**NGT MATTER**

**By Special Messenger / Email**

**DELHI POLLUTION CONTROL COMMITTEE**
**DEPARTMENT OF ENVIRONMENT, GOVT. OF NCT OF DELHI**
**5th FLOOR, ISBT BUILDING, KASHMERE GATE, DELHI-110006**
**visit us at : http://dpcc.delhigovt.nic.in**

**F. No. DPCC/WMC-II/MPR/OA 673/2020/7507-7510** **Dated: 19.08.2021**

**To,**

**The Secretary,**
Ministry of Jal Shakti, Govt. of India,
Shram Shakti Bhawan,
New Delhi- 110001

**Subject – Monthly Progress Report of Govt. of NCT of Delhi for the Month of July, 2021 w.r.t Orders Dated 06.12.2019, 29.06.2020, 21.09.2020 & 22.02.2021 in OA No. 673 / 2018 in the matter of News item published in 'The Hindu' Authored by Shri Jacob Khoshy Titled "More river stretches are now critically polluted: CPCB"**

**Sir,**

Please find enclosed herewith Monthly Progress Report of Govt. of NCT of Delhi in the revised format of NMCG for the Month of July, 2021 for Rejuvenation of River Yamuna (Priority -I Stretch) w.r.t Orders Dated 06.12.2019, 29.06.2020 21.09.2020 & 22.02.2021 in OA No. 673 / 2018 in the matter of News item published in 'The Hindu' Authored by Shri Jacob Khoshy Titled "More river stretches are now critically polluted: CPCB".

1st Monthly Progress Report of Govt. of NCT of Delhi was submitted vide letter dated 14.02.2020 & last Monthly Progress Report for the month of June, 2021 was submitted vide letter dated 13.07.2021

Yours Sincerely,

**Enclosures : As Above**

**(Dr. K. S. Jayachandran)**
Spl. Secy (Env) cum
Member Secretary, DPCC

**Copy to:**

1. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032.
2. The Staff Officer to Chief Secretary, 5th Floor, Delhi Secretariat, I.P. Estate, Delhi-110002
3. PS to Pr. Secy. (Env) cum Chairman, DPCC.

**(Dr. K. S. Jayachandran)**
Spl. Secy (Env) cum
Member Secretary, DPCC

# National Mission for Clean Ganga
# Format for submission of Monthly Progress Report in the NGT Matter OA No. 673 of 2018 (in compliance to NGT order dated 24.09.2020)

## For the State of NCT of Delhi

### Monthly Progress Report of Govt. of NCT of Delhi for the Month of July, 2021

**Overall Status of the State:**

**I. Total Population: Urban Population & Rural Population separately**

| | Population as per Census in 2011 (in Lakh) | Population in 2020 (Appx. Estimated) (in Lakh) |
|---|---|---|
| Urban Population | 163.68899 | 200 |
| Rural Population | 4.19042 | |
| Total | 167.87941 | 200 |

**II. Estimated Sewage Generation (MLD):**3273 MLD (720 MGD)

**III. Details of Sewage Treatment Plant:**

- Existing No. of STPs and Treatment Capacity (in MLD) : 35 STPs (at 20 Locations) Capacity – 2715 MLD (597.26 MGD)
- Capacity Utilization of existing STPs :2337.6 MLD (514.2 MGD) (86 % of installed capacity)
- MLD of sewage being treated through Alternate technology: Nil
- Gap in Treatment Capacity in MLD : 559 MLD (123 MGD) [ 720- 597 MGD] (17 %)
- No. of Operational STPs : 34(Samples could be taken by DPCC Lab from 32 STPs in the month of July, 2021).
- No. of Complying STPs : 8 [ w.r.t Standards prescribed by DPCC] 23 [w.r.t Design Parameters ]
- No. of Non-complying STPs : 24 (excluding Ghitorni STP & Molarband STP in which case sample could not be taken and Rithala Phase – I STP which is not operational due to Rehabilitation ) (Letter issued to DJB on 18.08.2021 for taking rectification measures to meet the prescribed standards).

**Details of Each Existing STP of Delhi Jal Board in Delhi**

| S. No. | Location | Existing STP Capacity | Capacity Being Utilized | Operational Status of STP | Compliance Status of STP |
|---|---|---|---|---|---|
| | Details of Each Existing STP of Delhi Jal Board in Delhi is at **Annexure-1** | | | | |

# Details of Under Construction STPs of Delhi Jal Board in Delhi

| S. No. | Location (Name of STP) | Capacity of the plant in MLD | Physical Progress in % (upto July,2021) | Status of I&D or House sewer connections | Completion Timeline |
|---|---|---|---|---|---|
| **Rehabilitation / Up-gradation of Existing STPs for achieving BOD / TSS : 10 / 10 mg/l.** | | | | | |
| 1. | Yamuna Vihar STP Phase II | 45.46 MLD (10 MGD) | - | - | **Revised time line to be provided by DJB** (Earlier Timeline March,2022) (STP is operational as per existing designed parameters however work is yet to be awarded for Rehabilitation / Up-gradation of STP) |
| 2. | Kondli STP Phase I, II & III | 204.57 MLD [45 MGD (10+25+10)] | **63.15** (1.04 % in July, 2021) | - | **March, 2023** (Earlier Timeline December, 2022) [Phase-II work is to start on 01.10.21 after completion of Phase I & III. Revised proposal for tree cutting permission of 826 trees under Phase-II submitted to Forest Deptt. Joint site visit with Forest Deptt. conducted on 18.05.2021 & information regarding land for compensatory plantation alongwith Geo-coordinates submitted to Forest Deptt. on 05.07.2021. Forest department has not considered the site suitable and sent back the proposal on 22.07.2021 asking to give alternative site. Alternative site for transplantation has been identified and details will be submitted to the Forest department early. |
| 3. | Rithala STP Phase I | 181.84 MLD (40 MGD) | **48.30** (1.5% in July, 2021) | - | **March, 2023** (Earlier Timeline Dec., 2022) |

| | | | | | |
|---|---|---|---|---|---|
| **Construction of New STPs** | | | | | |
| 4. | Coronation Pillar | 318 MLD (70 MGD) | **90.60** (3.60 % in July, 2021) | - | **September, 2021** (Earlier Timeline June , 2021) (Trial run of 50% started on 31.03.2021. STP was to be completed by 30.06.2021 but due to lockdown on account of 2nd wave of Covid-19 date of commissioning has been rescheduled to 30.09.2021) |
| 5. | Okhla | 564 MLD (124 MGD) | **36.00** (1.32 % in July,2021) | - | **December, 2022** |

**Status of Remaining 16 STPs Proposed to be up-gradedfor achieving BOD / TSS : 10 / 10 mg/l.**

| Consultancy Awarded for No of STPs | No of STPs at Tender Stage | No of STPs Work Awarded (Work is in progress) | Time line for Completion | Remarks |
|---|---|---|---|---|
| 4 (Rohini, Keshopur, Narela & Rithala Ph-II) | Nil | Nil | 3-4 Years after availability of funds | Matter is being taken up by working out some alternate economic feasible technology for achieving the better results by dosing of PAC, Ferric Chloride etc. in the existing STPs. The PAC / Ferric Chloride dosing is likely to be started soon. In addition, aeration will be increased by installing Floating Aerators/ Repair of Diffusers etc. and installation of Disc Filter at FST outlet so as to treat sewage to get treated effluent parameters of BOD/TSS as close to 10/10mg/l. |

**Details of Proposed STPs of Delhi Jal Board in Delhi**

| S. No. | Location | Capacity of the STPs proposed (in MLD | Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded) | Likely Date of Completion |
|---|---|---|---|---|
| 1. | 42 Decentralized STPs at various locations in Delhi | 281.50 | Estimate Stage : Land for construction of 42 DSTPs and connecting SPSs have been identified at various locations and it is still in the process of allotment by Revenue Department of GNCT Delhi/ DDA. Necessary action will be taken by DJB after allotment of land. | 24 to 36 months after allotment of land. |
| 2. | 14 (7+7) STPs in Najafgarh Drainage Zone | 145 | The work of 9+5 STP has been rescinded and the whole scheme is being reframed so as to accommodate the maximum nos. of unauthorised colonies in the 8 parcels of land already in possession of DJB. | December, 2023 |

## STPs to be Constructed at the Mouth of the Drains

| No of STPs to be constructed | Consultancy Awarded for No of STPs | No of STPs at Tender Stage | No. of STPs Work Awarded (Work is in progress) | Time line for Completion | Remarks |
|---|---|---|---|---|---|
| 2 (Mori Gate Drain and Barapullah Drain ) | Nil | Nil | Nil | 3-4 years after availability of land & funds | Land allotted by DDA however cost of land is on higher side. Matter is being taken up with DDA to allot land either free of cost or at nominal rates. |

## Status of Interceptor Sewer Project (ISP) of Delhi Jal Board

| Total flow to be trapped | Provision of trapping made during the month of July, 2021 | Cumulative Status as in July, 2021 Provision of trapping made | Time line for completion of work | Remarks |
|---|---|---|---|---|
| 1100.86 MLD<br><br>**(242.16 MGD)** | - | 1082 MLD<br><br>**(238 MGD)** | Completed | About 771.5 MLD (169.7 MGD) is being trapped and treated out of 1082 MLD (238 MGD). Entire flow shall be trapped and treated by March, 2023 after construction / rehabilitation of Coronation Pillar, Rithala and Kondli STP under YAP-III.<br><br>YMC had got an independent assessment done through a team consisting of Sh R.S Tyagi former Member (Dr) DJB and Prof Singh, Head of Department of Environmental Engineering, Delhi Technological University. Said team has confirmed that sewage trapping part of ISP has been completed. |

### Status of Sewerage Network in Unauthorised Colonies (As provided by DJB)

| S. No | Status | Increase/ Progress during month of July, 2021 | Cumulative Status as in July, 2021 (No) | Remarks |
|---|---|---|---|---|
| **1** | Sewer line laid and notified | Nil | 561 | - |
| **2** | Work of sewer network is in progress | Nil | 595 | - |
| **3** | Colonies where NOC is awaited/O Zone | Nil | 131 | The work shall be taken up after NOC from Forest Department/ Ozone. |
| **4** | Colonies where sewerage network is to be laid along with Decentralized STPs | Nil | 512 | The work shall be taken up after allotment and possession of land by DDA & Revenue Deptt. |
| | **Total** | | **1799** | |

## Sewage and Faecal Sludge Management (Septage Management)

Septage Management Regulations notified by the Urban Development Department, GNCTD on **12.11.2018** and necessary action is to be taken by Delhi Jal Board , District Magistrates and Local Bodies / Municipal Corporations as per the provisions of the said Notification. On an average 6 to 7 lakh litres of septage per month is being collected and treated at the STPs of DJB.

DJB has so far registered 208 licensed vendors (Emptiers) for collection and transportation of sewage from the septic tanks and has identified 86 SPS points for receiving the Septage. The Board also plans to engage 200 more septage machines .

| Agency | No of Vehicles Authorised by DJB (As on 30.06.2021) | No. of Functional SPSs for collection of septage from vendors | Septage collected & Treated in June, 2021 | Septage treated by DJB (As on 30.06.2021) |
|---|---|---|---|---|
| **DJB** | **208** | **86** | **3.71Crore Litres** | **58.29Crore Litres** |

**Trapping of Drains :**

There are 18 major drains which are out falling into river Yamuna in the Delhi stretch between Wazirabad to Okhla. Out of 18 drains, Trap completed in 13 drains, 02 major drains i.e. Najafgarh & Shahdara are included in Interceptor Sewer Project where substantial flow of sub-drains under their command areas will be trapped and treated. Further, in-situ treatment in these drains are also being proposed.

For the balance 03 drains, action plan has been prepared which requires construction of STPs at the mouth of two drains i.e. Mori Gate and Barapullah drain. The land for the STPs have been allotted by DDA however cost of land demanded is on higher side. Matter is being taken up with DDA to allot land either free of cost or at nominal rates.

In respect of the 3rd drain i.e. Maharani Bagh drain, the same has been partially trapped to the extent of 9-10 MLD flow in C.V. Raman Marg Trunk sewer. For balance flow, alternative scheme is being framed by Intercepting Barapullah drain, Maharani Bagh Drain and conveying the flow through micro tunneling to the proposed Batla House SPS and further pumping to Okhla STP where capacity is available. The timelines for alternative scheme are as under :-

- Administrative approval – August, 2021
- Appointment of consultant & Preparation of DPR- December, 2021
- Award of Work – March, 2022
- Completion – December, 2023.

Status of 18 Major Drains directly out falling into River Yamuna (as per the Information provided by DJB) is at **Annexure -2**

## IV. Details of Industrial Pollution (Industries/Units in 28 Approved Industrial Areas in Delhi ) (As per the Consent Records of DPCC):

- No. of Industries / Units in the State : 28117 (in 28 Approved Industrial Areas)
- No. of Water Polluting Industries/ Units in the State : 1516
- Quantity of Effluent generated from the Industries / Units in MLD : About 36 MLD
- Quantity of Hazardous Sludge generated from the Industries in TPD :6.86 (Excluding CETPs)

- Number of Industrial Units / Units having ETPs : 1516
- Number of Industrial Units/ Units connected to CETPs :33690 (in 17 Approved Industrial Areas)
- Number and total capacity of ETPs (details of Existing/ Under Construction / Proposed) : 1516 ETPs
- Compliance Status of the ETPs : -
- Number and Total Capacity of CETPs (Details of Existing/ Under Construction / Proposed) :Existing CETPs–13(List at **Annexure-3**) Capacity – 212.3 MLD Under Construction/Proposed – Nil

## Status of Compliance and Operation of the CETPs

<table>
<tr><th>Town</th><th>No. of Industries / Units (in 28 Approved Industrial Areas)</th><th>Industrial Discharge</th><th>Status of ETPs</th><th>Status of CETPs (Existing, Under Construction &Proposed)</th></tr>
<tr><td>Delhi</td><td>28117</td><td>36 MLD</td><td>-</td><td>Existing – 13 CETPs List alongwith Compliance Status of July, 2021 is at <u>Annexure-3</u>
<table>
<tr><th></th><th>June, 2021</th><th>July, 2021</th></tr>
<tr><td>Complying</td><td>6</td><td>Nil</td></tr>
<tr><td>Not Complying</td><td>7</td><td>13</td></tr>
</table>
Under Construction / Proposed - Nil
<ul>
<li>Environmental Compensation (Total EC Amount Rupees 12.05 Crores) has been imposed by DPCC on the 10 CETP Societies and 2 Operators of CETPs at Narela & Bawana on 07.07.2021.</li>
<li>DPCC has also issued directions for closure to the 1065 water polluting industries/ units in the 17 industrial areas connected to the 13 CETPs in first week of July, 2021.</li>
<li>Letters issued on 19.08.2021 to the concerned CETP Societies/ Operator of CETPs which were found not meeting the prescribed standards in the month of June & July, 2021 for taking rectification measures to meet the prescribed standards.</li>
</ul></td></tr>
</table>

**Common Effluent Treatment Plants (CETPs)**

All the existing 13 CETPs are being monitored by DPCC Laboratory on monthly basis and Analysis Reports are placed on the website of DPCC and also conveyed to the CETP Societies/ Operator of CETPs for rectification of the deficiencies to meet the prescribed standards. Sufficient treatment capacity (212.3 MLD) is available with existing 13 CETPs for management of industrial effluent generated from 17 approved industrial areas. The units which are operational in non-CETP industrial areas have individual waste water treatment facilities. Online Monitoring System (OLMS) have been installed on all the 13 CETPs for measuring the pH, TSS, BOD & COD at the outlet of the CETPs. All these OLMS are connected to servers of DPCC and CPCB. Calibration of OLMS installed at CETPs is being carried out by DPCC Water Laboratory on quarterly basis.

**(i) <u>DSIIDC has engaged CSIR-NEERI vide letter dated 05.11.2019 for providing consultancy w.r.t various issues related to CETPs including up gradation of CETPs as per following scope of work</u>** :

a) Formulating an action plan for the survey of the individual industries in various industrial areas for ensuring their connectivity with the waste water conveyance system of CETPs and identifying industrial units violating environmental pollution norms.

b) To assess the overall functioning of all 13 CETPs through a physical survey.

c) To formulate an action plan for 13 CETPs after the study of the survey report in terms of

I. Required up-gradation and retrofitting of CETPs to make them compatible with the composition of effluent reaching CETP for capacity utilisation (use of CETP as STP) and to conform the effluent discharge standards and to work out cost associated with this task.

II. Management of the hazardous sludge being generated by CETPs.

III. Maximizing utilization of treated water from CETPs in order to achieve Zero Liquid Discharge and reducing dependency of greenbelts/parks in and around CETPs on ground water.

d) Study regarding requirement of CETPs in 11 industrial areas which are presently not having CETP.

NEERI has carried out Overall Performance Evaluation of all the 13 CETPs [August 2020 & March 2021). Draft Report on "Status, Gap Analysis, and Suggestions for Improvement and Up gradation" for Naraina, Mayapuri & Mangolpuri CETPs has been prepared by NEERI in June-July 2021 and submitted to DSIIDC. Meetings are held regularly to review the progress.

**(ii) Progress Report for the Month of July, 2021**

Following activities were carried out:

**A. Reports Submission to DSIIDC:**

1. Draft report on "Naraina CETP - Status, Gap Analysis and Suggestions for Improvement and Up gradation" submitted on July 2, 2021
2. Draft report on "Mayapuri CETP - Status, Gap Analysis and Suggestions for Improvement and Up gradation" submitted on July 4, 2021
3. Draft report on "Mangolpuri CETP - Status, Gap Analysis and Suggestions for Improvement and Up gradation" submitted on July 5, 2021
4. Joint Inspection Report on "Identification of Storm Water Drains Not Connected to CETPs in Lawrence Road & Badli Industrial Areas, submitted on July 22, 2021 (Survey was conducted on June 29, 2021).
5. Joint Inspection Report on "Identification of Storm Water Drains Not Connected to CETP in Okhla Industrial Areas – Phase I & II, submitted on July 31, 2021 (Survey was conducted on July 26, 2021).

**B. CETP Sampling & Analysis by NEERI**

6. Carried out round the clock composite sampling of different process units of 10 CETPs during July 1-15, 2021. Analysis work is under progress. Report should be ready by the end of August.

**C. Physical Condition Survey of CETPs by NEERI**

7. Physical condition survey of Lawrance Road CETP and Wazirpur CETP carried out on July 12 & 16, 2021 respectively. Report preparation is under progress.

**(iii) Timelines for upgradation of CETPs**

Broad Timelines for the upgradation CETPs provided by NEERI through DSIIDC has already been provided to Central Monitoring Committee with the Monthly Progress Reports of February & March, 2021.

## V. Solid Waste Management:

- Total Number of Urban Local Bodies (ULBs) and their Population :5 [ North DMC, South DMC, East DMC, NDMC & DCB]
  Total Population – About 2 Crores
- Current Municipal Solid Waste Generation : 10981 TPD

(Status of Solid Waste Management including Legacy Waste in Delhi is given at **Annexure-4)**

| S.No. | Particulars | Information |
|---|---|---|
| 1. | Number, Installed Capacity and Utilization of Existing MSW Processing Facilities in TPD (Bifurcated by type of processing e.g.Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, Decentralized, Pit Composting), Biomethanation, MRF etc. | • Total Capacity of Existing MSW Processing Facilities - 5662 TPD<br>• 3 Operational WTE Plants - 4550 TPD (Power generation capacity - 59 MW)<br>• 2 Operational Compost Plants - 950 TPD [200 TPD at Okhla & 750 TPD out of 2000 TPD at Bawana Integrated MSW Facility]<br>• 8 Operational Bio-methanation Plants- 40 TPD.<br>• 19 Operational Decentralized Composter Plants – 17.175 TPD<br>• Others (Compost Pits, OWC etc) : 132 TPD [118 Compost Pits, 2 Organic Waste Convertor (OWC) & 6 Biogas Plants in NDMC area having total capacity of 78.6 TPD + 2 Food Waste Composters of Total Capacity of 0.175 TPD ( 0.125 TPD + 0.05 TPD) in DCB area + Five Star Hotels/ Other Bulk Waste Generators having Individual OWC ] |
| 2. | Action Plan to bridge gap between Installed Capacity and Current Utilization of Processing Facilities (if Gap > 20% | Not Applicable since installed capacity of Existing MSW Processing Facilities in Delhi is being utilised. |
| 3. | No.and capacity of C&D Waste Processing Plants in TPD (Existing, Proposed and under construction) | • Existing operational C&D Waste Processing Facilities - 4<br>Capacity - 4150 TPD<br>• Proposed New C&D Waste Processing Facilities - 3<br>Capacity - 2500 TPD<br>Existing operational C&D Waste Processing Facilities are located at<br>(i)Jahangir Puri (Burari) (2000TPD)<br>(ii) Shastri Park (1000 TPD)<br>(iii) Bakkarwala (1000 TPD)<br>(iv) Rani Khera (Mundka) (150 TPD)<br>Proposed C&D Waste Processing Facilities are<br>(i) Ranikhera (1000 TPD)<br>(ii) Tehkhand Okhla (1000 TPD)<br>(iii) Libaspur (500 TPD) |
| 4. | Total No. of Wards, No. of Wards having Door to Door Collection Service, No. of Wards practicing segregation at source | **No. of Wards** – 294 [North DMC – 104, SDMC – 104, EDMC-64, DCB-08 & NDMC-14 Circles].<br>**Door to Door collection** in all wards and circles of North DMC, SDMC, NDMC & DCB and about 90% in EDMC.<br>**Segregation of Waste** :<br>• NDMC - 96 – 100% (in all Circles)<br>• DCB - 90% (Civilian Area) 60% (Army Area)<br>• EDMC - 80 - 100% (in 3 Model Wards), 50 % (in 61 Wards)<br>• North DMC - 90 % (in 3 Model Wards), 30% (in rest of 101 Wards)<br>• SDMC - 80 - 100% (in 15 Model Wards), (in 9 Wards) 50-60% (in 4 Wards) 40-50% (in 9 Wards) 20-40% (in 13 Wards) 10-20% (in 8 Wards) |

<table>
<tr><td>5.</td><td>Details of MSW Treatment Facilities proposed and under construction (No., Capacity and technology)</td><td colspan="2">Proposed MSW Processing / Treatment Facilities<br>(i) 2000 TPD Waste to Energy Plant (WTE) at Tehkhand by 31.03.2022 (SDMC).<br>(ii) 2000 TPD Integrated Municipal Waste Processing Facility at Ghonda Gujran by 30.09.2022 (Joint Venture between NTPC & EDMC).<br>(iii) Engineered Sanitary Landfill at Tehkhand by 31.12. 2022<br>(iv) 2500 TPD Integrated Waste Collection, Segregation, Transportation, Processing & Disposal in 3 Zones of North DMC (City – SP, Karol Bagh& Narela Zone) by 31.12.2022</td></tr>
<tr><td rowspan="4">6.</td><td rowspan="4">No. and Area (in Acres) of uncontrolled garbage dumpsites and Sanitary Landfills.</td><td>Name of Dumpsite</td><td>Area in Acres</td></tr>
<tr><td>Ghazipur Dump Site</td><td>70</td></tr>
<tr><td>Bhalaswa Dump Site</td><td>36</td></tr>
<tr><td>Okhla Dump Site</td><td>46</td></tr>
<tr><td>7.</td><td>No. and Area (in Acres) of Legacy Waste within 1 km buffer of both side of the rivers</td><td colspan="2">Nil</td></tr>
<tr><td>8.</td><td>No. of Drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers:</td><td colspan="2">18 Major Drains out falling into river Yamuna & having Floating Racks / Screens to prevent solid waste falling into the river.</td></tr>
</table>

## Status of ULB wise Management of Solid Waste

| ULB | Total MSW Generation in TPD | Total MSW being Processed in TPD | Existing MSW Facilities | Utilization Capacity of the Existing MSW Facilities | Proposed MSW Facilities & Completion Timeline |
|---|---|---|---|---|---|
| North DMC | 4500 | 2150 (48%) | • One WTE Plant at Bawana Integrated MSW Facility - 2000 TPD (including 750 TPD Compost Plant)<br>• 2 Bio-Methanation Plants - 10 TPD (5 TPD each at Roshanara Bagh & MVID Hospital )<br>• 3 Composter Plants – 3 TPD (1 TPD each at Bhorgarh Nursery, Rajendra Nagar &Maurya Enclave.) | Installed Capacity of Existing MSW Processing Facilities is being utilised. | • **2500 TPD** Integrated Waste Collection, Segregation, Transportation, Processing & Disposal in 3 Zones of North DMC(City–SP, Karol Bagh & Narela Zone) by 31.12.2022<br>• Two Bio-Methanation Plants of 5 TPD each at Mangolpuri Industrial Area Ph-I & Naraina Industrial Area Ph-I by August, 2021)<br>• 3 Composter Plants – 3 TPD (1 TPD each at Sector -11 Rohini & Mori Gate by July, 2021 and 3rd at Nursery of Ramleela Ground by August, 2021. |

| | | | | | |
|---|---|---|---|---|---|
| SDMC | 3500 | 1700 (48.5%) | • One WTE Plant at Okhla – 1950 TPD<br>• 4 Bio-Methanation Plants – 20 TPD (5 TPD each at SaritaVihar, Dwarka Sec-14, Punjabi Bagh Nursery &MasoodPur in Vasant Kunj)<br>• 3 Composter Plants – 3 TPD (1 TPD each at Chirag Delhi, Punjabi Bagh Nursery & Near Lady Shri Ram College East of Kailash.) | Installed Capacity of Existing MSW Processing Facilities is being utilised. | • **2000 TPD** WTE Plant at Tehkhand by 31.03.2022<br>• Engineered Sanitary Landfill at Tehkhand by 31.12.2022<br>• One Composter Plant - 1 TPD at Dwarka Sector 14 by August, 2021<br>• 2 Bio CNG Plants of 550 TPD each at Tehkhand & Kesopur by December, 2022.<br>• One RDF Processing Plant of 50 TPD at Tehkhand by March, 2022. |
| EDMC | 2700 | 600 (22.2%) | • One WTE Plant at Ghazipur – 1300 TPD<br>• Two Bio-Methanation Plants of 5 TPD each at Geeta Colony & Shastri Park )<br>• 9 Composter Plants – 9 TPD (1 TPD each at Trilokpuri near Block-13, Mayur Vihar Ph-II, Preet Vihar, Jhilmil, New Trilokpuri near Block-13, Saini Enclave, Usmanpur,Kheda Village &Sunder Nagri) | Installed Capacity of Existing MSW Processing Facilities is being utilised. | • **2000 TPD** Integrated Municipal Waste Processing Facility (including Waste to Energy Plant) at Ghonda Gujran by 30.09.2022 (Joint Venture between NTPC & EDMC).<br>• One Composter Plant - 1 TPD at Gokalpur by August, 2021. |
| NDMC | 209 | 209 (100%) | • 2 Organic Waste Converter – 2 TPD (1 TPD each at Madhulimey Marg & Raza Bazar in New Delhi)<br>• 118 Compost Pits, 23 Organic Waste Convertor (OWC) & 6 Biogas Plants in NDMC area having total capacity of 78.6 TPD | Installed Capacity of Existing MSW Processing Facilities is being utilised. | One Bio –methanation Plant of 30 TPD by December, 2021. |
| DCB | 72 | 41 (57 %) | • 2 Food Waste Composter (One of 0.125 TPD at Tigris Road and One of 0.05 TPD at Tigris Road, New Delhi.) | Installed Capacity of Existing MSW Processing Facilities is being utilised. | 5 Sorting cum composters at Tigris Road & Kirby place, Delhi Cantt. of totalcapacity of 70 TPD [(3 Nos – 20 TPD) & (2 Nos – 5 TPD)] by December, 2021. |
| **Total** | **10981** | **4700 (42.8%)** | | | |
| Note – 1. Most of the Five & Four Star Hotels and Major Hospitals having 50 Beds or more have installed Organic Waste Convertor.<br>2. Bio-Gas Plants of 200 TPD capacity each are proposed at Nangli & Goyla Dairies in SDMC Area & at Ghogha Village Dairy in North DMC Area and 100 TPD capacity Bio-gas plant at Ghazipur in EDMC Area. | | | | | |

## VI. Bio-medical Waste Management:

- Total Bio-medical Waste Generation **: 23.20 TPD** (as per average of Bio-medical waste generation during calendar year 2020 excluding Covid waste)
- No. of Hospitals and Health Care Facilities: **10423**
- Status of Treatment Facility/ CBMWTF : Treatment & Disposal through existing 2 CBMWTFs

There are following 2 CBMWTFs having Capacity of about 63 TPD for collection and Treatment of the Bio-medical waste generated from the Health Care Establishments in Delhi:

1. M/s Biotic Waste Solutions Pvt. Ltd., 46 SSI Industrial Area, G.T.Karnal Road, Delhi -110033
2. M/s SMS Water Grace BMW Pvt. Ltd., Nilothi Sewage Treatment Plant Complex of DJB, Nilothi, Delhi -110041.

Both the CBMWTFs are having Incinerators, Autoclaves & Shredders for the treatment of Bio Medical Waste collected from the Health Care Establishments in Delhi and have installed Air Pollution Control System and Online Monitoring System. Bio-medical Waste including COVID-19 waste is being dealt as per the provisions of the Bio Medical Waste Management Rules, 2016 and Guidelines issued by CPCB from time to time. For preventing illegal dumping of biomedical waste in Delhi, a Standard Operating procedure (SOP) has already been developed and circulated to all the District Magistrates (being Chairman of the District level Committees comprising of all the concerned departments including CBMWTFs).

## VII. Hazardous Waste Management:

- Total Hazardous Waste Generation : 2683.46 MT/year
- No. of Industries generating Hazardous Waste :2026
- Treatment Capacity of all TSDFs : Presently No TSDF in Delhi
- Average Quantity of Hazardous Waste reaching the TSDFs and Treated : Presently No TSDF in Delhi

- **Details of on-going or proposed TSDF:**

  Common Hazardous Waste, Treatment, Storage & Disposal Facility (TSDF) is to be developed at Bawana in Delhi. DSIIDC has awarded the work of development of TSDF for Hazardous Waste to M/s Tamil Nadu Waste Management Limited. Public Hearing for Environmental Clearance for TSDF was held on 14.07.2020 and MoEF&CC has granted Environmental Clearance vide letter dated 23.11.2020 . Consent to Establish under the Air & Water Acts has been issued by DPCC to the Project Proponent (M/s Tamil Nadu Waste Management Limited) on 31.12.2020. Work of development of TSDF for Hazardous Waste at Bawana is Under Progress &Landfill (SLF) for Hazardous Waste is expected to be completed by August, 2021 and whole TSDF including Incinerator is expected to be commissioned by December, 2021.

## VIII. Plastic Waste Management:

- Total Plastic Waste generation: 1000 TPD (Appx.)
- Registration under the Plastic Waste Management Rules, 2016 (as amended upto 2018) issued to 930 units as briefed below:
  - Recyclers : 315
  - Producers : 251
  - Manufacturers : 364

## IX. Details of Alternate Treatment Technology being adopted by the State/UT:

**In-situ Bioremediation / Phytoremediation of Sewage in Drains :**

- Integrated Drain Management Cell (IDMC) headed by Chief Secy, GNCTD has been constituted vide order dated 17.03.2020 for remediation and management of all drains of Delhi as per the orders of Hon'ble NGT in OA No.06/2012.
- IDMC is having members from all the Drain Owning Agencies (DOAs).
- Meetings of IDMC are held on regular basis and 10 Meetings have been held so far.
- DOAs have submitted / are submitting their Action Plan with time line subject to availability of fund.
- DDA, EDMC & DCB have started implementation of Action Plan.

- EDMC has also submitted action plan with estimated cost of Rs.59.70 Crore but due to financial crunch not able to proceed further. One pilot project of EDMC at Shahdara Jheel is in progress (about 70 % work completed).
- The waste water in Kushak Nala running through NDMC areas is under bio-remediation.
- SDMC has given consultancy to IIT Delhi and projected an estimated cost of Rs.129.9 Crores but due to financial crunch not able to proceed further. They have undertaken the pilot project for Phyto / Bio Remediation of Pushp Vihar drain for which tenders have been invited.
- North DMC has given consultancy to IIT Delhi .They have projected an estimated cost of Rs.53.52 Crore but not able to proceed due to crunch of fund. They have undertaken the pilot project for Phyto / Bio-Remediation of Kudesia Nallah.
- Action Plans of PWD and I&FCD are yet to be submitted. However PWD have appointed DTU as consultant.
- DDA has already submitted action plan and constructed/Constructing wetland in Yamuna flood plain in Kilokari / Maharani Bagh / Dhobhi Ghat.
- Drain Owning Agencies have been directed to start a small pilot project on some of their drains. Drain Owning Agencies have also been requested to submit Action Plan along with timelines to treat the entire length of drain under their command for management of waste water in their drains.
- Delhi Jal Board has adopted natural treatment technology to treat raw sewage for rejuvenation of existing water bodies. At present work of 50 water bodies has been awarded, where Phytorid Treatment Technology developed by CSIR-NEERI is adopted to revive existing water bodies.
- Natural Treatment Technology under the guidance of Centre for Science & Environment has been adopted to recycle waste water at the DJB office at Jal Sadan.

## X. Identification of Polluting Sources including Drains contributing to river pollution and action as per NGT order on in-situ treatment:

Refer Information provided at **IX** regarding In-situ Bioremediation / Phytoremediation of Sewage in Drains.

**Prevention of Dumping of Solid Waste in Drains :**

Directions issued by Chief Secretary vide order dated 09.01.2019 and Urban Development Department, GNCTD vide order dated 15.01.2019 for prevention of the dumping of solid waste in the drains are to be complied by all the Drain Owning Agencies in Delhi. The matter is being coordinated by the Urban Development Department, GNCTD.

## XI. Details of Nodal Officer appointed by Chief Secretary in the State/UT:

Urban Development Department, Govt of NCT of Delhi has been decided as Nodal Department for Govt of NCT of Delhi in respect of following two NGT cases related to control of pollution in river Yamuna in Delhi.

- OA NO. 06/2012 in the matter of Manoj Mishra vs. Union of India & Ors.
- OA NO. 673/2018 in the matter of News item published in 'The Hindu' Authored by Shri Jacob Khoshy Titled "More river stretches are now critically polluted: CPCB".

## XII. Details of Meetings carried under the Chairmanship of Chief Secretary in the State/UT:

The matter related to control of pollution in river Yamuna is being monitored by Chief Secretary through various meetings e.g. meetings of Integrated Drain Management Cell (IDMC) (10 meetings of IDMC were held till July, 2021), Meetings on the Interceptor Sewer Project (ISP) and Meetings related to Hon'ble NGT orders in OA No. 06/2012 in the matter of Manoj Mishra Vs. Union of India & Ors. Regarding OA No. 673/2018, the issue is also being monitored by Chief Secretary on regular basis.

**XIII. Latest Water Quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river** :

Water Quality of River Yamuna at 8 Locations for the samples collected by DPCC Water Laboratory in the Month of July, 2021 is at **Annexure-5.**

Water Quality of major Drains for the samples collected by DPCC Water Laboratory in the Month of July, 2021 is at **Annexure-6**.

Ground Water Quality near the 3 Dumpsites (Bhalaswa, Ghazipur& Okhla) and Engineered Sanitary Landfill at Bawana for the samples collected in March, 2021 has already been provided alongwith Monthly Progress Report for the month of June, 2021.

**XIV. Ground Water Regulation**:

Ground water extraction and management in NCT of Delhi is regulated as per the provisions of the Notification Dated 12.07.2010 issued by Environment Department, Govt. of NCT of Delhi. As per the said Notification, it is mandatory to take permission of the Competent Authority, i.e., DJB & NDMC (as per area of jurisdiction) prior to groundwater drawl. The Deputy Commissioner (Revenue) / District Magistrate (Revenue) of each revenue area, Govt. of NCT of Delhi, has been appointed as the "Authorized Officer" and delegated with the power of dealing with issues such as checking violation, sealing illegal wells etc, including grievance redressal related to ground water, based on the recommendations of the Advisory Committee, as constituted vide said Notification dated 12.07.2010.

The issue of illegal extraction of ground water is being overseen by Hon'ble NGT in OA No 25/2019 (Abdul Farukh Vs GNCTD and Ors). The said matter deals with closure of 19661 illegal bore wells identified / as per the list submitted by Delhi Jal Board to Hon'ble NGT. As per the decisions taken in the meeting by the Chief Secretary, GNCTD the list is to be provided by the DJB to the Revenue Department and illegal bore wells are to be sealed by the Revenue Department. DPCC is to impose Environmental Damage Compensation (EDC) based on the formula devised by CPCB for illegal extraction of ground water for different purposes.

Out of list of 19661 units provided by DJB, 7626 illegal Borewells have been sealed by Revenue Deptt. Environmental Compensation of Rs. 96.20 Lakh imposed by DPCC on 227 Units. Environmental Compensation received by DPCC is Rs. 20.40 Lakh.

**XV. Good Irrigation Practices being adopted by the State:**

Not applicable in case of NCT of Delhi since there is very less Agricultural Land available however Farmers are being made aware of the following good irrigation practices for water conservation by Development Department, Govt. of NCT of Delhi :-

1. Farmers are being advised to adopt inter-cropping and multiple-cropping to get maximum returns per unit of area and per unit of time with optimum use of water.
2. Farmers are being advised to grow crop which requires less water.
3. Farmers are being advised to adopt Sprinkler and drip irrigation system to irrigate their crops for conservation of water.
4. Farmers are being advised to use water, as per crop-wise prevailing package of practices to conserve water.
5. Farmers are being advised to conserve rain water, by adopting deep ploughing and bunding etc. of their fields for conservation of water.

## XVI. Rain Water Harvesting:

Progress of Rain Water Harvesting System installed / monitored by DJB is as under:

| S. No. | Departments | Total | Installed | Target to be installed upto 31.08.2021 |
|---|---|---|---|---|
| **1.** | DJB Installations | 594 | 588 | 06 |
| **2.** | By DJB for other Departments | 89 | 74 | 13 |
| **3.** | Monitored by DJB for other Government Departments | 5472 | 3705 | 1767 |
| **4.** | Schools | 4549 | 4142 | 407 |
| | **Total** | **10704** | **8509** | **2193** |

## XVII. Demarcation of Floodplain and Removal of Illegal Encroachments:

**(i). Demarcation of 1 in 25 years Flood Plains & Fixing up of Bollards and Fencing :**

The demarcation of 1: 25 years flood plain of River Yamuna pertains from Wazirabad to Jaitpur on both banks. 100% work for demarcation of flood plains completed. 591 Bollards (marked with GPS Coordinates), 375 Flag Posts & 27 sign boards for the entire stretch from Wazirabad barrage to Dhobighat Jaitpur have been installed.

**(ii). Engagement of Private Security to stop illegal Dumping:**

125 Security Guards have been deployed by DDA round the clock in three shifts at vulnerable points, with 4 patrolling vehicles in the Yamuna Flood Plain area from Wazirabad Barrage to Okhla Barrage to check illegal dumping of malba and to prevent encroachment. GPS monitoring of security guards & patrolling vehicles is being done.

**(iii). Installation of Electronic Surveillance System:**

81 No. CCTV cameras have been installed at 27 locations from Wazirabad Barrage to Okhla Barrage to check the illegal dumping of Malba in the Yamuna Flood Plain area. 15 CCTV cameras at 5 new locations are to be installed.

**(iv). Removal of Encroachment from the Flood Plain:**

600 Jhuggies / Chappers have been demolished and 5 Acre land has been reclaimed.

150 Jhuggies in 2 acre land could not be removed due to stay by Courts. Details of removal of encroachment by DDA is given at **Annexure-7.**

**(v). Demolition Program :**

477.79 Hectares area has been retrieved from the encroachment by DDA in the floodplains of River Yamuna.

**(vi). Removal of C&D Waste :**

36,200 metric tonnes of C&D waste lying in floodplain has been lifted to IL&FS site or utilized for development of Yamuna Project by DDA. Details of Challans issued by DDA in the period 2018 to 2021 is given at **Annexure-8.**

**(vii). Restoration and Rejuvenation of the Floodplains of River Yamuna.**

DDA is going ahead with the Restoration and rejuvenation of floodplains of River Yamuna. The complete stretch of Zone-'O' falling under the jurisdiction of DDA has been subdivided into 10 projects including the development of Bio-diversity Park near Kalindi Kunj Colony. Brief status of 10 projects taken up / to be taken up by DDA for development of Yamuna River Front (Restoration and Rejuvenation of River Yamuna Flood Plains Status as on 31.07.2021) is at **Annexure – 9.**

## XVIII. Maintaining Minimum e-flow of River:

Minimum Environmental Flow for the dilution of the polluted water in river Yamuna in Delhi is required to meet the desired water quality levels in river Yamuna for bathing purpose i.e. BOD < 3 mg/l & DO >5 mg/l.

To assess the minimum required environmental flow of river Yamuna for stretch between HathiniKund to Okhla, a comprehensive study was assigned by NMCG to National Institute of Hydrology (NIH), Roorkee on 24.12.2018.

Final Draft Report has been submitted by NIH to NMCG. E-flow of 23 cumecs in the lean season has been recommended in the NIH study. Ministry of Jal Shakti (MoJS) is to take necessary action for maintaining the E-flow as recommended in the said Report of NIH. MoJS / NMCG has observed that the water sharing agreement of 1994 among the riparian states of Uttarakhand, HP, UP, Haryana, Rajasthan and NCT Delhi is due for revision only in 2025 unless any of the states so demand implying that no revision of water sharing will be possible to achieve the E-flow in river Yamuna.

## XIX. Plantation activities along the rivers:

### (i) Details of Old Plantation at Garhi Mandu and Sonia Vihar:

- Total **384.60** ha of land has been handed over by DDA to Forest Department, Delhi in phases during the period w.e.f. 1975 to 2003 for plantation purpose.
- In **384.60 ha** of land **193,000** saplings have planted by Forest Department, Delhi.

### (ii) Details of plantations under DPTA, 1994 against tree felling permissions issued in various projects:

- Total **139.5** ha of land has been handed over by DDA to Forest Department, Delhi for the purpose in phases during the period w.e.f. 2014 to 2020 for plantation purpose.
- **139.5** ha of land planted (**165,086 tree saplings**) by Forest Department, Delhi.

### (iii) Details of plantations carried out as Compensatory Afforestation against the Forest land diverted under Compensatory Afforestation Act (FCA), 1980:

- Total **106.024 ha** of land has been handed over by DDA to Forest Department, Delhi for the plantation purpose in phases during the period w.e.f. 2014 to 2021.
- Out of **106.024** ha land, **92.174** ha of land has been afforested with **118240** plant saplings by Forest Department, Delhi.

- **Total land handed over by DDA till date = 630.124 ha**
- **The area that has been afforested till date = 616.274 ha**

## XX. Development of Biodiversity Park (on Yamuna Flood Plain) :

- **Yamuna Biodiversity Park is already existing** and located in JagatpurKhadar Yamuna Flood Plains in 9770 Hectares (upstream of Wazirabad).
- **South Biodiversity Park is being developed by Delhi Development Authority in the 115 Hectares area in Yamuna Flood Plains near Kalindi Colony.** The project has been awarded to CEMDE on 13.12.2019 and the work is under progress. 6 out of 9 wetlands have been completed. The balance 3 wetlands will be completed soon. Following works have been done under the said project :

  - **Greenway and recreational park development**:

    A small stretch of 500 m long and 10 m wide stripe along the Ashram Road has been planted with 300 plants. A large solid waste dump behind the Kalindi Colony has been landscaped and this is being developed into a recreational park.

- **Development of Nature Trails:**

  Two nature trails - one trail from Ashram Road to DND Flyover has been made; both sides of this nature trail are being developed into a greenway.

- **Development of Terrestrial Communities:**

  About 20 Hectare of elevated portion beneath the DND flyover has been processed for planting 15000 saplings of native trees. 3-5 in-situ constructed wetland system are to be taken up for treatment of sewage water entering into wetlands and finally into river Yamuna.

## XXI. Reuse of Treated Water:

Action Plan for use of treated waste water form STPs has been prepared by Delhi Jal Board and submitted to CPCB in compliance of the Orders of Hon'ble NGT dated 21.05.2020 & 21.09.2020 in OA No. 148/2016 in the matter of Mahesh Chandra Saxena Vs. South Delhi Municipal Corporation & Ors.

Out of about 514 MGD of treated waste water from STPs about 90 MGD is being used for various purpose e.g. Horticulture, Irrigation, DTC Depot etc.

**Progress on better utilisation of treated waste water**

The DJB has made continues efforts for better utilization of treated wastewater, which are mentioned as below:-

1. DJB has written letters to respective stakeholders/ park owning agencies dated 23/5/2019 followed by reminders dated 11/6/2019, 17/6/2019, 21/6/2019, 16/7/2019 & 19/7/2019 requesting them to start taking treated effluent from STPs of DJB for their parks within the radius of 5 KM of STP by tankers as an interim arrangement as desired by the monitoring committee. DJB has installed filling points at its all major STPs for filling the tankers. CEO DJB vide letter dated 28.12.2020 has also requested stakeholders to utilize the treated effluent through tankers in parks within 5 Kms radius of STP.
2. Notice were issued to DDA, NDMC, Municipal Corporations, CPWD, DMRC, PWD, DUSIB to submit ATR to Monitoring Committee to utilize treated effluent in their parks within 5 km radius of STPs filling points.
3. DJB has requested vide letter dated 5/9/2019 all District Magistrates to seal the bore well in parks which are used for horticulture purposes. Reminders dated 7/10/2019, 11/11/2019 & 25/11/2019 were issued to District Magistrates to seal the bore well in parks used for horticulture purposes.
4. Another request was sent to Divisional Commissioner vide letter dated 29.10.2020 for issuance of suitable directions to respective District Magistrates to initiate/expedite sealing of bore wells in the parks where treated effluent from nearby STPs is not being used. CEO DJB vide letter dated 28.12.2020 has also asked Divisional Commissioner & District Magistrates to seal the borewells in the parks where treated effluent from nearby STPs is not being used.
5. As requested by the UD Deptt. vide letter dated 25.11.2020 , list of parks where bore wells were being used for horticulture purposes was sent to the District Magistrates on 26.11.2020 for sealing of bore wells.

**Number of Tankers Deployed:**

**The details of tanker deployment by various stakeholders departments during the month of July, 2021 are as under:-**

| Agency | No. of tankers engaged |
|---|---|
| DTC | 08 |
| PWD | 73 |
| EDMC | 36 |
| IL & FS | 01 |
| DDA | 17 |
| Private Agencies | 115 |
| SDMC | 12 |
| AAI | 09 |
| Forest Department | 16 |
| DMRC | 02 |
| CPWD | 05 |
| M/s L&T | 09 |
| NBCC | 06 |
| DJB internal Horticulture use | 06 |
| North DMC | 04 |
| **TOTAL** | **319** |

**Order dated 25.02.2021 of Hon'ble National Green Tribunal in OA No. 386/2017 in the matter of "Rear Admiral A P Revi IN (Retd.) Vs Delhi Jal Board & Ors." regarding use of treated water for gardening in public parks** :

Operative part of the said order is reproduced below :

"We are of the view that even though the steps are reported to have been taken, the matter needs to be taken forward, after due consideration of the objections of the applicant to ensure that fresh water is not used for gardening in public parks by the DDA and the South Delhi Municipal Corporation and instead only treated water is so used. The order of this Tribunal dated 27.01.2021 in OA No. 6/2012, Manoj Mishra v. Union of India & Ors. approving the recommendations of the Yamuna Monitoring Committee may be duly followed. The DJB may ensure supply of such treated water with adequate pressure and wherever piped supply is not available, supply may be ensured by tankers. DPCC may monitor similar action by other agencies in Delhi owning parks and by bulk users, including other Municipal Corporations for adopting similar course of action to save drinking water for drinking purposes to fulfil basic need of maximum people. This may be overseen by the Secretary, Environment, Delhi."

In view of the above said order of Hon'ble NGT, DPCC sent a letter on 09.03.2021 to all the park Owning Agencies & concerned Authorities to take necessary action w.r.t said order of Hon'ble NGT and ensure that only treated water [from Sewage Treatment Plants (STPs) etc ] is used in the parks under the jurisdiction of their departments and fresh water is not used for gardening in public parks.

All the concerned Departments / Agencies have also been requested to nominate concerned Senior Officer as Nodal Officer & provide information regarding use of treated water in the Parks / Bulk Use on monthly basis to DPCC.

As informed by Delhi Jal Board, a meeting was held on 13.04.2021 through Video Conferencing regarding Hon'ble NGT order dated 26.03.2021 in OA no 06/2012 in MA no 25/2021 titled Manoj Mishra Vs South Delhi Municipal Corporation & Union of India & Ors under chairmanship of Chief Secretary, Delhi. After detailed deliberations and discussions on the various aspects of the

issue, Chief Secretary Delhi, directed that a long term perspective plan should be prepared for the optimum use of treated effluent in Delhi, which must include the maximum utilization of treated water for horticulture purpose including the coverage of all parks and gardens in Delhi, to replace the extraction of precious ground water through bore-wells for this purpose. In this regard, Delhi Jal Board shall carry out the survey, preparation of DPR, cost estimates, etc. of the complete scheme by providing piped network up to each park. Accordingly M/s WAPCOS has been directed to submit the revised proposal for feeding through pipe line network up-to all parks provided by the stakeholders. M/s WAPCOS Ltd have submitted its offer for the consultancy work which is under approval of the competent authority

**XXII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards:**

In case of Delhi there is only one river i.e. Yamuna river and efforts are being made to comply with the directions of Hon'ble NGT in OA No. 673/2018 & OA No. 06/2012 in the matter of Manoj Mishra Vs. Union of India & others.

In absence of minimum Environmental Flow of river Yamuna in Delhi it is very difficult to achieve the bathing quality standards.

**XXIII. Status of Preparation of Action Plan by the 13 Coastal States**: Not applicable in case of Delhi

**XXIV. Regulation of Mining Activities in the State/UT**: Not applicable in case of Delhi

**XXV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring:**

DPCC takes action against the violating Industries/ Units including Water Polluting Industries /Units and imposes Environmental Compensation (EC) on the Polluter Pays Principle. Action taken by DPCC against the Industries / Units and Environmental Compensation (EC) imposed was informed to the Hon'ble Tribunal vide Action Taken Report filed before the Tribunal on 01.08.2019, 10.12.2019 & 13.05.2020.

Action was taken against 1160 Water Polluting Industries / Units in the period of 01.01.2020 to 31.03.2021 including action taken against 34 Water Polluting Industries / Units in the month of March, 2021.

Show Cause Notices were issued by DPCC u/s 33(A) of Water Act to 393 Water Polluting Industries / Units and Directions for Closure u/s 33(A) of Water Act were issued to 767 Water Polluting Industries / Units in the period of 01.01.2020 to 31.03.2021. Environmental Compensation of Rs. 27.36 Crore was imposed and Rs. 2.81 Crore was received in the said period.

DPCC has issued directions for closure to 1065 water polluting industries/ units in the 17 industrial areas connected to the 13 CETPs in first week of July, 2021.

Action was taken against 210 Water Polluting Industries / Units in the month of July, 2021.

Environmental Compensation of Rs.41 Lakh was imposed and Rs. 7.625 Lakh was received in the month of July, 2021.

**Brief of Analysis Reports (Compliance Status) in respect of Functional STPs of Delhi Jal Board for the month of July, 2021** **Annexure-1**

| S. No. | Name of STP | Capacity (in MGD) | Existing STP Capacity (in MLD) | Capacity Being Utilized (in MLD) | Design Parameters BOD/TSS ( in mg/l) | Date of Sampling | Brief of Analysis Reports (Compliance status) [**Prescribed Standards by DPCC :** *pH - 6.5 - 9.0, , TSS≤ 10 mg/l,BOD ≤ 10 mg/l , COD ≤ 50 mg/l, Ammonical Nitrogen≤ 5mg/l, Total Nitrogen (N-Total ) ≤ 10 mg/l, Phosphate ($PO_4$ - P)≤ 2 mg/l , Fecal Coliform(FC) (MPN/100ml)< 230*] | Compliance w.r.t. Design parameters |
|---|---|---|---|---|---|---|---|---|
| **1** | Mehrauli | 5 | 22.73 | 18.8 | 20/30 | 15.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (18 mg/l against the prescribed standard of ≤ 10 mg/l) and COD (54 mg/l against the prescribed standard of ≤50 mg/l)** | Yes |
| **2** | Okhla Phase – II | 12 | 54.552 | 29.5 | 30/50 | 12.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (16 mg/l against the prescribed standard of ≤ 10 mg/l), BOD (14 mg/l against the prescribed standard of ≤ 10 mg/l), COD (62 mg/l against the prescribed standard of ≤50 mg/l) and Ammonical Nitrogen (6.60 mg/l against the prescribed standard of ≤5 mg/l)** | Yes |
| **3** | Okhla Phase – III | 37 | 168.20 | 130 | 30/50 | 12.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (18 mg/l against the prescribed standard of ≤ 10 mg/l). BOD (22 mg/l against the prescribed standard of ≤ 10 mg/l), COD (108 mg/l against the prescribed standard of ≤ 50 mg/l) and Ammonical Nitrogen (6.40 mg/l against the prescribed standard of ≤ 5 mg/l)** | Yes |
| **4** | Okhla Phase – IV | 45 | 204.57 | 175 | 30/50 | 12.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (20 mg/l against the prescribed standard of ≤ 10 mg/l), COD (88 mg/l against the prescribed standard of ≤ 50 mg/l) and BOD (18 mg/l against the prescribed standard of ≤ 10 mg/l)** | Yes |
| **5** | Okhla Phase – V | 16 | 72.73 | 60 | 30/50 | 12.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (32 mg/l against the prescribed standard of ≤ 10 mg/l) COD (102 mg/l against the prescribed standard of ≤ 50 mg/1), BOD (20 mg/l against the prescribed standard of ≤ 10 mg/l) and Dissolved Phosphate as P (3 mg/l against the prescribed standard of ≤ 2 mg/l)** | Yes |

**Brief of Analysis Reports (Compliance Status) in respect of Functional STPs of Delhi Jal Board for the month of July, 2021** **Annexure-1**

| S. No. | Name of STP | Capacity (in MGD) | Existing STP Capacity (in MLD) | Capacity Being Utilized (in MLD) | Design Parameters BOD/TSS ( in mg/l) | Date of Sampling | Brief of Analysis Reports (Compliance status) [Prescribed Standards by DPCC : *pH - 6.5 - 9.0, , TSS ≤ 10 mg/l , BOD ≤ 10 mg/l , COD ≤ 50 mg/l, Ammonical Nitrogen ≤ 5mg/l, Total Nitrogen (N-Total ) ≤ 10 mg/l, Phosphate ($PO_4$ - P) ≤ 2 mg/l , Fecal Coliform(FC) (MPN / 100 ml) < 230* ] | Compliance w.r.t. Design parameters |
|---|---|---|---|---|---|---|---|---|
| **6** | Okhla Phase – VI | 30 | 136.38 | 130 | 20/30 | 12.07.2021 | Meeting the Prescribed standards. | Yes |
| **7** | Molarband | 0.66 | 03 | 2.45 | 30/50 | 12.07.2021 | Sample could not be taken since found non operational. | - |
| **8** | **Dr.Sen Nursing Home Nalla** | 2.2 | 10 | 10 | **10/15** | 05.07.2021 | Meeting the Prescribed standards. | Yes |
| **9** | VasantKunj Phase – I | 2.2 | 10 | 7.5 | 30/50 | 15.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (36 mg/l against the prescribed standard of ≤ 10 mg/1), COD (74 mg/l against the prescribed standard of ≤50 mg/l), BOD (32 mg/l against the prescribed standard of 10 mg/l), Ammonical Nitrogen (11.20 mg/l against the prescribed standard of ≤5 mg/l) and Dissolved Phosphate as P (2.10 mg/l against the prescribed standard of ≤2 mg/l)** | No |
| **10** | VasantKunj Phase – II | 3 | 13.64 | 7.90 | 30/50 | 15.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (22 mg/l against the prescribed standard of ≤10 mg/1), COD (88 mg/l against the prescribed standard of ≤50 mg/l), BOD (28 mg/l against the prescribed standard of ≤10 mg/l) and Dissolved Phosphate as P (2.60 mg/l against the prescribed standard of ≤2 mg/l)** | Yes |
| **11** | Ghitorni | 5 | 22.73 | 6.8 | 30/50 | - | Sample could not be taken. | - |
| **12** | **Delhi Gate Nalla Phase – I** | 2.2 | 10 | 10 | **10/15** | 05.07.2021 | Meeting the Prescribed standards. | Yes |

**Brief of Analysis Reports (Compliance Status) in respect of Functional STPs of Delhi Jal Board for the month of July, 2021** **Annexure-1**

| S. No. | Name of STP | Capacity (in MGD) | Existing STP Capacity (in MLD) | Capacity Being Utilized (in MLD) | Design Parameters BOD/TSS ( in mg/l) | Date of Sampling | Brief of Analysis Reports (Compliance status) [**Prescribed Standards by DPCC :** *pH - 6.5 - 9.0, , TSS ≤ 10 mg/l , BOD ≤ 10 mg/l , COD ≤ 50 mg/l, Ammonical Nitrogen ≤ 5mg/l, Total Nitrogen (N-Total ) ≤ 10 mg/l, Phosphate ($PO_4$ - P) ≤ 2 mg/l , Fecal Coliform(FC) (MPN / 100 ml) < 230* ] | Compliance w.r.t. Design parameters |
|---|---|---|---|---|---|---|---|---|
| **13** | **Delhi Gate Nalla Phase – II** | 15 | 68.20 | 68.20 | **10/10** | 05.07.2021 | Meeting the Prescribed standards. | Yes |
| **14** | Kondli Phase – II | 25 | 113.65 | 116.62 | 30/50 | 09.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (20 mg/l against the prescribed standard of ≤ 10 mg/1). COD (78 mg/l against the prescribed standard of ≤ 50 mg/l), and BOD (24 mg/l against the prescribed standard of ≤ 10 mg/l)** | Yes |
| **15** | Kondli Phase – IV | 45 | 204.57 | 227.18 | 20/30 | 09.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (60 mg/l against the prescribed standard of ≤ 10 mg/1). COD (204 mg/l against the prescribed standard of ≤ 50 mg/l), BOD (42 mg/l against the prescribed standard of ≤ 10 mg/l, Ammonical Nitrogen (14.10 mg/l against the prescribed standard of ≤ 5 mg/l) and Dissolved Phosphate as P (4.60 mg/l against the prescribed standard of ≤2 mg/l)** | **No** |
| **16** | **Chilla** | 9 | 40.91 | 42.51 | **10/10** | 09.07.2021 | Meeting the prescribed standards. | Yes |
| **17** | Yamuna Vihar Phase – I | 10 | 45.46 | 44.85 | 30/50 | 29.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (20 mg/l against the prescribed standard of ≤10 mg/I) COD (82 mg/l against the prescribed standard of ≤ 50 mg/1), BOD (24 mg/l against the prescribed standard of 10 mg/1), Ammonical Nitrogen (18.60 mg/l against the prescribed standard of ≤5 mg/l) and Dissolved. Phosphate as P (4.60 mg/l against the prescribed standard of ≤2 mg/l)** | Yes |

**Brief of Analysis Reports (Compliance Status) in respect of Functional STPs of Delhi Jal Board for the month of July, 2021** **Annexure-1**

| S. No. | Name of STP | Capacity (in MGD) | Existing STP Capacity (in MLD) | Capacity Being Utilized (in MLD) | Design Parameters BOD/TSS ( in mg/l) | Date of Sampling | Brief of Analysis Reports (Compliance status) [**Prescribed Standards by DPCC :** *pH - 6.5 - 9.0, , TSS ≤ 10 mg/l , BOD ≤ 10 mg/l , COD ≤ 50 mg/l, Ammonical Nitrogen ≤ 5mg/l, Total Nitrogen (N-Total ) ≤ 10 mg/l, Phosphate ($PO_4$ - P) ≤ 2 mg/l , Fecal Coliform(FC) (MPN / 100 ml) < 230* ] | Compliance w.r.t. Design parameters |
|---|---|---|---|---|---|---|---|---|
| **18** | Yamuna Vihar Phase – II | 10 | 45.46 | 44.31 | 30/50 | 29.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (38 mg/l against the prescribed standard of ≤ 10 mg/1). COD (86 mg/l against the prescribed standard of ≤ 50 mg/l), BOD (24 mg/l against the prescribed standard of 10 mg/1), Ammonical Nitrogen (8.11 mg/l against the prescribed standard of ≤5 mg/l) and Dissolved Phosphate as P (4.60 mg/l against the prescribed standard of ≤2 mg/l)** | Yes |
| **19** | Yamuna Vihar Phase – III | 25 | 113.65 | 139.52 | 20/30 | 29.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (26 mg/l against the prescribed standard of ≤ 10 mg/l), COD (92 mg/l against the prescribed standard of ≤ 50 mg/l), and BOD (20 mg/l against the prescribed standard of ≤ 10mg /l** | Yes |
| **20** | **Common Wealth Games Village** | 1 | 4.55 | 0.50 | **02/01** | 09.07.2021 | Meeting the prescribed standards. | Yes |
| **21** | Coronation Pillar Phase – I & II | 20 | 90.92 | 88.53 | 30/50 | 07.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (38 mg/l against the prescribed standard of ≤ 10 mg/1), BOD (36 mg/l against the prescribed standard of ≤ 10 mg/l),COD (96 mg/l against the prescribed standard of ≤ 50 mg/l) and Ammonical Nitrogen (11.20 mg/l against the prescribed standard of ≤ 5 mg/l)** | **No** |

**Brief of Analysis Reports (Compliance Status) in respect of Functional STPs of Delhi Jal Board for the month of July, 2021** **Annexure-1**

| S. No. | Name of STP | Capacity (in MGD) | Existing STP Capacity (in MLD) | Capacity Being Utilized (in MLD) | Design Parameters BOD/TSS ( in mg/l) | Date of Sampling | Brief of Analysis Reports (Compliance status) [**Prescribed Standards by DPCC :** *pH - 6.5 - 9.0, , TSS ≤ 10 mg/l , BOD ≤ 10 mg/l , COD ≤ 50 mg/l, Ammonical Nitrogen ≤ 5mg/l, Total Nitrogen (N-Total ) ≤ 10 mg/l, Phosphate ($PO_4$ - P) ≤ 2 mg/l , Fecal Coliform(FC) (MPN / 100 ml) < 230* ] | Compliance w.r.t. Design parameters |
|---|---|---|---|---|---|---|---|---|
| **22** | Coronation Pillar Phase – III | 10 | 45.46 | 38.59 | 30/50 | 07.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (58 mg/l against the prescribed standard of ≤ 10 mg/l) , BOD (38 mg/l against the prescribed standard of ≤ 10 mg/l), COD (126 mg/l against the prescribed standard of ≤ 50 mg/l), Ammonical Nitrogen (20.10 mg/l against the prescribed standard of ≤ 5 mg/l) and Dissolved Phosphate as P (5.20 mg/l against the prescribed standard of ≤2 mg/l)** | **No** |
| **23** | Narela | 10 | 45.46 | 18.16 | 30/50 | 27.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (16 mg/l against the prescribed standard of ≤ 10 mg/l)** | Yes |
| **24** | Rithala Phase – I | 20 | 90.92 | Not Operational | 30/50 | 06.07.2021 | **STP not operational since under Rehabilitation/ Upgradation.** | - |
| **25** | Rithala Phase –II | 40 | 181.60 | 186.14 | 15/20 | 06.07.2021 | **Not Meeting the Prescribed standard in respect of BOD (12 mg/l against the prescribed standard of ≤ 10mg/1).** | Yes |
| **26** | Rohini | 15 | 68.19 | 22.70 | 30/50 | 06.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (20 mg/l against the prescribed standard of ≤ 10 mg/l), COD (106 mg/l against the prescribed standard of ≤ 50 mg/l), BOD (30 mg/l against the prescribed standard 1of ≤ 10mg /l Ammonical Nitrogen (9.00 mg/l against the prescribed standard of ≤ 5 mg/l) and Dissolved Phosphate as P (2.60 mg/l against the prescribed standard of ≤ 2 mg/l)** | Yes |
| **27** | Keshopur New (Phase I) | 12 | 54.55 | 54.48 | 20/30 | 06.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (12 mg/l against the prescribed standard of ≤ 10 mg/1), COD (56 mg/l against the prescribed standard of ≤ 50** | Yes |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | **mg/1), BOD (14 mg/l against the prescribed standard of 10 mg/l) and Dissolved Phosphate as P (2.60 mg/l against the prescribed standard of ≤2 mg/l)** | |
| **28** | Keshopur Phase–II | 20 | 90.92 | 95.34 | 30/50 | 06.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (34 mg/l against the prescribed standard of ≤ 10 mg/l), COD (172 mg/l against the prescribed standard of ≤ 50 mg/l), BOD (58 mg/l against the prescribed standard of ≤10mg / 1 , Ammonical Nitrogen (16.20 mg/l against the prescribed standard of ≤5 mg/l) and Dissolved Phosphate as P (2.80 mg/l against the prescribed standard of ≤2 mg/l)** | **No** |
| **29** | Keshopur Phase–III | 40 | 181.84 | 186.14 | 30/50 | 06.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (78 mg/l against the prescribed standard of ≤ 10 mg/l), COD (206 mg/l against the prescribed standard of ≤ 50 mg/1), BOD (72 mg/l against the prescribed standard of ≤ 10 mg/l), Ammonical Nitrogen (14.10 mg/l against the prescribed standard of ≤5 mg/l) and Dissolved Phosphate as P (3.40 mg/l against the prescribed standard of ≤ 2 mg/l)** | **No** |
| **30** | Nilothi Phase – I | 40 | 181.84 | 68.1 | 30/50 | 28.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (40 mg/l against the prescribed standard of ≤ 10 mg/l), BOD (22 mg/l against the prescribed standard of ≤ 10 mg/1) COD (108 mg/l against the prescribed standard of ≤ 50 mg/l) and Ammonical Nitrogen (8.46 mg/l against the prescribed standard of ≤5 mg/l)** | Yes |
| **31** | **Nilothi Phase – II** | 20 | 90.92 | 88.53 | **10/10** | 28.07.2021 | Meeting the Prescribed standards. | Yes |
| **32** | Pappankala Phase– I | 20 | 90.92 | 108.96 | 30/50 | 14.07.2021 | Meeting the Prescribed standards. | Yes |
| **33** | **Pappankala Phase Phase – II** | 20 | 90.92 | 90.8 | **10/10** | 14.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (78 mg/l against the prescribed standard of ≤ 10 mg/1). BOD (45 mg/l against the prescribed standard of ≤10 mg/1),COD(138 mg/l against the prescribed standard of** | **No** |

**Brief of Analysis Reports (Compliance Status) in respect of Functional STPs of Delhi Jal Board for the month of July, 2021** **Annexure-1**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | **≤50 mg/l, Ammonical Nitrogen (6.80 mg/l against the prescribed standard of ≤5 mg/l) and Dissolved Phosphate as P (2.10 mg/l against the prescribed standard of ≤2 mg/l)** | |
| **34** | Najafgarh | 5 | 22.73 | 11.35 | 30/50 | 14.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (126 mg/l against the prescribed standard of ≤ 10 mg/1), COD (181 mg/l against the prescribed standard of ≤ 50 mg/1), BOD (80 mg/l against the prescribed standard of ≤ 10 mg/l, Ammonical Nitrogen (9.20 mg/l against the prescribed standard of ≤5 mg/l) and Dissolved Phosphate as P (3.80 mg/l against the prescribed standard of ≤ 2 mg/l)** | **No** |
| **35** | **Kapashera** | 5 | 22.73 | 8.17 | **10/10** | 15.07.2021 | **Not Meeting the Prescribed standard in respect of TSS (22 mg/l against the prescribed standard of ≤ 10 mg/l), COD (58 mg/l against the prescribed standard of ≤50 mg/l) and BOD (14 mg/l against the prescribed standard of ≤ 10 mg/l)** | **No** |
| | **Total** | | **2715.14 (in MLD)** | **2337.63 (in MLD)** | | | | |

**Note:-1.** As per the Analysis Reports of DPCC Water Laboratory for July, 2021, out of 34 operational STPs of DJB, 8 STPs were found meeting the standards prescribed by DPCC.

**2.** 23 STPs were found meeting the Design parameters (BOD/TSS).

**Status of 18 Major Drains Directly Out Falling into River Yamuna (As per the Information provided by DJB)** **ANNEXURE- 2**

| S. No. | Name of Drain | Discharge (MLD) | Status | Remarks |
|---|---|---|---|---|
| **1.** | Magazine Road Drain | 7.8 (1.72 MGD) | Trap Completed. | Pollution in River Yamuna from this drain stopped. |
| **2.** | Sweeper Colony Drain | 8.6(1.89 MGD) | Trap Completed. | ---- Do-- |
| **3.** | Khyber Pass Drain | 1.7(0.37 MGD) | Trap Completed. | ---- Do-- |
| **4.** | Metcalf House Drain | 17.25(3.80 MGD) | Trap Completed. | ---- Do-- |
| **5.** | Tonga Stand Drain | 7.8(1.72 MGD) | Trap Completed. | There is small discharge from the local settlements downstream of trapping points for which it is proposed to trap and pump the same to the nearby sewer line. |
| **6.** | Moat Drain(Vijay Ghat) | Dry | Trap Completed. Dry drain | ---- Do-- |
| **7.** | Civil Military Drain | 14.68(3.23 MGD) | Trap Completed. | ---- Do-- |
| **8.** | Delhi Gate Drain | 75.16(16.55 MGD) | Trap Completed. | ---- Do-- |
| **9.** | Drain No 14 | 25.87(5.70 MGD) | Trap Completed. | ---- Do-- |
| **10.** | Tughlaqabad Drain | 25.05(5.51 MGD) | Trap Completed. | ---- Do-- |
| **11.** | Kalkaji Drain | Merged with Tuglakabad Drain | Trap Completed. | ---- Do-- |
| **12.** | Tehkhand Drain | 39.74(8.75 MGD) | Trap Completed. | ---- Do-- |
| **13.** | Sen Nursing Home Drain | 43.20(9.51 MGD) | Trap Completed.<br>However, overflow was observed from the gates on Sen Nursing Home Nallah installed by the agency operating the STP. | This drain is trapped into Dr Sen Nursing Home STP of Delhi as well as into the ring road trunk sewer. Some marginal flow passes/overflow. To stop this marginal flow permanent RCC Weir was being constructed to completely stop the overflow. However, the work was stopped by South DMC and the constructed structure was completely demolished by SDMC in the month of July 2020 due to the reason that it caused obstruction to the flow during the monsoon, wherein WHO building was flooded. |
| **14.** | QudsiaBagh+ Morigate Drain | 43.2(9.51 MGD) | Land identified but is in O zone. DDA allotted the land. Cost of land demanded is on higher side. Matter is being taken with DDA to allot land either free of cost or at nominal rates. | Due to combined and old mixed sewerage and storm water system in the area, the two cannot be separated and hence there is requirement of separate STP. Land allotted in O-zone. Cost of land demanded is on higher side. Matter is being taken with DDA to allot land either free of cost or at nominal rates. Time line :-Completion period is 3 years after handing over of land by DDA.. |
| **15.** | Barapulah Drain | 145.15(31.97 MGD) | The short term & medium term plans have been completed and has resulted in trapping of 79.42 MLD (17.47 MGD) of sewage into sewerage system for treatment through Okhla STP. The long term plan is under implementation and is expected to be completed by 30.09.2022 which will | |

| | | | | |
|---|---|---|---|---|
| | | | further trap 28.18 MLD(6.2 MGD) sewage.<br>DJB is also undertaking works for trapping of sewage as per the report of expert member of Monitoring Committee and it is proposed to trap the flow in Kushak drain at Andrews Ganj Pumping station. The work of Trapping has been completed .Further, the sewer rehabilitation works are also under implementation at Munirka, Sarai Kale Khan, Saket etc. All these measures are expected to be completed by 30.08.2021 which will reduce about 45.46 MLD (10 MGD) flow in the Barapulla Drain. The remaining flow is expected to be around 68.91 to 90.92 MLD (15 to 20 MGD) for which a STP of 90.1 MLD (20 MGD) will be constructed before outfall into the Yamuna.<br>Construction of STP at the mouth of the drain is required for which the land is to be provided by DDA. At Barapullah outfall, 20 Acre land has been allocated by DDA vide its letter dated 09.03.2021 with the demand of Rs. 145.25 Crores.<br>Since, the cost of land is on very higher side, alternative techno- economical options was explored, Accordingly alternative scheme is being framed by Intercepting Barapullah drain and conveying the flow through micro tunneling to the proposed Batla House SPS and further pumping to Okhla STP where capacity is available. The timelines for alternative scheme are as under :-<br>1. Administrative approval – August, 2021<br>2. Appointment of consultant & Preparation of DPR- December, 2021<br>3. Award of Work – March, 2022<br>4. Completion – December, 2023. | |
| **16.** | Maharani Bagh Drain | 30.24(6.66 MGD) | 1. The work of trapping has been completed to partially trap the flow to the extent of 9-10 MLD in C.V. Raman Marg Trunk sewer. | |

| | | | | |
|---|---|---|---|---|
| | | | 2. For balance flow alternative scheme is being framed by Intercepting Barapullah drain, Maharani Bagh Drain and conveying the flow through micro tunneling to the proposed Batla House SPS and further pumping to Okhla STP where capacity is available. The timelines for alternative scheme are as under :-<br>1. Administrative approval – August, 2021<br>2. Appointment of consultant & Preparation of DPR- December, 2021<br>3. Award of Work – March, 2022<br>4. Completion – December, 2023. | |
| **17.** | Najafgarh Drain | 2056.32 (452.9 MGD) | Work is in progress. | This is a large drain having flow about 450 MGD and hence, it cannot be trapped technically. However, its major 77 tributaries including 28 tributaries on Supplementary drain (172MGD) are being trapped in ISP.There is about 453 MGD flow in the Najafgarh drain. Out of this at present 252 MGD comprises of treated effluent from STPs. From Haryana, untreated discharge of 105 MGD is being discharged through Badshahpur and DD-6 drains. |
| **18.** | Shahdara Outfall Drain | 475.2(104.66 MGD) | Work is in progress. | This is a large drain having flow about 105 MGD and hence it cannot be trapped technically. However, its 31 major tributaries (70 MGD) are being trapped in ISP.<br>Total discharge in Shahdara drain is about 105 MGD, out of which 50 MGD (i.e. 45%) is untreated sewage is being discharged by UP through Shahibabad, Indirapuri and Banthala drain. |

# Brief Status of Common Effluent Treatment Plants (CETPs) in Delhi
# (Based on the Analysis Reports of DPCC Laboratory for the Month of July, 2021)

**Annexure -3**

| S. No. | Name of CETP | Industrial Areas Connected with CETP | Capacity (in MLD) | Date of Sampling | Influent Quality at Inlet (in mg/l) | Effluent Quality at Outlet (in mg/l) | Brief of Analysis Report (For Treated Effluent) | Action Taken |
|---|---|---|---|---|---|---|---|---|
| 1 | **Jhilmil CETP** | Jhilmil and Friends Colony Indl. Areas | **16.8** | 29.07.2021 | pH - 6.85<br>TSS - 460<br>COD - 352<br>BOD - 150<br>Cl – 1389<br>$SO_4$ – 588<br>Oil & Grease – 22.8<br>TDS - 1630<br>Ammonical Nitrogen (N) – 15.3<br>Sulphide – 6.4 | pH - 7.46<br>TSS - 60<br>COD - 112<br>BOD - 27<br>Cl – 1091<br>$SO_4$ – 184<br>Oil & Grease – 3.2<br>TDS - 1580<br>Ammonical Nitrogen (N) – 5.6<br>Sulphide – 1.6 | **Not meeting the Prescribed Standard in respect of Chloride (1091 mg/l against Prescribed Standard of 1000 mg/l)** | Letter issued to the CETP Societies on 19.08.2021 enclosing effluent Analysis Report of DPCC Laboratory with the direction to take necessary rectification measures to meet prescribed Treated Effluent Standards notified by MOEF&CC and send the Action Taken/Compliance Report along with rectification measures taken within 15 days. |
| 2 | **Badli CETP** | Badli Industrial Estate | **12** | 27.07.2021 | pH - 6.45<br>TSS - 40<br>COD - 432<br>BOD - 60<br>Cl – 1067<br>$SO_4$ – 101<br>Oil & Grease -8.4<br>TDS - 1230<br>Ammonical Nitrogen (N) – 53.8<br>Sulphide – 5.6 | pH - 7.42<br>TSS - 42<br>COD - 80<br>BOD - 35<br>Cl – 456<br>$SO_4$ – 64.3<br>Oil & Grease – 6.4<br>TDS - 980<br>Ammonical Nitrogen(N) – 38.02<br>Sulphide – 2.0 | **Not meeting the Prescribed Standard in respect of BOD (35 mg/l against Prescribed Standard of 30 mg/l)** | |
| 3 | **Mayapuri CETP** | Mayapuri Indl. Area | **12** | 05.07.2021 | pH - 7.44<br>TSS - 396<br>COD - 456<br>BOD - 42<br>Cl – 1091<br>$SO_4$ – 22.9<br>Oil & Grease -8.8<br>TDS - 1720<br>Ammonical Nitrogen (N) -19.4<br>Sulphide – 10<br>Pb -0.54 | pH -7.40<br>TSS - 40<br>COD - 108<br>BOD - 35<br>Cl – 744.5<br>$SO_4$ – 19.3<br>Oil & Grease -2.4<br>TDS - 1520<br>Ammonical Nitrogen (N)– 5.1<br>Sulphide – 3.4<br>Pb -0.51 | **Not meeting the Prescribed Standard in respect of BOD (35 mg/l against Prescribed Standard of 30 mg/l), Sulphide (3.4 mg/l against Prescribed Standard of 2 mg/l) and of Pb (0.51 mg/l against Prescribed Standard of 0.1 mg/l).** | |

## Brief Status of Common Effluent Treatment Plants (CETPs) in Delhi
## (Based on the Analysis Reports of DPCC Laboratory for the Month of July, 2021)

**Annexure -3**

| S. No. | Name of CETP | Industrial Areas Connected with CETP | Capacity (in MLD) | Date of Sampling | Influent Quality at Inlet (in mg/l) | Effluent Quality at Outlet (in mg/l) | Brief of Analysis Report (For Treated Effluent) | Action Taken |
|---|---|---|---|---|---|---|---|---|
| **4** | **Mangolpuri CETP** | Mangolpuri Indl. Area | **2.4** | 07.07.2021 | pH - 7.32<br>TSS - 448<br>COD - 432<br>BOD - 75<br>Cl – 3027<br>$SO_4$ – 42.6<br>Oil & Grease -10.4<br>TDS - 2500<br>Ammonical Nitrogen (N)-33.1<br>Sulphide – 15.2<br>Pb – 0.6 | pH - 7.76<br>TSS - 120<br>COD - 104<br>BOD - 25<br>Cl – 1389<br>$SO_4$ – 25.4<br>Oil & Grease -3.8<br>TDS - 1760<br>Ammonical Nitrogen (N) -0.15<br>Sulphide – 4.4<br>Pb – 0.5 | **Not meeting the Prescribed Standard in respect of TSS (120 mg/l against Prescribed Standard of 100 mg/l), Sulphide (4.4 mg/l against Prescribed Standard of 2 mg/l) and of Pb (0.5 mg/l against Prescribed Standard of 0.1 mg/l).** | Letter issued to the CETP Societies on 19.08.2021 enclosing effluent Analysis Report of DPCC Laboratory with the direction to take necessary rectification measures to meet prescribed Treated Effluent Standards notified by MOEF&CC and send the Action Taken/Compliance Report along with rectification measures taken within 15 days. |
| **5** | **Wazirpur CETP** | Wazirpur Indl Area | **24** | 13.07.2021 | pH - 3.98<br>TSS -240<br>COD - 325<br>BOD - 120<br>Cl – 943<br>$SO_4$ – 25.5<br>Oil & Grease -9.6<br>TDS - 1640<br>Ammonical Nitrogen (N) -48.48<br>Sulphide – 8.4<br>Pb – 0.7 | pH - 6.84<br>TSS - 54<br>COD - 84<br>BOD - 24<br>Cl – 843<br>$SO_4$ – 6<br>Oil & Grease -1.8<br>TDS - 1300<br>Ammonical Nitrogen (N) -15.2<br>Sulphide – 6<br>Pb – 0.6 | **Not meeting the Prescribed Standard in respect of Sulphide (6 mg/l against Prescribed Standard of 2 mg/l) and of Pb (0.6 mg/l against Prescribed Standard of 0.1 mg/l)** | |
| **6** | **Nangloi CETP** | Nangloi& Udyog Nagar Indl Areas | **12** | 07.07.2021 | pH - 7.51<br>TSS - 316<br>COD - 432<br>BOD - 75<br>Cl – 2183<br>$SO_4$ – 16<br>Oil & Grease -16.4<br>TDS - 2960<br>Ammonical Nitrogen (N) -18.1<br>Sulphide – 10<br>Pb – 0.8 | pH - 7.66<br>TSS - 92<br>COD - 96<br>BOD - 32<br>Cl – 942.9<br>$SO_4$ – 4.9<br>Oil & Grease -2.2<br>TDS - 1380<br>Ammonical Nitrogen (N) -2.48<br>Sulphide – 5.6<br>Pb – 0.7 | **Not meeting the Prescribed Standard in respect of BOD (32 mg/l against Prescribed Standard of 30 mg/l), Sulphide (5.6 mg/l against Prescribed Standard of 2 mg/l) and of Pb (0.7 mg/l against Prescribed Standard of 0.1 mg/l).** | |

# Brief Status of Common Effluent Treatment Plants (CETPs) in Delhi
# (Based on the Analysis Reports of DPCC Laboratory for the Month of July, 2021)

**Annexure -3**

| S. No. | Name of CETP | Industrial Areas Connected with CETP | Capacity (in MLD) | Date of Sampling | Influent Quality at Inlet (in mg/l) | Effluent Quality at Outlet (in mg/l) | Brief of Analysis Report (For Treated Effluent) | Action Taken |
|---|---|---|---|---|---|---|---|---|
| **7** | **SMA CETP** | SMA, Rajasthani Udyog Nagar and SSI Industrial Areas | **12** | 13.07.2021 | pH - 6.84<br>TSS - 136<br>COD - 75<br>BOD - 30<br>Cl – 1340<br>Oil & Grease -9.6<br>TDS - 1960<br>Ammonical Nitrogen (N) -9.7<br>Sulphide – 6<br>Pb – 0.679 | pH - 7.36<br>TSS - 86<br>COD - 58.6<br>BOD - 26<br>Cl – 1092<br>Oil & Grease -2.2<br>TDS - 1720<br>Ammonical Nitrogen (N) -1.71<br>Sulphide – 3.2<br>Pb – 0.671 | **Not meeting the Prescribed Standard in respect of Sulphide (3.2 mg/l against Prescribed Standard of 2 mg/l), of Pb (0.671 mg/l against Prescribed Standard of 0.1 mg/l) and of Chloride (1092 mg/l against Prescribed Standard of 1000 mg/l)** | Letter issued to the CETP Societies on 19.08.2021 enclosing effluent Analysis Report of DPCC Laboratory with the direction to take necessary rectification measures to meet prescribed Treated Effluent Standards notified by MOEF&CC and send the Action Taken/Compliance Report along with rectification measures taken within 15 days. |
| **8** | **Okhla CETP** | Okhla Indl. Area | **24** | 12.07.2021 | pH - 7.59<br>TSS - 1308<br>COD - 112<br>BOD - 80<br>Cl – 694.8<br>Oil & Grease -16.4<br>TDS - 1310<br>Ammonical Nitrogen (N) -53.9<br>Sulphide – 14<br>Pb – 0.9 | pH - 7.71<br>TSS - 86<br>COD - 88<br>BOD - 27<br>Cl – 397<br>Oil & Grease -3.2<br>TDS -720<br>Ammonical Nitrogen (N) -13.2<br>Sulphide – 4<br>Pb – 0.82 | **Not meeting the Prescribed Standard in respect of Sulphide (4 mg/l against Prescribed Standard of 2 mg/l) and of Pb (0.82 mg/l against Prescribed Standard of 0.1 mg/l)** | |
| **9** | **Narela CETP** | Narela Indl. Area | **22.5** | 27.07.2021 | pH - 7.25<br>TSS - 560<br>COD - 288<br>BOD - 65<br>Cl – 1005<br>Oil & Grease -24.4<br>TDS - 2340<br>Ammonical Nitrogen (N) -17.3<br>Sulphide – 6.2<br>Pb – 0.43 | pH - 7.54<br>TSS - 46<br>COD - 68<br>BOD - 16<br>Cl – 792<br>Oil & Grease -2.4<br>TDS - 1680<br>Ammonical Nitrogen (N) -8.41<br>Sulphide – 1.8<br>Pb – 0.42 | **Not meeting the Prescribed Standard in respect of Pb (0.43 mg/l against Prescribed Standard of 0.1 mg/l)** | |

## Brief Status of Common Effluent Treatment Plants (CETPs) in Delhi
## (Based on the Analysis Reports of DPCC Laboratory for the Month of July, 2021)

**Annexure -3**

| S. No. | Name of CETP | Industrial Areas Connected with CETP | Capacity (in MLD) | Date of Sampling | Influent Quality at Inlet (in mg/l) | Effluent Quality at Outlet (in mg/l) | Brief of Analysis Report (For Treated Effluent) | Action Taken |
|---|---|---|---|---|---|---|---|---|
| **10** | **Bawana CETP** | Bawana Indl. Area | **35** | 27.07.2021 | pH - 7.01<br>TSS - 716<br>COD - 304<br>BOD - 80<br>Cl – 3024<br>$SO_4$ – 62.4<br>Oil & Grease -22<br>TDS - 2890<br>Ammonical Nitrogen(N)-28.29<br>Sulphide – 8.2<br>Cu – 3.8 | pH - 7.48<br>TSS - 48<br>COD - 85<br>BOD - 16<br>Cl – 824<br>$SO_4$ –39.1<br>Oil & Grease -4.6<br>TDS - 1610<br>Ammonical Nitrogen (N) -5.97<br>Sulphide – 1.4<br>Cu – 3.4 | **Not meeting the Prescribed Standard in respect of Cu (3.4 mg/l against Prescribed Standard of 3 mg/l)** | Letter issued to the CETPs Societies/Operator of CETPs on 19.08.2021 enclosing effluent Analysis Report of DPCC Laboratory with the direction to take necessary rectification measures to meet prescribed Treated Effluent Standards notified by MOEF&CC and send the Action Taken/Compliance Report along with rectification measures taken within 15 days. |
| **11** | **Naraina CETP** | Naraina Indl. Area | **21.6** | 05.07.2021 | pH - 7.01<br>TSS - 220<br>COD - 288<br>BOD - 25<br>Cl – 595.5<br>$SO_4$ – 59.4<br>Oil & Grease -9.6<br>TDS - 764<br>Ammonical Nitrogen (N)-32.4<br>Sulphide – 8<br>Pb – 0.6 | pH - 7.3<br>TSS - 32<br>COD - 108<br>BOD - 22<br>Cl – 397<br>$SO_4$ – 12.6<br>Oil & Grease -7.6<br>TDS - 735<br>Ammonical Nitrogen (N) -5.8<br>Sulphide – 6<br>Pb – 0.5 | **Not meeting the Prescribed Standard in respect of Sulphide (6 mg/l against Prescribed Standard of 2 mg/l) and of Pb (0.5 mg/l against Prescribed Standard of 0.1 mg/l)** | |

## Brief Status of Common Effluent Treatment Plants (CETPs) in Delhi
## (Based on the Analysis Reports of DPCC Laboratory for the Month of July, 2021)

**Annexure -3**

| S. No. | Name of CETP | Industrial Areas Connected with CETP | Capacity (in MLD) | Date of Sampling | Influent Quality at Inlet (in mg/l) | Effluent Quality at Outlet (in mg/l) | Brief of Analysis Report (For Treated Effluent) | Action Taken |
|---|---|---|---|---|---|---|---|---|
| **12** | **GTK CETP** | GTK Road Indl. Area | **6** | 13.07.2021 | pH - 7.52<br>TSS - 266<br>COD - 106<br>BOD - 50<br>Cl – 1588<br>$SO_4$ – 75.7<br>Oil & Grease-12.4<br>TDS - 1990<br>Ammonical Nitrogen (N)-56.4<br>Sulphide – 4<br>Pb – 0.8 | pH - 7.85<br>TSS - 58<br>COD - 80<br>BOD - 27<br>Cl – 694<br>$SO_4$ – 10.9<br>Oil & Grease -6.8<br>TDS - 878<br>Ammonical Nitrogen (N) -6.9<br>Sulphide – 2<br>Pb – 0.6 | **Not meeting the Prescribed Standard in respect of Pb (0.6 mg/l against Prescribed Standard of 0.1 mg/l)** | Letter issued to the CETP Societies on 19.08.2021 enclosing effluent Analysis Report of DPCC Laboratory with the direction to take necessary rectification measures to meet prescribed Treated Effluent Standards notified by MOEF&CC and send the Action Taken/Compliance Report along with rectification measures taken within 15 days. |
| **13** | **Lawrence Road CETP** | Lawrence Road Indl. Area | **12** | 13.07.2021 | pH - 6.98<br>TSS - 224<br>COD - 320<br>BOD - 60<br>Cl – 1092<br>$SO_4$ – 67<br>Oil &Grease -22.8<br>TDS - 1720<br>Ammonical Nitrogen (N) -14<br>Sulphide – 8.8<br>Pb – 0.69 | pH - 7.02<br>TSS - 64<br>COD - 186.6<br>BOD - 48<br>Cl – 595<br>$SO_4$ – 27<br>Oil & Grease -6.4<br>TDS - 1720<br>Ammonical Nitrogen (N) -0.56<br>Sulphide – 4.8<br>Pb – 0.66 | **Not meeting the Prescribed Standards in respect of BOD (48 mg/l against Prescribed Standard of 30 mg/l), of Sulphide (4.8 mg/1 against Prescribed Standard of 2 mg/l) and of Pb (0.66 mg/1 against Prescribed Standard of 0.1 mg/l)** | |
| | | **Total** | **212.3** | | | | | |

**Annexure - 4**

# Status of Solid Waste Management including Legacy Waste in NCT of Delhi

## 1. Municipal Solid Waste Management :

### Municipal Solid Waste Generation, Processing and Disposal

| S. No. | Particulars | North DMC | SDMC | EDMC | NDMC | DCB | Total |
|---|---|---|---|---|---|---|---|
| **1** | Total Municipal Solid Waste (MSW) Generation(in TPD) | 4500 | 3500 | 2700 | 209 | 72 | 10981 |
| **2** | No. of Wards | 104 | 104 | 64 | 14 (Circles) | 8 | 280 Wards + 14 Circles |
| **3** | Lifting / Collection of MSW (in %) | 100% | 100% | 100% | 100% | 100% | NA |
| **4** | Segregation of MSW at Source (in %) | 90 % (in 3 Model Wards) 30% (in 101 wards | 80 – 100 % (in 15 Model Wards) 60 - 80% (in 9 Wards) 50-60% (in 4 Wards) 40-50% (in 9 Wards) 20-40% (in 13 Wards) 10-20% (in 8 Wards) | 80 - 100% (in 3Model Wards) 50% (in 61 Wards) | 96 - 100 % in all 14 Circles | 90 % in Civilian Area 60% in Army Area) | NA |
| **5** | Processing of Waste in TPD (in %) | 2150 (48%) | 1700 (48.5%) | 600 (22.2%) | 209 (100%) | 41 (57 %) | 4700 (42.8 %) |
| **6** | Disposal of MSW in Landfill Sites | 2350 (52%) | 1800 (51.5%) | 2100 (77.8%) | Nil | 31 (43%) | 6281 (57.2 %) |

### (a) Collection, Segregation & Transportation of Municipal Solid Waste:

There are 5 Local Bodies in Delhi responsible for implementation of the Solid Waste Management Rules, 2016. Total Municipal Solid Waste generation in Delhi is 10981 Tonnes per day (TPD). For proper treatment and disposal of the municipal solid waste, waste segregation is pre-requisite and the local bodies are implementing a detailed plan of waste segregation at source, door to door collection, intermediate storage and transport facility with GPS for the segregated waste.

### (b) Municipal Solid Waste Processing and Disposal Facilities:

There is one Integrated Solid Waste Management Facility at Bawana for processing of 2000 TPD of municipal solid waste having Waste to Energy Plant, Compost Plant and Engineered Sanitary Land Fill. This Integrated Solid Waste Management Facility is being operated by M/s Delhi MSW Solutions Ltd. One Engineered Sanitary Land Fill is proposed to be developed by South Delhi Municipal Corporation (SDMC) at Tehkhand. An Integrated Solid Waste Management Facility for 2000 TPD is proposed to be developed by East Delhi Municipal Corporation (SDMC) in joint venture with NTPC at Ghonda Gujran. Besides other facilities the said facility will be having Waste to Energy Plant of 600 TPD & Bio-methanation Plant of 1200 TPD capacity. There is one Centralised Compost Plant at Okhla with 200 TPD capacity.

## (c) Waste to Energy Plants :

Delhi has 3 Waste to Energy Plants (WTE Plants) of capacity 4550 TPD at 3 different locations in Delhi namely Okhla, Ghazipur and Bawana. One New Waste to Energy Plant of capacity about 2000 TPD is proposed at Tehkhand and another of 600 TPD in the Integrated Waste Complex at Ghonda Gujran. After commissioning of these 2 proposed WTEs capacity of WTE Plants will increase from 4550 TPD to 7150 TPD by September, 2022.

**Operational Waste to Energy Plants in Delhi**

| S. No | Name of Waste to Energy Plant | Existing Capacity | |
|---|---|---|---|
| | | Waste Processing (in TPD) | Electricity Generation(in MW) |
| 1. | Timarpur Okhla Waste management Company Ltd., Old NDMC Compost Site, Okhla. | 1950 | 23 |
| 2. | East Delhi Waste Processing Company Ltd., Ghazipur | 1300 | 12 |
| 3. | Delhi MSW Solutions Ltd Narela Bawana Road, Bawana | 1300 | 24 |
| | **Total** | **4550** | **59** |

### (d) Gap Analysis on Solid Waste Management

| Generation (in TPD) | Processing (in TPD) | Gap (in TPD) |
|---|---|---|
| **10981** | **4700** | **6281** |

### (e) Proposed Waste Processing Facilities & Sanitary Land Fill in Delhi

| S.No. | MSW Facility | No(s) | Location | Local Body | Capacity (in TPD) | Expected Timeline for Completion |
|---|---|---|---|---|---|---|
| **1.** | Waste to Energy Plant | 1 | Tehkhand | SDMC | 2000 | March, 2022 |
| **2.** | Integrated Municipal Waste Processing Facility (Joint Venture between NTPC & EDMC).<br>[Total 2000 TPD Capacity<br>(i) WTE - 600 TPD,<br>(ii)Bio-methanation Plant - 1200 TPD<br>(iii) C & D Waste Processing Facility - 200 TPD] | 1 | Ghonda Gujran | EDMC | 2000 | September, 2022 |
| **3.** | Integrated Municipal Waste Processing Facility<br>[ Including Waste Collection, Segregation, Transportation, Processing & Disposal] | 1 | Ranikhera<br>[ For 3 Zones of North DMC (City – SP, Karol Bagh& Narela Zone) | North DMC | 2500 | December, 2022 |
| **4.** | Bio CNG Plants | 2 | Tehkhand & Kesopur | SDMC | 1100 (550 TPD each) | December, 2022 |
| **5.** | RDF Processing Plant | 1 | Tehkhand | SDMC | 50 | March, 2022 |

| S.No. | MSW Facility | No(s) | Location | Local Body | Capacity (in TPD) | Expected Timeline for Completion |
|---|---|---|---|---|---|---|
| **6.** | Bio-methanation Plant of NDMC | 1 | NDMC /SDMC Area | NDMC | 30 | December, 2021 |
| **7.** | Sorting cum Composter Plants | 5 | Tigris Road & Kirby Place in Delhi Cantt. | Delhi Cantonment Board | 70 (Total Capacity of 5 Plants) | December, 2021 |
| **8.** | Decentralised Bio-methanation Plants | 2 | Naraina Industrial Area Ph-I & Mangolpuri Industrial Area Ph-I | North DMC | 10 (5TPD each) | August, 2021 |
| **9.** | Decentralised Composter Plants | 5 | • Sector 11Rohini<br>• Mori Gate<br>• Ramleela Ground<br>• Gokalpur<br>• Dwarka Sector 14 | North DMC<br><br><br>EDMC<br>SDMC | 5 (1TPD each) | August, 2021 |
| **10.** | Engineered Sanitary Landfill (SLF) | 1 | Tehkhand | SDMC | ------- | December, 2022 |
| | **Total** | **19 + One SLF** | | | **7765 TPD** | |

**(f) Decentralized Waste Management Facilities (Compost Plants /Biomethanation Plants)**

The Government is in the process of installation of decentralized Waste Management Facilities (Compost Plants / Bio- Methanation Plants) so that the solid waste generated is segregated and treated at source and the transport and dumping of waste in faraway areas can be done away with. The details of the decentralized plants already commissioned and those at different stages of commissioning are as follows:

**Operational Decentralized Waste Processing Facilities :**

[Bio-methanation Plants–8 Nos of 5TPD each + 6 Nos in NDMC Area, Compost Plants–15 Nos of 1 TPD each ]

| Sl. No. | Local Body | Composting | Bio- methanation Plant |
|---|---|---|---|
| 1. | DCB | 2 Food Waste Composters (Organic Waste Convertors) – Total Capacity - 0.175 TPD ( 0.125 TPD + 0.05 TPD) | Nil |
| 2. | EDMC | 9 TPD (9 Nos of 1 TPD each) | 10 TPD (2 Nos of 5 TPD each) |
| 3. | NDMC | 62.55 TPD [118 Compost Pits, 21 Organic Waste Convertors (OWCs) in NDMC area] | 7.45 TPD (6 Nos) |
| 4. | North DMC | One Centralised Compost Plant in the Integrated Waste Complex at Bawana + 3 Decentralised Compost Plants of 1TPD each | 10 TPD (2 Nos of 5 TPD each) |
| 5. | South DMC | 203 TPD One Centralised Compost Plant of 200 TPD at Okhla + 3 Decentralised Compost Plants of 1 TPD each | 20 TPD (4 Nos of 5 TPD each) |

5 Compost plants of 1 TPD each and 2 Bio Methanation plant of 5 TPD are proposed to be installed by August,2021.

**NORTH DMC**

**(i) Accelerated Composter / Bio-Methanisation Plant 1 TPD Capacity (6 Nos)**

- 3 Plants commissioned at Bhorgarh Nursery, Rajendra Nagar Nursery and Maurya Enclave at Pitampura
- 3 Plants (One each at Sector -11 Rohini & Mori Gate are expected to be commissioned by August, 2021 and remaining one plant at the Nursery of Ramleela Ground is expected to be commissioned August, 2021.

**(ii) Bio-Methanation Plants 5-TPD Capacity (4 Nos)**

- 2 Plants commissioned at Roshanara Bagh & MVID Hospital.
- 2 Plants at Naraina Industrial Area Ph-1 & Mangolpuri Industrial Area Ph-1 are expected to be commissioned by August, 2021.

**EAST DMC**

**(i) Composters of 1 TPD Capacity (10 Nos)**

- 9 Plants commissioned
- 1 Plant (at Gokalpur) to be commissioned by August, 2021.

**(ii) Bio-Methanation Plants 5-TPD Capacity (2 Nos)**

Both the 2 Plants at Geeta Colony & Shastri Park have commissioned.

**SOUTH DMC**

(i) **Four Compost Plants of 1 TPD each**

- Three plants commissioned at Chirag Delhi, Punjabi Bagh Nursery and Near Lady Sriram College, East of Kailash.
- One plant at Dwarka Sector 14 is likely to be commissioned by August, 2021

**(ii) Four Bio-Methanation Plants (5 TPD Each).**

- Four plants commissioned at Sarita Vihar, Dwarka Sector 14, Punjabi Bagh Nursery and Masood Pur in Vasant Kunj.

## 2. Remediation of Legacy Waste (Old MSW):

There are 3 Dumpsites at Ghazipur, Bhalaswa and Okhla in Delhi where Municipal Solid Waste have been dumped and there was legacy waste of 28 Million Tons as mentioned in the orders dated 17.07.2019 of Hon'ble National Green Tribunal in OA No. 519 / 2019 in the matter of News item published in "The Times of India" Authored by JasjeevGandhiok&Paras Singh Titled "Below mountains of trash lie poison lakes" and OA No. 386/2019 in the matter of "Centre for Wildlife and Environment Litigation" Vs Union of India &Ors.".

In the said case Hon'ble National Green Tribunal has passed detailed order regarding Disposal of 'Legacy' Waste dumped at Bhalswa, Ghazipur and Okhla Dumpsites and given various directions. Hon'ble NGT has directed the Municipal Corporations to go for bio mining using trommels instead of capping of the dump sites at Bhalswa, Ghazipur and Okhla. The estimated cost to clear the above three dump sites at Delhi may be approx. Rs. 250 Crores as given below :

i. EDMC - Rs. 125 Crores
ii. North MCD - Rs. 75 Crores
iii. SDMC - Rs. 50 Crores

As per the directions of the Hon'ble Tribunal the contributions towards said amount of Rs. 250 Crores in three separate ESCROW accounts will be as follows :

| | | | | |
|---|---|---|---|---|
| i | EDMC | NCT Delhi<br>EDMC<br>NDMC*<br>DCB** | Rs. 65 Crore<br>Rs. 40 Crore<br>Rs. 10 Crore<br>Rs. 10 Crore | Total = 125 Crores |
| ii | North MCD | NCT Delhi<br>North MCD<br>NDMC<br>DCB | Rs. 35 Crore<br>Rs. 30 Crore<br>Rs. 05 Crore<br>Rs. 05 Crore | Total = 75 Crores |
| iii | SDMC | NCT Delhi<br>SDMC<br>NDMC<br>DCB | Rs. 25 Crore<br>Rs. 15 Crore<br>Rs. 05 Crore<br>Rs. 05 Crore | Total = 50 Crores |
| | **Total** | | | **250 Crores** |

As directed by the Hon'ble NGT, the Committee headed by Chief Secretary, Govt. of NCT of Delhi has been constituted vide order dated 25.07.2019. The ESCROW accounts for North DMC, East DMC and South DMC have been opened. Regular meetings of the Committee headed by Chief Secretary are held to review the progress in the said matter.

Out of Rs. 250 Crores, an amount of Rs. 245 Crores have been contributed by the DPCC, DMCs, DCB & NDMC. DCB has deposited only 15 Crores (out of Rs. 20 Crores) and filed an application before the Hon'ble Supreme Court for exemption of Rs. 5 Crores to be deposited to North DMC, because DCB is not dumping its MSW at Bhalswa landfill site.

The implementation of the project has been started w.e.f. 01.10.2019. Inert material generated during the process is about 60% to 70% by weight or 40% by volume of the waste being processed, which needs to be disposed of in a scientific manner. It is a major challenge before the municipal corporations to make suitable land available for disposal of this inert material particularly since the availability of land is extremely scarce in Delhi. SDMC on behalf of all the three DMCs has moved an application to Forest Department for procurement of space in four empty pits of Bhatti mines for temporarily dumping inert materials generated due to bio-mining.

In pursuance of the Order dated 23.03.2020 passed by Hon'ble National Green Tribunal in above mentioned case and Integrated Special Purpose Vehicle (SPV) was constituted vide order dated 14.07.2020 for the scientific management, processing and disposal of Legacy Waste. The said committee is headed by Chief Secretary and having Pr. Secy. (Env.), Commissioners of SDMC, EDMC & North DMC, Secy. (UD Deptt), Sh. Manish Singh (IAS, Director, Swatch Bharat, Bhopal) and Sh. Vijay Nehra (IAS, Comm., Municipal Corp., Ahmedabad) as members.

As per the said order, a Joint Committee comprising representatives of CPCB, NEERI & IIT Delhi has assessed the Amount of Damage to Environment due to three dumpsites in Delhi as mentioned in following table:

| **S.No.** | **Name of the Municipal Corporation** | **Name of the Dumpsite** | **Damage Cost assessed, (Rupees)** |
|---|---|---|---|
| 1. | North DMC | Bhalaswa | 155.9 Crore |
| 2. | EDMC | Ghazipur | 142.5 Crore |
| 3. | SDMC | Okhla | 151.1 Crore |
| **Total** | | | **449.5 Crore** |

Hon'ble NGT has disposed off the above mentioned case vide order dated 29.01.2021 with following directions:

*"Accordingly, we direct the NCT Delhi and the Municipal Corporations concerned to coordinate and execute the work of remediating the legacy waste dump sites for enforcing the rule of law and protection of environment and public health, expeditiously in terms of earlier orders of this Tribunal. Due care has to be taken for preventing fire accidents on the landfill sites and maintaining stability of the dumps. The Chief Secretary, Delhi, may continue to hold meetings for coordination with all the stake-holders, at least once in a month, as earlier directed to device ways and means to expedite the pending work, including coercive measures against those responsible for delay. The CPCB is at liberty to recover the compensation already assessed, with further compensation for continuing damage till compliance of law, following due process of law. The amount of recovered compensation be spent on restoration of environment in Delhi."*

As per the Action Plans submitted by EDMC, North DMC & SDMC to the Hon'ble NGT, following are the timelines for remediation of legacy waste at three dumpsites in Delhi

| Dumpsite | Timeline for 25% remediation | Timeline for 50 % remediation | Timeline for 100% remediation |
|---|---|---|---|
| **Ghazipur** | March, 2022 | March, 2023 | Dec, 2024 |
| **Bhalaswa** | April, 2021 | Oct, 2021 | June, 2022 |
| **Okhla** | Oct, 2021 | April, 2022 | March, 2023 |

**The Status of Bio-Mining of Legacy Waste at 3 Dumpsites at Okhla, Ghazipur & Bhalaswa in Delhi (as on 31.07.2021) is given in following Table :**

| S. No. | Name of the Dumpsite | Quantity of Legacy Waste Dumped (As on 17.07.2019) | Total Quantity of Legacy Waste Processed (As on 31.07.2021) | No. of Trommels Operational |
|---|---|---|---|---|
| 1 | Ghazipur | 140 Lakh Ton | 7.62 Lakh Ton (5.44 %) | 20 |
| 2 | Okhla | 60 Lakh Ton | 6.25 Lakh Ton (10.42 %) | 18 |
| 3 | Bhalaswa | 80 Lakh Ton | 19.23 Lakh Ton (24.04 %) | 24 |
| **Total** | | **280 Lakh Ton** | **33.10 Lakh Ton (11.82 %)** | **62** |

Urban Development Department, Govt. of NCT of Delhi is coordinating the said matter, conducting meetings of the said Committee and filing Status Report on behalf of Govt. of NCT of Delhi to Hon'ble National Green Tribunal from time to time.

Annexure - 5

DELHI POLLUTION CONTROL COMMITTEE
WATER LABORATORY
4thFLOOR, ISBT BUILDING, KASHMERE GATE, DELHI-06
visit us at : http://dpcc.delhigovt.nic.in

# WATER QUALITY STATUS OF RIVER YAMUNA

REPORT NO: DPCC/W/Y/21-22/4089

DATE OF SAMPLING: 01.07.2021

11/08/2021

| S. No. | Locations | pH | COD (mg/l) | BOD (mg/l) | DO (mg/l) | Fecal Coliform MPN/100ml |
|---|---|---|---|---|---|---|
| Water Quality Criteria ('C' Class) | | 6.5-8.5 | - | 3mg/l or less | 5mg/l or more | 500(desirable) 2500(max permissible) |
| 1 | Palla | 8.35 | 40 | 3.5 | 6.5 | $2\times10^2$ |
| 2 | Wazirabad | 8.43 | 52 | 7 | 6 | $68\times10^2$ |
| 3 | ISBT Bridge | 7.38 | 168 | 38 | 1.1 | $33\times10^3$ |
| 4 | ITO Bridge | 7.53 | 152 | 42 | 2 | $38\times10^4$ |
| 5 | Nizamudin Bridge | 6.96 | 120 | 22 | Nil | $40\times10^3$ |
| 6 | Agra Canal (Okhla) | 7.52 | 152 | 37 | Nil | $33\times10^3$ |
| 7 | After meeting Shahdara Drain (Downstream Okhla Barrage) | 7.78 | 288 | 68 | Nil | $14\times10^4$ |
| 8 | River Yamuna at Asgarpur (After confluence of Shahdra & Tuglakabad drains) | 7.67 | 160 | 31 | Nil | $47\times10^3$ |

N Mitra

I/C Water Lab
Dr. NANDITA MOITRA
Scientist 'C'

Annexure - 6

DELHI POLLUTION CONTROL COMMITTEE
WATER LABORATORY
4th FLOOR, ISBT BUILDING, KASHMERE GATE, DELHI-06
visit us at : http://dpcc.delhigovt.nic.in

## WATER QUALITY STATUS OF DRAIN

REPORT NO: DPCC/W/D/21-22/4090

Date of Sampling: - 01/07/2021
11.08.2021

| S. No. | Name of Sample | pH | TSS (mg/l) | COD (mg/l) | BOD (mg/l) | Flow ($m^3$/sec) |
|---|---|---|---|---|---|---|
| Standards | | 5.5- 9.0 | 100 | 250 | 30 | |
| 1. | Najafgarh Drain | 7.50 | 196 | 384 | 70 | 22.27 |
| 2. | Metcalf House Drain | NO FLOW | NO FLOW | NO FLOW | NO FLOW | NO FLOW |
| 3. | Khyber Pass Drain | 7.44 | 44 | 64 | 20 | 0.033 |
| 4. | Sweeper Colony Drain | 7.55 | 448 | 544 | 140 | 0.019 |
| 5. | Magazine Road Drain | 7.45 | 248 | 416 | 90 | 0.12 |
| 6. | ISBT Drain | 7.23 | 312 | 464 | 100 | 0.38 |
| 7. | Tonga Stand Drain | 7.52 | 32 | 56 | 16 | 0.10 |
| 8. | Civil Mill Drain | 7.32 | 192 | 160 | 70 | 0.0616 |
| 9. | Sen Nursing Home Drain | 7.25 | 216 | 432 | 86 | 0.437 |
| 10. | Drain No. 14 | 7.47 | 66 | 88 | 31 | 0.075 |
| 11. | Power House Drain | 7.45 | 212 | 336 | 90 | 0.874 |
| 12. | Indrapuri Drain | 7.21 | 96 | 176 | 42 | 0.16 |
| 13. | Sonia Vihar Drain | 8.50 | 40 | 104 | 24 | 2.63 |
| 14. | Kailash Nagar Drain | 7.74 | 260 | 320 | 93 | 0.036 |
| 15. | Shastri Park Drain | 7.68 | 128 | 208 | 54 | 0.2 |
| 16. | Barapulla Drain | 7.35 | 18 | 160 | 28 | 0.93 |
| 17. | Maharani Bagh Drain | 7.50 | 144 | 240 | 72 | 0.048 |
| 18. | Old Agra Canal Drain | 7.57 | 192 | 336 | 88 | 1.776 |
| 19. | Jaitpur Drain | 7.54 | 106 | 160 | 41 | 0.81 |
| 20. | Sarita Vihar Pool | 7.49 | 38 | 136 | 29 | 1.57 |
| 21. | Tuglakabad Drain | 7.53 | 60 | 120 | 26 | 1.98 |
| 22. | Drain Near LPG Bottling Plant | NO FLOW | NO FLOW | NO FLOW | NO FLOW | NO FLOW |
| 23. | Drain Near Sarita Vihar Bridge | NO FLOW | NO FLOW | NO FLOW | NO FLOW | NO FLOW |
| 24. | Shahdara Drain | 7.55 | 192 | 446 | 100 | 1.78 |
| 25. | Sahibabad Drain | 7.25 | 332 | 592 | 150 | 0.37 |
| 26. | Molarband Drain | 7.57 | 104 | 240 | 52 | 0.26 |
| 27. | Abul Fazal Drain | 7.50 | 140 | 232 | 42 | 0.19 |

N Mitra

I/C Water Lab
Dr. NANDITA MOITRA
Scientist 'C'

Status of 'Restoration and Rejuvenation of River Yamuna floodplains' as of 31st July 2021

## Removal of Encroachment

| S.No | Project Area | Total Site Area (In Ha) | Area repossessed (In Ha) | Area to be repossessed (In Ha) | Eviction Details |
|---|---|---|---|---|---|
| 1 | Asita East (DDA) | 90 | 90 | Nil | - |
| | Asita East (UP) | 107 | 20.24 | 65.76 | 107 Hectares-21 Hectares=86 Hectares (212.42 Acres), 21 Hectares area has Already been transferred to PWD by UP irrigation Deptt. |
| 2 | Kalindi Aviral | 100 | 0.81 | Nil | - |
| 3 | Kalindi Biodiversity Park | 115 | 2.50 | - | - |
| 4 | Asita west | 200 | 176.19 | 23.81 | |
| 5 | Amrut Biodiversity Park | 116.25 | 79 | 11 | Two more demolition programmes required. |
| 6 | Yamuna Vanasthali | 236.5 | 86.03 | 150.47 | |
| 7 | Mayur Nature Park | 235 | 23.02 | The figure cannot be mentioned | Land Demarcation Issues, Coordination with SDM,GNCTD in progress. |
| **TOTAL** | | **1152.66** | **477.79** | **251.04** | **Regular demolition programmes are being organized to remove the encroachments in time bound manner.** |

Annexure - 8

**DETAILS OF CHALLANS FROM THE YEAR 2018-21**

| Sl. No. | Year | Offence | No. of challans | Compensation amount | Recovery amount |
|---|---|---|---|---|---|
| 1. | 2018 | Dumping of malba | 1 | Rs.50,000/- | Nil |
| 2. | 2019 | Dumping of malba, unauthorized parking and garbage dumping in Yamuna River flood plain. | 186 | Rs. 89,55,000/- | Rs.17,85,000/- |
| 3. | 2020 | Dumping of malba and unauthorized parking in Yamuna River flood plain. | 54 | Rs.21,30,000/- | Rs.2,85,000/- |
| 4. | 2021 | Dumping of malba and illegal parking in Yamuna River Flood Plain | 216 | Rs.36,40,000/- | Rs.50,000/- |
| | | TOTAL = | **457** | **1,47,75,000/-** | **Rs.21,20,000/-** |

## Restoration & Rejuvenation of River Yamuna Flood Plains Status of 10 Projects of DDA (As on 31.07.2021) Annexure- 9

| S. No. | Project | Area | Timelines | Status |
|---|---|---|---|---|
| 1 | **Asita East**<br>[Old Railway Bridge to ITO Barrage (Eastern Bank) ]<br>**PART A** : Under the jurisdiction of **DDA**.<br>**PART B** : Under the jurisdiction of **UP Irrigation Deptt.** | **Total Site Area – 197 Ha**<br>**PART A:**<br>90 Hectares land within DDA's jurisdiction<br>**PART B:**<br>107 Hectare with UP Irrigation Department ( Encroachment Area – 65.76 Ha) | **PART A**: Completed.<br>**PART B:** 15.11.2021 | **PART A:** Completed.<br>**PART B:** Work completed are as under:<br>1.Excavation of 1 water bodies out of 3<br>2. 1 ramps out of 3<br>3. Embankment of 1 parking out of 1<br>Removal of Encroachments / Jhuggis is pending due to lock down & Corona. Work was held up due to lockdown and corona. Work resumed, present progress of work is 10%. |
| 2 | **Kalindi Aviral**<br>[NH24 to DND Flyway (Western Bank) ] | Total Site Area – 100 Ha (DDA Land) | Work completed. | Completed. |
| 3 | **Kalindi Biodiversity Park**<br>**[**DND to proposed Kalindi By-pass (Western Bank) Khijrabad] Entrusted to CEMDE | Total Site Area – 115 Ha (DDA Land) | **31.07.2021**<br>(for construction of wetlands) | 6 out of 9 wetlands completed. The balance 3 wetlands will be completed soon. |
| 4 | **Asita West**<br>[Old Railway Bridge to ITO Barrage (Western Bank)] | Total Site Area – 200 Ha (DDA Land)<br>(Encroachment Area – 23.81 Ha)<br>**Work completed for 93 Ha** | **15.11.2021**<br>(for the balance 107 Ha area) | Work completed are as under :<br>1. Excavation of 2 water bodies out of 4<br>2. Excavation of 1 oxidation pond out of 1<br>3. 700 meter moorum path out of 2500 meter<br>4. 3 Ramps out of 3<br>5. Part of cycling track<br>Removal of encroachment / Jhuggis (due to court case) is pending. Work was held up due to lockdown and corona. Work resumed, present progress is 22%. |

| S. No. | Project | Area | Timelines | Status |
|---|---|---|---|---|
| 5 | **ITO to NH-24**<br>(Eastern & Western Bank )-<br>Area south of Commonwealth Games Village Area | Total Site Area - 116.25 Ha (DDA Land)<br>(Encroachment Area – 11.0 Ha)<br><br>[90 Ha (Eastern Bank to be developed by DDA) + 18 Ha (Western Bank to be developed by DDA) + 8.25 Ha (Western Bank to be development by CPWD)] | **25.02.2022**<br>**(for 90 Ha on Eastern Bank)** | For 90 Ha of land: Layout started. Soil testing for pile work completed. |
| 6 | **Wazirabad to Old Railway Bridge** (Western Bank)<br>[ Qudesia Ghat]<br><br>Entrusted to INTACH | Total Site Area - 66 Hectares (DDA Land)<br><br>[ Qudesia Ghat- 16 Ha.<br>Sur Ghat – 13.6 Ha.<br>Eco-trail – 33 Ha.<br>Yamuna Bazar-3.4 Ha. | **31.12.2021**<br>(for Qudsia Ghat) only for 16 Ha Land. | DDA is coordinating with INTACH for the execution of civil and Electrical works in Qudsia Ghat.M/s Intach has submitted an estimate amounting to Rs. 21.22 Cr which includes DC/PMC charges @ 9%. The work has been assigned to M/s Intach on nomination basis.<br>The drawings of balance 50 Ha land is to be finalized by Landscape Department. |
| 7 | **Yamuna Vanasthali**<br><br>Wazirabad Barrage to ISBT Bridge (Eastern Bank) around Garhi Mandu Village & Usmanpur Village | Total Site Area - 236.5 Ha (DDA Land)<br>(Encroachment Area – 150.47 Ha) | **07.04.2022** | Work was held up due to lock down & Corona. Now excavation of one water body started. Present progress of work is 7%. |
| 8 | **Mayur Nature Park**<br>(NH-24 to DND Flyway (Eastern Bank)<br>**PART A:** under the jurisdiction of **DDA**<br><br>**PART B**: Under the jurisdiction of **UP Irrigation Department.** | Total Area– 397.75 Ha<br><br>**Part A** : 235 Ha (DDA Land)<br><br>**Part B** : 162.75 Ha (UP Land) | ---- | **PART A:**<br>Issues:<br>I. LM Department informed that approximately 100 Ha of land has been de-notified out of total 235 Ha.<br>II. The demarcation on ground by TSM in under progress.<br>Accordingly, the landscape plan also needs to be reworked**.**<br>I. The work of UP Irrigation land of 162.75 Ha is to be taken up on deposit work basis. |

| S. No. | Project | Area | Timelines | Status |
|---|---|---|---|---|
| **9** | **Eco-Tourism Area**<br>[Geeta Colony Bridge to ITO Barrage (Western Bank) ] | Total Area - 30 Ha<br>(DDA Land)<br>(14 Ha land is with IPGCL) | Land department has been requested to take back the land. | Area falls outside 1 in 25 year floodplain.<br>Land Department has been requested to take back the land.<br>The land is yet to be retrieved. Only 9.6 Ha of the land is currently available for development. |
| **10** | **Hindon Sarovar**<br>(NH-24 to DND Flyway - Eastern Bank) Part Area- II-<br>**Hindon Cut Wetlands I&II**<br>Entrusted to CEMDE<br><br>**PART A:** Under the jurisdiction of **DDA**<br><br>**PART B**: Under the jurisdiction of **UP Irrigation Department.** | Total Site Area – 45 Ha<br><br>**PART A:**<br>15 Ha (DDA Land)<br><br>**PART B:** 30 Ha<br>(UP Irrigation Dept.) | | The project comprises of creation of wetlands for treating water from the Hindon Canal the mouth of which falls under the jurisdiction of UP Irrigation Department. Work entrusted to CEMDE.<br><br>**The demarcation on ground by TSM is under progress.**<br><br>Accordingly, the landscape plan also needs to be reworked. |
| | **Total** | **Part A – 1203.75 Ha**<br>(DDA Land)<br><br>**Part B - 299.75 Ha**<br>(UP Land)<br><br>**Total – 1503.50 Ha**<br><br>(**Encroachment Area – 251.04 Ha)** | | (a) **Completed – 283 Ha**(DDA Land)( 0.5 + 1+ 0.5= 2 Nos)<br>(b) **In Progress**<br>(i) 548.5 Ha (DDA Land) ( 1+0.5+1+1= 3.5 Nos)<br>(ii) 107.00 Ha (UP Irrigation Land) (0.5 No)<br>**In process**<br>DDA = 16 Ha<br>**Total = 671.5 Ha**<br>**(c) In planning**<br>DDA = 356.25 Ha<br>UP = 192.75 Ha<br>**Total = 549 Ha** |