



Department of Environment,  
Govt. of NCT of Delhi

# Progress in Rejuvenation of River Yamuna

## Against Action Plans and Timelines



**February, 2025**



# Water Quality Monitoring

By DPCC

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**01**

## Water Quality Monitoring by DPCC Compliances with prescribed standards



### River Yamuna

At 8 locations



### 22 Drains

Out falling into  
River Yamuna



### 37 STPs

(Operational)  
At 20 locations



### 13 CETPs

(Operational)

# 02 Parameters as per Hon'ble National Green Tribunal

## Water Quality of River Yamuna

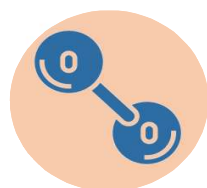
As per the directions of Hon'ble NGT, the three parameters to be considered for determining the water quality of River Yamuna are Dissolved Oxygen (DO), Biochemical Oxygen Demand (BOD), and Faecal Coliform (FC).



### Dissolved Oxygen

DO is the amount of oxygen available in dissolved form. Fishes can survive at or above DO of 4mg/l

**Standards ( $\geq 5$  mg/l): More DO is good**



### Biochemical Oxygen Demand

BOD is amount of DO required by aerobic microorganisms to decompose organic material present in a water body.

**Standards ( $\leq 3$  mg/l) : Less BOD is good**

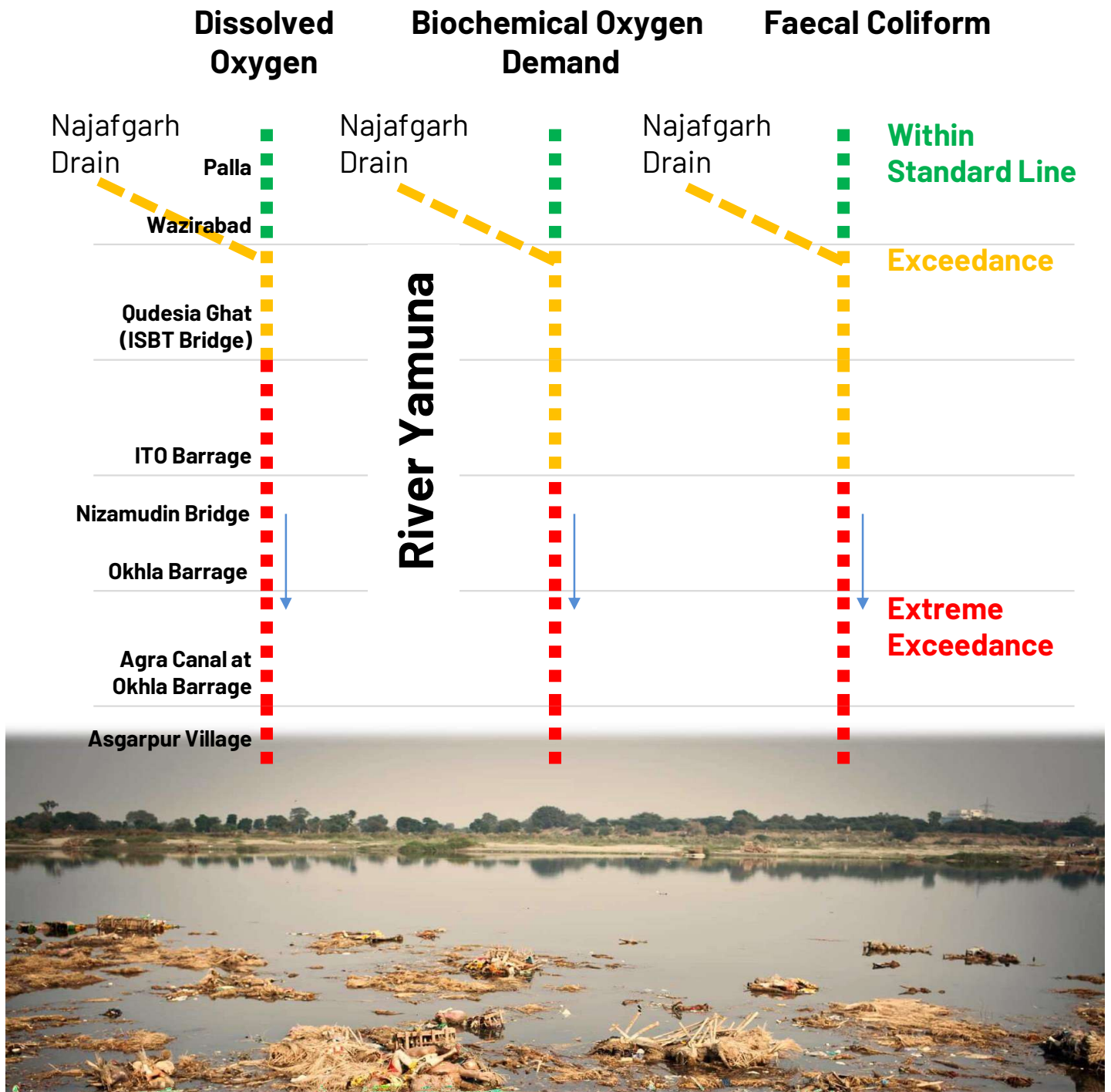


### Faecal Coliform

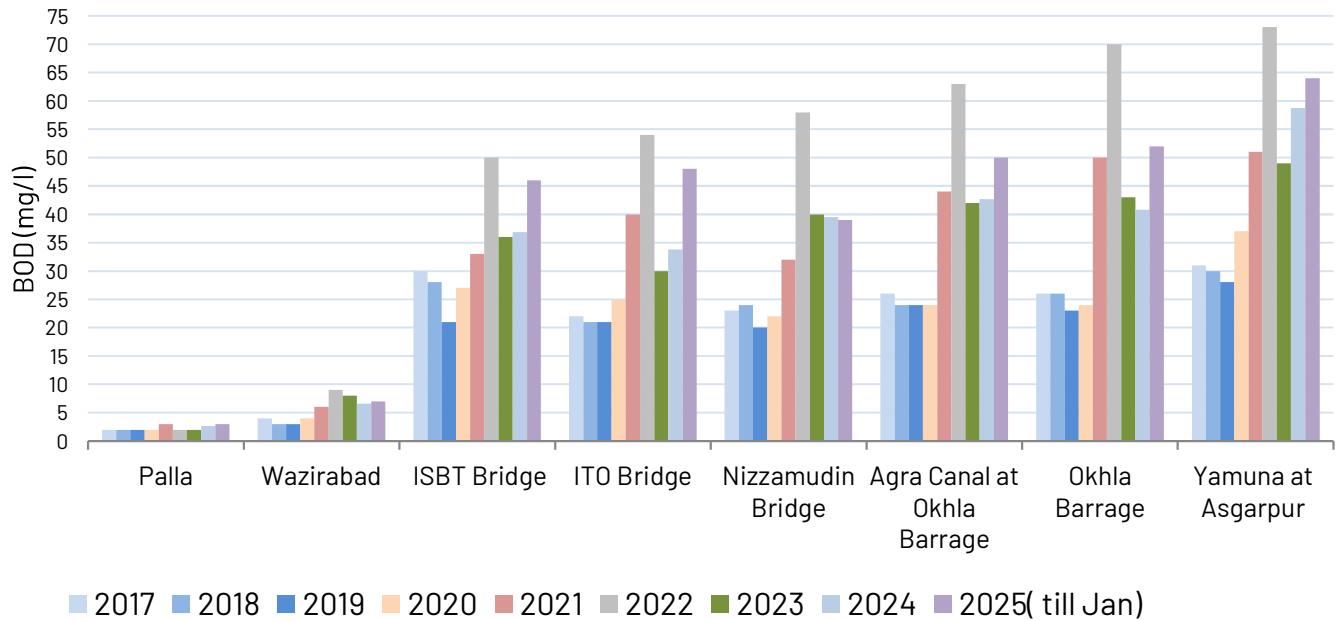
Faecal Coliforms are a group of bacteria present in faeces of humans / homeotherms indicating discharge of untreated sewage in a water body.

**Standards: ( $\leq 500$  MPN/100 ml - Desirable |  $\leq 2500$  MPN/100 ml - Maximum permissible): Less Faecal Coliform is good**

# 02 Parameters as per Hon'ble National Green Tribunal Water Quality of River Yamuna



# 03 Annual Average Water Quality of River Yamuna

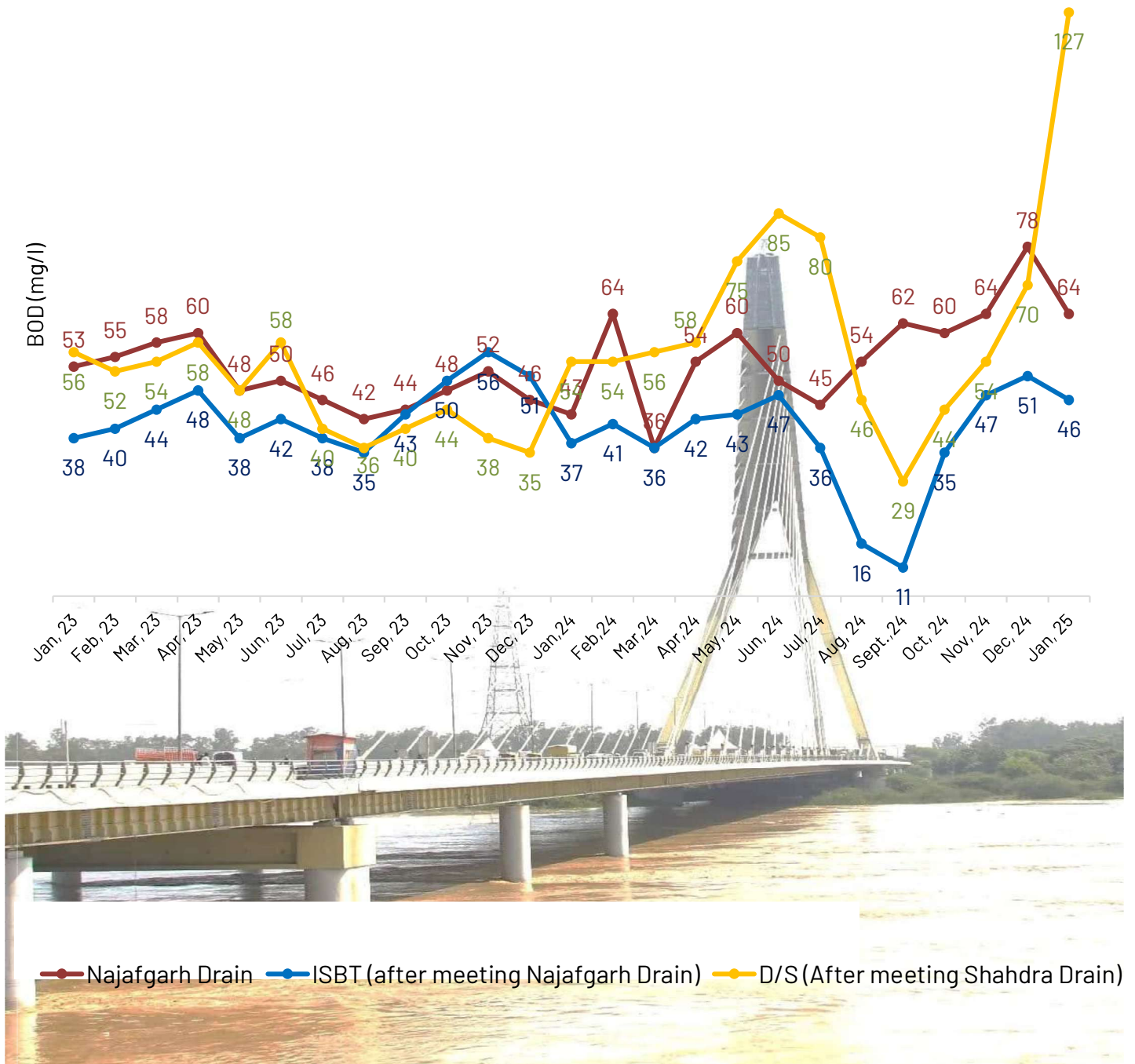


Haryana U.P.



# 03 Annual Average Water Quality of River Yamuna

**BOD variation : (January, 2023 to January, 2025)**

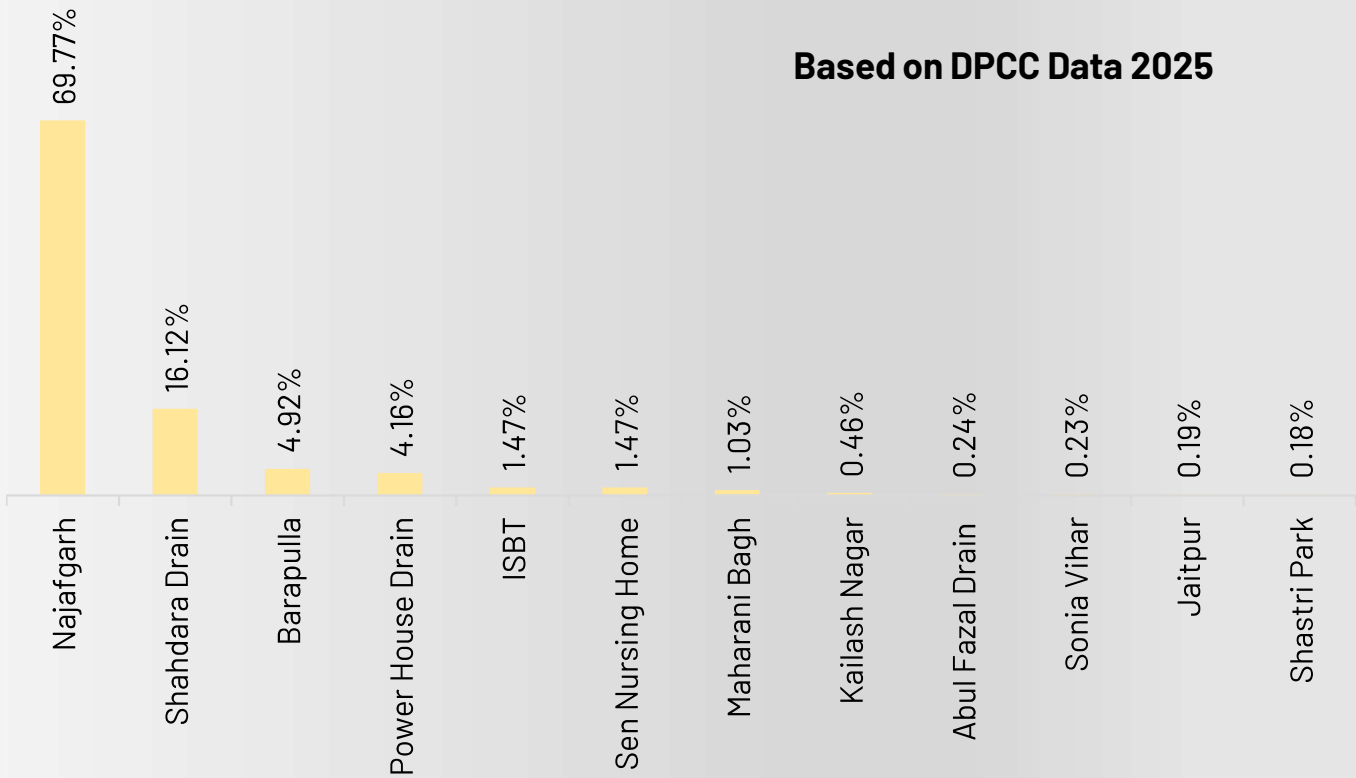


# Water Quality of Drains



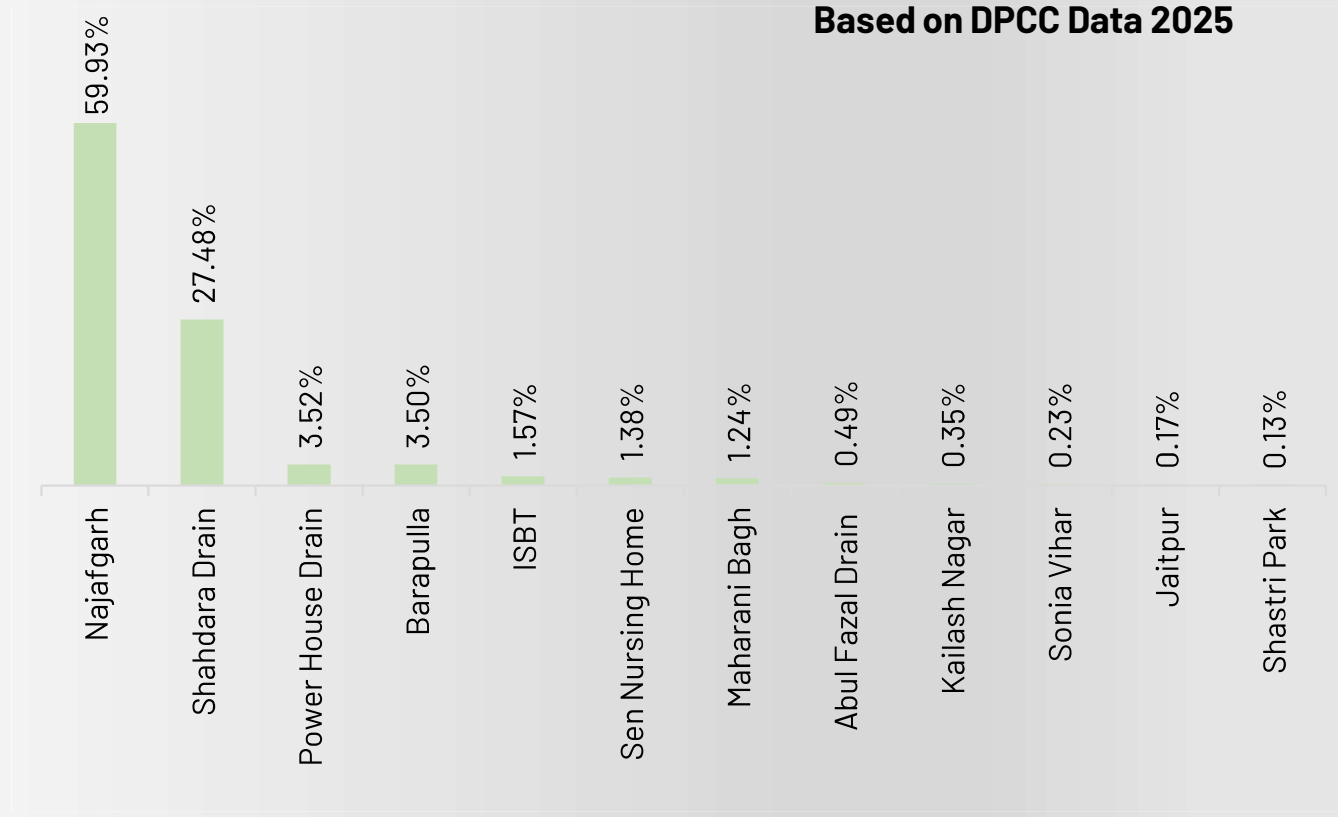
# 04 Discharge of wastewater from major drains Into River Yamuna at Delhi

Based on DPCC Data 2025



# 05 Discharge of BOD load from Major Drains Into River Yamuna at Delhi

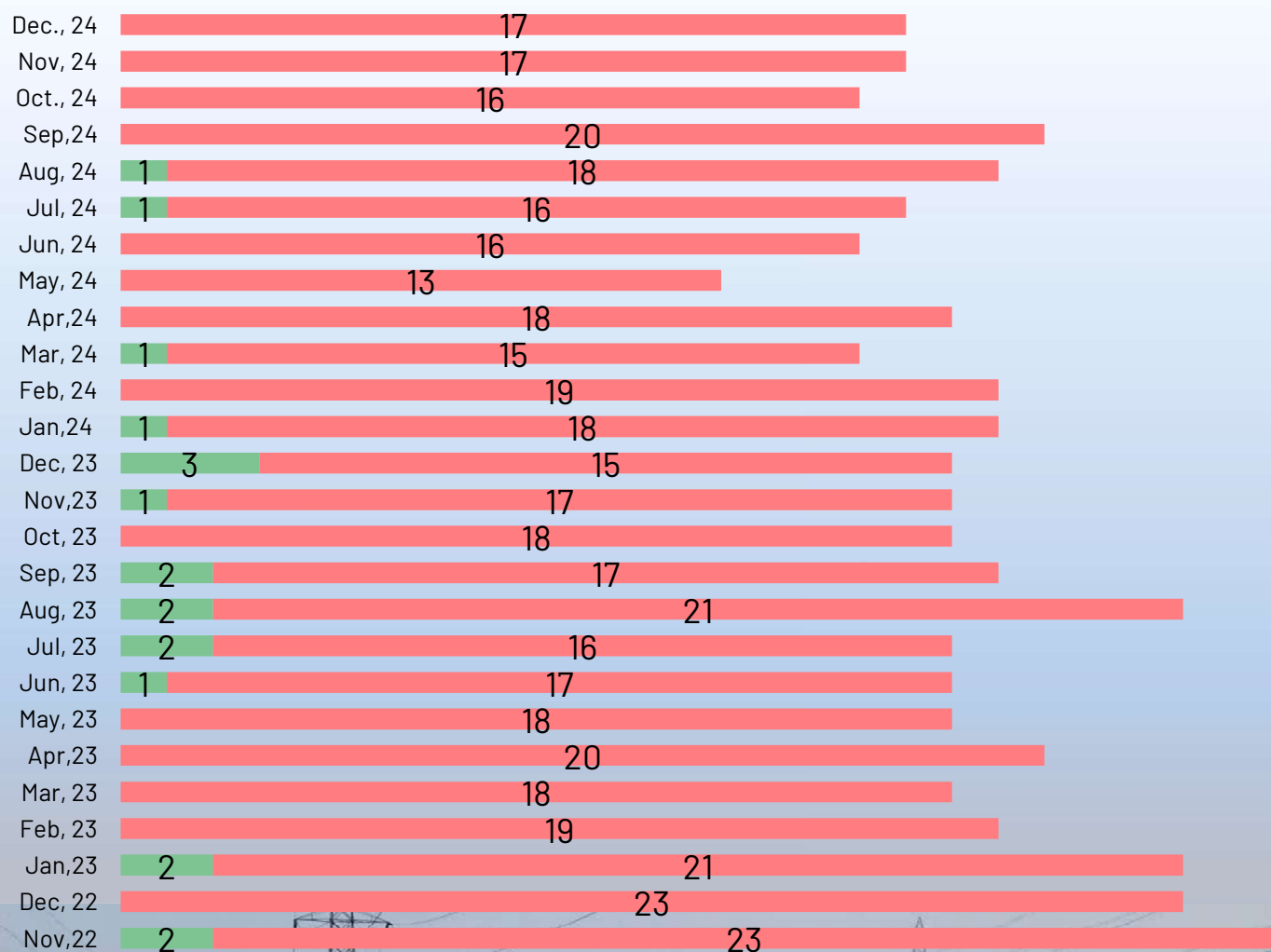
Based on DPCC Data 2025



# 06 27 Drains Water Quality Monitoring

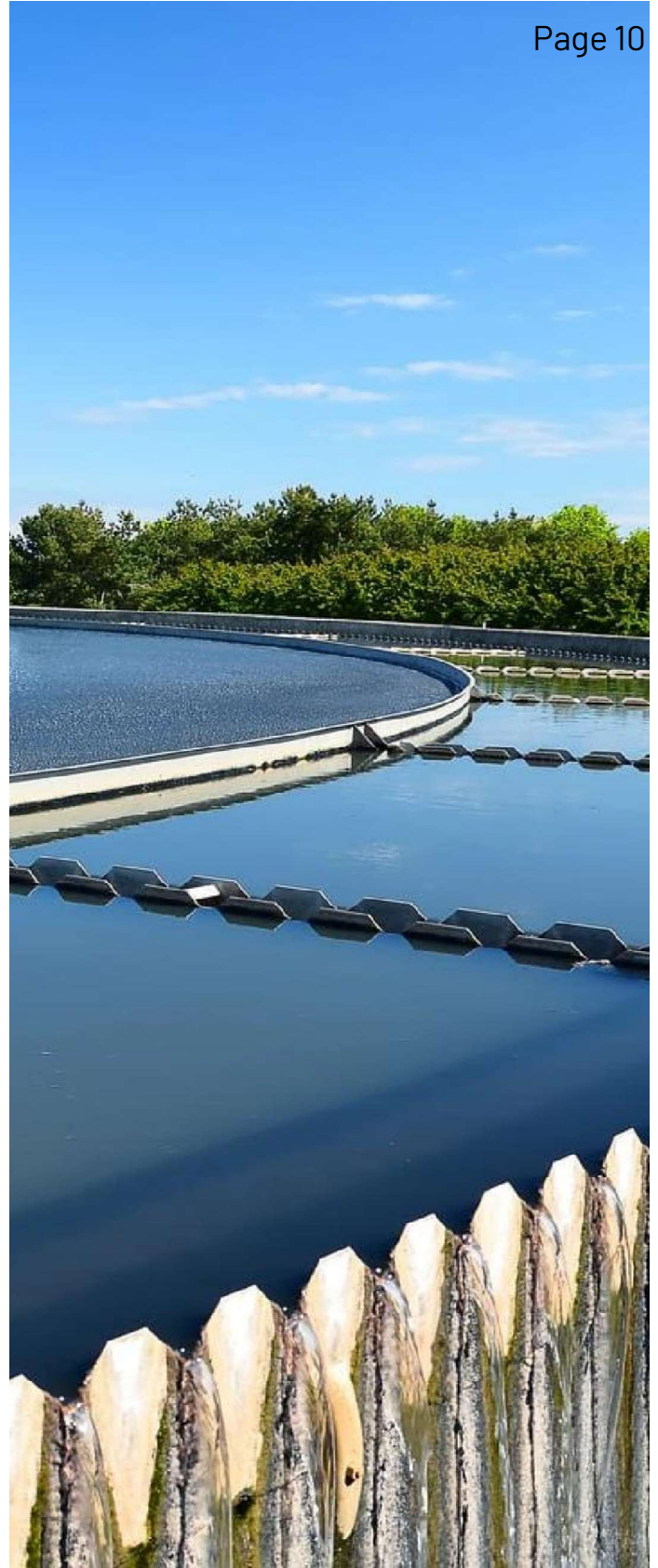
Compliance with prescribed standards BOD (30 mg/l)

No flow observed in 10 drains on Jan.,2025



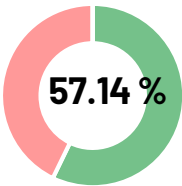
# Water Quality of Sewage Treatment Plants

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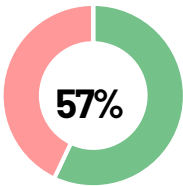


# 07 37 Sewage Treatment Plants Water Quality Monitoring

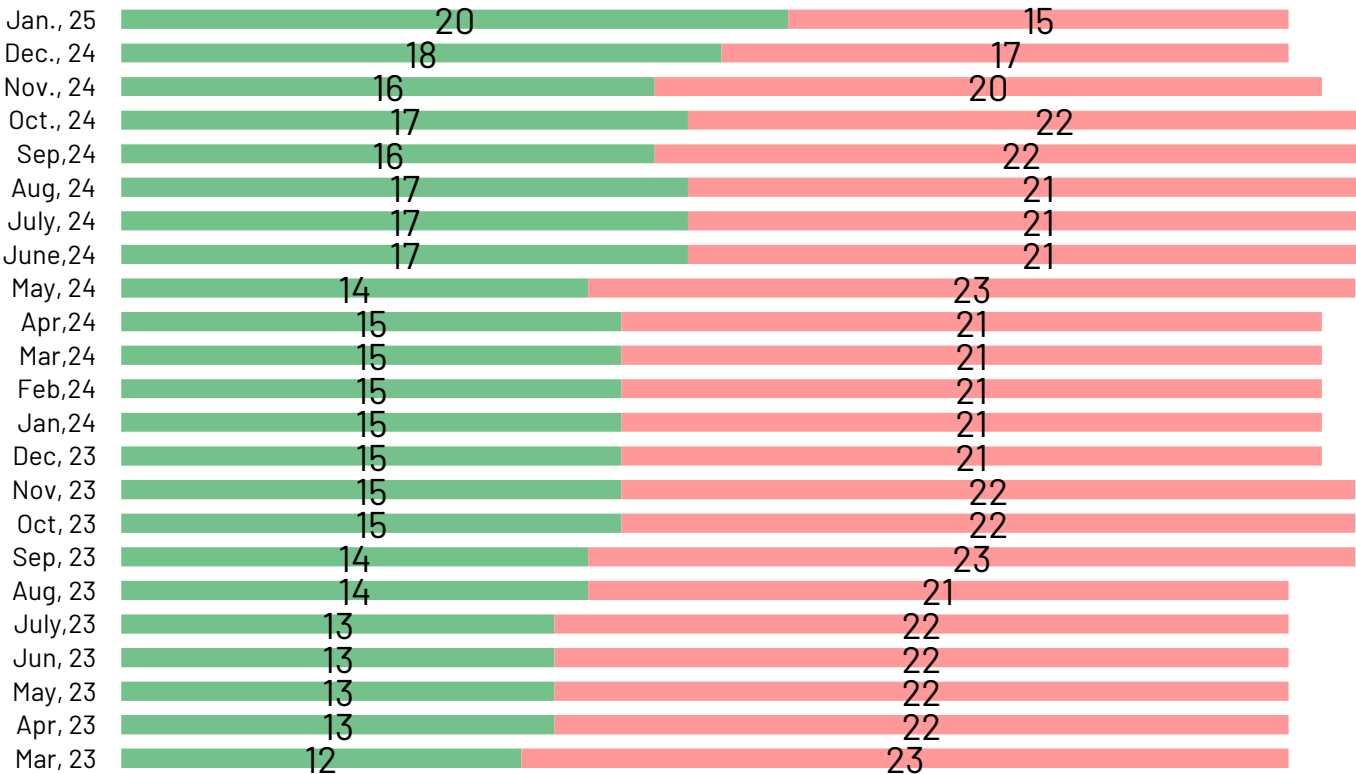
Compliance with prescribed standards BOD:TSS (10:10)



20/35 STP



436 /764 MGD

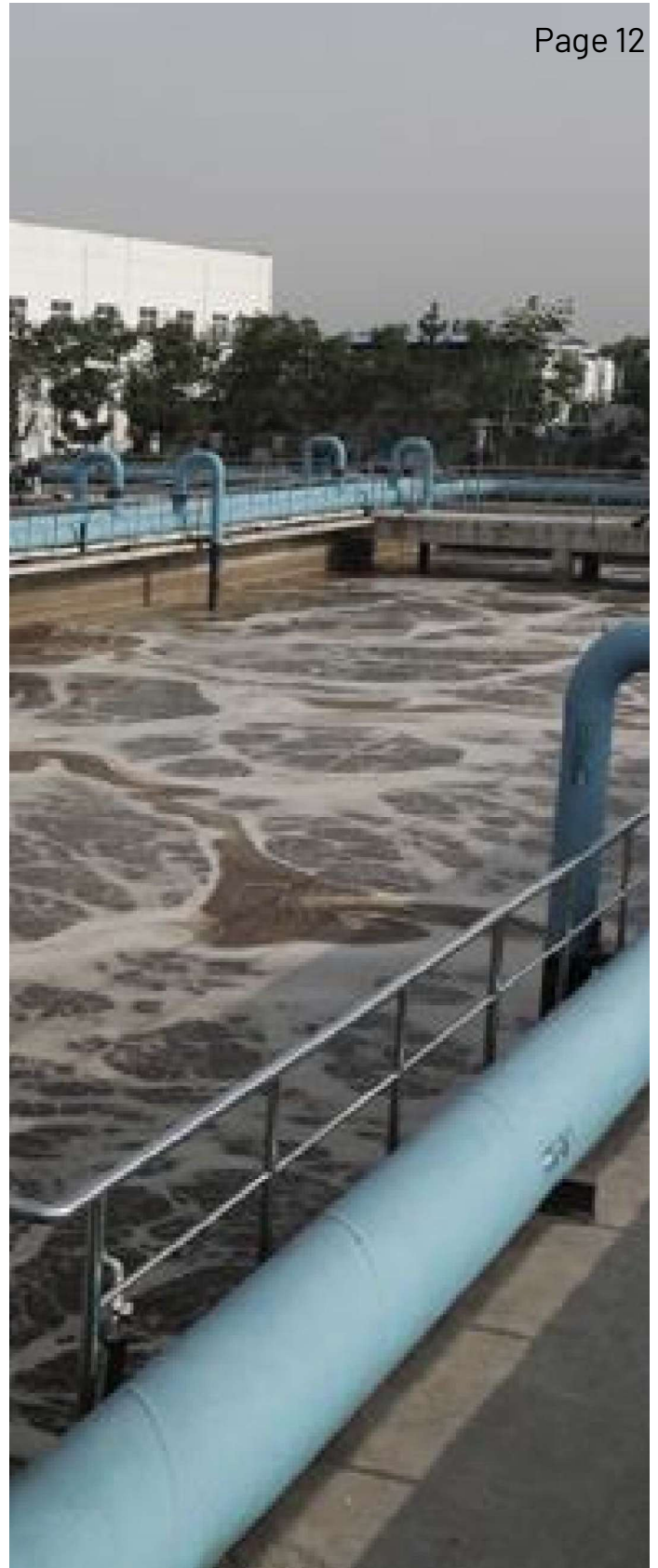


No. of STPs

In 2 STP's sample couldn't be taken

# Water Quality of Common Effluent Treatment Plants

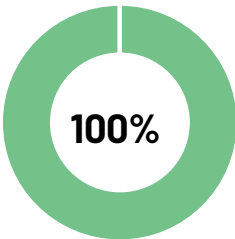
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08

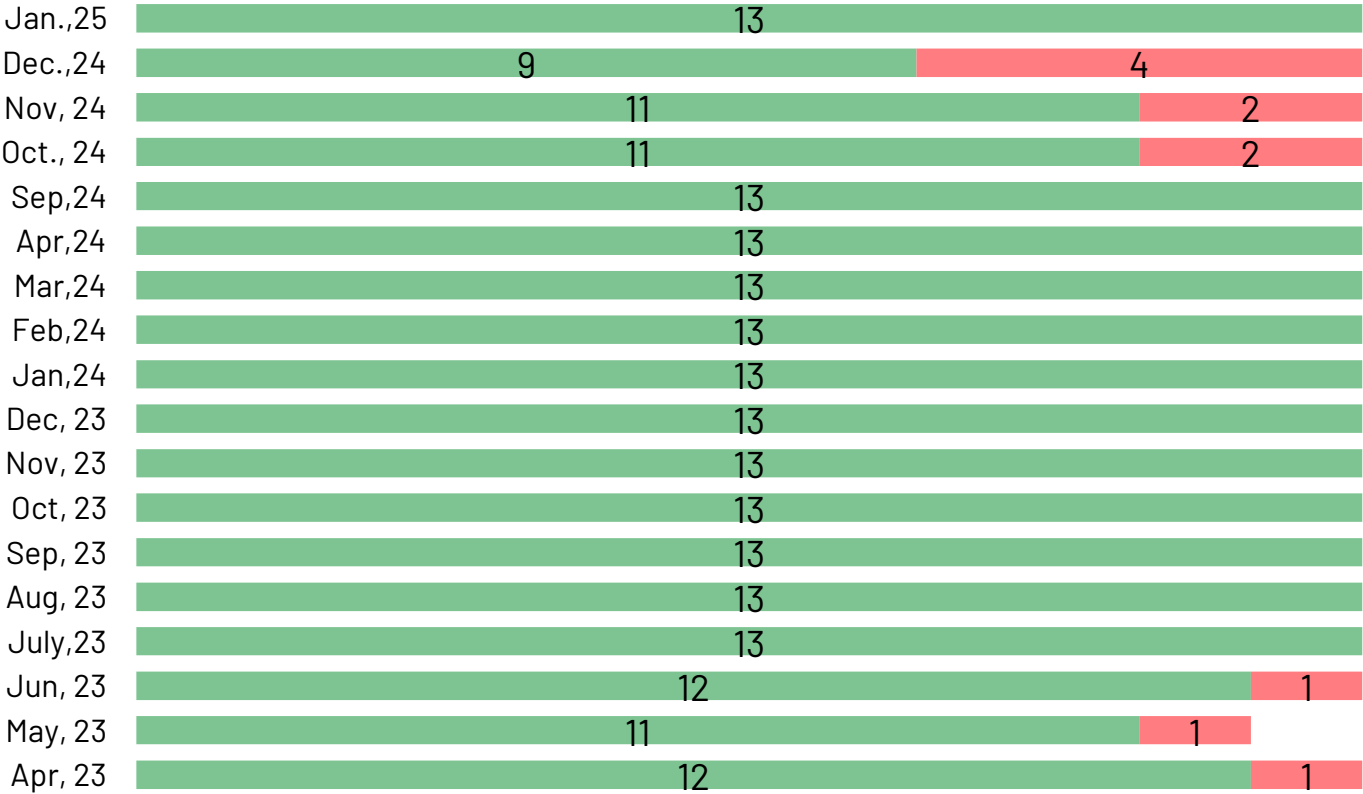
13 Common Effluent Treatment Plants  
Water Quality Monitoring

CETP: Treatment systems specifically designed for collective treatment of effluent generated from small-scale industrial facilities in an industrial cluster.



Utilization Capacity (Jan, 2025):  
63.399 MLD/212.3 MLD (29.9%)

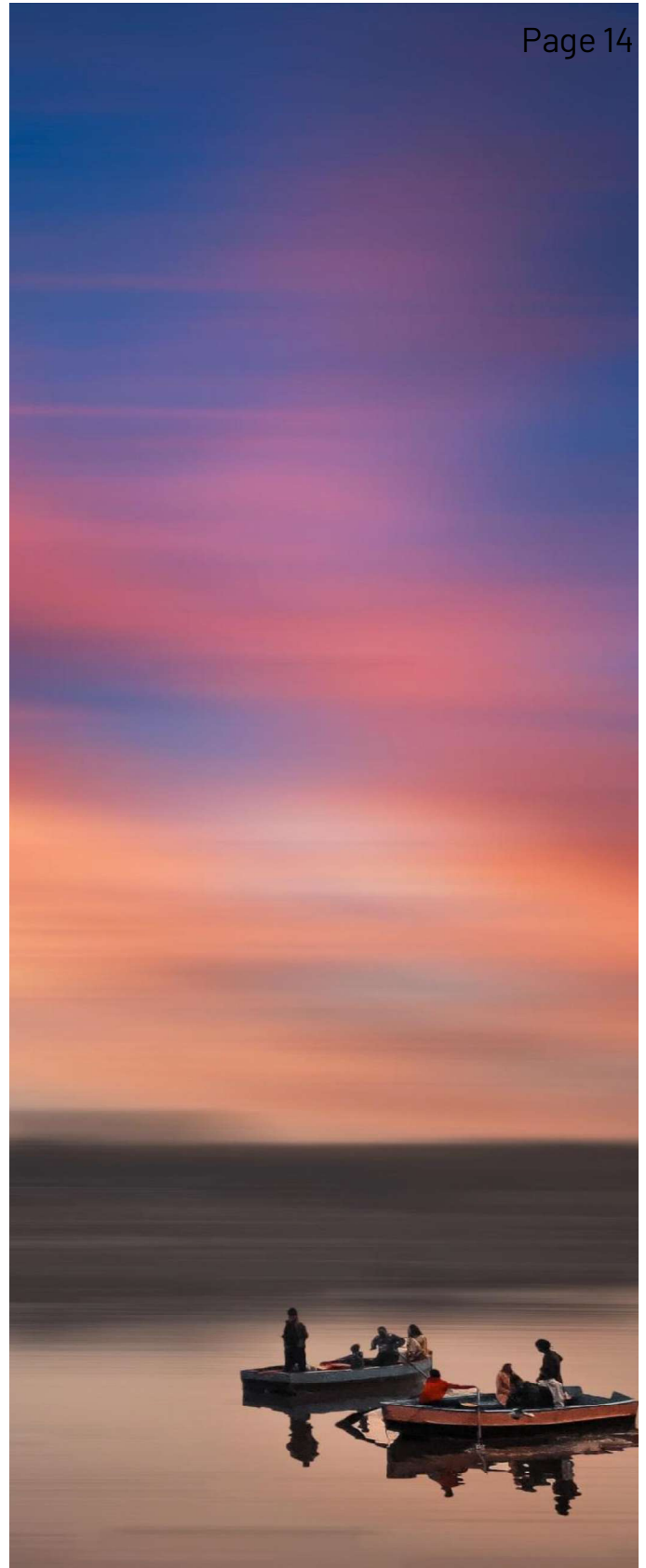
13/13 CETP



No. of CETPs

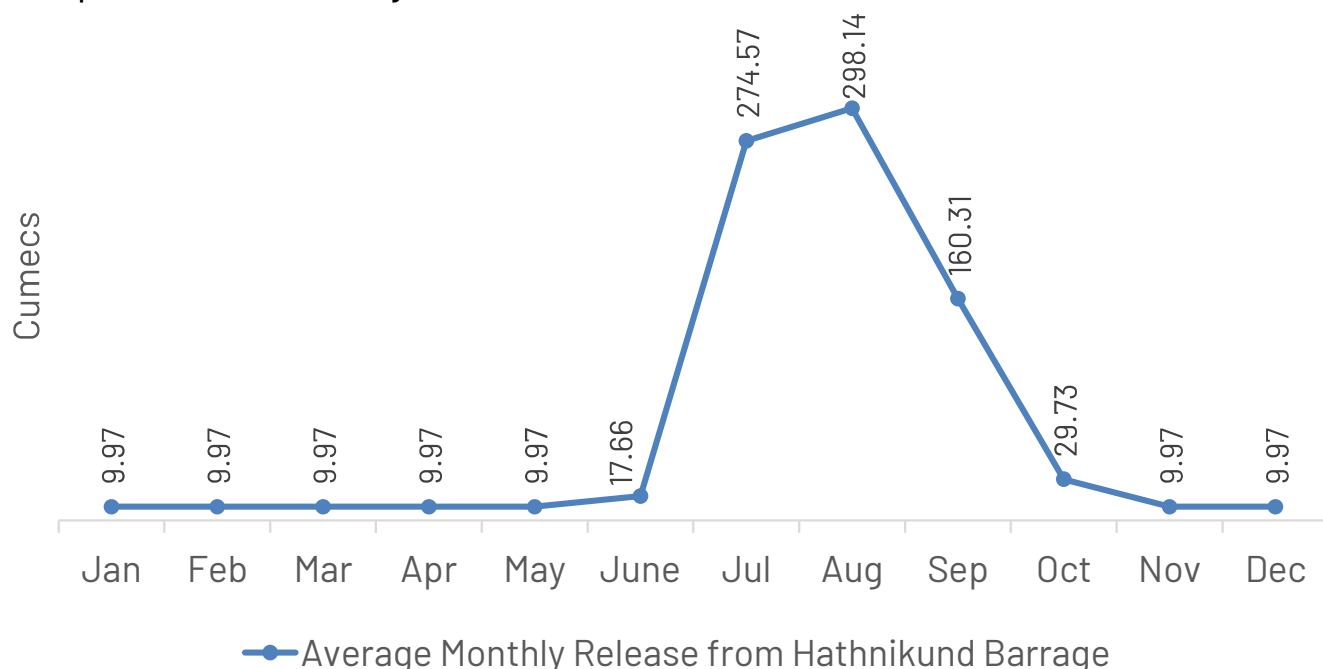
# Improvement of **Water Quality in Yamuna**

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# 09 Minimum Environmental Flow (e-flow)

E- Flow :Minimum quantity of flow of water that a river must have in order to preserve its ecosystems.



Minimum e-flow for dilution of polluted water in river Yamuna in Delhi is required to meet desired water quality levels in river Yamuna for bathing purpose i.e.  $BOD \leq 3 \text{ mg/l}$  &  $DO \geq 5 \text{ mg/l}$ .

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



# 09 Minimum Environmental Flow (E-flow)

- As per Final Draft Report submitted by NIH to NMCG. E-flow of 23 Cumecs (437 MGD) in lean season (May) has been recommended in NIH study.
  - Points : Hathnikund to Okhla Barrage
  - Present E flow: Approx. 10 Cumecs (190 MGD)
  - **Gap : Approx. 13 Cumecs (247 MGD)**
- **Possibilities:** Early construction and completion of below mentioned dams/Canals.
  - Renuka Dam project (Gol) - Approx. 13 Cumecs (Expected drinking water share of Delhi)
  - Lakhawar Dam project (Gol)
  - Kishau Dam project (Gol)
- Water sharing agreement of 1994 among riparian states of Uttarakhand, HP, UP, Haryana, Rajasthan and NCT Delhi is due for revision only in 2025.
- **Under E-flow of 23 Cumecs, BOD would come from 25 to 12 mg/l (Ideal BOD : 3 mg/l)**
- **Bathing standards of BOD 3 mg/l - E-flow required is more than 390 Cumecs (7410 MGD).**

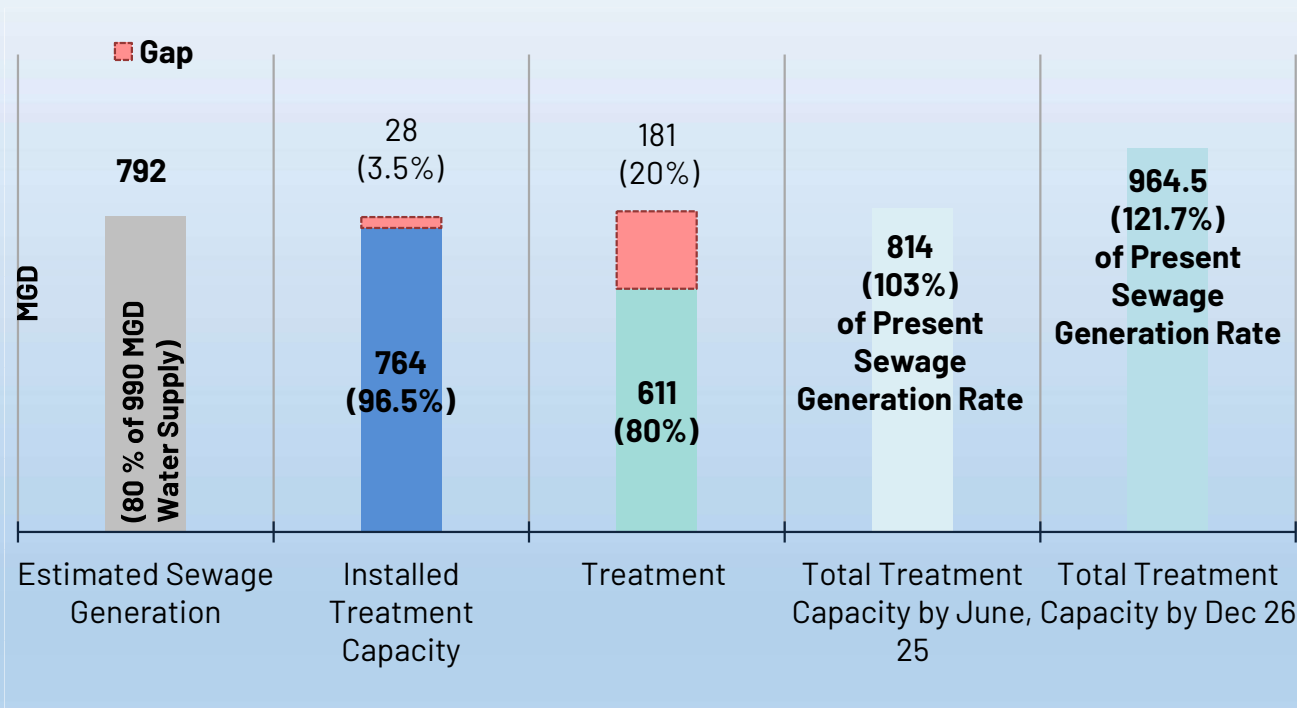
Hathnikund Barrage

Okhla Barrage



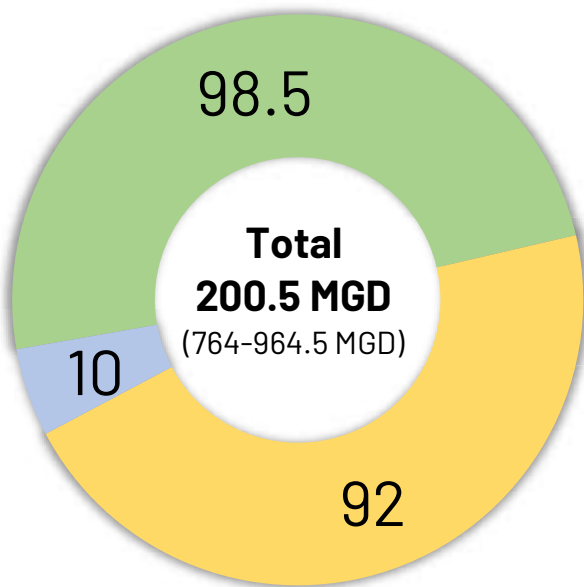
# 10 Augmentation & Rehabilitation of Sewage Treatment Plants

Generation, Treatment and Gap in Sewage Treatment



# 11 Augmentation & Rehabilitation of Sewage Treatment Plants

Focus Areas for Enhancing Sewage Treatment Capacity



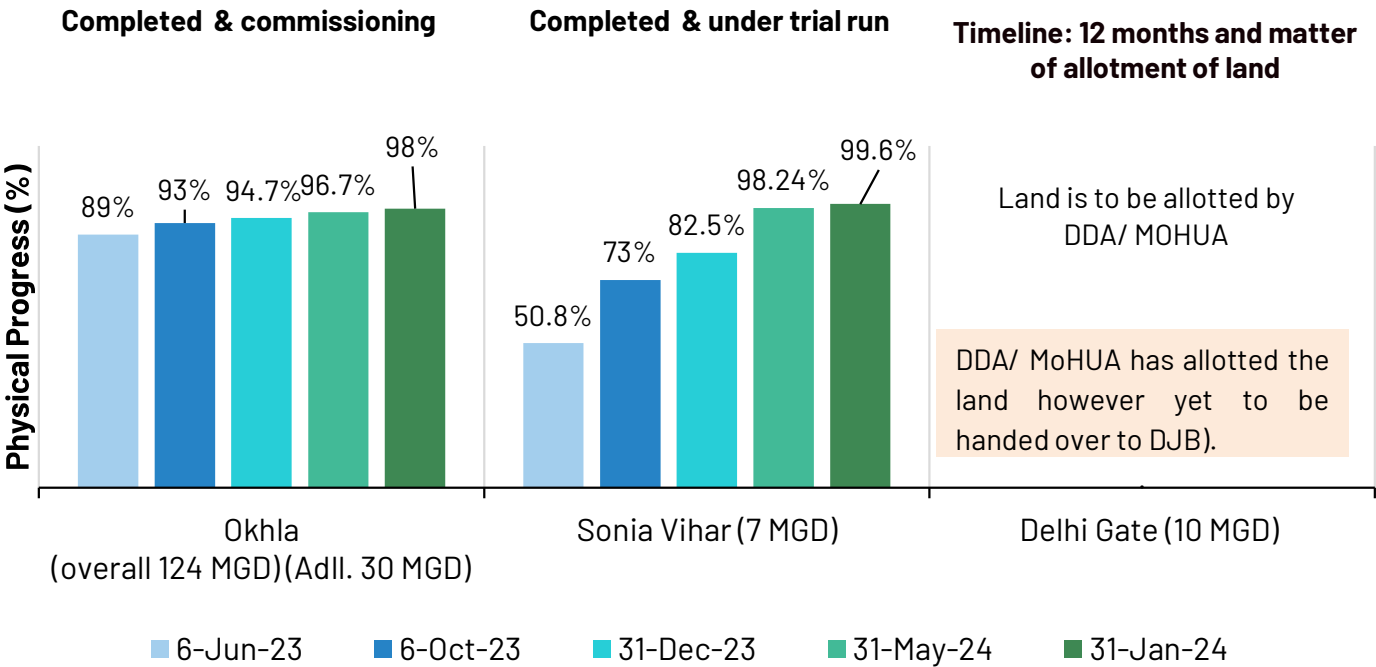
- Upgradation and increasing capacity of existing STPs (14)
- Construction of 40 New DSTPs
- Construction of New STPs at Delhi Gate



# 12 Progress in Construction of 3 new STPs

## Capacity Addition: 47 MGD

### Focus Areas for Enhancing Sewage Treatment Capacity

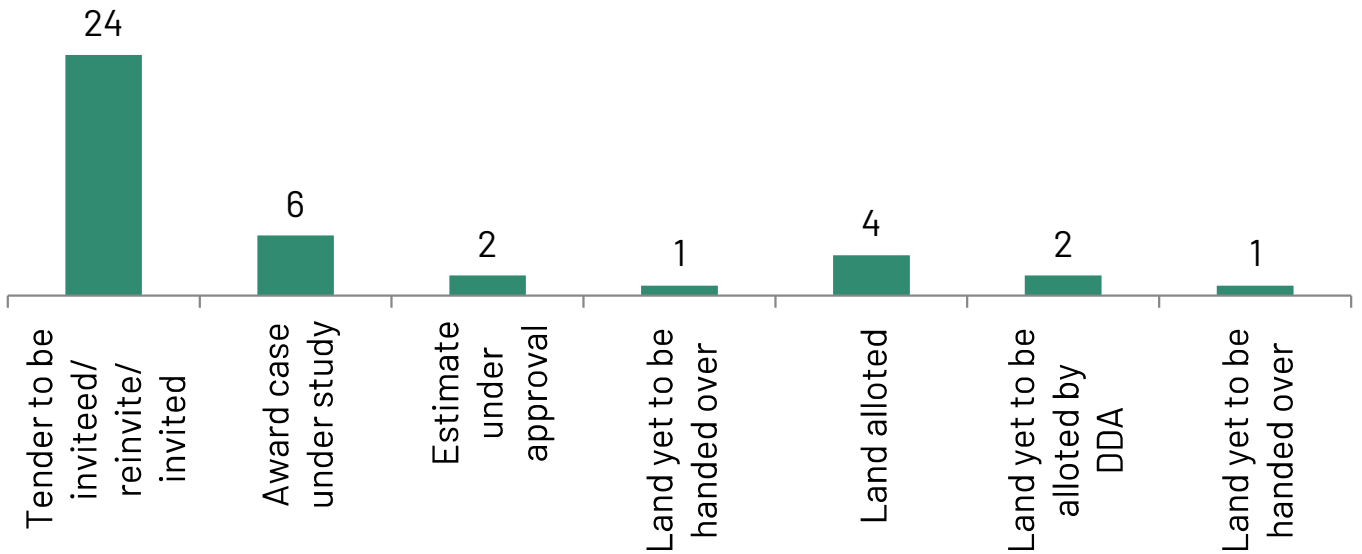


# 13

## Construction of 40 New DSTPs Capacity Addition: 92 MGD

### Focus Areas for Enhancing Sewage Treatment Capacity

**Timeline : December, 2026**

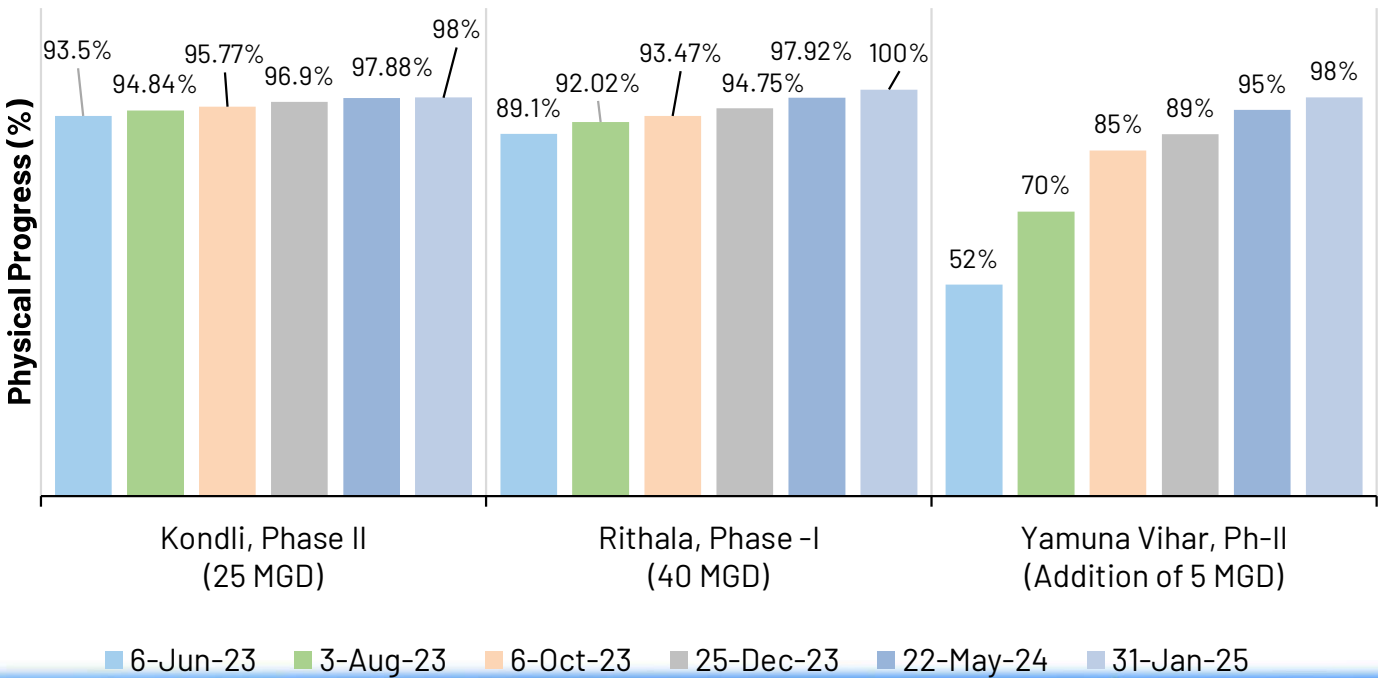


# 14 Rehabilitation of Existing 3 STPs

## Capacity Addition: 70 MGD

Focus Areas for Enhancing Sewage Treatment Capacity

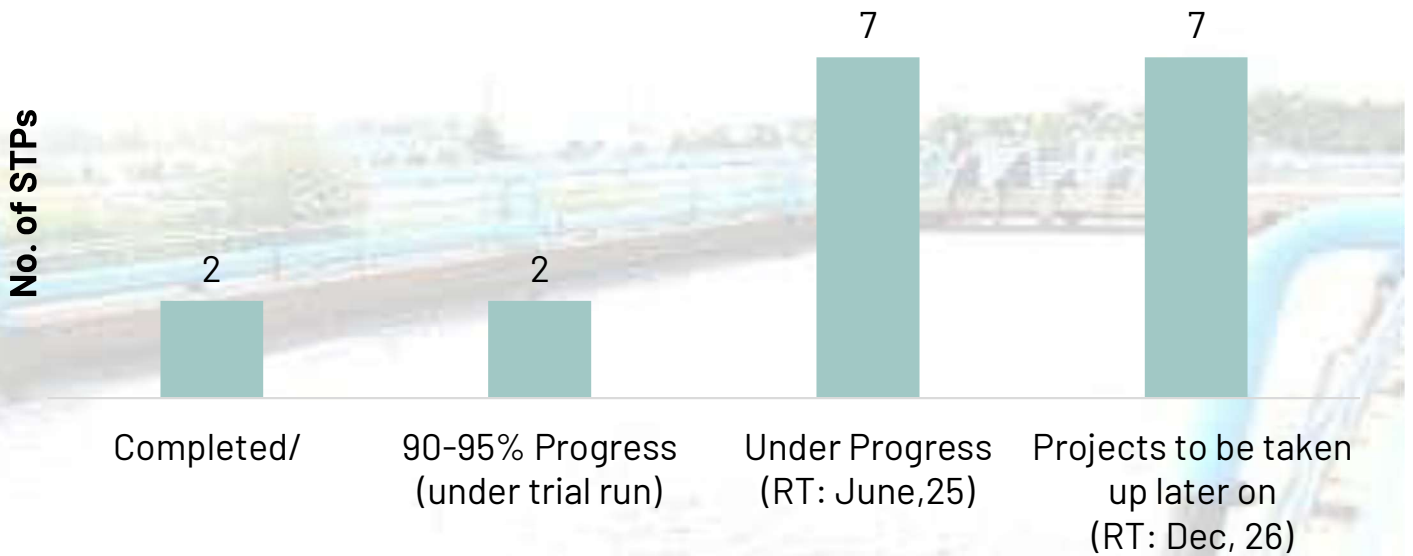
Revised Timeline: Completed ( under test and trial run)



# 15

## Upgradation of Existing 18 STPs Capacity Addition: 113.5 MGD

### Focus Areas for Enhancing Sewage Treatment Capacity



| Sr. No. | Name of STP       | Existing Capacity | Enhanced Capacity (In MGD) | Status as on 31 <sup>st</sup> Jan, 25 | Timelines       |
|---------|-------------------|-------------------|----------------------------|---------------------------------------|-----------------|
| 1.      | Rithala Phase -II | 40                | 40                         | 100% (Completed)                      | Completed       |
| 2.      | Kondli Phase-IV   | 45                | 45                         | 98.15%                                | Taking Effluent |

15

## Upgradation of Existing 18 STPs

### Capacity Addition: 113.5 MGD

#### Focus Areas for Enhancing Sewage Treatment Capacity

| Sr. No. | Name of STP                     | Existing Capacity | Enhanced Capacity (In MGD) | Status as on 25th Sept, 23 | Status as on 31st Jan, 25              | Revised Timelines |
|---------|---------------------------------|-------------------|----------------------------|----------------------------|----------------------------------------|-------------------|
| 3       | Pappan Kalan Phase - I          | 20                | 30                         | 21 %                       | 51 %                                   | June, 2025        |
| 4       | Nilothi Phase -I                | 40                | 60                         | 21%                        | 50%                                    |                   |
| 5       | Najafgarh                       | 5                 | 5                          | 27%                        | 95%                                    |                   |
| 6       | Keshopur Phase -II              | 20                | 20                         | 27 %                       | 91%                                    |                   |
| 7       | Keshopur Phase-III              | 40                | 60                         | 27 %                       | 89%                                    |                   |
| 8       | Rohini Sector 25                | 15                | 25                         | 25 %                       | 98%                                    |                   |
| 9       | Narela                          | 10                | 15                         | 25 %                       | 98%                                    |                   |
| 10      | Coronation Pillar Phase -I & II | 20                | 20                         | 25 %                       | 98%                                    |                   |
| 11      | Coronation Pillar Phase-III     | 10                | 10                         | 25 %                       | 98%                                    |                   |
| 12      | Okhla Phase- V                  | 16                | 16                         | tender yet to be invited   | Proposal under process under EPC Model | December, 2026    |
| 13      | Mehrauli                        | 5                 | 7.5                        |                            |                                        |                   |
| 14      | Ghitorni                        | 5                 | 7.5                        |                            |                                        |                   |
| 15      | Vasant Kunj                     | 5                 | 7.5                        |                            |                                        |                   |
| 16      | Yamuna Vihar Phase - I          | 10                | 15                         |                            |                                        |                   |

## 15

## Upgradation of Existing 18 STPs Capacity Addition: 113.5 MGD

### Focus Areas for Enhancing Sewage Treatment Capacity

| Sr. No. | Name of STP              | Existing Capacity | Enhanced Capacity (In MGD) | Status as on 6th Oct, 23                                                           | Status as on 31 <sup>st</sup> Jan, 25  | Timelines |
|---------|--------------------------|-------------------|----------------------------|------------------------------------------------------------------------------------|----------------------------------------|-----------|
| 17.     | Keshopur Phase- I        | 12                | 18                         | File sent to competent authority for approval work at earliest                     | Tender re-invited                      | Dec, 2026 |
| 18.     | Yamuna Vihar Phase - III | 25                | 55                         | File has been sent to competent authority for administrative approval of Estimate. | Proposal under process under EPC Model | Dec, 2026 |



# 16 Tapping of Drains

## 22 Major Drains

drains tapped out of 22 major drains , 02 are partially tapped

| S.No | Drain                   | Status        |
|------|-------------------------|---------------|
| 1    | Metcalf House Drain     | Tapped        |
| 2    | Khyber Pass Drain       |               |
| 3    | Sweeper Colony Drain    |               |
| 4    | Magazine Road Drain     |               |
| 5    | Tonga Stand Drain       |               |
| 6    | Moat Drain (Vijay Ghat) |               |
| 7    | Drain No. 14            |               |
| 8    | Tehkhand Drain          |               |
| 9    | Civil Mill Drain        |               |
| 10   | Abul Fazal Drain        | To be tapped. |

| S.No | Drain                                         | Status           |
|------|-----------------------------------------------|------------------|
| 11   | Sen Nursing Home Drain                        | Partially Tapped |
| 12   | Delhi Gate Drain / Power House Drain          |                  |
| 13   | Najafgarh Drain                               | Work in Progress |
| 14   | Barapulla Drain                               |                  |
| 15   | Maharani Bagh Drain                           |                  |
| 16   | ISBT Drain (Qudsia Bagh/ Mori Gate Drain)     |                  |
| 17   | Sonia Vihar Drain (On Eastern Bank of Yamuna) |                  |
| 18   | Shahdara Drain                                |                  |

| S.No | Drain                                                  | Status       |
|------|--------------------------------------------------------|--------------|
| 19   | Kailash Nagar Drain (On Eastern Bank of Yamuna)        | To be tapped |
| 20   | Shastri Park Drain (On Eastern Bank of Yamuna)         |              |
| 21   | Jaitpur Drain                                          |              |
| 22   | Tuglakabad Drain (Kalka Ji Drain merged in this drain) |              |



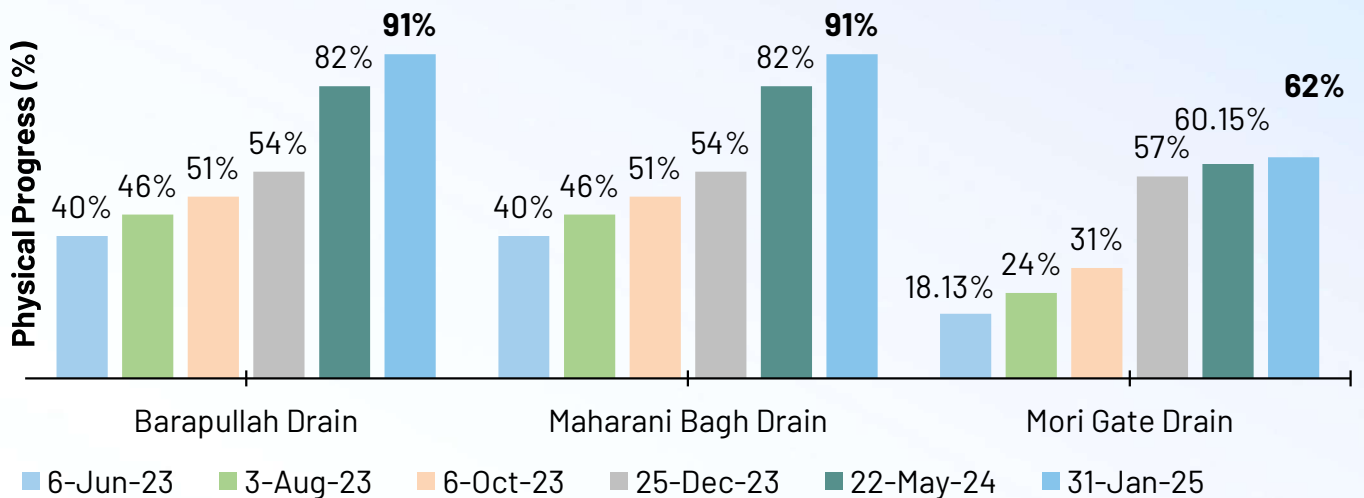
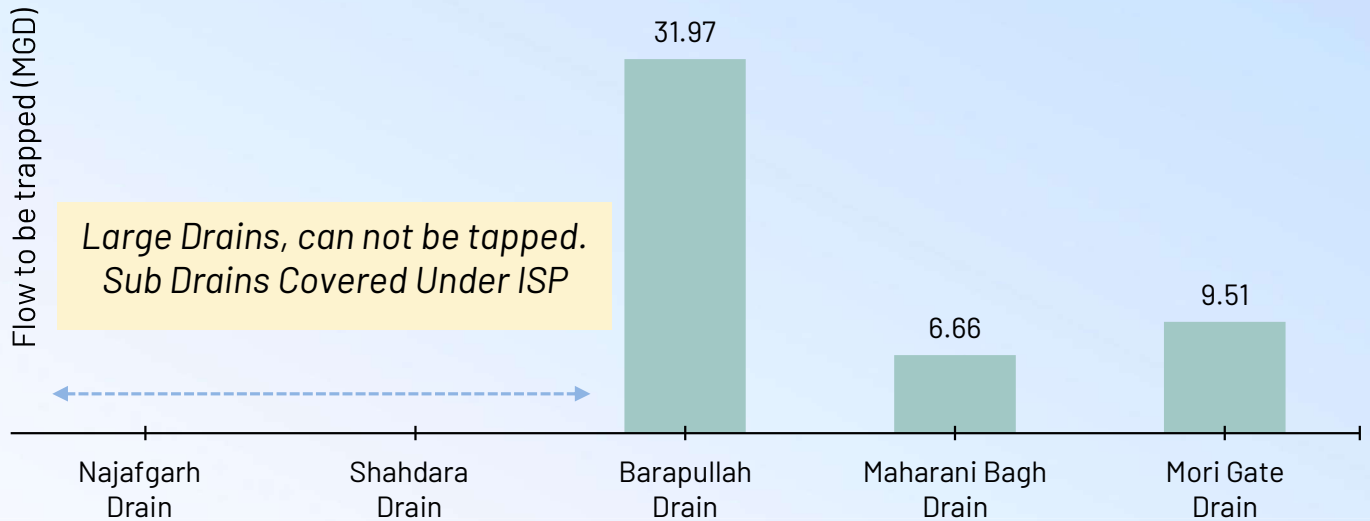
## 16

# Tapping of all Drains

## Remaining 03 untapped major drains

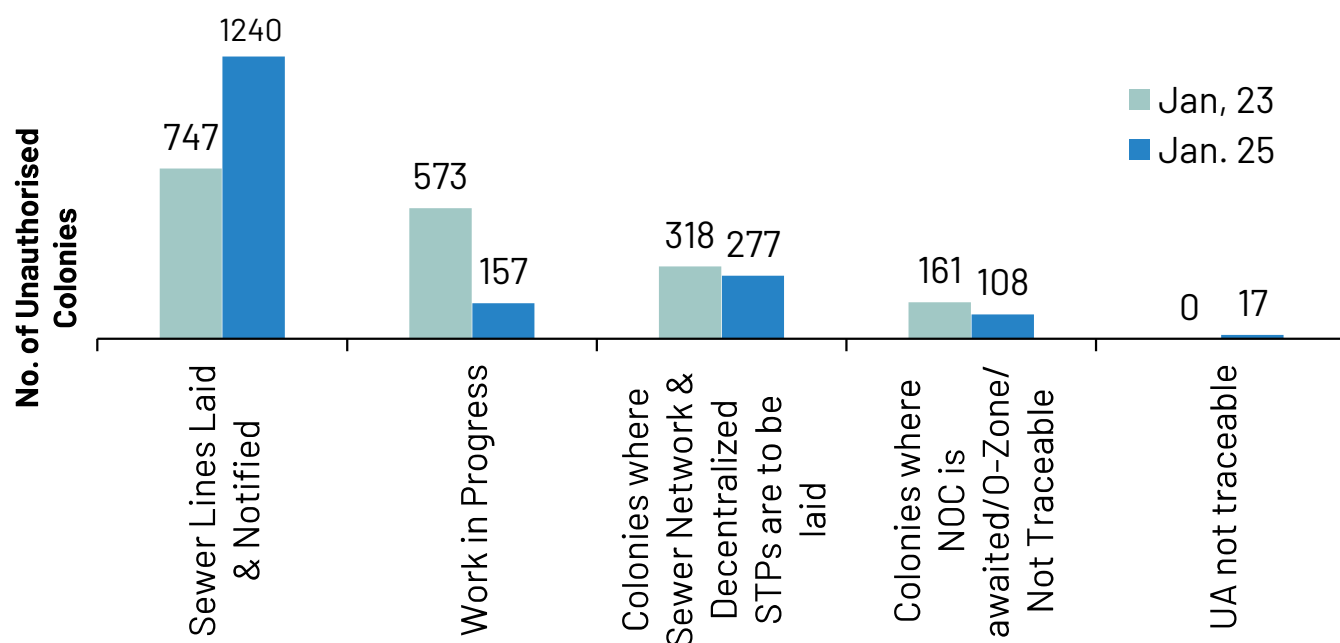
Total Flow to be Trapped: 48.14 MGD

Revised Timeline: May, 25



# 17 Sewerage Network in Unauthorized Colonies (1799)

| S. No. | Description                                                                                                      | Cumulative Status (No.) |
|--------|------------------------------------------------------------------------------------------------------------------|-------------------------|
| 1      | Sewer line laid /commissioned                                                                                    | 1240                    |
| 2      | No. Of UA colonies where sewer line will be laid by Dec.2025                                                     | 157                     |
| 3      | No. of UA Colonies where work is in estimate/tender /award stage/ after handing over possession of land for DSTP | 277                     |
| 4      | No. of Unauthorized Colonies where sewer line will be laid after issuing of NOC by Forest / ASI / UD Deptt.      | 108                     |
| 5      | No. Of UA colonies Not traceable/ not existing                                                                   | 17                      |
|        | <b>Total</b>                                                                                                     | <b>1799</b>             |



# 17 Sewerage Network in Unauthorised Colonies (1799)

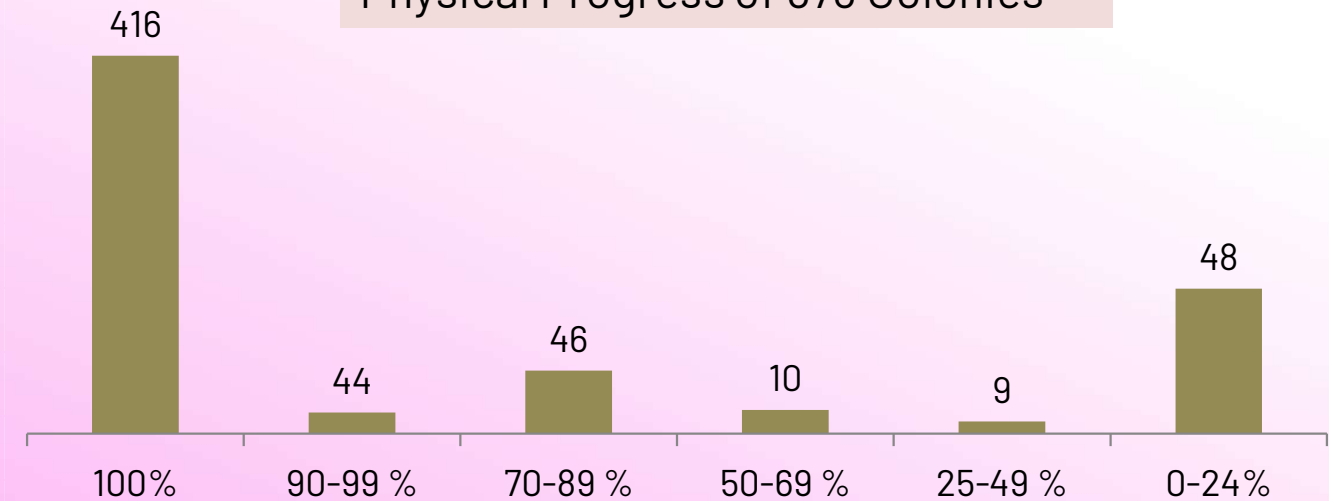
573 Colonies where laying Sewer Network in progress

**"Timeline: December, 26"**

Achievement

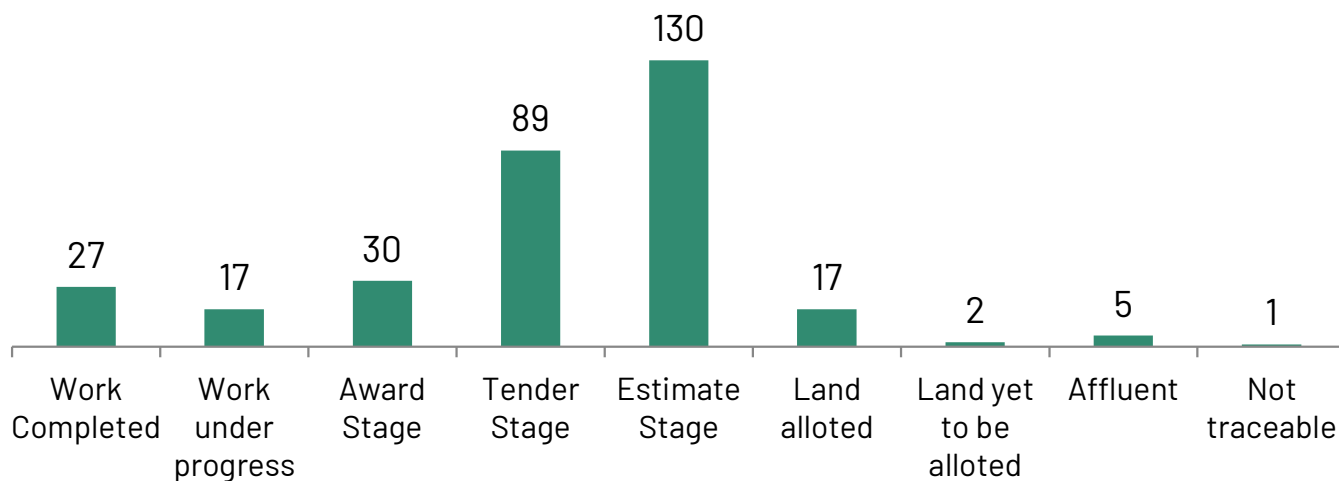


Physical Progress of 573 Colonies

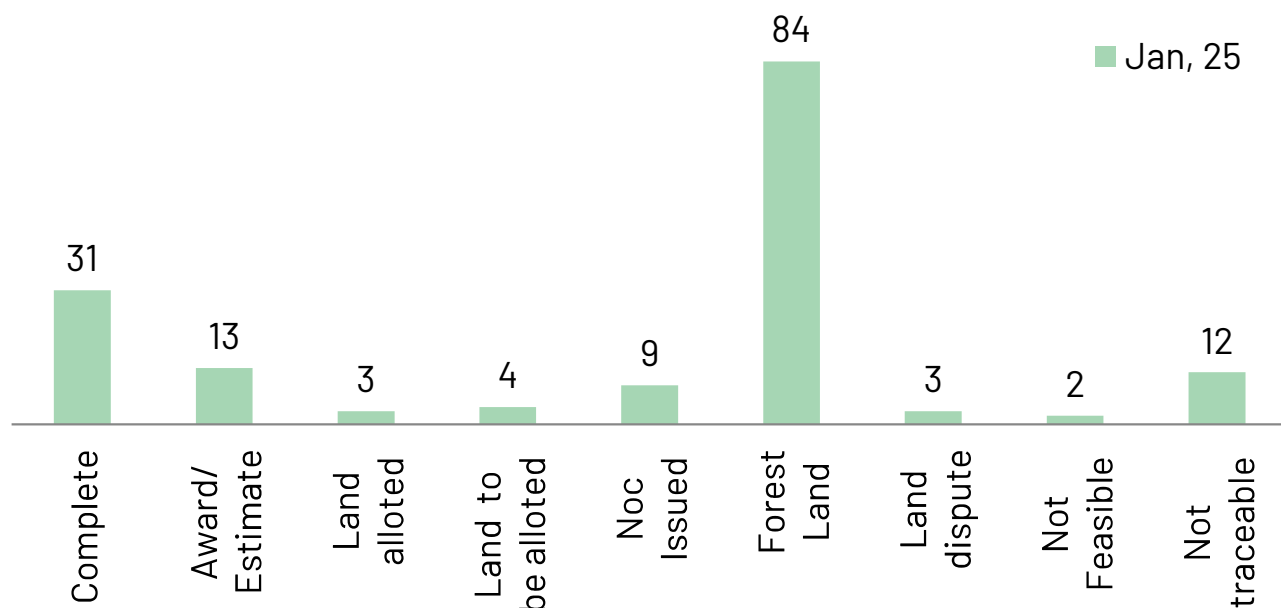


# 17 Sewerage Network in Unauthorised Colonies (1799)

**318 Colonies where sewerage network is to be laid along with Decentralized STPs**



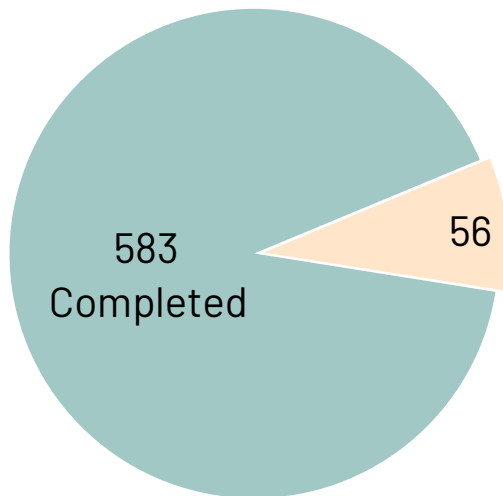
**161 colonies where NOC is awaited/O-Zone**



# 18

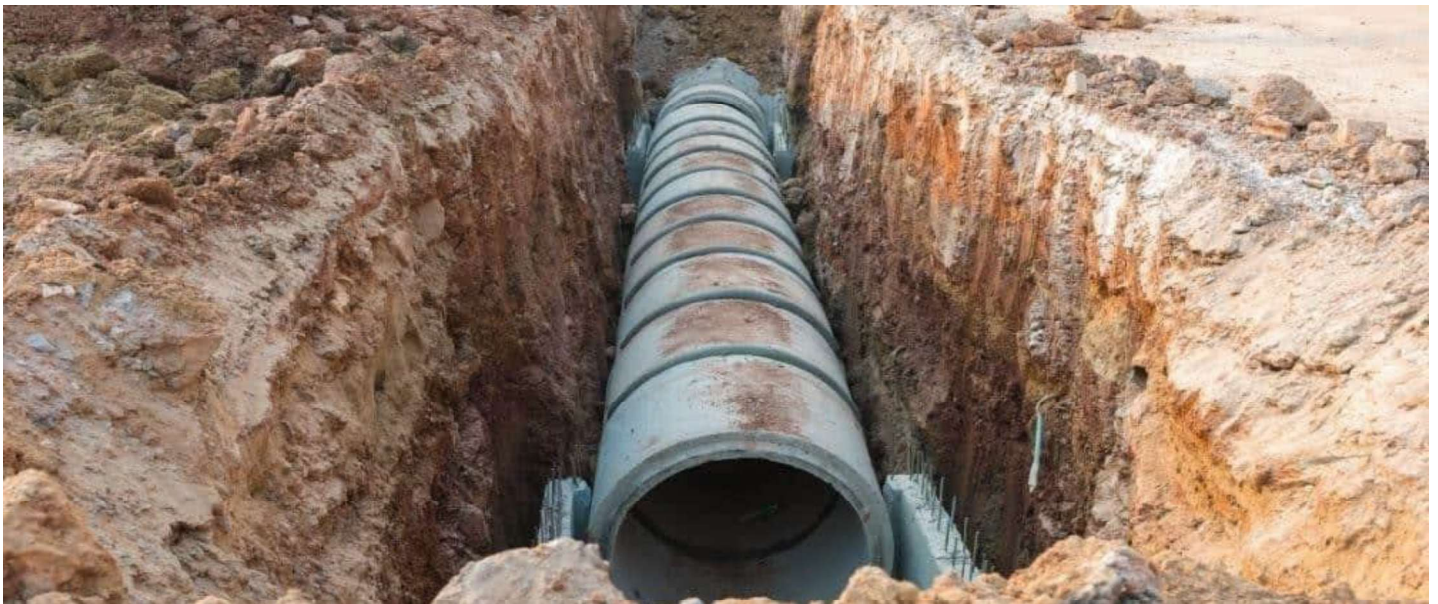
## Connection of Drains/ Drainage system of JJ Clusters (639 Nos) with sewerage network

Connection of storm water drain at outfall points/ points of JJC's into nearest DJB sewerage system. **Timeline: December, 2026**



**Total JJC's : 639**

Remaining 56 JJC's  
(Total discharge: 2 MGD)



# 19 Management of Faecal Sludge (Septage)

- **Delhi Water Board Septage Management Regulations 2018 dated 12.11.2018** for collection, transportation and disposal of waste of septic tanks (Septage).
- Necessary action to be taken by DJB, District Magistrates & Local Bodies
- DM - authorized to ensure enforcement as well as compliance of these regulations. License issued by DJB to vendors for Collection, Transportation & Disposal at designated SPSs/STPs
- Septage Management Committees headed by concerned District Magistrates
- Divisional Commissioner taking review meetings with DMs on weekly basis

**17.19** Total Amount of Environmental  
Lakhs Compensation Imposed & 17.19 Lakhs received

**153**

Total No. of Meetings of Septage Management Committees held

**64**

No. of Vehicles/ Tankers found unauthorizedly discharging septage into Drains etc.

**63**

No. of Vehicles/ Tankers impounded

**57**

No. of Challans/notices issued

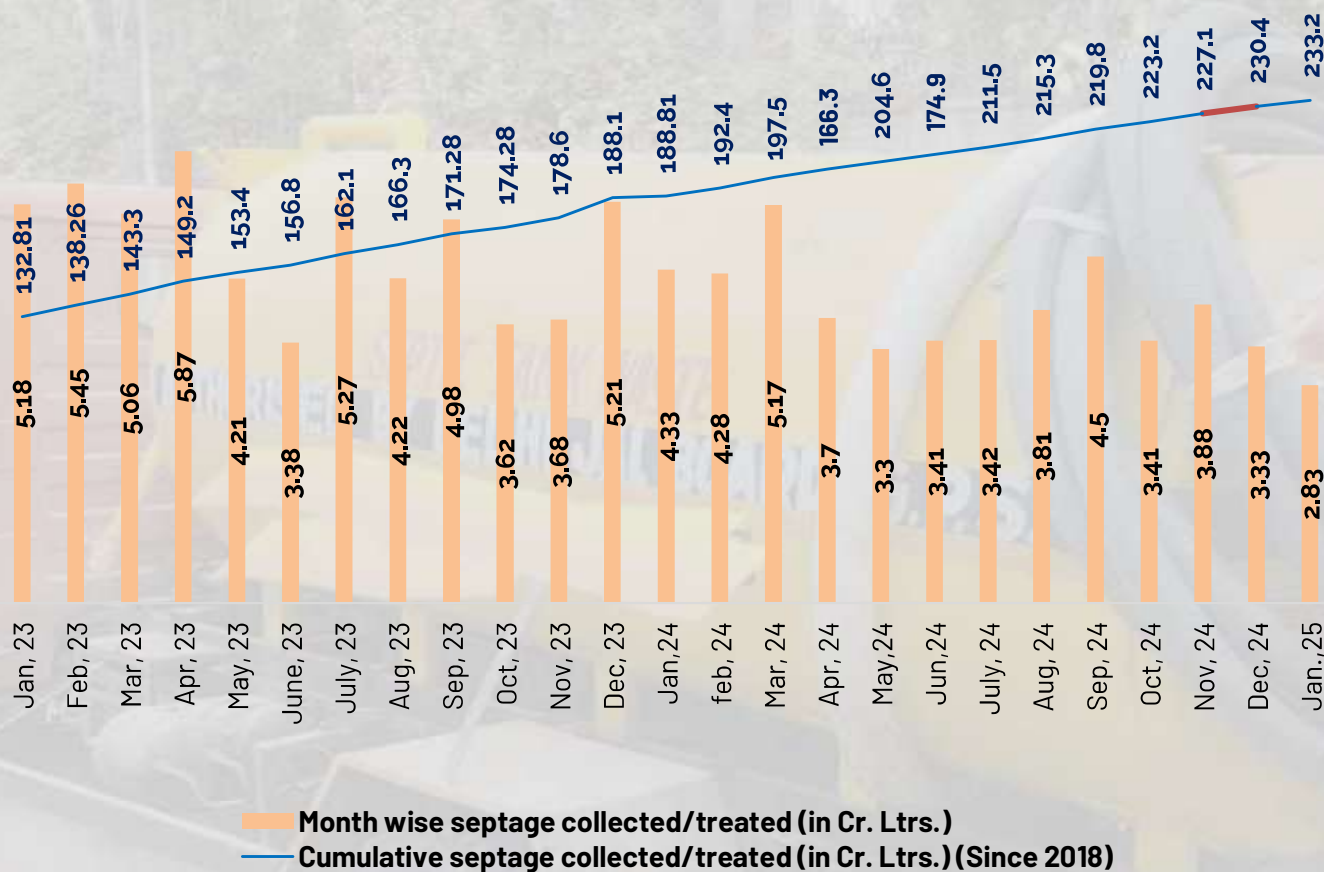
DPCC: Direction issued u/s 33(A) of Water Act on 27.03.2023

- Penalty for deposit of septage by unauthorized (unlicensed) entity: 50,000/-
- Penalty for disposal of Septage at places other than designated places: 50,000/-
- Penalty on person who uses services of unlicensed vendor/vehicles: 10,000/-

**Competent Authority : DM, Delhi Police, MCD, IFCD and DJB**

# 19 Management of Faecal Sludge (Septage)

## Faecal Sludge (Septage) Collection & Treatment



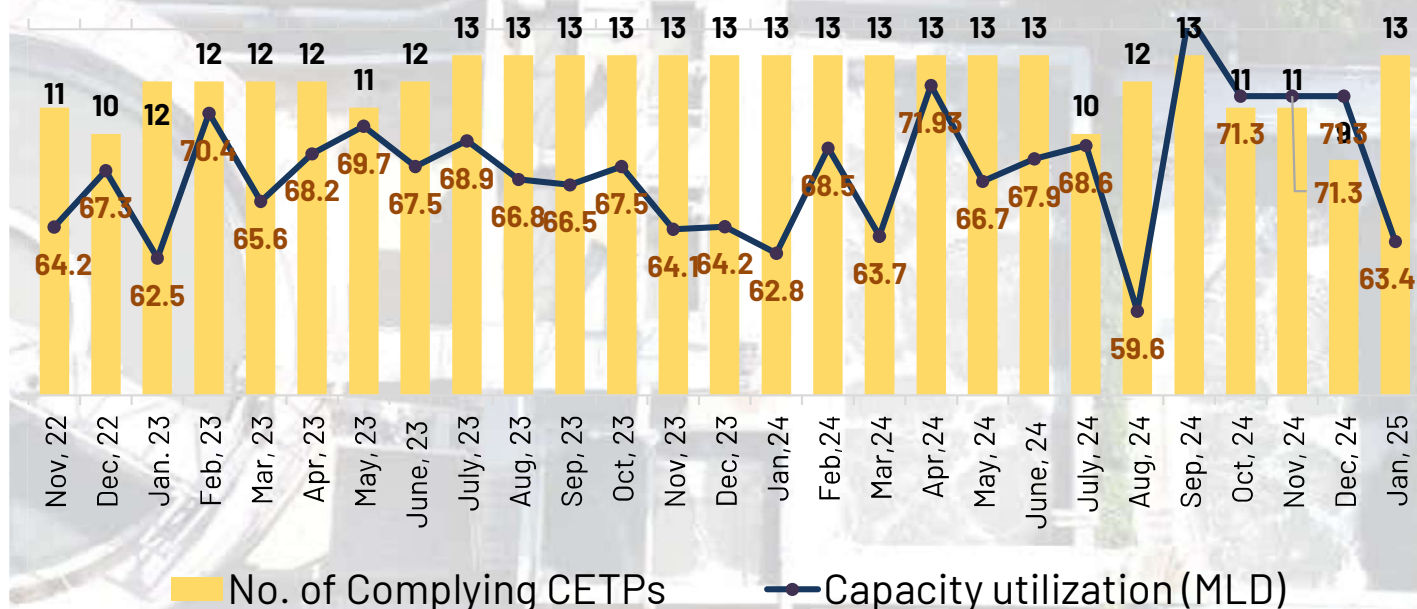
**233.2 Crore Litres** septage collected/treated till Jan.,25

# 20 Industrial Effluent Management by Common Effluent Treatment Plants (13)

CETPs designed to meet prescribed standards under EP Act (Installed Capacity of all the 13 CETPs: 212.3 MLD).

**DPCC monitors CETPs on monthly basis.**

Total EC Amount of Rupees 19.10 Crores has been imposed by DPCC on the 11 CETP Societies and 2 Operators of CETPs at Narela & Bawana from time to time for violations / not meeting the prescribed standards in the past.

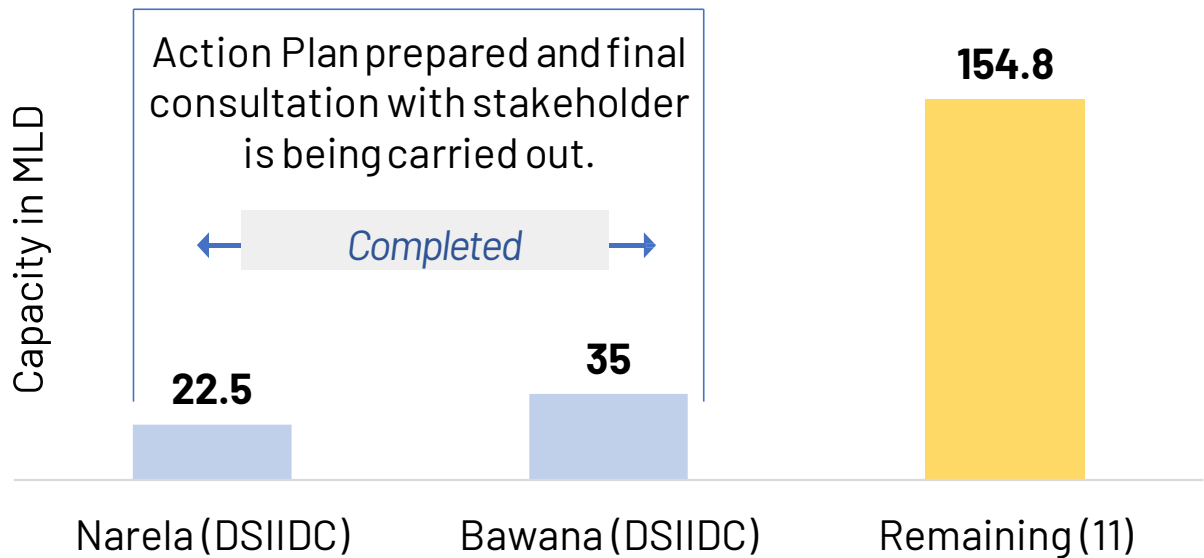


**Action taken against Dyeing units in non-conforming areas of Delhi by Joint Team consisting of MCD, DPCC, Revenue Dept., Power Companies, DJB (28.04.2023 to 15.01.2025)**

✓ Close down/Sealed/ Disconnection of electricity

: 203

# 21 Upgradation of Common Effluent Treatment Plants (13)



- Narela and Bawana CETPs has been upgraded by DSIIDC.
- Govt. of NCT of Delhi vide notification dated 01.01.2024 has given powers in respect of 11 CETPs presently being operated and maintained by CETPs Societies to DJB



# 22 Regulation of Flood plain Delhi Development Authority



## Enforcement

**1536 acres** of land has been reclaimed since 2 years 3 months

**80,713 MT** of C&D waste lifted & utilized



## Protection Measures

369 Security Guards  
90 CCTV cameras at 27 location



## Demarcation

1 in 25 years Flood Plain  
Fencing with 591 bollards  
375 Flag Posts  
27 Sign Boards



## Restoration projects

Landscaping  
Wetland construction  
Public Utilities-pedestrian Pathways, Cycling Tracks, Bio-toilets, Entrance Plaza, Signages

# 23 Restoration & Rejuvenation of Flood Plains

## Status of 10 Projects



### Completed Projects

- ✓ **Asita East (Part A: 90 Ha)**
- ✓ **Asita West (Part A: 93 Ha)**
- ✓ **Asita East (Part B: 107 Ha) Ph-I Completed**
- ✓ **Kalindi Aviral (Part A: 100 Ha)**
- ✓ **Asita West (Part A: 107 Ha)**
- ✓ **Ghat Area (Part A: 16 Ha)**
- ✓ **Yamuna Vanasthali (Ph-I) : 236.5 Ha**



### Projects in Advance Stage

- **Asita East (Part B: 107 Ha) Ph-II in Progress**
- **Kalindi Aviral Extension 163 Ha**
- **Kalindi Biodiversity Park : 115 Ha**
- **Amrut Bio Diversity Park- (Part A: 90 Ha)**



### Projects in initial stage

- ❖ **Ghat Area (Part B/C: 50 Ha)**
- ❖ **Amrut Bio Diversity Park- (Part B/C 26.5 Ha)**
- ❖ **Mayur Nature Park: 397.75 Ha**
- ❖ **Hindan Sarovar: 45 Ha**
- ❖ **Eco-Tourism area: (Part A & B: 30Ha)**

# 24 Utilization of Treated Wastewater

## Action Plan by DJB (611 MGD)

### 125 (90+35) MGD

Being used in Horticulture and Lake Rejuvenation & water Bodies etc.



### 267 MGD

Mandatory Return Flow in Yamuna



611 MGD



### 70 + 30 MGD

Proposed : Ground water recharge at DJB Marshy land near coronation pillar, Bhalwasa lake, Jhangirpuri Drain "December 24"



### 119 MGD

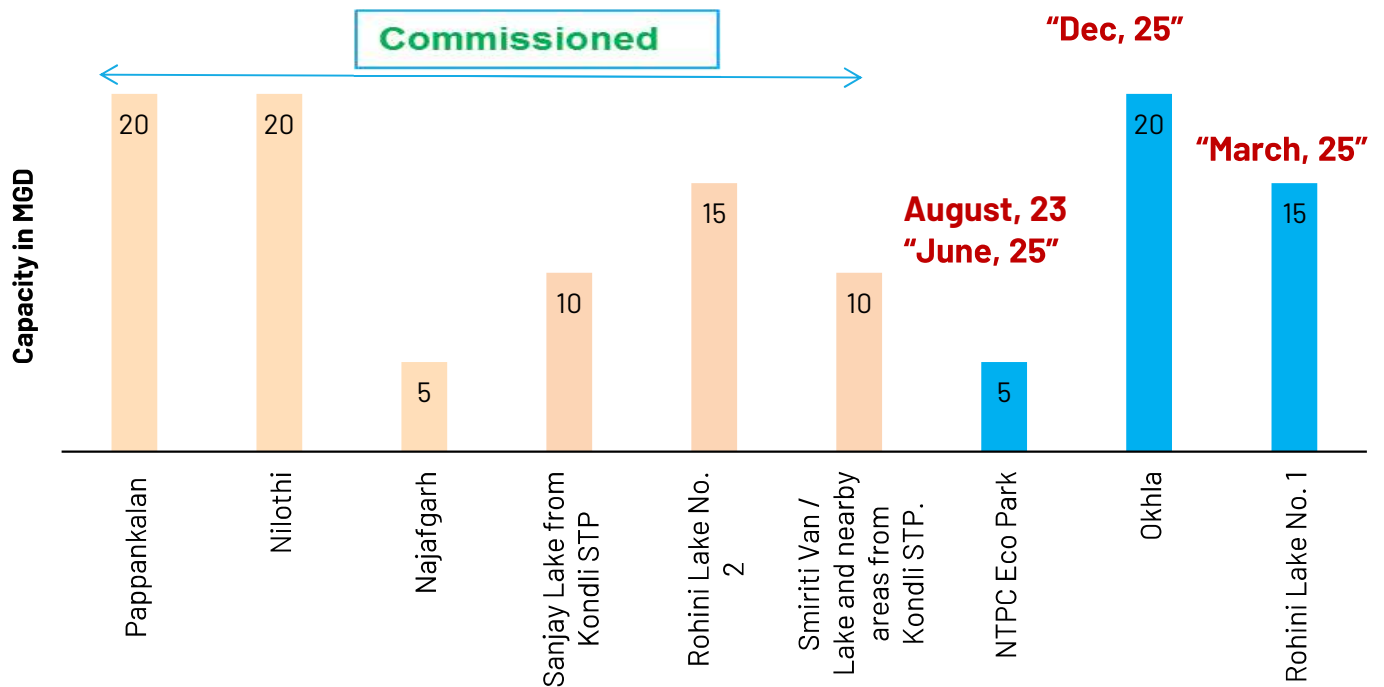
Gap



# 25 Utilization of Treated Wastewater

Progress of work for Utilization 120 MGD Treated Wastewater

**In progress 40 MGD**



DJB is also exploring the possibility of using treated STP Water in other usages like in Farm houses, Golf courses, Construction activities etc. and have already made available treated water at its STPs @ Rs 7/ Kilolitre.







Department of Environment,  
Govt. of NCT of Delhi

