By Special Messenger / Email

DELHI POLLUTION CONTROL COMMITTEE
Department of Environment, Govt. of NCT of Delhi
3rd Floor, Delhi IT Park, Shastri Park, Delhi - 110053
visit us at : https://dpcc.delhigovt.nic.in

F. No.: DPCC/ WMC-II/ 2018/ AR/ SWM/2058-2061 **Dated:** 10/09/2024

To,

Smt. Divya Sinha,
Director & In-charge, UPC-II,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar, Delhi-32.

Sub: Annual Report in Form V in respect of NCT of Delhi for the Year 2023-2024 on the Implementation of Solid Waste Management Rules, 2016.

Madam,

Please find enclosed herewith, Annual Report in Form V in respect of NCT of Delhi for the Year 2023-2024, on the Implementation of Solid Waste Management Rules, 2016.

This issues with the approval of the Member Secretary, Delhi Pollution Control Committee.

Yours Sincerely,

(D. K. Singh)
Addl. Director (WMC-II)

Enclosure: As Above

10.9 WMC-II

Copy to:

1. The Secretary, Ministry of Housing and Urban Affairs, Govt. of India, Nirman Bhawan, C Wing, Maulana Azad Road, New Delhi-110011.
2. The Addl. Chief Secretary, Urban Development Department, Govt of NCT of Delhi, 9th Level, Delhi Secretariat, I.P. Estate, Delhi -110002.
3. PS to Chairman, DPCC – For kind information to Chairman, please.

Pl. upload this Annual Repost on SWM for 2023-2024 on the website of DPCC.

I/C IT Cell

(D. K. Singh)
Addl. Director (WMC-II)

12/09/2024

FORM V

[See rule 24(3)]

Annual Report in respect of NCT of Delhi for the Year 2023-2024 on the Implementation of Solid Waste Management Rules, 2016.

PART A

To,

The Chairman,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi – 110032.

1	**Name of the State / Union territory**	**NCT of Delhi**
2	Name & address of the State Pollution Control Board / Committee	**Delhi Pollution Control Committee**, 3rd Floor, Delhi IT Park, Shastri Park, New Delhi-110053.
3	Number of local bodies responsible for management of solid waste in the State / Union territory under these rules	3 [MCD, NDMC & DCB]
4	No. of authorization application received	1
5	A Summary Statement on progress made by local bodies in respect of Solid Waste Management.	**Annexure - I** attached.
6	A Summary Statement on progress made by local bodies in respect of waste collection, segregation, transportation and disposal	**Annexure- II** attached
7	A Summary Statement on progress made by local bodies in respect of implementation of Schedule II	**Annexure- III** attached
	Date : 10 .09.2024 Piace : Delhi.	(Dr. K.S. Jayachandran) Member Secretary Delhi Pollution Control Committee

PART B

Towns / Cities	
Total number of towns/cities	**1**
Total number of ULBs	**3**
Number of class I & class II cities/towns	**1**
Authorisation Status (Names/ Number) • Number of applications received • Number of authorisations granted • Authorisations under scrutiny	 1 1 Nil
Solid Waste Generation Status Solid waste generation in the state (TPD) • Collected • Treated • Landfilled (Dumped at the 3 existing Dumpsites at Bhalaswa, Ghazipur & Okhla in Delhi)	**11342 TPD** of Solid Waste is generated in NCT of Delhi as per the Annual Reports submitted by the Local Bodies. • 11342 TPD is collected [100 %] • 7542 TPD is processed / treated [66.5%] • 3800 TPD waste is dumped [33.5 %] [Excluding about 336 TPD rejects landfilled at Engineered SLF at Bawana].
Compliance to Schedule I of SWM Rules (Number/Names of Towns/Capacity) • Good practices in cities/towns • House-to-house collection • Segregation • Storage • Covered transportation	Local Bodies are implementing waste segregation at source, door to door collection, intermediate storage and transport facility with GPS for the transportation of the collected solid waste to the operational Solid Waste Processing / Treatment Facilities or at the 3 existing Landfill / Dumpsites at Bhalaswa, Ghazipur & Okhla in Delhi. New Delhi Municipal Council (NDMC) & Delhi Cantonment Board (DCB) are implementing the provisions of the SWM Rules, 2016 in their areas in a better way. However MCD is also making efforts and taking measures to implement the provisions of the SWM Rules, 2016 in their areas. About 100% collection of Solid Waste including Door to Door Collection and Transportation of Solid Waste in covered vehicles have been reported by the Local Bodies in their Annual Reports. NDMC has reported that 100% Premises in the area are segregating the waste at source. Delhi Cantonment Board (DCB) has reported that 90% Premises in Civil Pockets & 60% in Army Area are segregating the waste at source. Timeline for 100 % segregation at source by Sept, 2024). MCD has reported that 56 % (Average) Premises in the area are segregating the waste at source. Timeline for 100 % segregation at source by December, 2024.

Processing of MSW (Number/Names of Towns/Capacity)

Solid Waste Processing Facilities Setup:

Sl. No.	Composting	Vermi-Composting	Bio-gas/Bio-methanation Plant	RDF / Pelletization
1.	**DCB - Composting - 20.175 TPD** [One Sorting Cum Composter of 20 TPD (Presently not operational to be shifted to new location at Kirby Place) and 2 Food Waste Composters of 0.175 TPD (0.125+ 0.05TPD)]	Nil	Nil	Nil
2.	**MCD- (Composting – Total 1263 TPD)** • One Centralized Compost Plant of 700 TPD in the integrated Facility at Bawana. • 20 Composters of 1 TPD each- 20 TPD. • 211 Compost Pits of 543 TPD.	Nil	08 Bio-Methanation Plants of 05 TPD each at various locations(Total capacity 40 TPD. (Not Operational)	1300 TPD (Ghazipur WTE) 1300 TPD (Bawana WTE) 1950 TPD (at Okhla WTE) 2000 TPD (at Tehkhand WTE)
3.	**NDMC- (Composting- 31.32 TPD)** • 25 Organic Waste Convertors (10 TPD) • 46 Compost Pits of (16.32 TPD) • 4 Community Composters (5TPD)		05 Bio-Gas Plant of 7.0 TPD	Nil

Operational Processing Facilities:

Sl. No.	Composting Including Compost Pits & Organic Waste Convertors	Vermi-Composting	Bio-gas/Bio-methanation Plant	RDF/ Pelletization
	309	Nil	05	4 (with WTEs)

Processing facility under installation / planned:

S. No.	Composting	Vermi Composting	Bio-gas/Bio-methanation Plant	RDF / Pelletization (WtEs)
	One Sorting cum Composter Plant of 20 TPD capacity at Tigris Road , Delhi Cantt presently not operational is proposed to be shifted to New Location (Kirby Place)	-	**Proposed Bio CNG / Bio CBG/ Bio-Gas Plants of MCD :** (i) Bio-CNG Plant of 300 TPD in place of closed Compost Plant of 200 TPD at Okhla by March, 2025 (Under Construction) (ii) Compressed Bio Gas (CBG) Plant of 350 TPD at Ghazipur by December, 2026 ii) Compressed Bio Gas (CBG) Plant of 100 TPD at Ghogha Dairy by March, 2025.	**Proposed WtEs of MCD :** (i) New Waste to EnergyPlant at Narela –Bawana (For 3 Zones City SP, Karol Bagh & Narela Zone) of 3000 TPD by June, 2027 ii) New Waste to Energy Plant at Ghazipur of 2000 TPD by December, 2027 ii) Expansion of Existing Waste to Energy Plant at Okhla from 1950 TPD to 2950 TPD by March, 2026 (Addition of 1000 TPD).

			iv) Bio-Gas Plant at Nangli Dairy (215 TPD for Dairy Waste) by Sept, 2024. v) Goyla Dairy (215 TPD for Dairy Waste) by March,2025 vi) Ghogha Dairy (290 TPD for Dairy Waste) by March,2025 [(iv), (v) & (vi) are mainly for the Waste generated from Dairies and not included in total MSW Generation of 11342TPD)	v) Expansion of Existing Waste to Energy Plant at Tehkhand from 2000 TPD to 3000 TPD by December, 2026 (Addition of 1000 TPD)

Waste-to-Energy Plants: (Number/Names of Towns/Capacity)

Sl. No.	Plant Location	Status of Operation	Power Generation (MW)	Remarks
1.	Okhla	Operational	23	Expansion Proposed (From 1950 TPD to 2950 TPD)
2.	Ghazipur	Operational	12	-
3.	Bawana	Operational	24	-
4.	Tehkhand	Operational	25	Expansion Proposed (From 2000 TPD to 3000 TPD)

Disposal of Solid Waste (Number/Names of Towns/ Capacity):	
• Landfill sites identified	02 Existing Operational Engineered SLF at Bawana and Tehkhand.
• Landfill constructed	02 Engineered SLF at Bawana and Tehkhand already constructed & operational.
• Landfill under construction	Nil.
• Landfill in operation	02 Engineered SLF at Bawana and Tehkhand.
• Landfill exhausted	None However, all 3 Non-Engineered and Unscientific MSW Dumpsites at Ghazipur , Bhalswa & Okhla have already been exhausted.
• Landfill capped	Nil
Solid Waste Dumpsites (Number/Names of Towns/Capacity): • Total number of existing dumpsites	03
• Dumpsites reclaimed/ capped	Remediation of Legacy Waste at Ghazipur , Bhalswa & Okhla Dumpsites is being carried out as per the directions of the Hon'ble National Green Tribunal in the orders including order dated 17.07.2019 in OA No. 519 / 2019 in the matter of News item published in "The Times of India" Authored by Jasjeev Gandhiok & 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."
• Dumpsites converted to sanitary landfill	Nil

Monitoring at Waste Processing / Landfill Sites

Sl. No.	Name of Facilities	Ambient Air	Ground Water	Leachate Quality	Compost Quality	VOCs

Monitoring of 04 Operational Waste to Energy Plants (WTE Plants) in Delhi :

Online Continuous Emission Monitoring System (OCEMS) has been installed by all the above mentioned 04 operational Waste to Energy Plants in Delhi and the same are also connected to the server of CPCB & DPCC. Inspections of the Waste to Energy Plants are carried out by DPCC from time to time.

Ground Water Quality nearby Ghazipur Dumpsite , Bhalswa Dumpsite, Okhla Dumpsite & Bawana Engineered Landfill was monitored by DPCC Laboratory on 1st / 2nd May, 2024 and Copy of the Analysis Reports are at **Annexure- IV.**

Status of Action Plan prepared by Municipalities	
• Total number of municipalities	3
• Number of Action Plan submitted	Action Plans submitted by the Local Bodies in Delhi. Separate Action Plan for Bio-mining of Legacy Waste at 3 Dumpsites (Ghazipur, Bhalaswa & Okhla) were submitted by MCD).

MCD has to operationalize the proposed Waste Processing Facilities including Waste to Energy Plants and close down open dhalaos at the earliest. Also, MCD has to expedite and complete the Bio-Mining at the three Dumpsites as per stipulated timelines of December, 2027.

Annexure-I

A Summary Statement on Progress made by Local Bodies in respect of Solid Waste Management

1. Municipal Corporation of Delhi (MCD)

A. General Information

- **Area** – 1366.89 sq. km
- **Population** – 192 lakh (2011 Census)
- **No. of wards** – 250
- **No. of Households** – 43 lakh Approx.
- **No. of Dhalaos** – 517
- **No. of FCTS** -- 301
- **Segregation at Source** -- 56 % (Average)

  Timeline for 100 % segregation at source by December, 2024.
- **Mobile Transfer Stations / Refuse** - 138
- **Refuse Collectors/ Compactors** - 440
- **No. of Bins placed** - 7969
  (Green Bins-2570, Blue Bins-1858 & Black Bins-471)
- **Motorised Vehicles** - 74% (Approx.)
- **Containerised Tricycle Handcart** - 26% (Approx.)
- **Lifting of MSW** - 100% Mechanical lifting (Through Front End Loaders/ Top Loaders/ Refused Compactors)
- **Method of Primary Collection** – Auto Tipper, Manual Rickshaw, E- Rickshaw, 3 Wheelers.
- **Sweeping of Streets** - Manual Sweeping of Roads through 57500 No. of Safai Karamcharis (84%). Mechanised Street Sweeping of 60 feet above ROW by Private Agency through 52 Nos. of Mechanised Road Sweeping Machines (16%).
- **Length of Roads/ Streets/ Lanes/ By-lanes to be cleaned** - 15582 Kilometers (in terms of 12 feet width).
- **Means Used for Collection & Transportation of MSW** - Tractors – 21, JCB /Loader- 23, Hook Loaders- 222, Auto Tippers - 2527, Bins Washer - 60, Wheel Barrows- 4076, Cycle Rickshaw/ Tricycle- 1331, E- Rickshaw- 396, 3 Wheelers - 87.

B. Solid Waste Generation

– 11000 TPD (0.5 kg/day/capita)
(100% Collection & Transportation of MSW on daily basis)

C. Existing Processing/Treatment Facilities

- **Total Waste Processed/Treated** – 7200 TPD (65.45% of total solid waste generated)
- **Centralised Compost Plant** – One No. Compost Plant of 700 TPD Capacity in the Integrated MSW Facility at Bawana.
- **Existing Waste to Energy Plants** – 04 Nos. of Total 6550 TPD Capacity at Okhla (1950 TPD), Bawana (1300 TPD), Ghazipur (1300 TPD) & Tehkhand (2000 TPD)
- **Engineered Sanitary Landfill (SLF)** – 02 Nos [One at Integrated MSW Facility at Bawana. and Another One at Tehkhand.
- **Bio- Methanation Plants** – **8 Nos of** 5 TPD capacity each at Roshanara Bagh, MVID Hospital, Sarita Vihar, Dwarka Sector 14, Punjabi Bagh Nursery, Masood Pur in Vasant Kunj, Geeta Colony & Shastri Park (These Plants installed but not functional / Operational since long.)

- **Local Composting Units** – 211 Nos. (Compost Pits) of Total 543 TPD Capacity
- **Material Recovery Facilities (MRFs)** – 157 Nos. of Total 260 TPD Capacity (Manual and Semi Automatic)

D. Proposed Waste Processing / Treatment Facilities of MCD

S. No.	MSW Facility	No	Location	Capacity Addition(in TPD)	Expected Timeline for Completion
1	New Waste to Energy Plant at Narela –Bawana (For 3 Zones City SP, Karol Bagh & Narela Zone)	1	Narela-Bawana	3000	**June, 2027**
2	New Waste to Energy Plant at Ghazipur	1	Ghazipur	2000	**December, 2027**
3	Expansion of Existing Waste to Energy Plant at Okhla	1	Okhla	1000 (From 1950 TPD to 2950 TPD)	**March, 2026** Environmental Clearance for expansion accorded.
4	Expansion of Existing Waste to Energy Plant at Tehkhand	1	Tehkhand	1000 (From 2000 TPD to 3000 TPD)	**December, 2026**
5	Bio CNG Plant	1	Okhla	300 (In place of existing Closed Compost plant of 200 TPD)	**March, 2025**
6	Compressed Bio Gas (CBG) Plant	1	Ghogha Dairy	100	**March, 2025**
7	Compressed Bio Gas (CBG) Plant	1	Ghazipur	350	**December, 2026**
	Total	**7**		**7750 TPD**	
8	Bio Gas Plants for Dairies Waste* Management	1	Nangli Dairy	215	**September, 2024**
		1	Goyla Dairy	215	**March, 2025**
		1	Ghogha Dairy	290	**March, 2025**
8.	Engineered Sanitary Landfill (SLF)	1	Tehkhand		Works completed & commissioned on 12.03.2024

*These Plants are mainly for waste generated from Dairies & not included in total MSW Generation of 11000 TPD of MCD.

E. Remediation of Legacy Waste (Old Dumped Solid Waste)

S. No	Particulars	Okhla Dumpsite	Bhalaswa Dumpsite	Ghazipur Dumpsite
1.	Year of Establishment	1996	1994	1984
2.	Area of Dumpsite Site	62 Acre	70 Acre	70 Acre
3.	Age (years of operation)	27	29	39

In OA No. 519/2019 and 386/2019 being heard by Hon'ble NGT various directions have been passed from time to time. Vide its order dated 17.07.2019, Hon'ble NGT had directed the three Erstwhile Municipal Corporations to carry out bio-remediation of the existing dumpsites sites at Bhalswa, Ghazipur and Okhla by installation of trommeling machines for screening of the legacy waste. The status of Bio-mining of Legacy Waste at 3 Dumpsites at Okhla, Ghazipur & Bhalswa in Delhi as on 03.04.2024 is given in following table:

Status of Bio-Mining of Legacy Waste at 3 Dumpsites at Okhla, Ghazipur & Bhalaswa (As on 03.04.2024)

Dumpsite	Quantity of Legacy Waste Dumped (July, 2019) (Lakh Ton)	Total Quantity of Legacy Waste Bio-mined (Since Oct, 2019 to 03.04.2024) (Lakh Ton)	Legacy Waste (Volumetric Assessment through Drone Survey in June, 2022) (Above Ground) (Lakh Ton)	Quantity of Fresh MSW Dumped from July, 2022 to 03.04.2024 (Lakh Ton)	Total Quantity of Legacy Waste Bio-mined from July,22 to 03.04.2024 (Lakh Ton)	Balance Quantity of Waste at Dumpsite (Lakh Ton)	No. of Trommels Operational	Revised Timeline for 100% Remediation (Earlier Timeline – May, 2024)
Bhalaswa	80	63.42 (79.3 %)	73	16.46	37.58	51.88	22	Dec. 2027
Ghazipur	140	25.00 (17.9 %)	85	11.21	13.30	82.91	25	Dec. 2027
Okhla	60	43.12 (71.9 %)	45	11.31	24.46	31.85	11	Dec. 2027
Total	**280**	**131.54** (47 %)	**203**	**38.98**	**75.34**	**166.64**	**58**	

*Subject to the stoppage of incoming fresh waste and formation of Standing Committee in MCD.

2.New Delhi Municipal Council (NDMC)

A. General Information

- **Area** – 42.67 sq. km
- **Population** – 2.57 lakh
- **No. of Circles** – 14 (Circles)
- **No. of Households** – 47401
- **No. of Dhalaos** – Nil
- **No. of Non-Residential Premises** - 4532 [Including 4349 Commercial Shops & 34 Hotels & Restaurants]
- **Segregation at Source** - 100% (in all 14 Circles)
- **Motorised Vehicle** - 100%
- **No. of Bins placed** - Nil [Bin less Area, No secondary storage facilities]
- **Lifting of MSW** - 100% Mechanical lifting (From Iron Bin Trolleys of Underground Bins . 60 % of Road side Horticulture waste is lifted mechanically into open Trucks..
- **Sweeping of Streets / Roads** - 1298 Kilometers through Mechanised Road Sweeping Machines.
- **Means Used for Collection & Transportation of MSW** - Auto Tippers – 36 for D2D & 8 for C&D, Open Tipper Trucks for Horticulture Waste - 10, Compactors- 19, Wheel Barrows Tricycle- 790,

B. Solid Waste Generation

– 280 TPD (100% Collection, Transportation & Processing of MSW)

C. Existing Processing/Treatment Facilities

- **Total Waste Processed/Treated** - 280 TPD (100 % of total solid waste generated).
- **Through Existing Waste to Energy Plant** at Okhla having capacity of 1950 TPD [NDMC & DCB share is 400 TPD] & Other Decentralised Processing Facilities in NDMC Area

- **Bio- Gas Plants** - **5** (Total capacity 7 TPD)
- **Local Composting Units** - **50** Nos. (46 Compost Pits & 4 Community Composters, Total Capacity – 21.32 TPD).
- **Organic Waste Composter** - **25** Nos.(Total Capacity 10 TPD)
- **Material Recover Facilities (MRFs)** - **08** Nos. (Total Capacity 12 TPD)

Proposed Waste Processing / Treatment Facilities : (Nil)

Presently Having Sufficient MSW Processing Capacity at Okhla Waste to Energy Plant for the MSW generated from NDMC & also having Decentralised MSW Facilities in NDMC Area.

3. Delhi Cantonment Board (DCB)

A. General Information

- **Area** – 42.8 sq. km
- **Population** – 1.10351 lakh
- **No. of wards** – 08
- **No. of Households** – 10060
- **No. of Dhalaos** - Nil
- **No. of Non-Residential Premises** - 460
- **Segregation at Source** - 90% Premises in Civil Pockets & 60% in Army Area
- **Lifting of MSW** - 73 % (Manual) & 27% (Mechanical), Front End Loaders & Refuse Compactors (8 Nos), Tippers (21 Nos), Tractors (04 Nos) and JCB / Loader (04 Nos).
- **Sweeping of Streets/ Roads** - 62 Kilometers [Manual & through 2 Mechanised Road Sweeping Machines]. Sweeping in Commercial Areas - Twice a day (Night Sweeping also in Shastri Bazar & Sadar Bazar Areas) Sweeping on Public Roads & Streets - Daily.
- **Regular Manpower Deployed** - Safai Karmcharis (93), Drivers (11) & Sanitary Guides (03). Besides above Regular Manpower 1153 Contractual Manpower also engaged by DCB.

B. Solid Waste Generation - 62 TPD (0.6 kg / day / capita).

(Daily 100% Collection,Transportation & Processing of MSW)

C. Existing Processing/Treatment Facilities

- **Total Waste Processed/Treated** - 62 TPD (100% of total solid waste generated). (60 TPD processed through Waste to Energy Plant at Okhla &2 TPD of Plastic waste is processed through Recycling).
- **Food Waste Composters** - 2 Nos. of 0.175 TPD Capacity (0.125 TPD + 0.05 TPD at Tigris Road)
- **Material Recover Facilities (MRFs)** - 11 Nos. (Total Capacity 50 TPD)

D. Proposed Waste Processing/Treatment Facilities :

One Sorting cum Composter Plant of 20 TPD capacity at Tigris Road , Delhi Cantt presently not operational is proposed to be shifted to New Location (Kirby Place).

Annexure-II

A Summary Statement on Progress made by Local Bodies in respect of Waste Collection, Segregation, Transportation and Disposal.

1. Municipal Corporation of Delhi (MCD)

- **Collection of Solid Waste** - 11000 TPD (100% of Total Solid Waste generated)
- **Premises Segregating Waste at Source - 56 % (Average) (100 % by December, 2024).**
- **Transportation of Collected Waste** - Collected Solid Waste is transported by Tractors, Non-tipping Truck, Tipping truck, Dumper placers, Refuse collector, Compactors, JCB/loader, MRS and others.
- **Disposal of Solid Waste in Landfill/Dumpsite** - 3800 TPD (Average).

2. New Delhi Municipal Council (NDMC)

- **Collection of Solid Waste** - 280 TPD (100% of Total Solid Waste generated)
- **Premises Segregating Waste at Source** - 100%
- **Transportation of Collected Waste-** Collected Solid Waste is transported by Motorized Vehicles.
- **Disposal of Solid Waste in Landfill / Dumpsite** - Nil
- 280 TPD of waste generated from NDMC areas is being processed / treated at WtE Plant at Okhla & Decentralised MSW Facilities (Bio-Gas Plants / Organic Waste Convertors / Compost Pits etc) in NDMC area.

3. Delhi Cantonment Board (DCB)

- **Collection of Solid Waste** - 62 TPD (100% of Total Solid Waste generated)
- **Premises Segregating Waste at Source** - 90% in Civil Pockets and 60% in Army Area. (100 % Segregation by Sept, 2024)
- **Transportation of Collected Waste** - Collected Solid Waste is transported by motorized vehicles.
- **Disposal of Solid Waste in Landfill / Dumpsite** - Nil
- 62 TPD of waste generated from Delhi Cantonment Area is being 100 % processed. 60 TPD processed through Waste to Energy Plant at Okhla & 2 TPD of Plastic waste is processed through Recycling.

Annexure- III

Status of Solid Waste Management in NCT of Delhi including Summary Statement on Progress made by Local Bodies in respect of implementation of Schedule II of Solid Waste Management Rules, 2016.

1. Solid Waste Generation, Processing/Treatment and Disposal

S.No.	Particulars	MCD	NDMC	DCB	Total
1.	Area (in Sq. Km)	1366.89	42.67	42.8	1452.36
2.	Population (in Lakh)	192 (2011 Census)	2.57	1.10351	195.673
3.	No. of Wards	250	14 Circles	08	272
4.	No. of Households (in Lakh)	43	0.47401	0.10060	43.5746
5.	Solid Waste Generation (in TPD)	11000	280	62	11342
6.	Collection of MSW in TPD (in %)	11000 (100%)	280 (100%)	62 (100%)	11342 (100%)
7.	Premises Segregating the waste at Source (in %)	56 % (Average)	100%	90% in Civil Pockets & 60% in Army Area	---
8.	Processing / Treatment of Solid Waste in TPD (in %)	7200 (65.45%)	280 (100%)	62 (100%)	7542 (66.5 %)
9.	Disposal of Solid Waste in Landfill/ Dumpsite Sites (at Bhalaswa, Ghazipur & Okhla)	3800 (34.55%)	Nil	Nil	3800* (33.5%)
10.	Engineered Sanitary Land Fill (SLF)	Two (Operational at Bawana & Tehkhand)	-	-	02`
11.	Operational Waste to Energy Plants	04 (6550 TPD)	-	-	04 (6550 TPD)
12.	Operational Centralized Compost Plants	One (at Bawana)	-	-	01
13	Operational Bio-methanation Plants	-	5 (Bio-Gas Plant)	-	5
14.	Decentralised Compost Plants / Organic Waste Convertors	20	25	2 (Food Waste Composters)	47
15	Compost Pits	211 (Compost Pits)	50 (46 Compost Pits + 4 Community Comopters)	-	261
16	Recycling through MRFs	157	08	11	176

*Excluding about 336 TPD (Average) rejects landfilled at Engineered SLF at Bawana.

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

There are 03 Local Bodies in Delhi responsible for implementation of the Solid Waste Management Rules, 2016. Total Municipal Solid Waste generation in Delhi is 11342 Tonnes per day (TPD). Local Bodies are implementing waste segregation at source, door to door collection, intermediate storage and transport facility with GPS for the transportation of the collected solid waste to the operational Solid Waste Processing / Treatment Facilities or at the 3 existing Dumpsites at Bhalaswa, Ghazipur & Okhla in Delhi.

New Delhi Municipal Council (NDMC) , Delhi Cantonment Board (DCB) & Municipal Corporation of Delhi (MCD) are making all efforts to implement the provisions of the SWM Rules, 2016 in their areas.

About 100 % collection of Solid Waste, Door to Door collection and Transportation of Solid Waste in covered vehicles have been reported by the Local Bodies in their Annual Reports.

NDMC has reported that 100% Premises in the area are segregating the waste at source. DCB has reported that 90% Premises in Civil Pockets & 60% Premises in Army Area are segregating the waste at source. MCD has reported that 56 % (Average) Premises in the area are segregating the waste at source.

(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 Landfill.

(c) Waste to Energy Plants:

Delhi has 04 Waste to Energy Plants (WTE Plants) of capacity 6550 TPD at 4 different locations in Delhi namely Okhla, Bawana , Ghazipur & Tehkhand. One new Waste to Energy Plant of capacity of 3000 TPD is proposed at Narela-Bawana and timeline for completion of the project is June , 2027. Another new WTE Plant of 2000 TPD Capacity is proposed at Ghazipur and timeline for completion of project is December, 2027. Expansion of existing WtEs at Okhla from 1950 TPD to 2950 TPD (from 23 to 40 MW Capacity) by March, 2026 & at Tehkhand from 2000 TPD to 3000 TPD by December, 2026 are also proposed. After commissioning of the above mentioned projects, the capacity of WtE Plants will enhance from 6550 TPD to 13550 TPD by December, 2027.

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
4.	Tehkhand Waste to Electricity Project Limited at Tehkhand, Okhla	2000	25
	Total	**6550**	**84**

2. Implementation of Schedule II of Solid Waste Management Rules, 2016

(A) Waste to Energy Plants

Waste Handling Concepts in WTE Plants in Delhi:

Okhla WTE Plant : MCD provides waste at its door step. Processes waste for production of RDF for electricity production

Tehkhand WTE Plant : MCD provides waste at its door step. Processes waste for production of RDF for electricity production

Bawana WTE Plant : The plant has provision for collection, transportation, processing in the Integrated MSW Facility having Composting Plant , WTE Plant and Engineered Sanitary Landfill .

Ghazipur WTE Plant : MCD provides waste at its door step. processes waste for production of electricity production.

(i) Waste to Energy Plant at Okhla

Waste-to-Energy Plant at Okhla receives approx. 1950 MTD of Mixed Municipal Waste from MCD, New Delhi Municipal Council and Delhi Cantonment Board (DCB). The waste is transferred through tippers and is dumped in a storage pit where microbial culture (solid and/or aqueous form) is mixed with MSW and kept for nearly 5 days. The storage pit is equipped with 02 grab cranes and keeps on mixing the waste for homogenization. After 5 days MSW is sent to pre-processing section (covered under shed), which consist of two segregation channels. Each segregation channel has the following system:

Manual segregation on moving belt conveyor – to sort out large size recognizable wastes such as Construction & Demolition waste, sanitary hardware, fibre, plastic materials, etc.

Ballistic Separator, Shredder and Vibratory screen – A two deck density separation system where heavier and lighter fractions are separated. The heavier fractions are disposed into Okhla Landfill. The lighter fractions are separated into three sizes viz., (+) 100mm; (-) 100 mm to (+)10mm and (-) 10mm. (+) 100mm size is passed through a shredder and shredded material directly goes to storage pit for feed into the Boilers. (-) 100 mm to (+) 10mm size material from the Ballistic Separator directly goes to storage pit for feed into the Boilers.10mm size from both the Ballistic Separator are being send to sieve of 6mm size, (+) 6mm is sent to RDF storage and (-) 6mm is sent to the compost section.

Magnetic Separator – An electromagnet with moving belt to trap ferrous metals is installed on the line transporting -100 mm material and +10 mm material to RDF storage Pit. Two magnetic separators have been installed on the conveyer belt carrying the bottom ash.

Plant has constructed a pit (50 meters x 28 meters) under a covered shed for storage of RDF equipped with Grab Cranes. The pre-processed waste from the RDF storage pit is fed into the Boilers (three Nos.) using grab crane to run turbine to generate electricity of up to 23 MW.

The temperature in the boilers are maintained above 950°C as per Solid Waste Management Rules, 2016. Bottom Ash along with inert from pre-processing section was earlier sent to Tajpur Pahari and now in the Engineered Sanitary Landfill at Tehkhand which has been developed by MCD for Disposal of Ash from the Waste to Energy Plants at Okhla & Tehkhand.

There are 03 flue gas cleaning units 01 for every boiler consisting of Lime spray reactor (lime slurry is added by atomizing), Activated Carbon Injection, Bag House filter followed by dispersion into the atmosphere through a common stack of height about 60 meters from the ground. Unit has installed brick manufacturing unit for utilization of fly ash.

The (-) 6mm material from pre-processing section is stacked and composted for 30-35 days as windrow. After completion of 30-35 days the decomposed material is passed through 4mm trammel (+)4mm is sent to RDF storage and (-) 4mm is sent to another sieve of 2mm. (+)2mm is sent to RDF storage and (-)2mm is the composted material which is being used for in house horticulture process.

The leachate generated in the storage pits is treated in Multi Effect Evaporator (MEE). The wet sludge from MEE is incinerated along with RDF in the boilers and treated water is reused.

(ii) Waste to Energy Plant at Ghazipur

Waste-to-Energy plant at Ghazipur is having capacity of 12 MW electricity generation from burning of waste. The Plant is being run by M/s Indo Enviro Integrated Solutions Limited. The facility receives mixed Municipal Solid Waste (MSW) in a covered pit (Size 62 meter X 20 meters and 13 meters high).

The waste from the pit is subjected to pre-processing in two lines and each line has provision of manual segregation on moving conveyor belts, two trommels for segregation of various sized viz. (+) 200mm, (-) 200mm to (+) 50 mm and (-50) mm, magnetic separator and Shredder (100mm Size). The flue gases are diluted with atmospheric air to bring down the temperature to the level of about 200-300 °C. The flue gas is subjected to air pollution control devices viz. Multicyclone, Venturi Scrubber with lime injection, demister (to remove moisture), and Activated Carbon Bed followed by dispersion into the atmosphere. The temperature in the boiler is maintained above 950°C as per Solid Waste Management Rules, 2016.

The flue gas from the boiler passes through air pollution control devices viz. Selective Non-catalytic reactor where urea is injected (for NO_X reduction), Semi-wet reactor where lime slurry is atomised, Activated Carbon Injection, Bag House (8 chamber and each having 14*14 bags) followed by dispersion into the atmosphere through a stack of height about 60 meters from ground.

Manual segregation on moving belt conveyor – to sort out large size recognizable wastes such as Construction & Demolition waste, sanitary hardware, fibre, plastic materials, etc. For the treatment of leachate an Effluent Treatment Plant (ETP) has been installed at Ghazipur site. It has provision to collect leachate generated from the mixed MSW and the leachate collected is thereafter treated at Effluent Treatment Plant.

(iii) Waste to Energy Plant at Bawana

The Waste-to-Energy Plant at Bawana is being operated by M/s Delhi MSW Solutions Ltd, having capacity of 1300 TPD & Electricity generation capacity is 24 MW. The plant is located within the premises of Integrated MSW Facility having Composting Plant, WtE Plant and Engineered Sanitary Land fill .The WTE Plant receives mixed Municipal Solid Waste (MSW) on covered tipping floor (of size 150 meters x 25 meters and 7.5 meters high), which is made of RCC and covered under shed. The tipping floor has provision to collect leachate generated from the mixed Solid Waste into storage tank. The pre-processing system has five trommels (cylindrical rotary equipment with a screen) to sort out (+) 50 mm size material which is stored separately in the said tipping floor and is used as Refuse Derived Fuel (RDF) and is conveyed to a storage pit to feed into Boilers.

Segregation on moving belt conveyor is carried out to sort out large sized recognizable wastes such as Construction & Demolition waste, sanitary hardware, fibre, plastic materials, etc. The waste is then processed and disposed into composting facility, RDF for Waste-to-Energy facility and rejects are sent to Secured Landfill Site. The temperature in the boilers are maintained above 950°C as per Solid Waste Management Rules, 2016. Bottom ash along with inert from pre-processing section is sent to Engineered landfill existing in the plant site at Bawana. Some portion of the Bottom Ash is processed for making various products (Aggregates etc.). About 336 TPD of rejects on an average was sent to Engineered landfill in the same premises.

There are flue gas cleaning units for boilers consisting of Lime spray reactor (lime slurry is added by atomizing), Activated Carbon Injection, Bag House filter followed by dispersion into the atmosphere through a common stack of height about 60 meters from the ground.

The leachate collected is treated in Mechanical Vapor Recompression (MVR) System within the Integrated MSW Facility and there is no discharge of untreated leachate. Leachate generated from Waste Storage Pit, Compost Facility and other sources including SLF is collected in three Leachate Collection Ponds of 3500 KL, 1100 KL & 800 KL. Collected Leachate is pumped to Mechanical Vapor Recompression (MVR) System of 200 KLD capacity installed at the facility. MVR is based on evaporation without use of steam and works on principle of heat recycling without any addition or blow

down of heat. MVR raises the vapour temperature and pressure, recirculate it as heating medium making it an energy recovery process. There is maximum output of clean water (up to 95%). The treated leachate is recirculated and used in boilers of Waste to Energy Plant. Sludge from treatment of leachate is incinerated in Waste to Energy Plant due to its high calorific value (CV).

The Waste to Energy Plant also has Bottom Ash Recycling Facility. Bottom ash is screened twice for segregation of coarse and fine segregates. > 400 mm segregates are manually crushed while < 40 mm Segregates are crushed through cone crushing. The cone crushed segregates are then log washed creating a slurry. The slurry having < 0.75 mm particles is treated in Waste Water Treatment Plant and the settled sediments are used as Landfill Daily Soil Cover. The recycled water is reused. The > 0.75 mm aggregates after log-washing are screened into different fractions for processing them into products like paver blocks, kerbs, tiles, etc. As reported final product are being sold to private parties for construction purposes.

(iv) Waste to Energy Plant at Tehkhand

Tehkhand Waste to Electricity Project Limited (WtE) Plant at Tehkhand receives about 2000 TPD of Municipal Solid Waste from the MCD, the waste is transferred through Compactors in MSW storage pit where microbial culture (solid and/or aqueous form) is mixed with MSW and kept for nearly 5 days. The storage pit is equipped with 02 grab cranes and keeps on mixing the waste for homogenization. After 5 days MSW is sent to MRF section (under covered shed) for its segregation.

MRF system has been installed – to sort-out large size recognizable wastes such as Construction & Demolition Waste, Fibres & Plastic Materials etc. Ballistic Separator (04 Nos), Shredder (01 No) and Vibratory screen (01 No) – A two deck density separation system where heavier and lighter fractions are separated. The heavier fractions are disposed into Okhla Landfill. The lighter fractions are separated into three sizes viz., (+) 100mm; (-) 100 mm to (+)10mm and (-) 10mm. (+) 100mm size is passed through a shredder and shredded material directly goes to storage pit for feed into the Boilers. (-) 100 mm to (+) 10mm size material from the Ballistic Separator directly goes to storage pit for feed into the Boilers.
10mm size from both the Ballistic Separator are being send to sieve of 6mm size, (+) 6mm is sent to RDF storage and (-) 6mm is sent to compost plant Okhla.

Magnetic Separator – An electromagnet with moving belt to trap ferrous metals is installed on the line transporting -100 mm material and +10 mm material to RDF storage Pit. Two magnetic separators have been installed on the conveyer belt carrying the bottom ash.

Plant has constructed a pit (108.5 X 21.25 metres) under a covered shed for storage of RDF equipped with Grab Cranes. The pre-processed waste from the RDF storage pit is fed into the Boilers (02 Nos.) using grab crane to run turbine to generate electricity of 25 MW.

The temperature in the boilers is maintained at 950°C and above as per the Solid Waste Management Rules, 2016.

There are 02 Flue Gas Cleaning units 01 for every boiler consisting of Lime spray reactor (lime slurry is added by atomizing), Activated Carbon Injection, Bag House filter followed by dispersion into the atmosphere through a common stack of height- 60 meters from the ground.

The leachate generated in the storage pits is being used as supplementary fuel along with RDF in Boilers Furnace. Adequate storage facilities are provided for the leachate management.

(B) Engineered Sanitary Landfill (SLF) at Tehkhand

The Engineered Sanitary Landfill (SLF) at Tehkhand has been developed over an area of 32.346 Acres. Environmental Clearance was granted by MoEF&CC, Govt. of India on 29.10.2018. The Engineered Sanitary Landfill commissioned in March, 2024.

3. Gap Analysis on Solid Waste Management

Generation (in TPD) (1)	Total Capacity of Existing MSW Processing Facilities + MRF (in TPD) (2)	Processing of Fresh MSW+MRF (in TPD) (3)	Gap in Processing Capacity (in TPD) (4) = (1)-(2)	Gap in Processing (in TPD) (5)= (1)–(3)	Additional Proposed Capacity of Facilities (in TPD)			Total Capacity of MSW Processing Facilities + MRFs (in TPD)		
					By 2025	By 2026	By 2027	By 2025	By 2026	By 2027
11342	8173 (72.06 %)	7542 (66.5 %)	3169 (27.94%)	3800 (33.5 %)	400	2750	7750	8573 (75.6 %)	10923 (96.3 %)	15923 (140.4 %)

4. Proposed MSW Processing Facilities to fill the Gap:

(i) One New Waste to Energy Plant of MCD at Narela-Bawana of 3000 TPD capacity by June, 2027.
(ii) One New Waste to Energy Plant of MCD Ghazipur of 2000 TPD by December, 2027
(iii) Expansion of Waste to Energy Plant at Okhla from 1950 TPD to 2950 TPD by March, 2026.
(iv) Expansion of Waste to Energy Plant at Tehkhand from 2000 TPD to 3000 TPD by December, 2026.
(v) One Bio-CNG Plant of 300 TPD at Okhla by March, 2025.
(vi) One Compressed Bio-Gas (CBG) Plant of 350 TPD of MCD at Ghazipur by December, 2026.
(vii) One Compressed Bio-Gas (CBG) Plant of 100 TPD of MCD at Ghogha Dairy by March, 2025.

Besides above, Following Bio-Gas Plants for Dairy Waste are also proposed & under construction :

(i) Nangli Dairy (215 TPD) by Sept, 2024
(ii) Goyla Dairy (215 TPD) by March, 2025
(iii) Ghogha Dairy (290 TPD) by March, 2025,

These are mainly for the Waste generated from Dairies and not included in total MSW Generation of 11000 TPD.

Total Additional Capacity of Proposed MSW Processing Facilities- after commissioning of above-mentioned facilities will be 7750 TPD by December, 2027 which will be sufficient to fill the gap of 3800 TPD (excluding abovementioned Bio-Gas Plants of Dairies)

5. NGT Case OA No. 606 / 2018 regarding Compliance of Municipal Solid Waste Management Rules, 2016.

Meetings were taken by the Chief Secretary, GNCTD from time to time and compiled Information / Action Taken Reports of Govt. of NCT of Delhi are being submitted to CPCB through the Monthly Progress Reports of Govt. of NCT of Delhi.

Solid Waste Monitoring Committee (SWMC) headed by Hon'ble Lt. Governor, Delhi has been constituted by the Hon'ble National Green Tribunal vide order dated 16.02.2023 in OA No. 606/2018 in the matter of "Compliance of Municipal Solid Waste Management Rules, 2016, and Other Environmental issues." Chief Secretary, Delhi is Convener and Secretaries/HODs of various Ministries / Departments of Govt. of India / Delhi are members of the said Committee.

An Action Plan for Solid Waste Management in Delhi has been prepared and an order dated 06.04.2023 has also been issued by Chief Secretary, Delhi. Copy of the said Action plan and order dated 06.04.2023b has been sent to concerned departments including CPCB and MoEF&CC.

6. 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 Jasjeev Gandhiok & 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 Bhalaswa, Ghazipur and Okhla.

The Project (Bio-mining of Legacy Waste at 3 Dumpsites in Delhi) 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.

Status of Bio-Mining of Legacy Waste at 3 Dumpsites at Okhla, Ghazipur & Bhalaswa (As on 03.04.2024)

Dumpsite	Quantity of Legacy Waste Dumped (July, 2019) (Lakh Ton)	Total Quantity of Legacy Waste Bio-mined (Since Oct, 2019 to 03.04.2024) (Lakh Ton)	Legacy Waste (Volumetric Assessment through Drone Survey in June, 2022) (Above Ground) (Lakh Ton)	Quantity of Fresh MSW Dumped from July, 2022 to 03.04.2024 (Lakh Ton)	Total Quantity of Legacy Waste Bio-mined from July,22 to 03.04.2024 (Lakh Ton)	Balance Quantity of Waste at Dumpsite (Lakh Ton)	No. of Trommels Operational	Revised Timeline for 100% Remediation (Earlier Timeline – May, 2024)
Bhalaswa	80	63.42 (79.3 %)	73	16.46	37.58	51.88	22	Dec. 2027
Ghazipur	140	25.00 (17.9 %)	85	11.21	13.30	82.91	25	Dec. 2027
Okhla	60	43.12 (71.9 %)	45	11.31	24.46	31.85	11	Dec. 2027
Total	**280**	**131.54** (47 %)	**203**	**38.98**	**75.34**	**166.64**	**58**	

*Subject to the stoppage of incoming fresh waste and formation of Standing Committee in MCD.

7. Action taken by DPCC for Improvement in the Solid Waste Management in Delhi:

(a) Coordinated the works related to Solid Waste Monitoring Committee (SWMC) headed by Hon'ble Lt. Governor, Delhi constituted by the Hon'ble National Green Tribunal vide order dated 16.02.2023 in OA. No. 606/2018 in the matter of "Compliance of Municipal Solid Waste Management Rules, 2016 and other Environmental Issues".

Prepared Action Plan for Solid Waste Management in Delhi for SWMC after coordination with concerned Departments/Authorities. An order dated 06.04.2023 has also been issued by Chief Secretary, Delhi for implementation of the said Action Plan and compliance with the directions of the Hon'ble NGT in said order.

Progress of various projects and Action Points mentioned in the said order and Action Plan were reviewed / monitored through the meetings of SWMC held on 25.04.2023 & 12.12.2023 and also through E-Samiksha Portal of Govt. of NCT of Delhi.

Review of Solid Waste Management in Delhi by SWMC resulted in :

- Improvement in Segregation of Waste at Source
- Improvement in Bio-mining of Legacy Waste at 3 Dumpsites at Ghazipur, Bhalaswa & Okhla [79.21 Lakh ton on 04.04.2023 to 131.54 Lakh Ton on 03.04.2024 (130.5% increase)]

- Utilization of Inert Generated form Bio-mining increased manifold due to use by NHAI in its various projects in and around Delhi.
- Utilization of RDF Generated form Bio-mining also increased.

(b) Commissioning of New Waste to Energy Plant of 2000TPD at Tehkhand

Consent to operate under Air & Water Acts and Authorization under the Solid Waste Management Rules, 2016 was granted to M/s Tehkhand Waste to Electricity Project limited on 07.10.2023 for New Waste to Energy Plant of 2000TPD at Tehkhand. The plant commissioned in October 2022 and in operation.

(c) Commissioning of New Engineered Sanitary Landfill (SLF) at Tehkhand

Consent to operate under Air & Water Acts and Authorization under the Solid Waste Management Rules, 2016 were issued to Engineered Sanitary Landfill (SLF) at Tehkhand. The Facility commissioned on 12.03.2024. This facility has been developed by MCD for the disposal of the Ash generated from the Waste to Energy Plants at Okhla & Tehkhand.

(d) Monitoring of Waste to Energy Plants:

Inspection of Waste to Energy Plants in Delhi were carried out from time to time. Online Continuous Emission Monitoring System (OCEMS) has been installed by all the 04 operational Waste to Energy Plants in Delhi and the same are also connected to the server of CPCB & DPCC.

(e) Prevention of Fire Incidents at the Dumpsites:

Dumpsites at Ghazipur and Bhalaswa were inspected from time to time. By the action taken by DPCC in the past including imposition of Environmental Compensation & issuance of directions for prevention of Fire Incidents at the Dumpsites, Fire Incidents reduced drastically at the Dumpsites particularly at Ghazipur & Bhalaswa.

Annexure-IV

DELHI POLLUTION CONTROL COMMITTEE
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(Visit us at https://www.dpccocmms.nic.in)

LiFE Lifestyle for Environment

ANALYSIS REPORT OF GROUND WATER NEARBY GAZIPUR LAND FILL SITE

Report No.: DPCC/W/LF/2024/ 1036 Dated 25/6/2024

Date of monitoring: - 01.05.2024

S. No	Sampling Location	pH	TDS (mg/l)	Cl (mg/l)	Hardness as CaCO3 (mg/l)	Ca as Ca (mg/l)	SO4 (mg/l)	Fluoride (mg/l)	Nitrate (mg/l)	Mg (mg/l)
General Standards (as per IS 10500:2012)		6.5 8.5	500	250	200	75	200	1.0	45	30
1.	Gazipur Dairy Farm, Gali No.-4	7.5	2700	691.6	340	65.6	119.4	1.1	0.28	66.7
2.	Gazipur Dairy near Masjid	7.7	2780	711.6	256	49.6	123.4	1.1	0.18	50.17
3.	Landfill side Near Dairy House No. 48	7.3	5020	1661.2	1436	224	183.9	1.4	0.25	294.63
4.	Fish Market Landfill site Gazipur	7.4	2620	581.7	276	64	96.7	1.3	0.37	51.5

I/C Water Laboratory
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LiFE Lifestyle for Environment

ANALYSIS REPORT OF GROUND WATER NEARBY BHALSWA LAND FILL SITE

Report No.: DPCC/W/LF/2024/ 1037 Dated 25/6/2024

Date of monitoring: 02.05.2024

S. No	Sampling Location	pH	TDS (mg/l)	Cl (mg/l)	Hardness as CaCO3 (mg/l)	Ca as Ca (mg/l)	SO4 (mg/l)	Fluoride	Nitrate (mg/l)	Mg (mg/l)
General Standards (as per IS 10500:2012)		6.5 8.5	500	250	200	75	200	1.0	45	30
1	Bhalswa Sanjay Gandhi Transport	7.3	2450	641.8	1076	80	56.3	0.9	0.89	242.1
2.	Bhalswa Dairy	7.4	4100	1691.4	1536	120	78.4	1.6	0.72	344.2
3.	Bhalswa landfill site	Location was found dry								
4.	Bhalswa Janta Colony	7.3	4040	1241.6	1336	136	88.7	1.6	0.63	291.7

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LiFE Lifestyle for Environment

ANALYSIS REPORT OF GROUND WATER NEARBY OKHLA LAND FILL SITE

Report No.: DPCC/W/LF/2024/ 1038 Dated 25/6/24

Date of monitoring: - 01.05.2024

S. No	Sampling Location	pH	TDS (mg/l)	Cl (mg/l)	Hardness as CaCO3 (mg/l)	Ca as Ca (mg/l)	SO4 (mg/l)	Fluoride	Nitrate (mg/l)	Mg (mg/l)
General Standards (as per IS 10500:2012)		6.5 8.5	500	250	200	75	200	1.0	45	30
1.	Okhla Landfill Site	6.6	2760	811.5	796	168	20.8	0.7	0.25	152.6
2.	Booster Pumping Station Okhla	7.2	332	131.9	416	57.6	1.19	0.9	0.03	87.1
3.	Okhla Bus Depot	Location was found dry								
4.	B.P .Singh Camp Colony, Near Shiv Mandir	6.6	3680	1491.3	1476	192	26.7	1.0	0.38	312.1

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LiFE Lifestyle for Environment

ANALYSIS REPORT OF GROUND WATER NEARBY BAWANA LANDFILL SITE

Report No.: DPCC/W/LF/2024/ 1039

Dated: 25/6/24

Date of monitoring: -02.05.2024

S. No	Sampling Location	pH	TDS (mg/l)	Cl (mg/l)	Hardness as CaCO3 (mg/l)	Ca as Ca (mg/l)	SO4 (mg/l)	Fluoride	Nitrate (mg/l)	Mg (mg/l)
General Standards (as per IS 10500:2012)		6.5 8.5	500	250	200	75	200	1.0	45	30
1.	Main Gate Bawana (SLF)	Location was found dry								
2.	Store Waste to Energy	7.8	660	111.9	136	35.2	26.9	Nil	0.70	24.50
3.	Sonot Village Bawana	7.6	571	121.9	156	20.8	64.3	1.1	0.47	32.86
4.	Bawana Village	7.9	288	61.9	336	36.8	16.7	1.8	0.59	72.73
5.	Sector 5 Bawana	7.6	666	131.9	236	22.4	74.3	1.2	0.70	51.92

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