 से 11, 11(i), 12, 14, 14ए, 15, 15ए, 16, 16ए, 16बी, 17 से 20, 21, 21ए, 22 से 25, 25ए, 26 से 35, 52 से 61, 71, 72 एवं सम्बन्धित सैक्टरों में आने वाले गांव	53	64	33 +54=87	63.50	STP परिसर में बने पुराने Polishing Pond को 15 MLD Wetland में Change किया जाना प्रस्तावित है।
2	सैक्टर–50	सैक्टर–36, 37, 38, 38ए, 39 से 49, 50ए, 50बी, 51 एवं सम्बन्धित सैक्टरों में आने वाले गांव	18	40	25 +34=59	39.50	1. सैक्टर–51 मे पार्को एवं ग्रीन बैल्टों में शोधित जल की आपूर्ति किया जाना 2. 7X, सैक्टरों एवं वेदपार्क में सिचाई हेतु लगभग 15 से 30 एम0एल0डी0 शोधित जल का उपयोग होगा।
3	सैक्टर–123	सैक्टर–62, 62ए, 63 से 70, 73 से 79, 112, 113, 115 से 123 एवं सम्बन्धित सैक्टरों में आने वाले गांव	28	42	35 +80=115	55.00	1.सैक्टर–112, से 122 तक की ग्रीन बैल्ट एवं पार्को की सिंचाई हेतु शोधित जल की नवीन लाईन बिछाने हेतु आगणन सैद्धान्तिक स्वीकृति हेतु प्रेषित कर दिया गया इसमे लगभग 10 MLD शोधित जल दिया जायेगा 2. प्रथम चरण में NTPC दादरी को 35 MLD शोधित जल दिया जाना एम0ओ0यू0 के अनुसार विचाराधीन है।
4	सैक्टर–168	सैक्टर–80 से 84, 84ए, 85 से 93, 93ए, 93बी, 94, 94ए, 95 से 108, 110, 124 से 139, 139ए, 139बी, 140, 140ए, 141 से 143, 143ए, 143बी, 144 से 148, 148ए, 149, 149ए, 149बी, 150, 150ए, 151, 151ए, 152 से 167, 167ए, 167बी, 168 एवं सम्बन्धित सैक्टरों में आने वाले गांव	91	68	50 + 100 = 150	67.50	1. वर्क सर्किल–10 के अनुरोध पर तथा उच्चाधिकारियों द्वारा दिये गये नये निर्देशों के अनुपालन में तीन चरणों में गोल्फकोर्स, सैक्टर–151, शहीद भगत सिंह, सैक्टर–150 तथा एक्सप्रेस–वे के समानान्तर ग्रीन बैल्ट में शोधित जल से सिचाई हेतु किया जायेगा प्रथम चरण हेतु आगणन सैद्धान्तिक स्वीकृति हेतु प्रेषित कर दिया गया है। इसमे लगभग 15 से 20 MLD शोधित जल दिया जायेगा कुल 120MLD

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

नौएडा

Water++

नौएडा क्षेत्र में संचालित 08 नग सीवेज शोधन संयंत्रों से प्राप्त शोधित जल (RECYCLE WATER) के प्रयोग का विवरण

डिस्ट्रिक्ट–ए

क0 स	लोकेषन	सीवेज डिस्ट्रिक्ट एवं उनसे सम्बन्धित सैक्टरों में से सीवेज आना	कुल सैक्टरों की सं0	Average Row Sewage In-flow (MLD)	STP की क्षमता MLD	उत्सर्जित होने वाले शोधित जल की मात्रा (MLD)	शोधित जल का उपयोग
1	सैक्टर–54	सैक्टर–1 से 11, 11(i), 12, 14, 14ए, 15, 15ए, 16, 16ए, 16बी, 17 से 20, 21, 21ए, 22 से 25, 25ए, 26 से 35, 52 से 61, 71, 72 एवं सम्बन्धित सैक्टरों में आने वाले गांव	53	64	33 +54=87	63.50	1. सैक्टर–20,21,23, 26,27, 33, 34, 61,62, 52, 53,54, 57, 55, 56 के पार्कों मे बिछाई गई पाईप लाईन के माध्यम से। 2. नौएडा स्टेडियम एवं रामलीला मैदान और दलित प्रेरणा स्थल में सिंचाई हेतु पानी बिछाई गयी पाईप लाईन के माध्यम से 3. सैक्टर–54 में नव निर्मित वैट लैण्ड में शोधित जल की आपूर्ति बिछाई गयी पाईप लाईन के माध्यम से 4. निर्माण कार्यों के उपयोग हेतु प्राईवेट एवं सरकारी बिल्डर्स को शोधित जल निर्धारित दरों पर टैंकरो के माध्यम से। 5. मॉग के आधार पर टैंकरो के माध्यम से वर्क सर्किल तथा Horticulture विभाग, स्वास्थ विभाग व अग्नि शमन विभाग सड़को पर छिड़काव, टैंकरो के माध्यम से। इस STP से लगभग 10 से 12 एम0एल0डी0 शोधित जल का उपयोग उपरोक्तानुसार किया जाता है।

24/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

नौएडा

Water++

नौएडा क्षेत्र में संचालित 08 नग सीवेज शोधन संयंत्रों से प्राप्त शोधित जल (RECYCLE WATER) के प्रयोग का विवरण

डिस्ट्रिक्ट–बी

क0 स	लोकेषन	सीवेज डिस्ट्रिक्ट एवं उनसे सम्बन्धित सैक्टरों में से सीवेज आना	कुल सैक्टरों की सं0	Average Row Sewage In-flow (MLD	STP की क्षमता MLD	उत्सर्जित होने वाले शोधित जल की मात्रा (MLD)	शोधित जल का उपयोग
2	सैक्टर–50	सैक्टर–36, 37, 38, 38ए, 39 से 49, 50ए, 50बी, 51 एवं सम्बन्धित सैक्टरों में आने वाले गांव	18	40	25 +34=59	39.50	1. Golf Course (Sector-38) में शोधित जल की बिछाई गयी पाईप लाईन के माध्यम से। 2. Botanical Garden (BGIR), Sector-38A में शोधित जल की बिछाई गयी पाईप लाईन के माध्यम से। 3. C&Ds Waste सैक्टर–80 मे शोधित जल की बिछाई गयी पाईप लाईन के माध्यम से। 4. Meghdutam Park सैक्टर –50 में सिंचाई के लिए शोधित जल की बिछाई गयी पाईप लाईन के माध्यम से। 5. निर्माण कार्यों के उपयोग हेतु प्राईवेट एवं सरकारी बिल्डरों को शोधित जल निर्धारित दरों पर टैकरो के माध्यम से। 6.मॉग के आधार पर टैंकरो के माध्यम से वर्क सर्किल तथा Horticulture विभाग, स्वास्थ विभाग व अग्नि शमन विभाग सड़को पर छिड़काव, टैंकरो के माध्यम से। इस एस0टी0पी0 से लगभग 8 से 10 एम0एल0डी0 शोधित जल का उपयोग उपरोक्तानुसार किया जाता है।

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

नौएडा

Water++

नौएडा क्षेत्र में संचालित 08 नग सीवेज शोधन संयंत्रों से प्राप्त शोधित जल (RECYCLE WATER) के प्रयोग का विवरण

डिस्ट्रिक्ट–सी

क0 स	लोकेषन	सीवेज डिस्ट्रिक्ट एवं उनसे सम्बन्धित सैक्टरों में से सीवेज आना	कुल सैक्टरों की सं0	Average Row Sewage In-flow (MLD	STP की क्षमता MLD	उत्सर्जित होने वाले शोधित जल की मात्रा (MLD)	शोधित जल का उपयोग
3	सैक्टर–123	सैक्टर–62, 62ए, 63 से 70, 73 से 79, 112, 113, 115 से 123 एवं सम्बन्धित सैक्टरों में आने वाले गांव	28	42	35+80=115	55.00	1. पर्थला चौक पर क्षतिग्रस्त लाईन की मरम्मत उपरान्त विभिन्न सैक्टरों 63,64,65,66,67,68,69,70,71,72 की कुछ ग्रीन बैल्टों एवं पार्कों की सिंचाई हेतु बिछाई गई पाईप लाईन के माध्यम से। 2. निर्माण कार्यों के उपयोग हेतु प्राईवेट एवं सरकारी बिल्डरों को शोधित जल निर्धारित दरों पर टैंकरो के माध्यम से। 3.भॉग के आधार पर टैंकरो के माध्यम से वर्क सर्किल तथा Horticulture विभाग, स्वास्थ विभाग व अग्नि शमन विभाग सड़को पर छिड़काव, टैंकरो के माध्यम से। इस एस0टी0पी0 से लगभग 5 से 7 MLD शोधित जल का उपयोग उपरोक्तानुसार किया जाता है।

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

नौएडा

Water++

नौएडा क्षेत्र में संचालित 08 नग सीवेज शोधन संयंत्रों से प्राप्त षोधित जल (RECYCLE WATER) के प्रयोग का विवरण

डिस्ट्रिक्ट–डी

क0स	लोकेषन	सीवेज डिस्ट्रिक्ट एवं उनसे सम्बन्धित सैक्टरों में से सीवेज आना	कुल सैक्टरों की सं0	Average Row Sewage In-flow (MLD	STP की क्षमता MLD	उत्सर्जित होने वाले शोधित जल की मात्रा (MLD)	शोधित जल का उपयोग
4	सैक्टर–168	सैक्टर–80 से 84, 84ए, 85 से 93, 93ए, 93बी, 94, 94ए, 95 से 108, 110, 124 से 139, 139ए, 139बी, 140, 140ए, 141 से 143, 143ए, 143बी, 144 से 148, 148ए, 149, 149ए, 149बी, 150, 150ए, 151, 151ए, 152 से 167, 167ए, 167बी, 168 एवं सम्बन्धित सैक्टरों में आने वाले गांव	91	68	50 + 100 = 150	67.50	1. सैक्टर–91, 92,137 के पार्क, ग्रीन बैल्ट शोधित जल की बिछाई गयी पाईप लाईन के माध्यम से। 2: क्षतिग्रस्त लाईनों की मरम्मत उपरान्त सैक्टर–140ए,139,88,84,85,86, के आस की पास ग्रीन बैल्टों एवं वायोडाइवसिटी । 3. नव निर्मित वैट लैण्ड सैक्टर–91 में शोधित जल की बिछाई गयी पाईप लाईन के माध्यम से। 4. निर्माण कार्यों के उपयोग हेतु प्राईवेट एवं सरकारी बिल्डरों को शोधित जल निर्धारित दरों पर टैंकरो के माध्यम से। 5.मॉग के आधार पर टैंकरो के माध्यम से बर्ड सर्किल तथा Horticulture विभाग, स्वास्थ विभाग व अग्नि शमन विभाग सड़को पर छिड़काव, टैंकरो के माध्यम से। इस एस0टी0पी0 से लगभग 7 से 8 एम0एल0डी0 शोधित जल का उपयोग उपरोक्तानुसार किया जाता है।

22/02

DEVENDRA NIGAM
Senior Manager
(Jal Outer Agency), NOIDA

Annexure - 1

ANNEXURE M

नवीन ओखला औद्योगिक विकास प्राधिकरण

मुख्य प्रशासनिक भवन, सैक्टर–6, नौएडा, जिला–गौतमबुद्धनगर

पत्रांक:– नौएडा/अ0नु0का0अ0(एम)/2022/जल (का0सं0)/1047
दिनांक : ~~जुलाई/2022~~ 10.08.2022

प्रबन्ध निदेशक
एन0टी0पी0सी0 भवन
स्कोप कॉम्पलैक्स–7, संस्थागत क्षेत्र,
लोधी रोड, नई दिल्ली–110003

विषयः– एन0टी0पी0सी0, दादरी तक नौएडा में स्थित सीवेज शोधन संयत्रों से शोधित जल ले जाने के सम्बन्ध में।

सन्दर्भ– 1. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/1029/22 दिनांक 03.08.2022
2. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/723/22 दिनांक 05.05.2022
3. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/650/22 दिनांक 31.03.2022
4. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/500/22 दिनांक 31.01.2022
5. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/555/19 दिनांक 23.07.2019
6. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/370/19 दिनांक 10.01.2019
7. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/457/19 दिनांक 03.05.2019
8. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/491/19 दिनांक 20.06.2019
9. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/587/19 दिनांक 19.08.2019
10. पत्रांक सं0 नौएडा/व0प्र0(जल–वा0सं0)/298/18 दिनांक 14.11.2018

उपरोक्त विषयक नौएडा शहर में स्थित सैक्टर–54 व सैक्टर–123 सीवेज शोधन संयत्रों से एन0टी0पी0सी0, दादरी के लिए शोधित जल लाईन बिछाने हेतु नौएडा प्राधिकरण, उत्तर प्रदेश जल निगम एवं एन0टी0पी0सी0, दादरी के मध्य दिनांक 03.11.2018 को एक एम0ओ0यू0 हस्ताक्षरित किया गया था। गठित एम0ओ0यू0 के अनुसार सीवेज शोधन संयत्रों से शोधित जल लेकर एन0टी0पी0सी0, दादरी तक जाने वाली डी0आई0 लाईन का कार्य 36 माह में पूर्ण किया जाना था तथा इस कार्य की सम्पूर्ण लागत एन0टी0पी0सी0, दादरी द्वारा वहन की जानी थी तथा कार्य पूर्ण करने के लिए तकनीकी पहलू एवं डी0पी0आर0 आदि का दायित्व उत्तर प्रदेश जल निगम को दिया गया था। हस्ताक्षरित एम0ओ0यू0 के स्कॉप ऑफ वर्क संख्या 3.1 के अनुसार एन0टी0पी0सी0, दादरी द्वारा एक मुश्त रू0 75.00 लाख की धनराशि उत्तर प्रदेश जल निगम को डी0पी0आर0 तैयार करने हेतु दी जानी थी ताकि इस योजना पर आवश्यक कार्यवाही हो सके, लेकिन नौएडा प्राधिकरण एवं उत्तर प्रदेश जल निगम द्वारा विभिन्न अनेकों सन्दर्भित पत्रों के माध्यम से एन0टी0पी0सी0 दादरी को यह धनराशि अवमुक्त करने के लिए आग्रह किया गया लेकिन अभी तक भी यह धनराशि, उत्तर प्रदेश जल निगम के पक्ष में एन0टी0पी0सी0, दादरी द्वारा अवमुक्त नहीं की गई, जिसके कारण कार्य पर कोई भी प्रभावी कार्यवाही नहीं हो पा रही है तथा बार–बार कार्य को पूर्ण करने हेतु सी0पी0सी0पी0 एवं यू0पी0पी0सी0वी0 एवं माननीय एन0जी0टी0 द्वारा निर्देशित किया जा रहा है। दिनांक 03.08.20222 को भी माननीय एन0जी0टी0 द्वारा उक्त कार्य हेतु निर्देशित किया गया है। निर्देशों के अनुपालन में तथा गठित एम0ओ0यू0 के अनुसार कार्य करने के लिए सम्पन्चित को अतिशीघ्र निर्देशित करने का कष्ट करें तथा अतिशीघ्र दिनांक 05.08.2022 के माननीय एन0जी0टी0 के आदेशों के अनुपालन में अपनी कार्ययोजना भी टाईमलाईन सहित कार्यालय में प्रेषित करें, ताकि माननीय एन0जी0टी0 को अवगत कराया जा सके।

08/8
(मानवेन्द्र सिंह)
अपर मुख्य कार्यपालक अधिकारी(एम)
नौएडा।

प्रतिलिपि:

1. निजी सचिव को मुख्य कार्यपालक अधिकारी महोदया के सादर सूचनार्थ।
2. प्रधान महाप्रबन्धक महोदय को सादर सूचनार्थ।
3. मुख्य वित्त एवं लेखाधिकारी को सादर सूचनार्थ।
4. विशेष कार्याधिकारी(टी), नौडल अधिकारी को सूचनार्थ।
5. वरिष्ठ प्रबन्धक(जल–वा0सं0) को आवश्यक कार्यवाही हेतु।
6. परियोजना प्रबन्धक(गंगाजल परियोजना ईकाई) उ0प्र0 जल निगम 120 एम0एल0डी0, वाटर ट्रीटमेन्ट प्लान्ट निकट संतोष मेडिकल कॉलेज, प्रताप विहार, गाजियाबाद ।

अपर मुख्य कार्यपालक अधिकारी(एम)
नौएडा।

नवीन ओखला औद्योगिक विकास प्राधिकरण

कार्यालय वरिष्ठ प्रबन्धक(जल–बाहय संस्था)

जल कल परिसर, सैक्टर–5, नौएडा–201301 (उ0प्र0)

पत्रांक:– नौएडा/व0प्र0(जल–बा0सं0)/10957/22

दिनांक : 30/8/2022

अपर महाप्रबन्धक (पी0 एण्ड एस/आई0टी0 एण्ड एफ0ई0एस0)
एन0टी0पी0सी लि, दादरी
गौतमबुद्धनगर (उ0प्र0)–201008

विषयः– नौएडा स्थितSTP-50 (59 MLD, STP-54 (87 MLD) एवंSTP -123 (35 MLD + 80 MLD (Proposed)= 115 MLD)से ट्रीटेड सीवेज, एन0टी0पी0सी0, दादरी तक ले जाने के सम्बन्ध में।

कृपया अवगत कराना है कि नौएडा प्राधिकरण, एन0टी0पी0सी, दादरी एवं उत्तर प्रदेश जल निगम के मध्य शोधित जल लेने हेतु दिनांक 03.11.2018 को एम0ओ0यू0 गठित हुआ था। दिनांक 03.11.2018 को गठित एम0ओ0यू0 की क्लॉज संख्या–3 में प्राविधानित है कि Payment and Account Procedure के अनुसार "NTPC will release a lump-sum amount Rs. 75.00 Lac. UPJN Through NOIDA, after signing of MOU, as project preparation fee which will be adjusted from an funds made available for construction"

उक्त परियोजना हेतु अनेकों पत्रांक के बाद भी अभी तक भी विस्तृत प्राक्कलन विरचन हेतु रू0 75.00 लाख अभी तक उत्तर प्रदेश जल निगम को प्राप्त नहीं कराई गई है। जिस कारण अभी तक कार्य शुरू नहीं किया गया है। माननीय राष्ट्रीय हरित अधिकरण एवं भारत सरकार द्वारा भी कडे निर्देश दिये जा रहे हैं। उक्त के सम्बन्ध में अपर मुख्य कार्यपालक अधिकारी(एम) महोदय के कक्ष में एक बैठक दिनांक 01.09.2022 को आहूत की जा रही है।

अतः आपसे अनुरोध है कि उक्त परियोजना सम्बन्धित कार्यों हेतु बैठक दिनांक 01.09.2022 को समय प्रातः 11.30 बजे प्रतिभाग करने का कष्ट करें, जिससे कि उक्त परियोजना को शीघ्रातिशीघ्र चलाने हेतु आवश्यक निर्णय लिये जा सकें तथा तदानुसार ही माननीय एन0जी0टी0 को एक टाईम लाईन प्रेषित की जा सके।

(राकेश कुमार)
वरिष्ठ प्रबन्धक(जल–बा0सं0)
नौएडा

प्रतिलिपिः

1. निजी सचिव को मुख्य कार्यपालक अधिकारी महोदया के सादर अवलोकनार्थ।
2. निजी सचिव को अपर मुख्य कार्यपालक अधिकारी(एम) महोदय के सादर सूचनार्थ।
3. प्रधान महाप्रबन्धक महोदय को सादर अवलोकनार्थ।
4. परियोजना प्रबन्धक(गंगाजल परियोजना ईकाई) उ0प्र0 जल निगम 120 एम0एल0डी0, वाटर ट्रीटमेन्ट प्लान्ट निकट संतोष मेडिकल कॉलेज, प्रताप विहार, गाजियाबाद को उक्त बैठक में प्रतिभाग करने हेतु।
5. सम्बन्धित प्रबन्धक/सम्बन्धित सहायक प्रबन्धक एवं अवर अभियन्ता(संविदा) को आवश्यक कार्यवाही हेतु।

वरिष्ठ प्रबन्धक(जल–बा0सं0)
नौएडा

(13)

नवीन ओखला औद्योगिक विकास प्राधिकरण

मुख्य प्रशासनिक भवन, सैक्टर-6, नोएडा, जिला-गौतमबुद्धनगर

पत्रांक:- नोएडा/अनुभाग(एम)/2022/92
दिनांक 05-सितम्बर/2022

बैठक का कार्यवृत्त

विषय:- नोएडा स्थित STP-50 (50 MLD, STP-54 (67 MLD) एवंSTP -123 (35 MLD + 80 MLD(Proposed)= 115 MLD)से ट्रीटेड सीवेज, एन0टी0पी0सी0, दादरी तक ले जाने के सम्बन्ध में।

सन्दर्भ:- नोएडा, एन0टी0पी0 एवं उत्तर प्रदेश जल निगम के मध्य गठित एम0ओ0यू0 दिनांक 03.11.2018

उक्त विषयांक आज दिनांक 01.09.2022 को अपर मुख्य कार्यपालक अधिकारी(एम) महोदय की अध्यक्षता में उनके कक्ष में बैठक निम्न अधिकारियों के साथ आहुत की गयी:-

1. श्री के0 पी0 गुप्ता, उप महाप्रबन्धक, एन0टी0पी0सी0, दादरी
2. श्री उमेश शुक्ला, परियोजना प्रबन्धक, उत्तर प्रदेश जल निगम, गाजियाबाद
3. श्री राकेश कुमार, वरिष्ठ प्रबन्धक(जल-वा0सं0)

बैठक में निम्न बिन्दुओं पर वार्ता की गयी

एन0टी0पी0सी0, दादरी के उप महाप्रबन्धक श्री के0पी0 गुप्ता द्वारा अवगत कराया गया कि पूर्व अधिकारियों द्वारा इस सम्बन्ध में कोई भी पुराना रिकार्ड उनको नहीं दिया गया है। उनकी मांग के अनुसार श्री के0 पी0 गुप्ता जी को गठित एम0ओ0यू0 पत्राचार, रूट मैप अप्रूवल एवं अन्य वांछित दस्तावेजों की छाया प्रति उपलब्ध करा दी गई है, उनके द्वारा अवगत कराया गया कि इस गठित एम0ओ0यू0 के आधार पर वांछित धनराशि अवमुक्त करने के लिए उच्चाधिकारियों को अभियन्ता स्टॉफ द्वारा आन्तरिक परीक्षण के उपरान्त पत्रावली एक सप्ताह के अन्दर प्रेषित कर दी जायेगी तथा अप्रूवल होने के उपरान्त डी0पी0आर0 तैयार करने हेतु वांछित धनराशि उत्तर प्रदेश जल निगम को अवमुक्त कर दी जायेगी।

(मानवेन्द्र सिंह)
अपर मुख्य कार्यपालक अधिकारी(एम)
नोएडा।

प्रतिलिपि:

1. मुख्य कार्यपालक अधिकारी महोदया के सादर अवलोकनार्थ।
2. प्रधान महाप्रबन्धक को आवश्यक कार्यवाही हेतु।
3. उप महाप्रबन्धक, एन0टी0पी0सी0 दादरी, गौतमबुद्ध नगर।
4. परियोजना प्रबन्धक(गंगाजल परियोजना ईकाई) उ0प्र0 जल निगम 120 एम0एल0डी0, वाटर ट्रीटमेन्ट प्लान्ट निकट संतोष मेडिकल कॉलेज, प्रताप विहार, गाजियाबाद।
5. वरिष्ठ प्रबन्धक(जल-वा0सं0) को आवश्यक कार्यवाही हेतु।

05/9

अपर मुख्य कार्यपालक अधिकारी(एम)
नोएडा।

विषयः– नौएडा स्थित STP-50 (59 MLD, STP-54 (87 MLD) एवंSTP -123 (35 MLD + 80 MLD(Proposed)= 115 MLD)से ट्रीटेड सीवेज, एन0टी0पी0सी0, दादरी तक ले जाने के सम्बन्ध में।

सन्दर्भः– नौएडा, एन0टी0पी0 एवं उत्तर प्रदेश जल निगम के मध्य गठित एम0ओ0यू0 दिनांक 03.11.2018

उक्त विषयांक आज दिनांक 01.09.2022 को अपर मुख्य कार्यपालक अधिकारी(एम) महोदय की अध्यक्षता में उनके कक्ष में बैठक निम्न अधिकारियों के साथ आहुत की गयीः–

1. श्री के0 पी0 गुप्ता, उप महाप्रबन्धक, एन0टी0पी0सी0, दादरी
2. श्री उमेश शुक्ला, परियोजना प्रबन्धक, उत्तर प्रदेश जल निगम, गाजियाबाद
3. श्री राकेश कुमार, वरिष्ठ प्रबन्धक(जल–बा0सं0)

बैठक में निम्न बिन्दुओं पर वार्ता की गयी

एन0टी0पीसी0, दादरी के उप महाप्रबन्धक श्री के0पी0 गुप्ता द्वारा अवगत कराया गया कि पूर्व अधिकारियों द्वारा इस सम्बन्ध में कोई भी पुराना रिकार्ड उनको नहीं दिया गया है। उनकी मांग के अनुसार श्री के0 पी0 गुप्ता जी को गठित एम0ओ0यू0 पत्राचार, रूट मैप अप्रूवल एवं अन्य वांछित दस्तावेजों की छाया प्रति उपलब्ध करा दी गई है, उनके द्वारा अवगत कराया गया कि इस गठित एम0ओ0यू0 के आधार पर वांछित धनराशि अवमुक्त करने के लिए उच्चाधिकारियों को अभियन्ता स्टॉफ द्वारा आन्तरिक परीक्षण के उपरान्त पत्रावली एक सप्ताह के अन्दर प्रेषित कर दी जायेगी तथा अप्रूवल होने के उपरान्त डी0पी0आर0 तैयार करने हेतु वांछित धनराशि उत्तर प्रदेश जल निगम को अवमुक्त कर दी जायेगी।

(के0 पी0 गुप्ता)
उप महाप्रबन्धक
एन0टी0पी0सी0, दादरी

(उमेश शुक्ला)
परियोजना प्रबन्धक
उत्तर प्रदेश जल निगम

(राकेश कुमार)
वरिष्ठ प्रबन्धक(जल–बा0सं0)
नौएडा।

नवीन ओखला औद्योगिक विकास प्राधिकरण

कार्यालय वरिष्ठ प्रबन्धक(जल–वाहय संस्था)

जल कल परिसर, सैक्टर–5, नौएडा–201301 (उ0प्र0)

पत्रांक:– नौएडा/व0प्र0(जल–वा0सं0)/1121/22

दिनांक : 01/9/2022

अपर महाप्रबन्धक (पी0 एण्ड एस/आई0टी0 एण्ड एफ0ई0एस0)
एन0टी0पी0सी लि, दादरी
गौतमबुद्धनगर (उ0प्र0)–201008

विषय:– नौएडा स्थितSTP-50 (59 MLD, STP-54 (87 MLD) एवंSTP -123 (35 MLD + 80 MLD (Proposed)= 115 MLD)से ट्रीटेड सीवेज, एन0टी0पी0सी0, दादरी तक ले जाने के सम्बन्ध में।

सन्दर्भ:–1. नौएडा/अ0मु0का0अ0(एम)/2022/92 दिनांक 05 सितम्बर/2022
2. नौएडा/व0प्र0(जल–वा0सं0)/1095/22 दिनांक 30.08.2022
3. गठित एम0ओ0यू0 दिनांक 03.11.2018

दिनांक 01.09.2022 को अपर मुख्य कार्यपालक अधिकारी(एम) महोदय की अध्यक्षता में उपरोक्त विषयांकित बैठक में आपके द्वारा अवगत कराया गया था कि गठित एम0ओ0यू0 की क्लॉज संख्या 03 के अनुसार उत्तर प्रदेश जल निगम को डी0पी0आर0 तैयार करने हेतु अग्रिम धनराशि रू0 75.00 लाख देने हेतु 07 दिन के अन्दर कर दी जायेगी

अनुरोध है कि इस विषय पर अद्यतन स्थिति से खण्ड को अवगत कराने का कष्ट करें, जिससे माननीय राष्ट्रीय हरित अधिकरण को अवगत कराया जा सके।

(राकेश कुमार)
वरिष्ठ प्रबन्धक(जल–वा0सं0)
0/C नौएडा

प्रतिलिपि:

1. निजी सचिव को अपर मुख्य कार्यपालक अधिकारी(एम) महोदय के सादर सूचनार्थ।
2. प्रधान महाप्रबन्धक महोदय को सादर अवलोकनार्थ।
3. परियोजना प्रबन्धक(गंगाजल परियोजना ईकाई) उ0प्र0 जल निगम 120 एम0एल0डी0, वाटर ट्रीटमेन्ट प्लान्ट निकट संतोष मेडिकल कॉलेज, प्रताप विहार, गाजियाबाद को उक्त बैठक में प्रतिभाग करने हेतु।
4. सम्बन्धित प्रभारी प्रबन्धक एवं अवर अभियन्ता(संविदा) को आवश्यक कार्यवाही हेतु।

वरिष्ठ प्रबन्धक(जल–वा0सं0)
0/C नौएडा

नवीन ओखला औद्योगिक विकास प्राधिकरण

कार्यालय वरिष्ठ प्रबन्धक(जल–वाहय संस्था)
जल कल परिसर, सैक्टर–5, नौएडा–201301 (उ0प्र0)

पत्रांक:– नौएडा/व0प्र0(जल–वा0सं0)/1171/22
दिनांक : 22/09/2022

अपर महाप्रबन्धक (पी0 एण्ड एस/आई0टी0 एण्ड एफ0ई0एस0)
एन0टी0पी0सी लि, दादरी
गौतमबुद्धनगर (उ0प्र0)–201008

ध्यानाकर्षण:– श्री के0 पी0 गुप्ता, उप महाप्रबन्धक, एन0टी0पी0सी0

विषय:– नौएडा स्थितSTP-50 (59 MLD, STP-54 (87 MLD) एवंSTP -123 (35 MLD + 80 MLD (Proposed)= 115 MLD)से ट्रीटेड सीवेज, एन0टी0पी0सी0, दादरी तक ले जाने के सम्बन्ध में।

सन्दर्भ:– 1. नौएडा/व0प्र0(जल–वा0सं0)/1121/22 दिनांक 07.09.2022
2. नौएडा/अ0मु0का0अ0(एम)/2022/92 दिनांक 05 सितम्बर/2022
3. नौएडा/व0प्र0(जल–वा0सं0)/1095/22 दिनांक 30.08.2022
4. गठित एम0ओ0यू0 दिनांक 03.11.2018

कृपया उपरोक्त विषयक सन्दर्भित पत्रांकों, पूर्व में भेजे गये पत्रों एवं एम0ओ0यू0 दिनांक 03.11.2018 का अवलोकन करने का कष्ट करें, जिसमें दिनांक 01.09.2022 को अपर मुख्य कार्यपालक अधिकारी(एम) महोदय की अध्यक्षता में उपरोक्त विषयांकित बैठक में आपके द्वारा अवगत कराया गया था कि गठित एम0ओ0यू0 की क्लॉज संख्या 03 के अनुसार उत्तर प्रदेश जल निगम को डी0पी0आर0 तैयार करने हेतु अग्रिम धनराशि रू0 75.00 लाख देने हेतु 07 दिन के अन्दर अवमुक्त कर दी जायेगी। किन्तु आज दिनांक 22.09.2022 तक उत्तर प्रदेश जल निगम को डी0पी0आर0 तैयार करने हेतु उक्त धनराशि उपलब्ध नहीं कराई गई है।

पुनः अनुरोध है कि इस विषय पर अद्यतन स्थिति से खण्ड को शीघ्रातिशीघ्र अवगत कराने का कष्ट करें, जिससे माननीय राष्ट्रीय हरित अधिकरण को अवगत कराया जा सके।

(राकेश कुमार)
वरिष्ठ प्रबन्धक(जल–वा0सं0)
नौएड़ा

प्रतिलिपि:
1. निजी सचिव को अपर मुख्य कार्यपालक अधिकारी(एम) महोदय के सादर सूचनार्थ।
2. प्रधान महाप्रबन्धक महोदय को सादर अवलोकनार्थ।
3. परियोजना प्रबन्धक(गंगाजल परियोजना ईकाई) उ0प्र0 जल निगम 120 एम0एल0डी0, वाटर ट्रीटमेन्ट प्लान्ट, निकट संतोष मेडिकल कॉलेज, प्रताप विहार, गाजियाबाद को सूचनार्थ।
4. सम्बन्धित प्रभारी प्रबन्धक एवं अवर अभियन्ता(संविदा) को आवश्यक कार्यवाही हेतु।

वरिष्ठ प्रबन्धक(जल–वा0सं0)
नौएड़ा

नवीन ओखला औद्योगिक विकास प्राधिकरण

मुख्य प्रशासनिक भवन, सैक्टर 6, नौएडा, जिला गौतमबुद्धनगर

पत्रांकः– नौएडा/अ०मु०का०अ०(एम)/2022/[illegible] 12.10.2022

प्रबन्ध निदेशक
एन०टी०पी०सी० भवन
स्कोप कॉम्पलैक्स–7, संस्थागत क्षेत्र,
लोधी रोड, नई दिल्ली–110003

विषयः– एन०टी०पी०सी०, दादरी तक नौएडा में स्थित सीवेज शोधन संयत्रों से शोधित जल ले जाने के सम्बन्ध में।

सन्दर्भः– 1. पत्रांक नौएडा/अ०मु०का०अ०(एम)/2022/जल(सीवर)/1047 दिनांक 16.09.2022

2. बैठक का कार्यवृत्त पत्रांक नौएडा/अ०मु०का०अ०(एम)/2022/[illegible] दिनांक 05.10.2022

उपरोक्त विषयक नौएडा शहर में स्थित सैक्टर–54 व सैक्टर–123 [illegible] एन०टी०पी०सी०, दादरी के लिए शोधित जल लाईन बिछाने हेतु नौएडा प्राधिकरण, उत्तर प्रदेश जल निगम एवं एन०टी०पी०सी०, दादरी के मध्य दिनांक 03.11.2018 को एक एम०ओ०यू० हस्ताक्षरित किया गया था। उक्त एम०ओ०यू० के अनुसार [illegible] संयत्रों से शोधित जल लेकर एन०टी०पी०सी०, दादरी तक जाने वाली [illegible] लाईन का कार्य [illegible] जाना था तथा इस कार्य की सम्पूर्ण लागत एन०टी०पी०सी०, दादरी द्वारा [illegible] लिए तकनीकी पहलू एवं डी०पी०आर० आदि का दायित्व उत्तर प्रदेश जल निगम को दिया गया था [illegible] एम०ओ०यू० के स्कॉप ऑफ वर्क संख्या 3.1 के अनुसार एन०टी०पी०सी०, दादरी द्वारा [illegible] धनराशि उत्तर प्रदेश जल निगम को डी०पी०आर० तैयार करने हेतु दी जानी थी [illegible] कार्यवाही हो सके, लेकिन नौएडा प्राधिकरण एवं उत्तर प्रदेश जल निगम द्वारा [illegible] से एन०टी०पी०सी० दादरी को यह धनराशि अवमुक्त करने के लिए आग्रह किया गया।

दिनांक 01.09.2022 को अधोहस्ताक्षरी की अध्यक्षता में उनके कक्ष में एन०टी०पी०सी०, दादरी के [illegible] महाप्रबन्धक श्री पी० के० गुप्ता द्वारा इस धनराशि को आवश्यक [illegible] के लिए [illegible] समय की मांग की गई थी लेकिन अभी तक भी इस पर कोई ठोस कार्यवाही का एन०टी०पी०सी० द्वारा [illegible] अवगत नहीं कराया गया, जिसके कारण उत्तर प्रदेश जल निगम को परियोजना से सम्बन्धित डी०पी०आर० [illegible] अनावश्यक विलम्ब हो रहा है, जबकि माननीय राष्ट्रीय हरित अधिकरण, द्वारा वाद संख्या [illegible] में दिनांक 03.08.2022 को पारित आदेश के अनुपालन में सी० पी० सी० बी० एवं यू० पी० पी० सी० बी० द्वारा [illegible] पूर्ण कर शोधित जल का प्रयोग करने हेतु निर्देशित किया गया है। उक्त एम० ओ० यू० के अनुसार सम्बन्धित को अतिशीघ्र आवश्यक कार्यवाही हेतु निर्देशित करने कष्ट करें, ताकि माननीय एन० जी० टी० के आदेशों के अनुपालन में

एन0 टी0 पी0 सी0 द्वारा उपलब्ध कराई गई कार्ययोजना टाईम–लाईन सहित माननीय एन0जी0टी0 को अवलोकनार्थ प्रेषित की जा सके।

(मानवेन्द्र सिंह)
अपर मुख्य कार्यपालक अधिकारी(एम)
नौएडा।

प्रतिलिपिः–

1. निजी सचिव को मुख्य कार्यपालक अधिकारी महोदया के सादर सूचनार्थ।
2. विशेष कार्याधिकारी(टी), नौडल अधिकारी को सूचनार्थ।
3. उप महाप्रबन्धक(जल) को सूचनार्थ।
4. मुख्य वित्त एवं लेखाधिकारी को सूचनार्थ।
5. श्री के0पी0गुप्ता, उप महाप्रबन्धक, एन0टी0पी0सी0, दादरी को आवश्यक कार्यवाही हेतु।
6. वरिष्ठ प्रबन्धक(जल–बा0सं0) को आवश्यक कार्यवाही हेतु।
7. परियोजना प्रबन्धक(गंगाजल परियोजना ईकाई) उ0प्र0 जल निगम 120 एम0एल0डी0, वाटर ट्रीटमेन्ट प्लान्ट निकट संतोष मेडिकल कॉलेज, प्रताप विहार, गाजियाबाद ।

अपर मुख्य कार्यपालक अधिकारी(एम)
नौएडा।

नवीन ओखला औद्योगिक विकास प्राधिकरण

मुख्य प्रशासनिक भवन, सैक्टर–6, नौएडा, जिला–गौतमबुद्धनगर

अनुस्मारक–द्वितीय

पत्रांक:– नौएडा/अ0मु0का0अ0(एम)/2022/143 दिनांक :14 दिसम्बर/2022

प्रबन्ध निदेशक
एन0टी0पी0सी0 भवन
स्कोप कॉम्प्लैक्स–7, संस्थागत क्षेत्र,
लोधी रोड, नई दिल्ली–110003

विषय:– एन0टी0पी0सी0, दादरी तक नौएडा में स्थित सीवेज शोधन संयत्रों से शोधित जल ले जाने के सम्बन्ध में।

सन्दर्भ:–
1. पत्रांक नौएडा/अ0मु0का0अ0(एम)/2022/जल(वा0सं0)/1047 दिनांक 10.08.2022
2. पत्रांक नौएडा/व0प्र0(जल–वा0सं0)/1095/22 दिनांक 30.08.2022
3. बैठक का कार्यवृत्त पत्रांक नौएडा/अ0मु0का0अ0(एम)/2022/92 दिनांक 05.09.2022
4. पत्रांक नौएडा/व0प्र0(जल–वा0सं0)/1121/22 दिनांक 07.09.2022
5. पत्रांक नौएडा/व0प्र0(जल–वा0सं0)/1177/22 दिनांक 22.09.2022
6. बैठक का कार्यवृत्त पत्रांक नौएडा/अ0मु0का0अ0(एम)/2022/व0प्र0(जल–वा0सं0) 1248 दिनांक 17.10.2022

कृ० निदमानुसार आवश्यक कार्यवाही करें।
मुख्य कार्यपालक अधिकारी
नौएडा

उपरोक्त विषयक सन्दर्भित पत्रांकों के माध्यम से आपको अवगत कराया गया था कि नौएडा शहर में स्थित सैक्टर–54 व सैक्टर–123 सीवेज शोधन संयत्रों से एन0टी0पी0सी0, दादरी के लिए शोधित जल लाईन बिछाने हेतु नौएडा प्राधिकरण, उत्तर प्रदेश जल निगम एवं एन0टी0पी0सी0, दादरी के मध्य दिनांक 03.11.2018 को एक एम0ओ0यू0 हस्ताक्षरित किया गया था। गठित एम0ओ0यू0 के अनुसार सीवेज शोधन संयत्रों से शोधित जल लेकर एन0टी0पी0सी0, दादरी तक जाने वाली डी0आई0 लाईन का कार्य 36 माह में पूर्ण किया जाना था तथा इस कार्य की सम्पूर्ण लागत एन0टी0पी0सी0, दादरी द्वारा वहन की जानी थी तथा कार्य पूर्ण करने के लिए तकनीकी पहलू एवं डी0पी0आर0 आदि का दायित्व उत्तर प्रदेश जल निगम को दिया गया था। हस्ताक्षरित एम0ओ0यू0 के स्कॉप ऑफ वर्क संख्या 3.1 के अनुसार एन0टी0पी0सी0, दादरी द्वारा एक मुश्त रू0 75.00 लाख की धनराशि उत्तर प्रदेश जल निगम को डी0पी0आर0 तैयार करने हेतु दी जानी थी ताकि इस योजना पर आवश्यक कार्यवाही हो सके, लेकिन नौएडा प्राधिकरण एवं उत्तर प्रदेश जल निगम द्वारा विभिन्न अनेकों सन्दर्भित पत्रों के माध्यम से एन0टी0पी0सी0 दादरी को यह धनराशि अवमुक्त करने के लिए आग्रह किया गया।

दिनांक 01.09.2022 को अधोहस्ताक्षरी की अध्यक्षता में उनके कक्ष में एन0टी0पी0सी0 दादरी के प्रतिनिधि उप महाप्रबन्धक श्री पी0 के0 गुप्ता द्वारा इस धनराशि को आवश्यक परीक्षण उपरान्त अवमुक्त कराने के लिए एक सप्ताह के समय की मांग की गई थी लेकिन अभी तक भी इस पर कोई ठोस कार्यवाही कर एन0टी0पी0सी0 द्वारा नौएडा को अवगत नहीं कराया गया, जिसके कारण उत्तर प्रदेश जल निगम को परियोजना से सम्बन्धित डी0पी0आर0 बनाने में

अनावश्यक विलम्ब हो रहा है, जबकि माननीय राष्ट्रीय हरित अधिकरण, द्वारा याचिका संख्या 1002/2018 में दिनांक 03.08.2022 को पारित आदेश के अनुपालन में CPCB एवं Ministry of Housing and Urban affairs regarding (Reuse of treated used water in Thermal Plan Plan) on 15.11.2022 at 2.00 P.M. अपने पत्रांक संख्या D0 No/K/16011/10/2022-AMRUT Dated 10.11.2022 द्वारा भी आपको निर्देशित किया गया है। पुनः आपसे अपेक्षा है कि गठित एम0ओ0यू0 के अनुसार सम्बन्धित को अतिशीघ्र आवश्यक कार्यवाही हेतु निर्देशित करने कष्ट करें, ताकि माननीय एन0जी0टी0 के आदेशों के अनुपालन में एन0टी0पी0सी0 द्वारा उपलब्ध कराई गई कार्ययोजना टाईम-लाईन सहित माननीय एन0जी0टी0 को प्रेषित की जा सके।

(ज्ञानवेन्द्र सिंह)
अपर मुख्य कार्यपालक अधिकारी(एम)
नौएडा।

प्रतिलिपि-

1. निजी सचिव को मुख्य कार्यपालक अधिकारी महोदया के सादर सूचनार्थ।
2. विशेष कार्याधिकारी(टी), नौडल अधिकारी को सूचनार्थ।
3. उप महाप्रबन्धक(जल) को सूचनार्थ।
4. मुख्य वित्त एवं लेखाधिकारी को सूचनार्थ।
5. श्री के0पी0गुप्ता, उप महाप्रबन्धक, एन0टी0पी0सी0, दादरी को आवश्यक कार्यवाही हेतु।
6. वरिष्ठ प्रबन्धक(जल-वा0सं0) को आवश्यक कार्यवाही हेतु।
7. परियोजना प्रबन्धक(गंगाजल परियोजना ईकाई) उ0प्र0 जल निगम 120 एम0एल0डी0, वाटर ट्रीटमेन्ट प्लान्ट निकट संतोष मेडिकल कॉलेज, प्रताप विहार, गाजियाबाद ।

14/12
अपर मुख्य कार्यपालक अधिकारी(एम)
नौएडा।

Annexure- M

S- N.G.T.

ANNEXURE N

नवीन औखला औद्योगिक विकास प्राधिकरण

मुख्य प्रशासनिक भवन सै०- 6 नौएडा

पत्र सं०/नौएडा/वि०वि०/22/6245
दिनांक- 1.12.22
माननीय उच्चतम न्यायालय प्रकरण

महत्वपूर्ण

वरिष्ठ प्रबन्धक (जल - 1)
नौएडा ।

विषय : **Civil Appeal Nos. 8547-8548/2022 New Okhla Industrial Development Authority Vs The State of Uttar Pradesh (Abhisht Kusum Gupta & Ors.)** के प्रकरण में मा0 उच्चतम न्यायालय द्वारा पारित आदेश दिनाँक 28.11.2022 के सम्बन्ध में ।

उपरोक्त विषयक प्रकरण में मा0 उच्चतम न्यायालय के आदेश दिनाँक 28.11.2022 का संदर्भ लेने का कष्ट करे । मा0 न्यायालय द्वारा पारित आदेश निम्नवत हैः -

7266
01-12-22

ORDER

1 Permission to file the appeal is granted.

2 Delay condoned.

3 Issue notice, returnable in eight weeks.

4 Pending further orders, there shall be a stay of the impugned order of the National Green Tribunal dated 3 August 2022, insofar as it directs Noida and the Delhi Jal Board to deposit respectively interim compensation of Rs 100 crores and Rs 50 crores.

मा0 उच्चतम न्यायालय की वेब-साईट से प्राप्त आदेश दिनांक 28.11.2022 की प्रति सूचनार्थ/यथा-आवश्यक कार्यवाही हेतु संलग्न कर प्रेषित है ।

संलग्नकः- उपरोक्तानुसार ।

30/XI/22
(सुशील भाटी)
विधि अधिकारी

2498
05/12/2022 N.G.T

Mr. S.V. Raju, ASG
Ms. Asha Gopalana Nair, AOR
Ms. Shakshi Popli, Adv.
Ms. Nivedita Nair, Adv.

For Respondent(s)
Mr. Rajeev Singh, AOR

UPON hearing the counsel the Court made the following

O R D E R

1 Permission to file the appeal is granted.

2 Delay condoned.

3 Issue notice, returnable in eight weeks.

4 Pending further orders, there shall be a stay of the impugned order of the National Green Tribunal dated 3 August 2022, insofar as it directs Noida and the Delhi Jal Board to deposit respectively interim compensation of Rs 100 crores and Rs 50 crores.

(CHETAN KUMAR)
A.R.-cum-P.S.

(SAROJ KUMARI GAUR)
Assistant Registrar

ANNEXURE O

ANNEXURE-A(6)

नवीन ओखला औद्योगिक विकास प्राधिकरण
मुख्य प्रशासनिक भवन, सैक्टर–06, नौएडा

पत्र संख्या नौएडा/मुख्याोनि0/2022/2668
दिनांक 5-4-2022

महाप्रबन्धक (नियोजन),
नौएडा।

सेवा में,

अधिशासी अधिकारी
नगर पालिका परिषद
खोडा।

विषय:– **मा0 एन.जी.टी. द्वारा पारित आदेश दिनांक 23.12.2021 के संबंध में।**

महोदय,

कृपया उपरोक्त विषयक ओ.ए. नं0–1002/2018 अभिष्ट कुसुम गुप्ता बनाम उ0प्र0 राज्य व अन्य में मा0 एन.जी.टी. द्वारा पारित आदेश दिनांक 23.12.2021 का संदर्भ ग्रहण करने का कष्ट करें जिसके बिन्दु संख्या–12(5) मे निम्नवत उल्लेख है:–

"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."

इस संबंध में अवगत कराना है कि खोडा की सीमा प्राधिकरण के सैक्टर–55, 56, 57, 58 व 62 से मिलती है। इन सैक्टरों में नौएडा प्राधिकरण के पास एस.टी.पी. हेतु कोई भूमि उपलब्ध नहीं है। कृपया तदानुसार अवगत होने का कष्ट करें।

(इश्तियाक अहमद)
महाप्रबन्धक (नियोजन)
नौएडा।

प्रतिलिपि:–

1. मुख्य कार्यपालक अधिकारी महोदया को सादर सूचनार्थ।
2. अपर मुख्य कार्यपालक अधिकारी (पी) महोदय को सादर सूचनार्थ।
3. उप महाप्रबन्धक (जल), नौएडा को सूचनार्थ।

महाप्रबन्धक (नियोजन)
नौएडा।