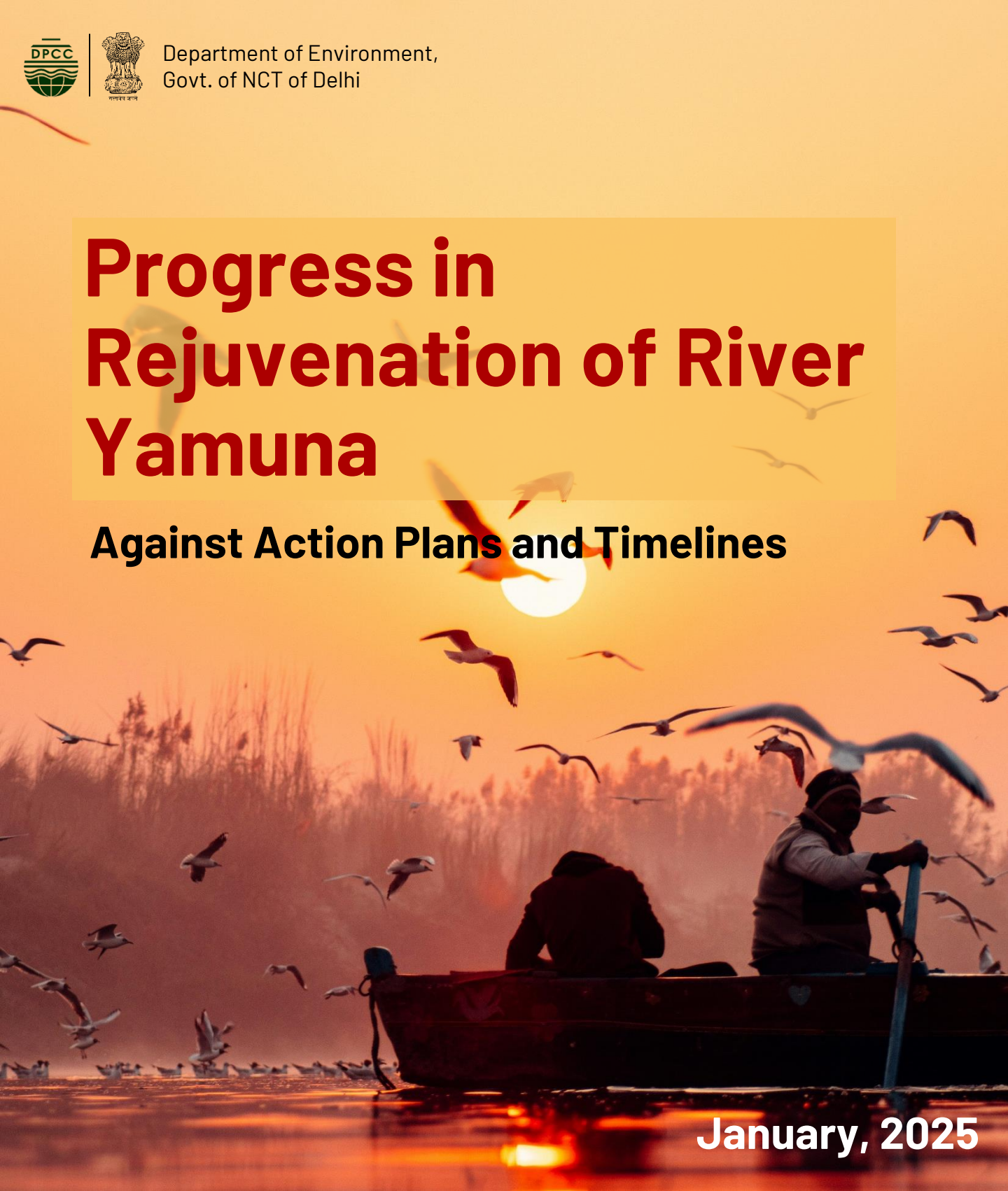




Department of Environment,
Govt. of NCT of Delhi

Progress in Rejuvenation of River Yamuna

Against Action Plans and Timelines



January, 2025



Water Quality Monitoring

By DPCC



01 Water Quality Monitoring by DPCC

Compliances with prescribed standards



River Yamuna

At 8 locations



22 Drains

Out falling into
River Yamuna



39 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 (≥ 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 (≤ 3 mg/l) : Less BOD is good



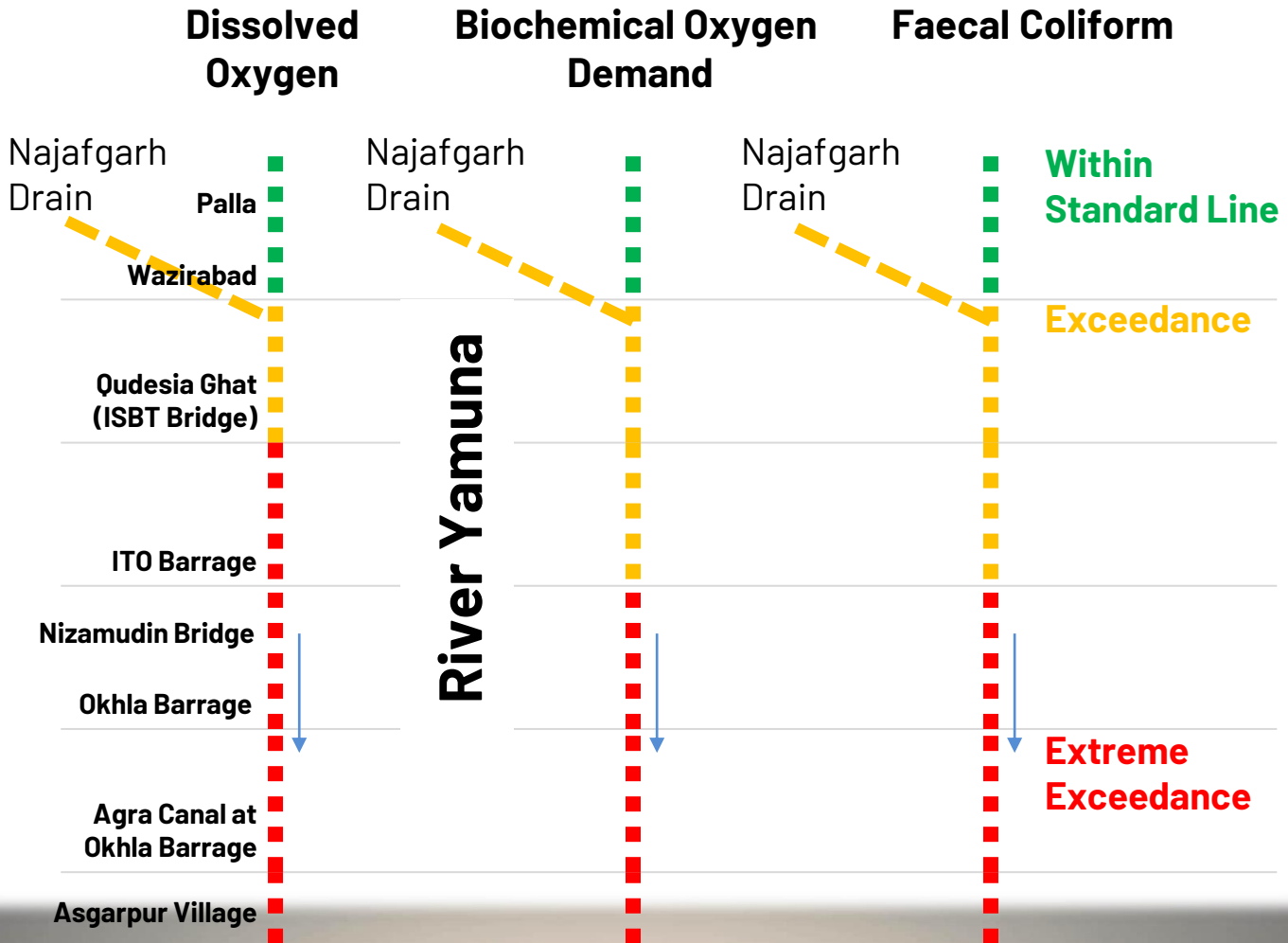
Faecal Coliform

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

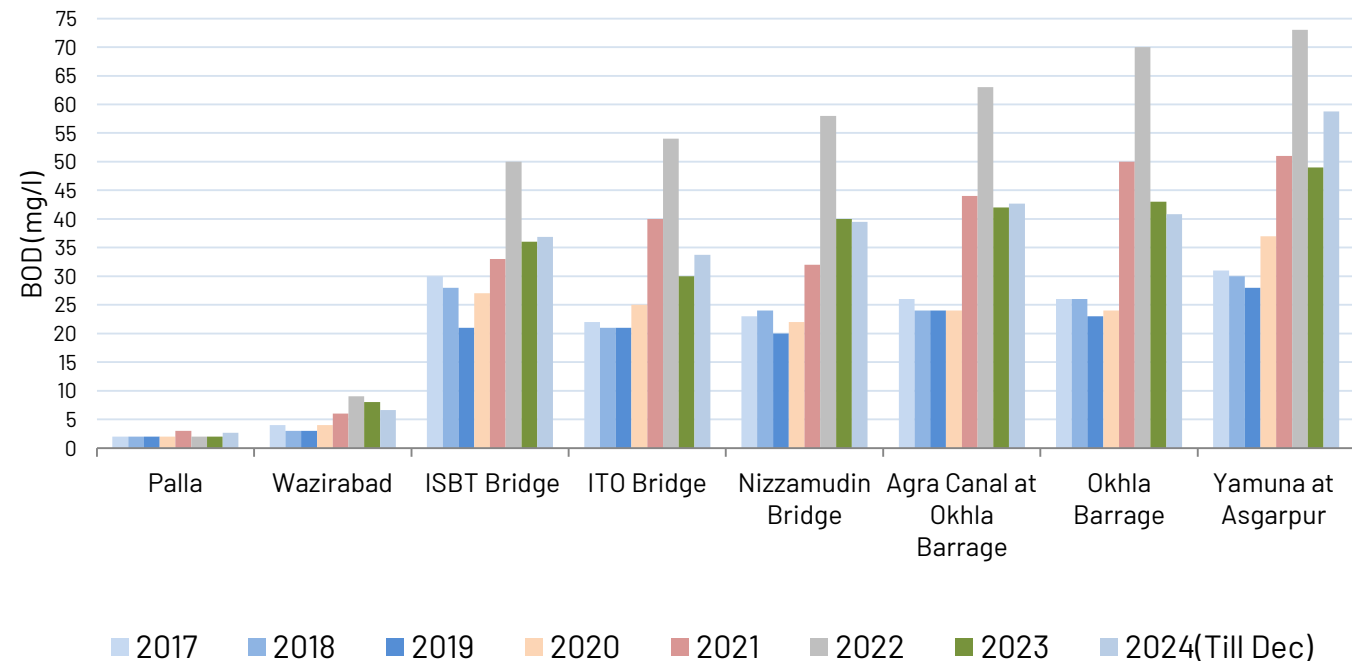
Standards: (≤ 500 MPN/100 ml - Desirable | ≤ 2500 MPN/100 ml - Maximum permissible): Less Faecal Coliform is good

02 Parameters as per Hon'ble National Green Tribunal

Water Quality of River Yamuna



03 Annual Average Water Quality of River Yamuna

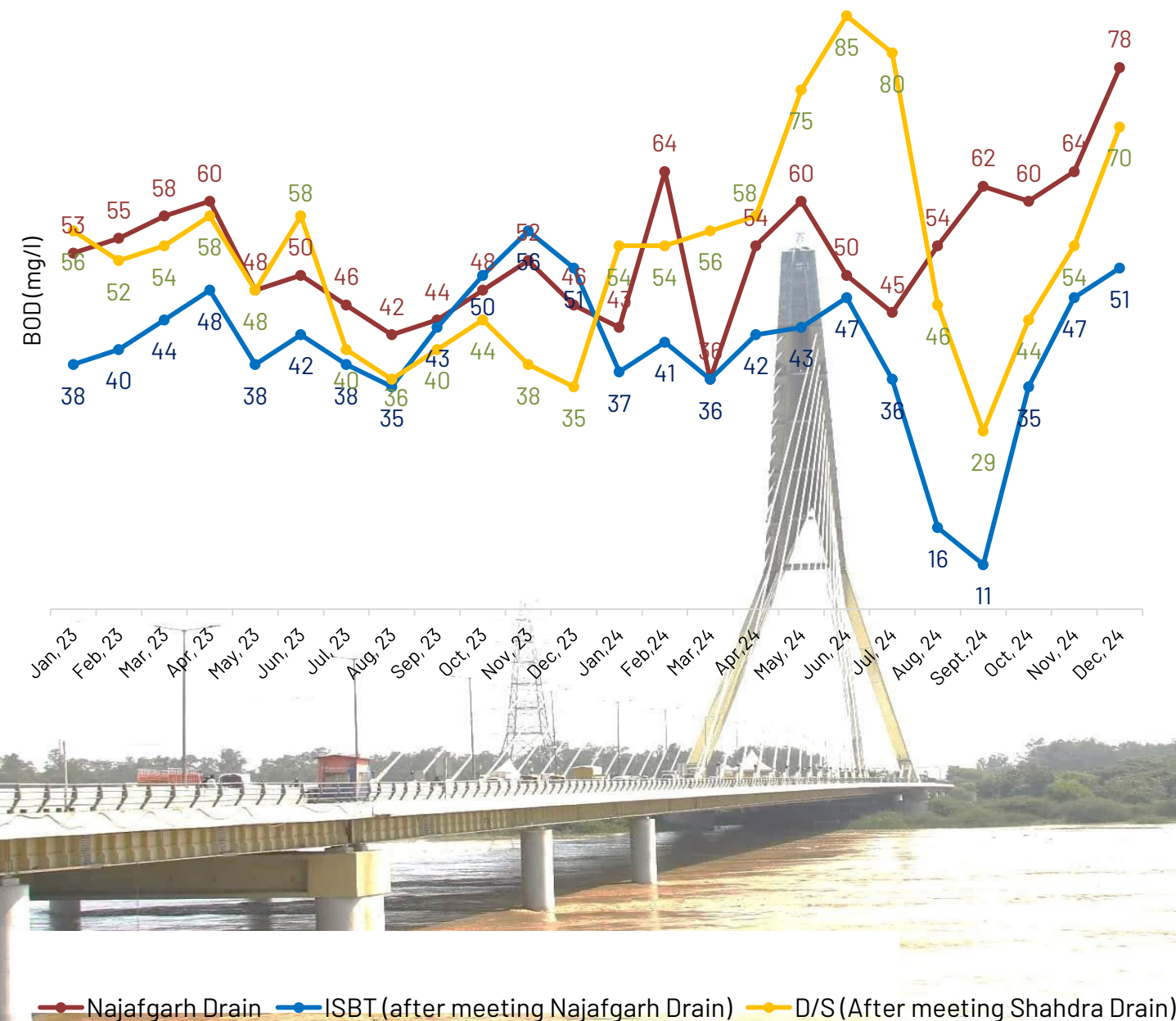


Haryana  U.P.



03 Annual Average Water Quality of River Yamuna

BOD variation : (January, 2023 to December, 2024)



Water Quality of Drains



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

Based on DPCC data, 2021



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

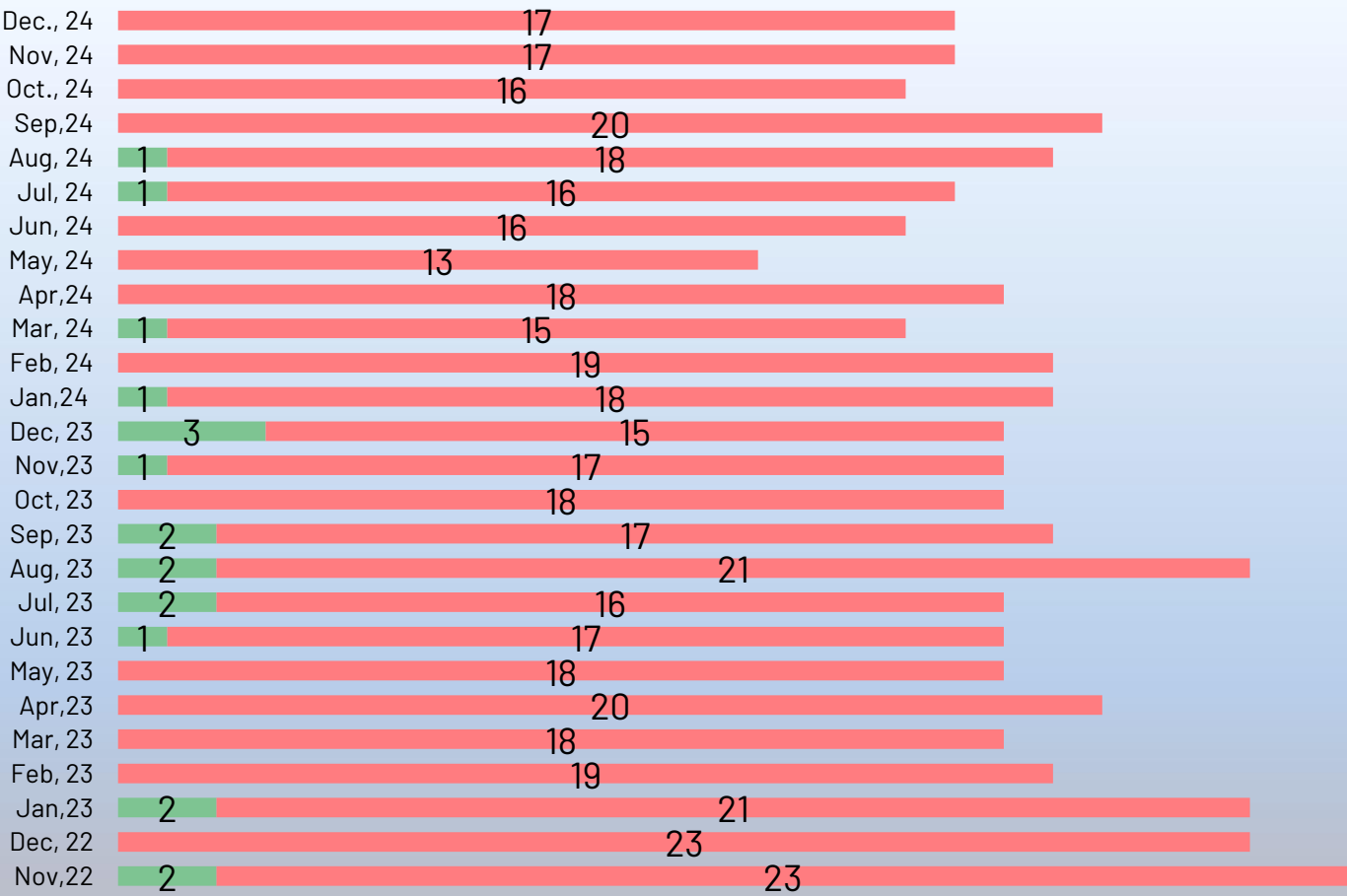
Based on DPCC data, 2021



06 27 Drains Water Quality Monitoring

Compliance with prescribed standards BOD (30 mg/l)

No flow observed in 10 drains on Dec. 2024

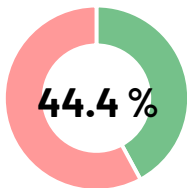


Water Quality of Sewage Treatment Plants

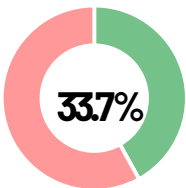


07 39 Sewage Treatment Plants Water Quality Monitoring

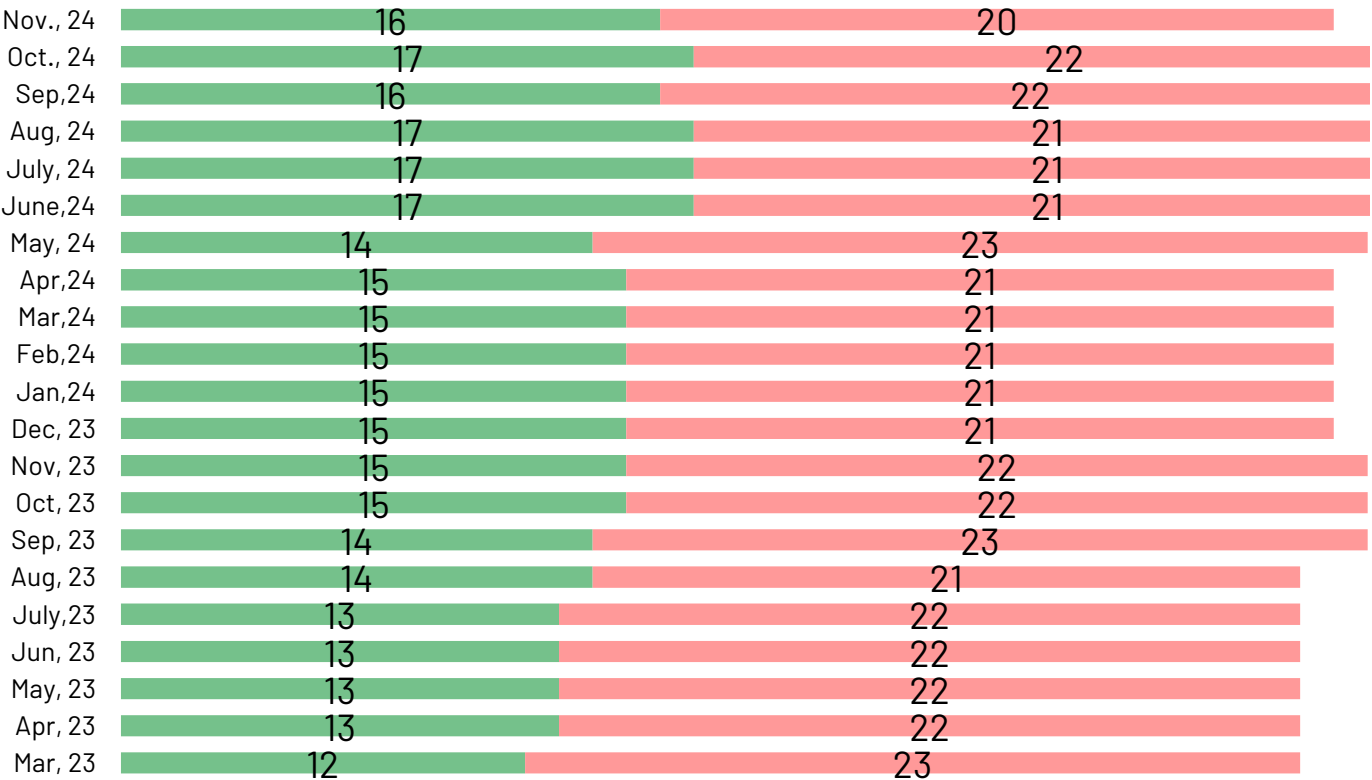
Compliance with prescribed standards BOD:TSS (10:10)



16/36 STP



240/712 MGD



No. of STPs

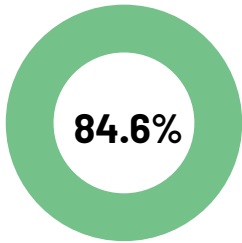
Two STP's are partially closed &
One STP under trial run

Water Quality of Common Effluent Treatment Plants



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.

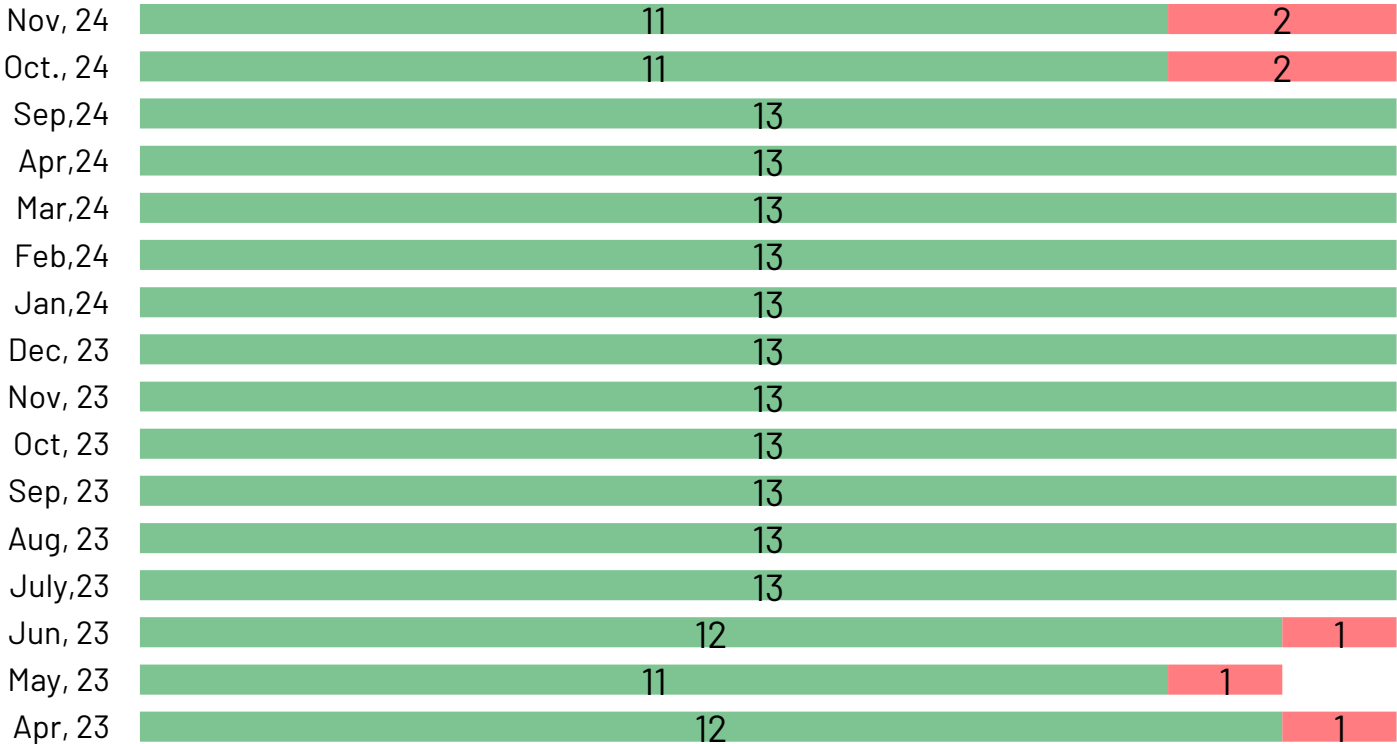


Utilization Capacity (Nov, 2024):

71.34 MLD/212.3 MLD (33.6%)

11/13 CETP

Narela &
Bawana CETP



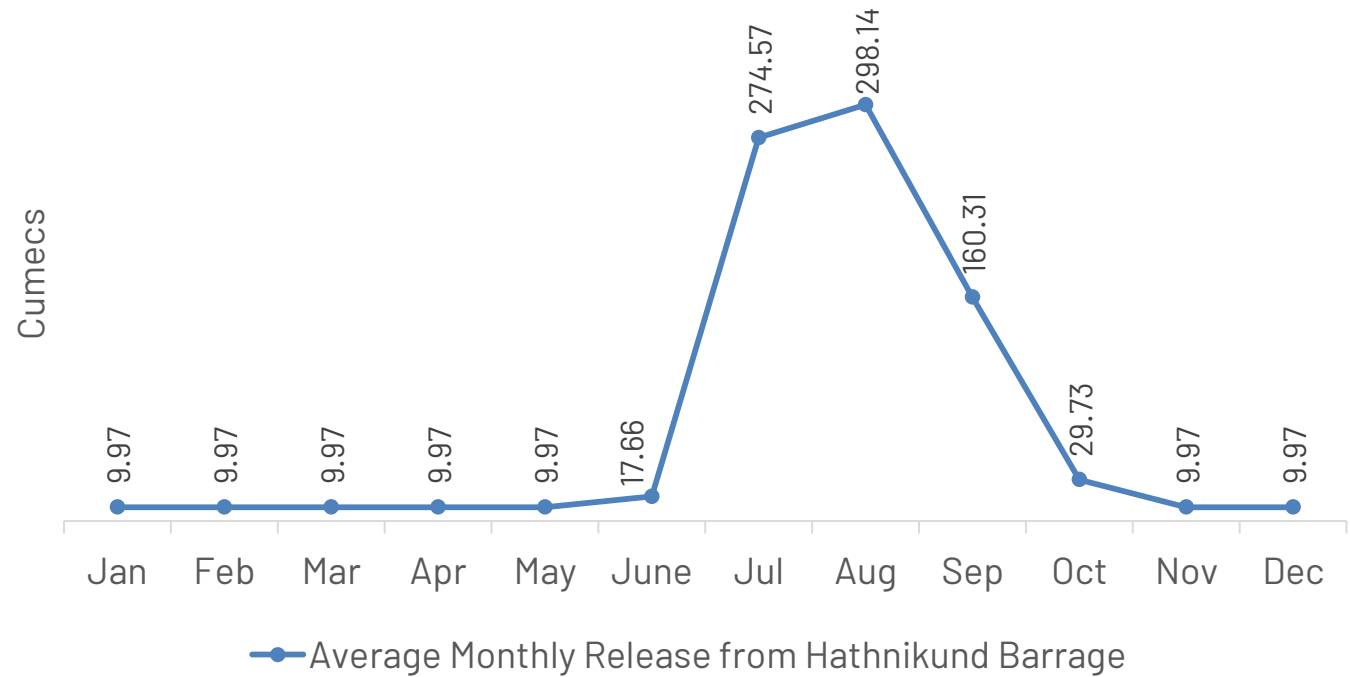
No. of CETPs

Improvement of **Water Quality in Yamuna**



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 level would come down from 25 to 12 mg/l (Ideal BOD : 3 mg/l)**
- **For bathing standards of BOD 3 mg/l – E-flow required is more than 390 Cumecs (7410 MGD).**

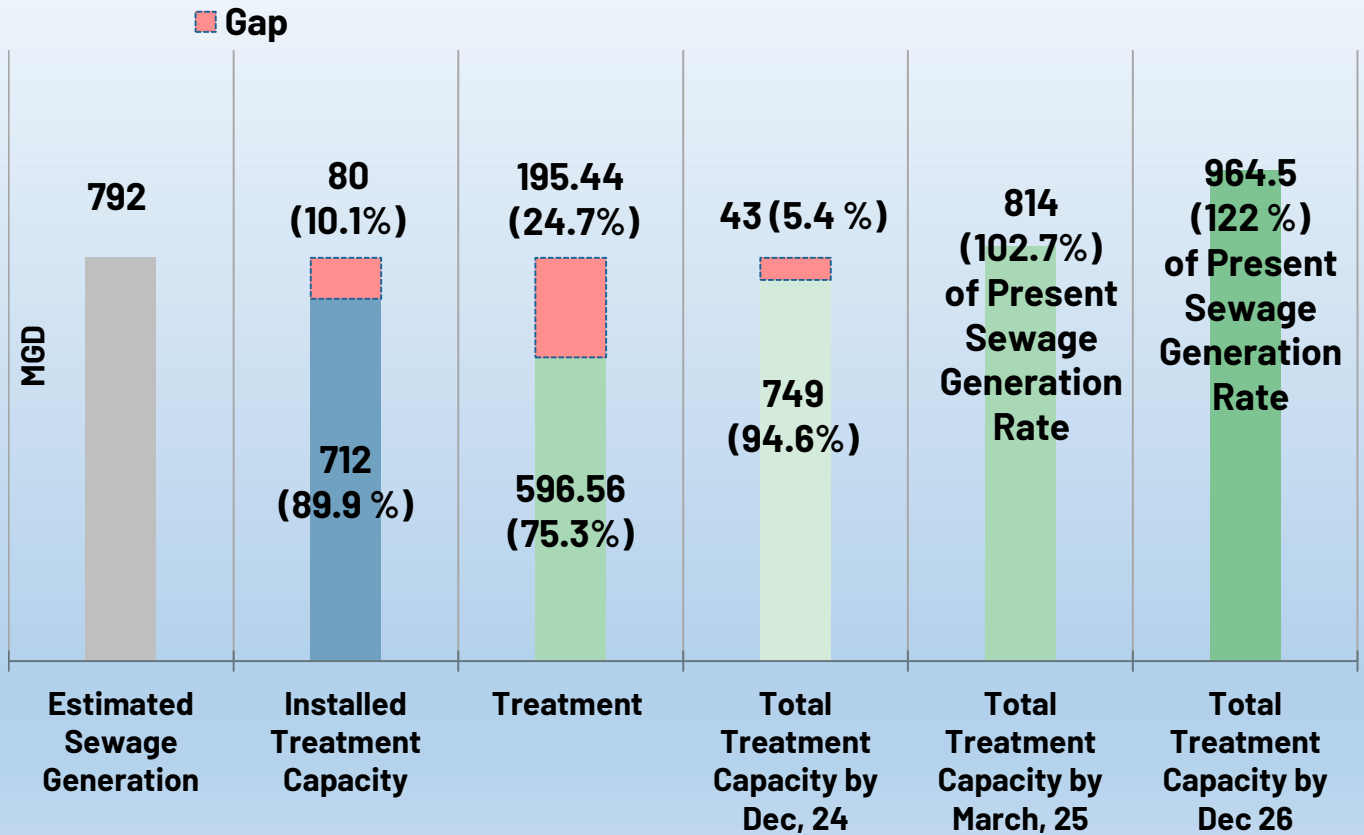
Hathnikund Barrage

Okhla Barrage



10 Augmentation & Rehabilitation of Sewage Treatment Plants

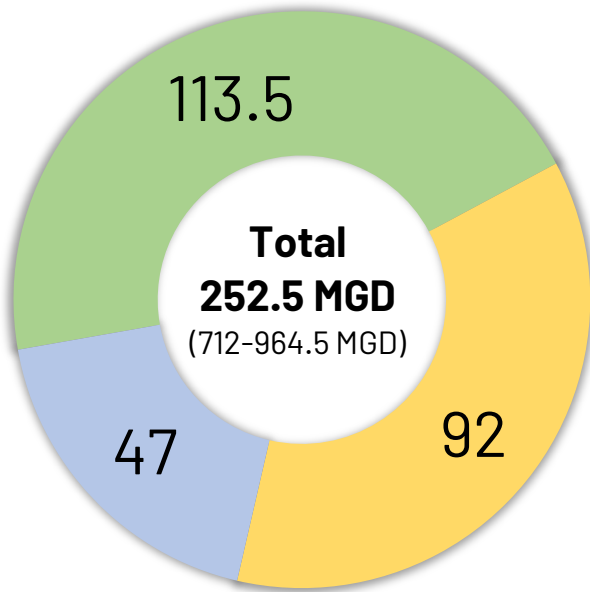
Generation, Treatment and Gap in Sewage Treatment



11

Augmentation & Rehabilitation of Sewage Treatment Plants

Focus Areas for Enhancing Sewage Treatment Capacity



■ Upgradation and increasing capacity of existing STPs (18)

■ Construction of 40 New DSTPs

■ Construction of New STPs at Okhla, Delhi Gate & Sonia Vihar (3)

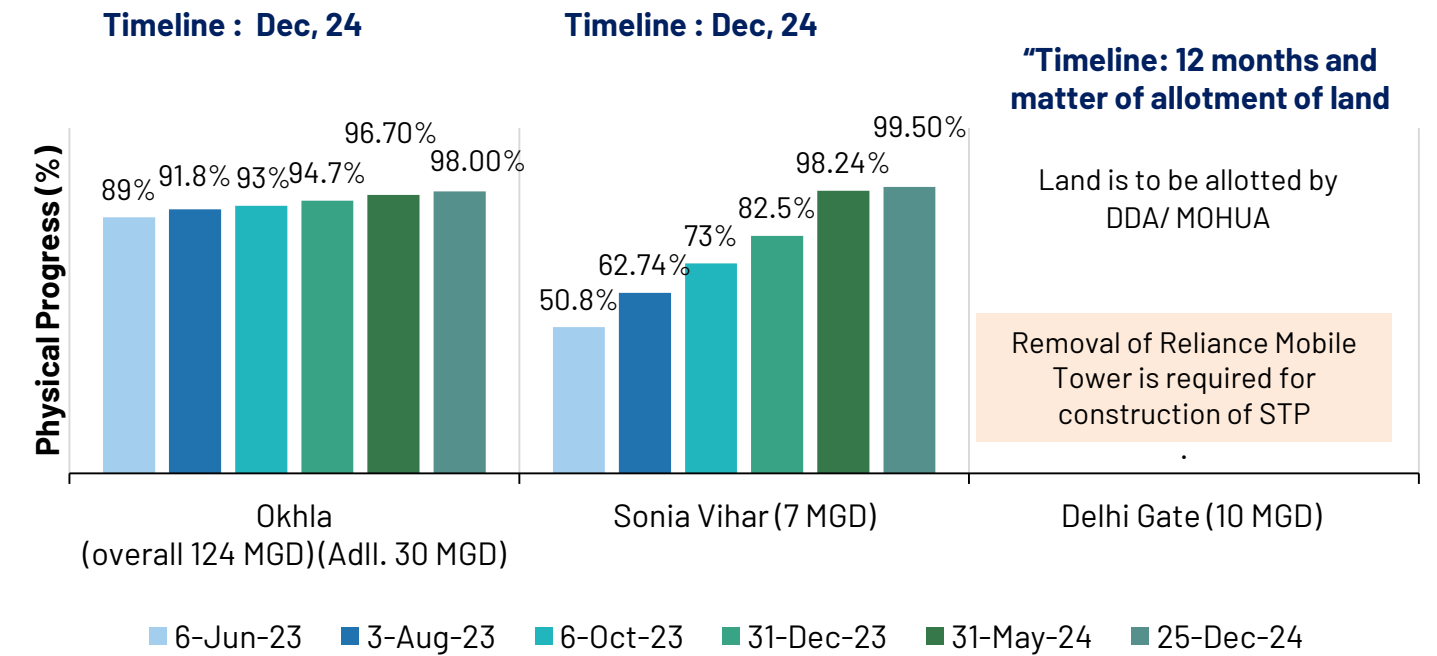


12

Progress in Construction of 3 new STPs

Capacity Addition: 47 MGD

Focus Areas for Enhancing Sewage Treatment Capacity

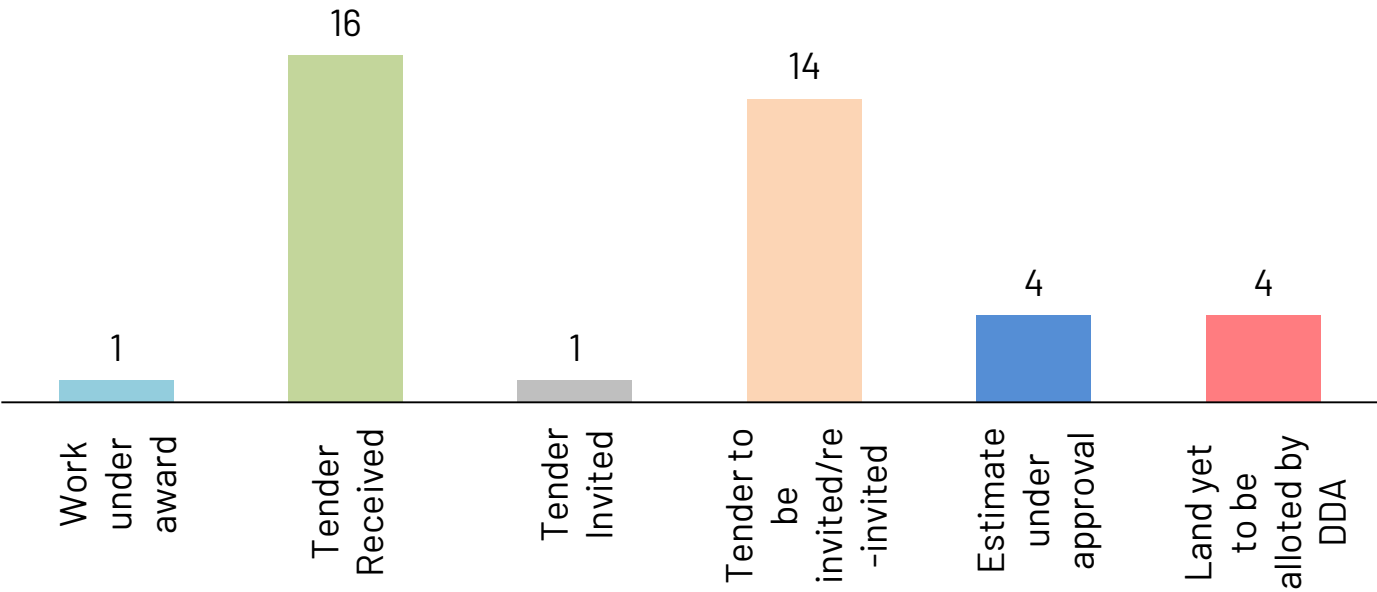


13 Construction of 40 New DSTPs

Capacity Addition: 92 MGD

Focus Areas for Enhancing Sewage Treatment Capacity

Timeline : December, 2026

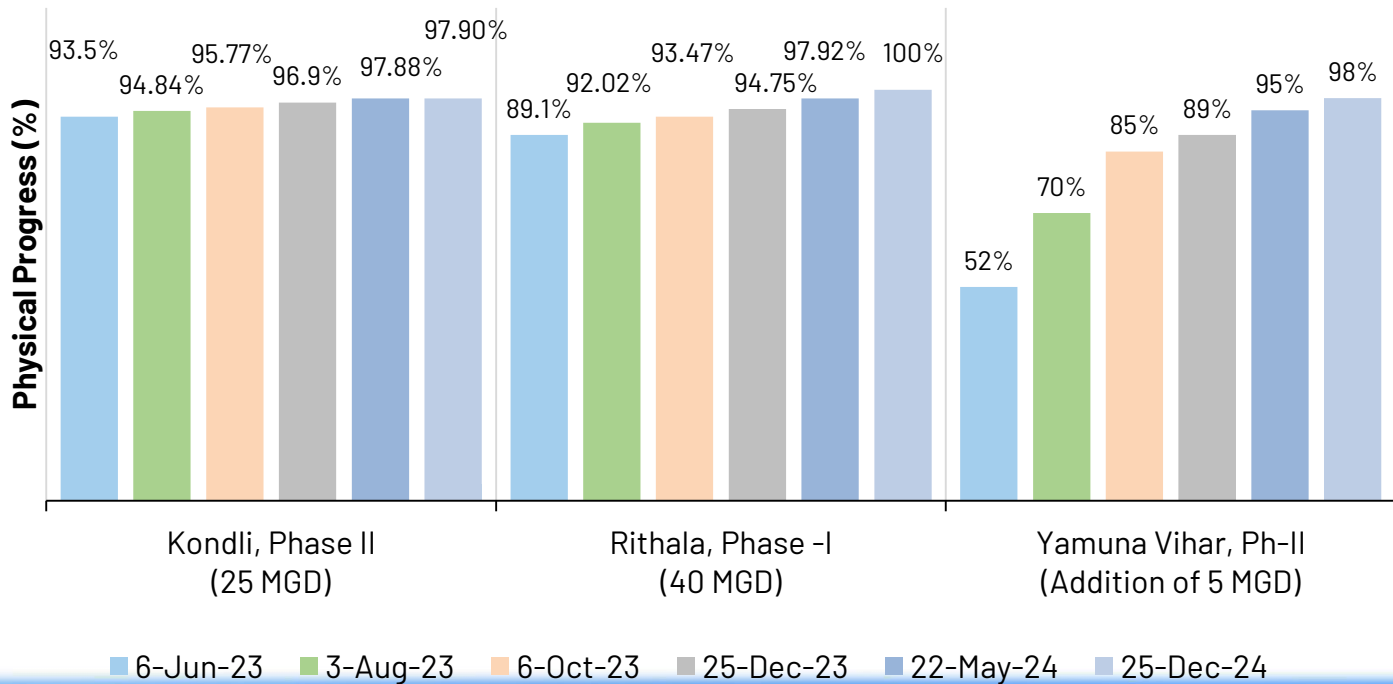


14 Rehabilitation of Existing 3 STPs

Capacity Addition: 70 MGD

Focus Areas for Enhancing Sewage Treatment Capacity

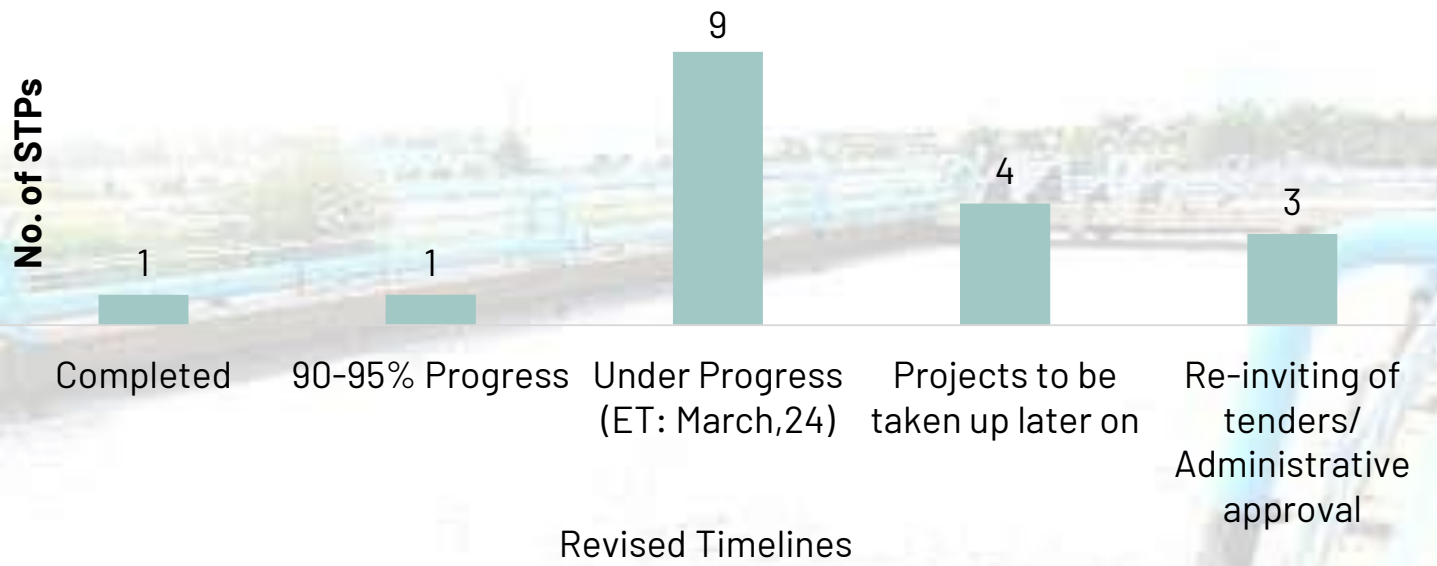
Revised Timeline: Completed (under test and trial run)



15

Upgradation of Existing 18 STPs
Capacity Addition: 113.5 MGD

Focus Areas for Enhancing Sewage Treatment Capacity



Revised Timelines

Sr. No.	Name of STP	Existing Capacity	Enhanced Capacity (In MGD)	Status as on 25th Dec, 24	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 25 th Dec, 24	Revised Timelines
3	Pappan Kalan Phase - I	20	30	21 %	50 %	March, 2025
4	Nilothi Phase -II	40	60	21%	49%	
5	Najafgarh	5	5	27%	87%	
6	Keshopur Phase -II	20	20	27 %	87%	
7	Keshopur Phase-III	40	60	27 %	87%	
8	Rohini Sector 25	15	25	25 %	97%	
9	Narela	10	15	25 %	98%	
10	Coronation Pillar Phase -I & II	20	20	25 %	95%	
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 25th Dec, 24	Timelines
17.	Keshopur Phase- I	12	18	File sent to competent authority for approval work at earliest	Tender reinvited	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

Desilting Trunk/ Peripheral Sewer : Approx 200 Km

86.66 Km Desilted

S.No.	Particulars	Total length (Km)	Cumulative Length Desilted as on 25.12.23 (Km)	Cumulative Length Desilted as on 25.12.2024 (Km)	Timelines
1.	Desilting of 90.34 Km	94.93	66.428 (70.4%)		
a	Yamuna Vihar STP	7.65	7.5	7.65	Completed
b	Rithala-Rohini STP	19.21	17.05	19.21	
c	Narela STP & Coronation Pillar STP	8.05	8.026	8.05	
d	Keshopur STP	2.84	2.84	2.84	
e	Nilothi STP	4.61	-	1.28	RT: Dec,23 Now: Dec, 24
f	Kondli STP in east zone	8.76	3.472	8.76	RT: Dec,23 Now: June 24 Completed
g	Dwarka STP	27.10	11.5	22.16	RT: Dec,23 Now: Dec, 24
h	Okhla STP	11.51	9.5	11.51	Completed
i	Desilting of gravity duct no. 1	5.20	5.2	5.2	Completed
	Total	94.93	66.428 (70.4%)	86.66 (89.94%)	
2.	Desilting of remaining 110 Km	110 (RL 45 km)	Estimates under approval.		"RT Jun, 24" Now: Dec, 24

17 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	

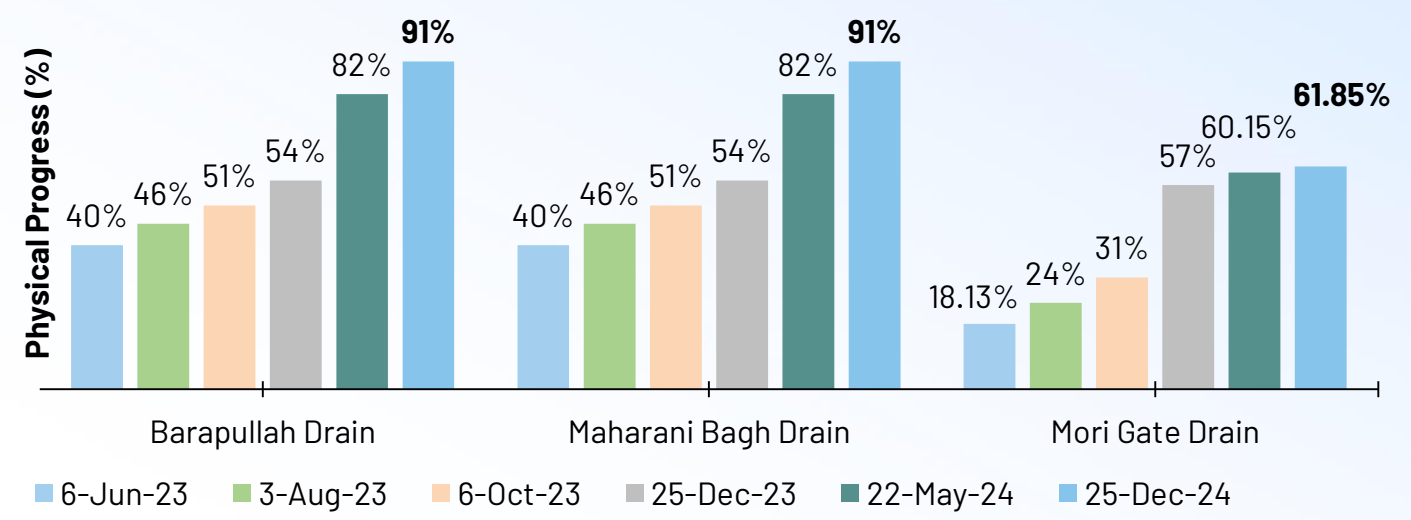
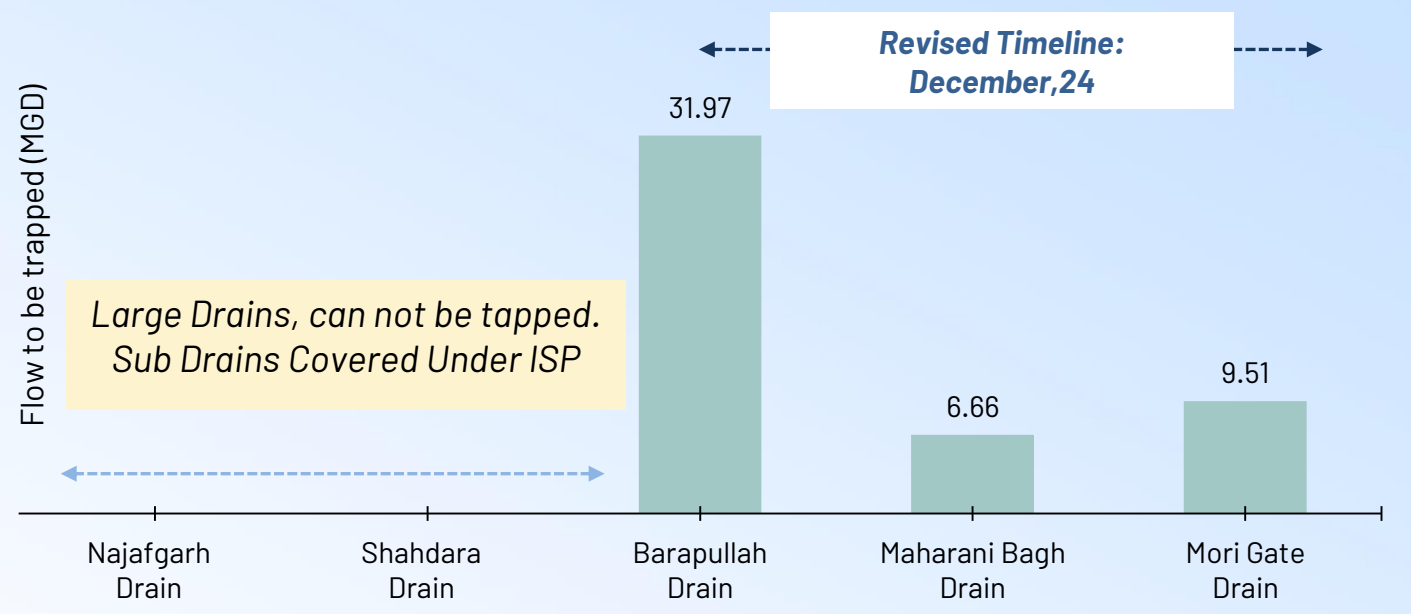
S.No	Drain	Status
19	Kailash Nagar Drain (On Eastern Bank of Yamuna)	To be tapped
20	Shastri Park Drain (On Eastern Bank of Yamuna)	
21	Jaitpur Drain	
22	Tuglakabad Drain (Kalka Ji Drain merged in this drain)	



17 Tapping of all Drains

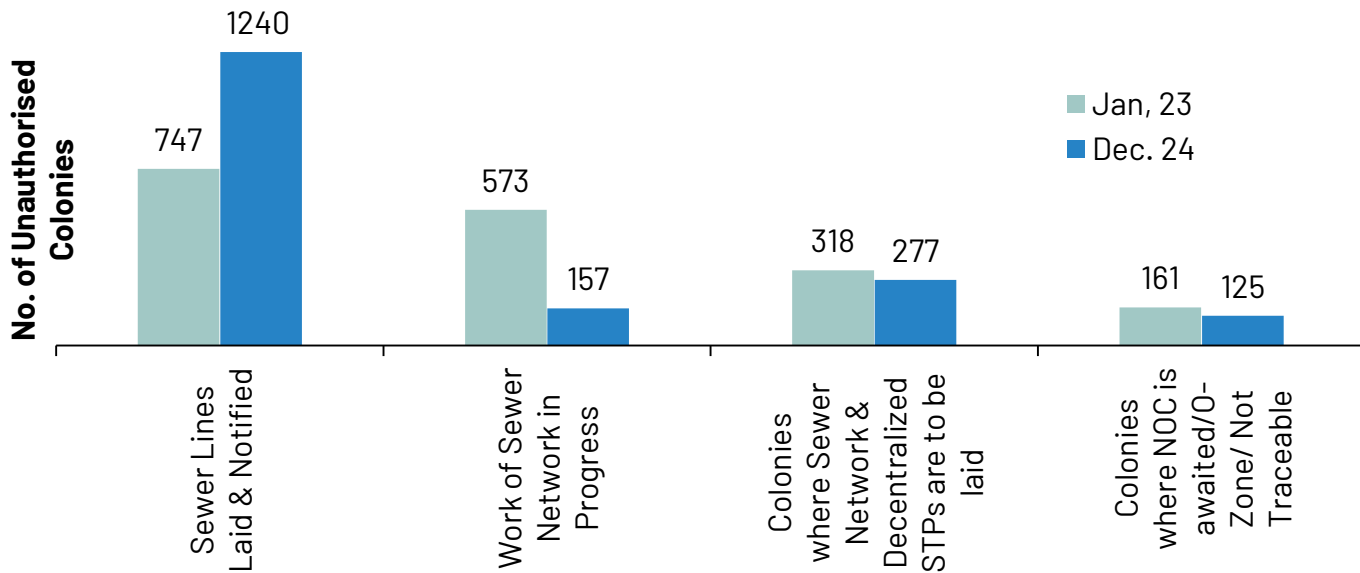
Remaining 03 untapped major drains

Total Flow to be Trapped: 48.14 MGD



19 Sewerage Network in Unauthorised Colonies (1799)

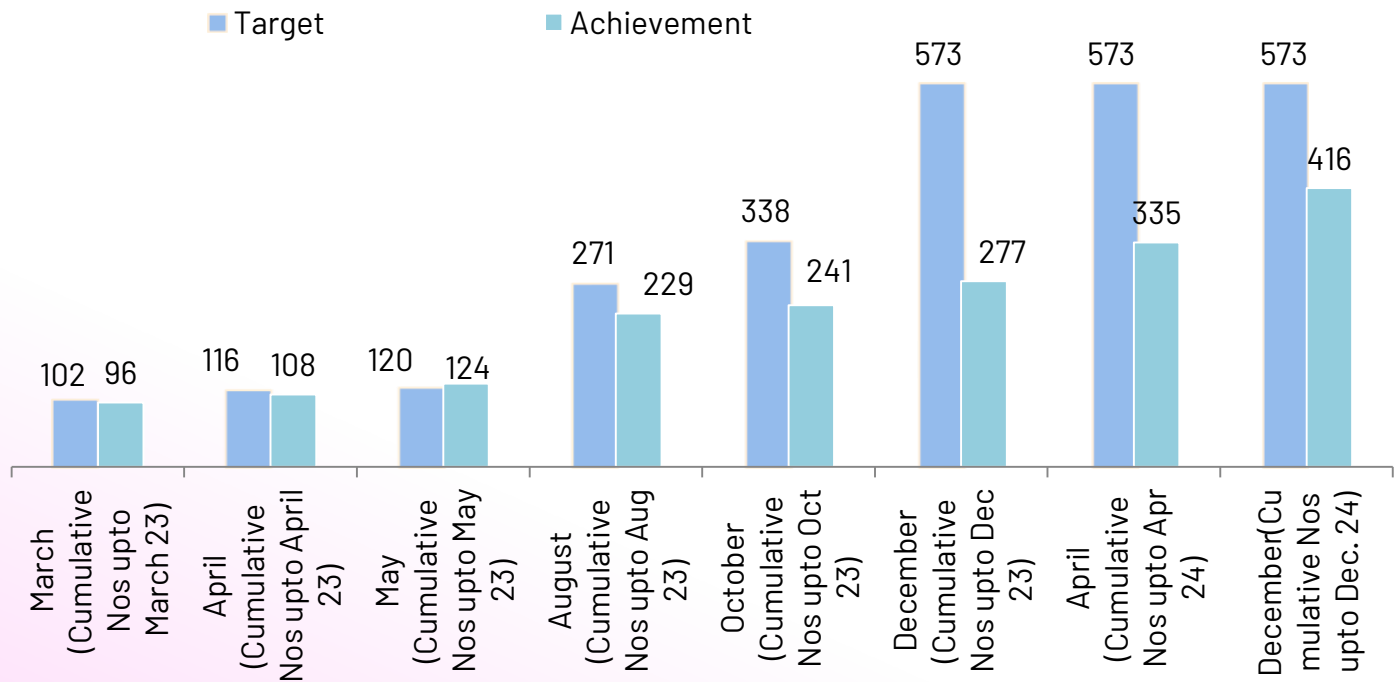
S. No	Description	Cumulative Status (No.)
1	Sewer line laid /commissioned	1240
2	No. Of UA colonies where sewer line will be laid by Dec.2025	157
3	No. of UA Colonies where work is in estimate/tender /award stage/ after handing over possession of land for DSTP	277
4	No. of Unauthorized Colonies where 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
	Total	1799



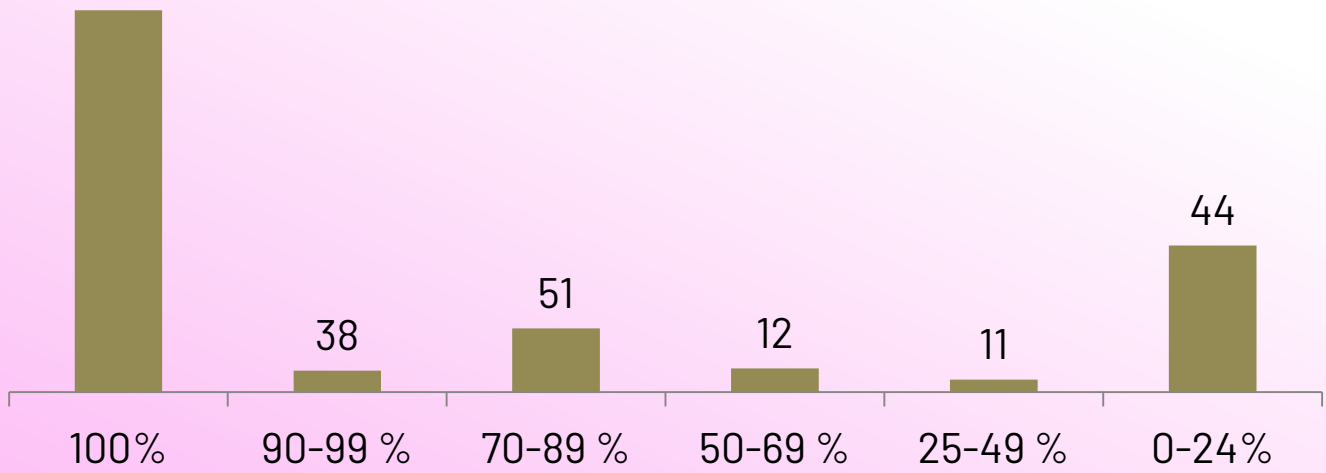
19 Sewerage Network in Unauthorised Colonies (1799)

573 Colonies where laying Sewer Network in progress

“Timeline: December, 24”

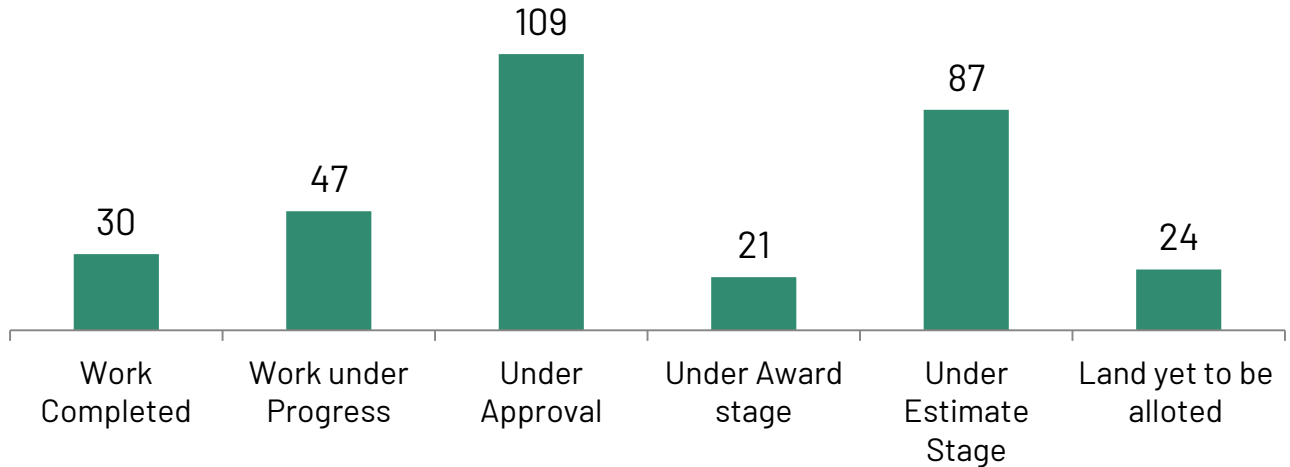


Physical Progress of 573 Colonies

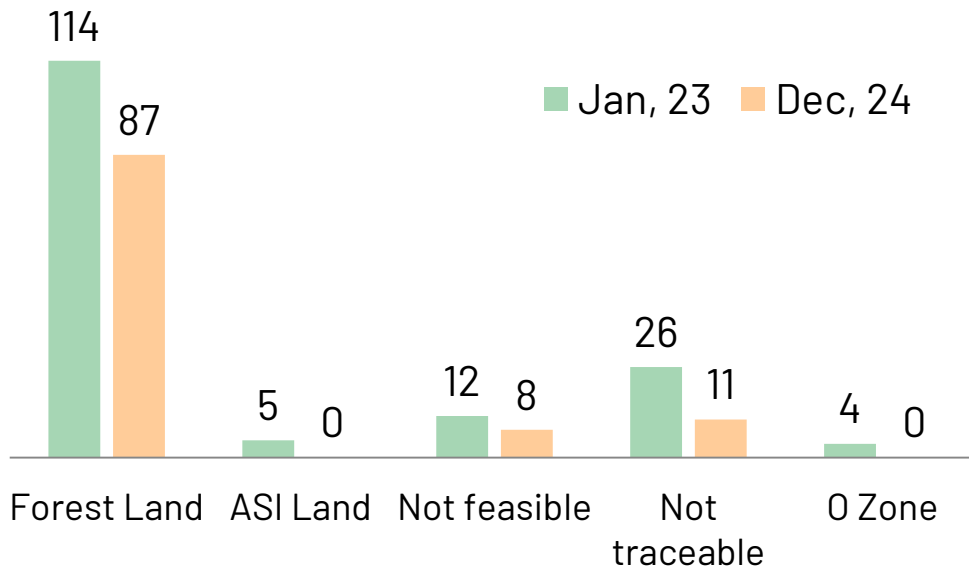


19 Sewerage Network in Unauthorised Colonies (1799)

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



161 colonies where NOC is awaited/O-Zone

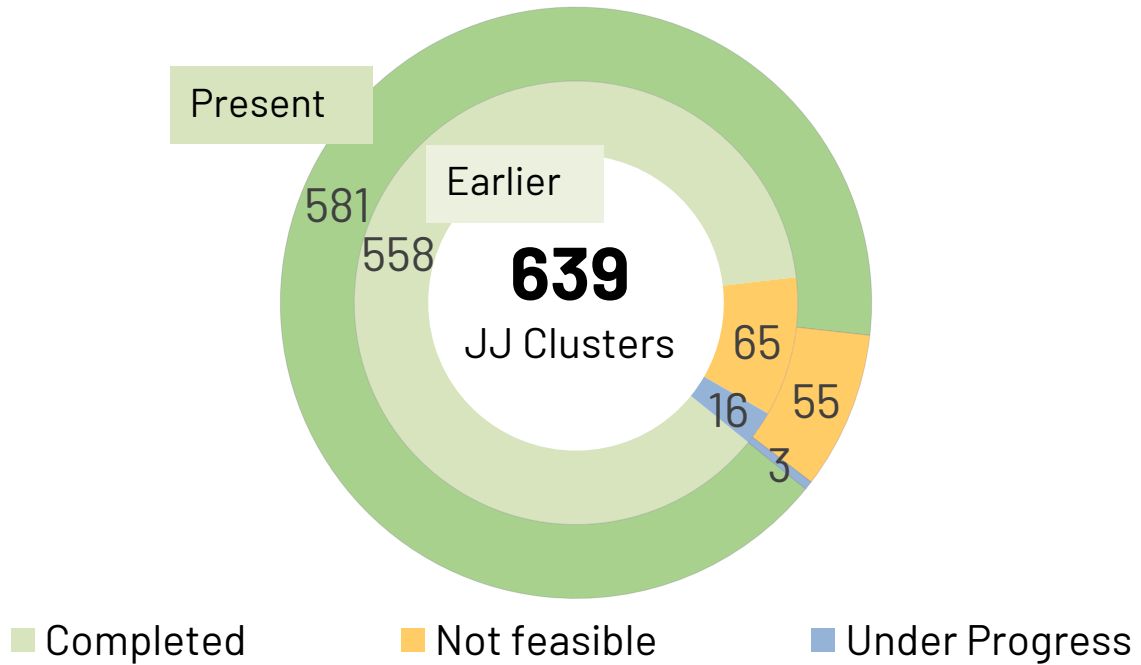


"Timeline for 161 Colonies where NOC is awaited / O Zone : 12 months after receipt of NOC"

19

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, 2024**



20 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

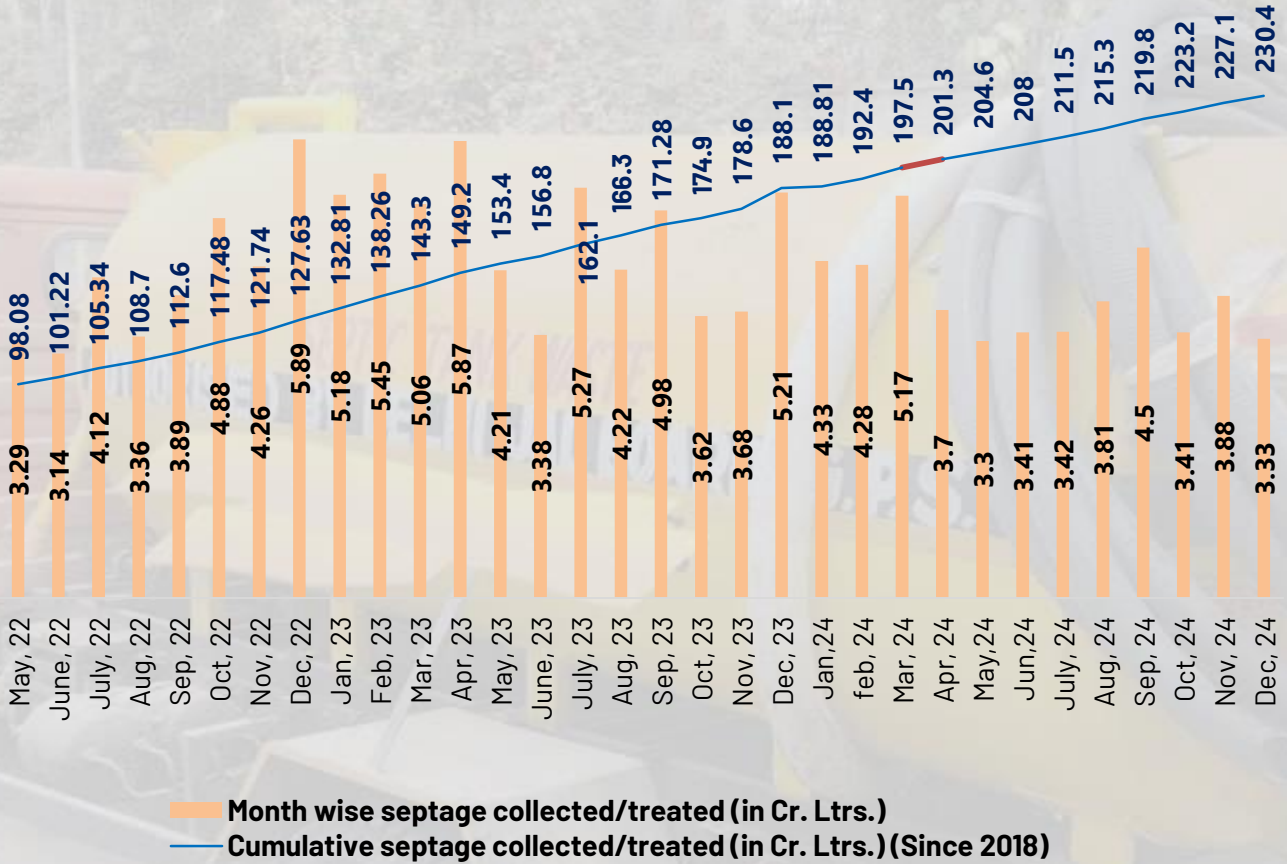
DPCC: Direction issued u/s 33(A) of Water Act on 27.03.2023

- 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

20 Management of Faecal Sludge (Septage)

Faecal Sludge (Septage) Collection & Treatment



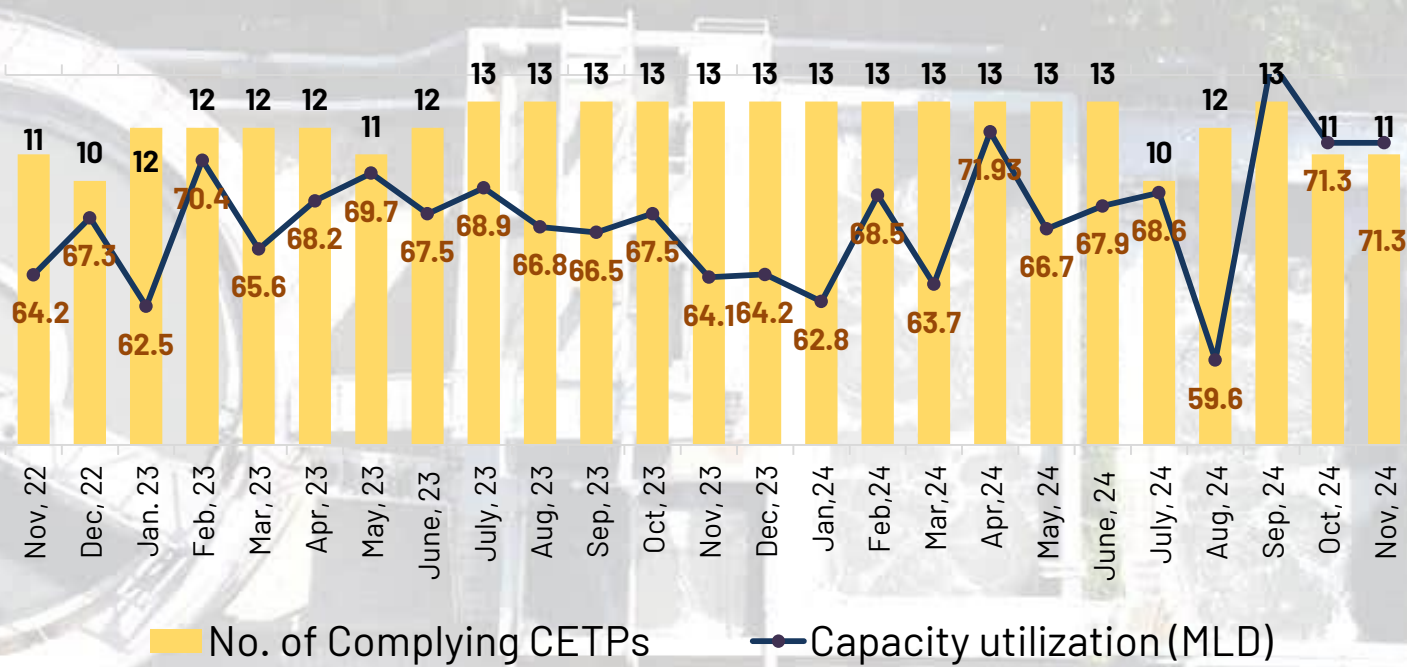
230.4 Crore Litres septage collected/treated till Dec, 24

21 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.

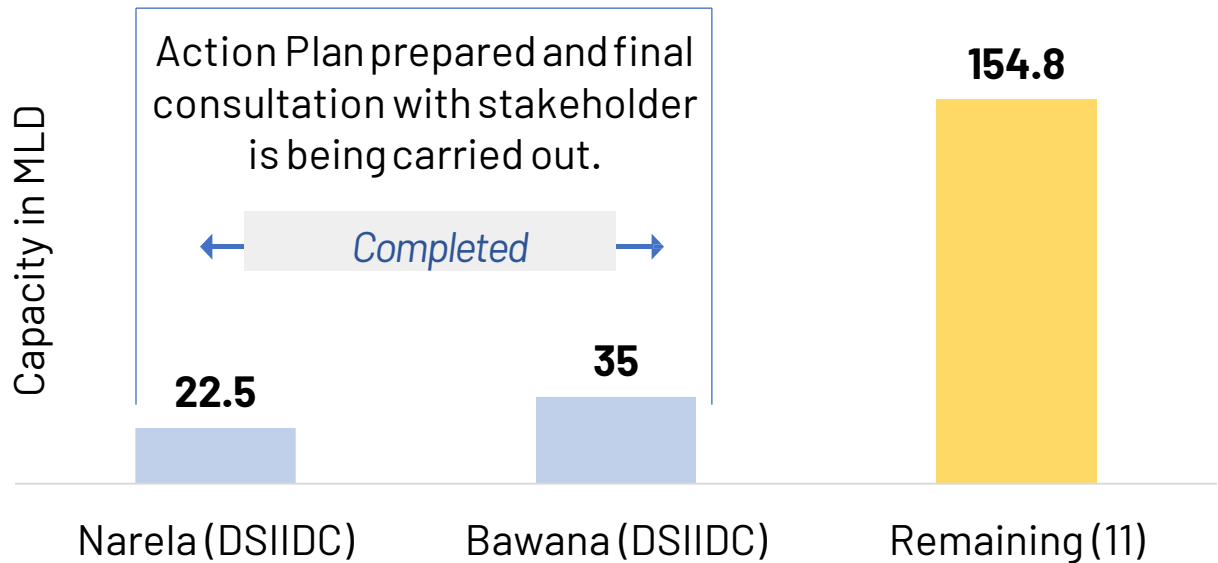


Action taken against Dyeing units in non-conforming areas of Delhi by Joint Team consisting of MCD, DPCC, Revenue Dept., Power Companies, DJB (28.04.2023 to 09.12.2024)

✓ Close down/Sealed/ Disconnection of electricity

: 203

22 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

23 Regulation of Flood plain Delhi Development Authority



Enforcement

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

72,410 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

24 Restoration & Rejuvenation of Flood Plains

Status of 10 Projects



Completed Projects

- ✓ **Asita East (Part A: 90 Ha)**
- ✓ **Asita West (Part A: 93 Ha)**
- ✓ **Kalindi Aviral (Part A: 100 Ha)**
- ✓ **Asita West (Part A: 107 Ha)**
- ✓ **Ghat Area (Part A: 16 Ha)**



Projects in Advance Stage

- **Asita East (Part B: 107 Ha)**
- **Kalindi Aviral (Part B: 163 Ha)**
- **Kalindi Biodiversity Park : 115 Ha**
- **Yamuna Vanasthali: 236.5 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)**

25 Utilization of Treated Wastewater

Action Plan by DJB (596.56 MGD)

125 (90+35) MGD

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



267 MGD

Mandatory Return Flow in Yamuna



596.56
MGD



70 + 30 MGD

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



104.56 MGD

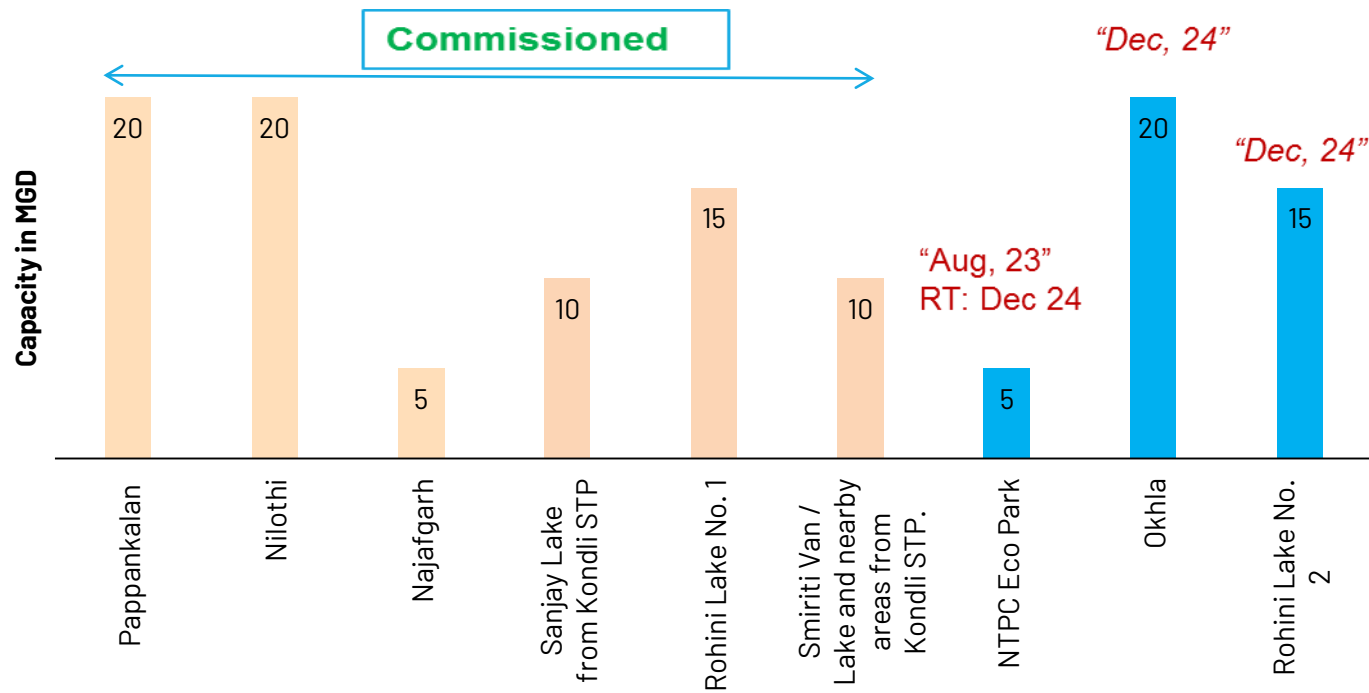
Gap



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/ Kilolitres.





Department of Environment,
Govt. of NCT of Delhi

