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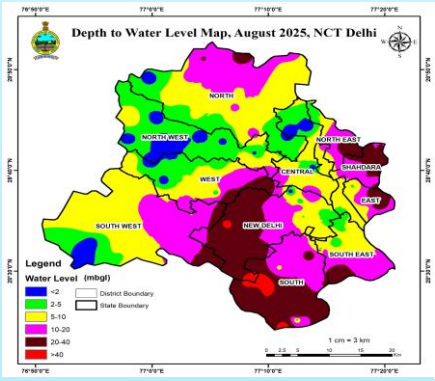
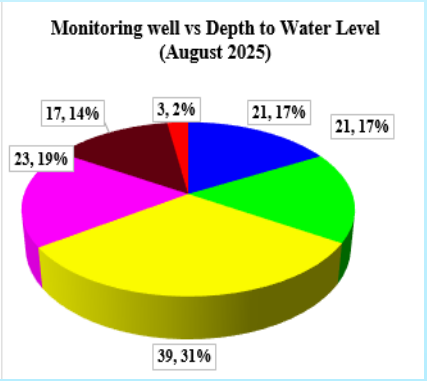
जल शक्ति मंत्रालय / MINISTRY OF JAL SHAKTI

केंद्रीय भूमि जल बोर्ड / CENTRAL GROUND WATER BOARD





GROUND WATER LEVEL BULLETIN AUGUST 2025 STATE UNIT OFFICE, NEW DELHI

केंद्रीय भूमि जल बोर्ड, राज्य इकाई कार्यालय

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राष्ट्रीय राजधानी क्षेत्र , दिल्ली में मई -2025 के दौरान भूजल स्तर परिदृश्य में निष्कर्षों, विभिन्न जलभृतों में भूजल स्तर की स्थिति और इसकी मौसमी, वार्षिक और दशकीय तुलना पर प्रकाश डाला गया

GROUNDWATER LEVEL SCENARIO DURING AUGUST – 2025 IN NCT, DELHI HIGHLIGHTING THE FINDINGS, STATUS OF GROUNDWATER LEVEL IN DIFFERENT AQUIFERS, AND ITS SEASONAL, ANNUAL, AND DECADAL COMPARISON

1.0 INTRODUCTION

Ground water is among the Nation's most precious natural resources. Measurements of water levels in wells provide the most fundamental indicator of the status of this resource and are critical to meaningful evaluations of the quantity and quality of groundwater and its interaction with surface water. Water-level measurements are made by Central Ground Water Board four times a year manually but the measurements in August are quite crucial as they provide the overall impact of monsoon, ground water behavior and ground water withdrawal for drinking and domestic purpose of its drinking and domestic demands during this period only. Recently CGWB has installed Automatic Water Level Recorders in selected Piezometers to get the real time water levels of NCT, Delhi.

2.0 STUDY AREA

The State Unit Office of Central Ground Water Board Delhi has jurisdiction over the National Capital Territory (NCT) of Delhi, covering an area of 1483 Sq.km and lies between 28°24'15'' & 28°53'00'' North Latitudes and 76°50'24" & 77°20'30" East Longitudes, covered under Survey of India Topo-sheet Nos. 53D and 53H. The NCT of Delhi is surrounded on three sides by two States, i.e., on North, West and South by Haryana and in the East by Uttar Pradesh. NCT of Delhi is divided into 11 Revenue District and one non-revenue unit along river Yamuna, named as Nazul Land. As per District Census Hand Book, 11 districts of NCT of Delhi are further subdivided into 3 Tehsils for each district and there are total 33 Tehsils, with 112 villages, 110 Census Town and 3 Statutory Towns.

The rock formations exposed in the National Capital Territory of Delhi are mainly quartzite of Alwar series of the Delhi Super group that are inter-bedded with thin micaceous schist bands. Proterozoic rocks occur along the ridge, extending from Harchandpur (Haryana) in the South to Wazirabad (Delhi) in the North. Quaternary sediments directly overlie the Proterozoic rocks.

The Delhi Quartzite ridge acts as the recharge zone. The Quaternary deposits in the form of aeolian and alluvial deposits constitute the major repository of ground water in the area. In the east of the ridge, the thickness of unconsolidated sediments gradually increases away from the ridge, with the maximum reported thickness being 170 m.

3.0 BEHAVIOUR OF WATER LEVEL

In the Southwestern, Western and Northern parts of the area, the thickness of sediments is more than 300 m except at Dhansa where the bedrock has been encountered at 297m below land surface. In Chhattarpur basin, the maximum thickness of sediments is 116 m. The aeolian deposits are mainly comprised of loam, silty loam and sandy loam. The bedrock is overlain by these deposits. Older alluvial deposits consist mostly of interbedded, lenticular and inter fingering deposits of clay, silt, andsand along with kankar. These deposits overlay the aeolian deposits and are in turn overlain by the newer alluvium, which occurs mostly in the flood plains of river Yamuna (***Figure 1***).

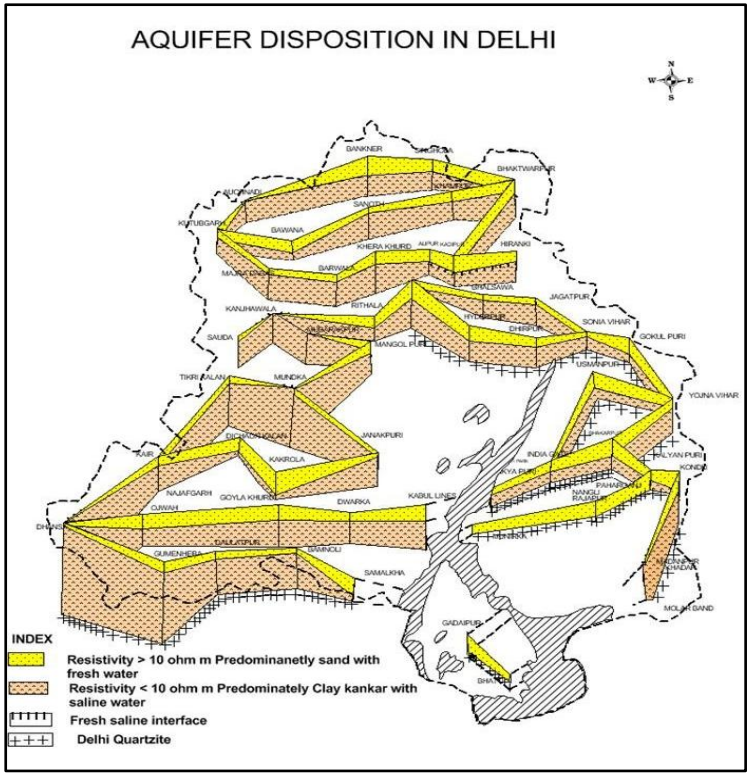

Figure 1 : Panel Diagram showing Aquifer Disposition in NCT of Delhi

To meticulously evaluate the quantitative shifts in groundwater resources, a comprehensive analysis was conducted by comparing water level data from August 2025 with that May 2025, January 2025, November 2024, August 2024 & August 2023 for the annual variation and the decadal mean for August (2015-2024). This comparison enabled the calculation of Seasonal, Annual, and Decadal Mean Water Level Fluctuations. The ensuing discussion elucidates the behavioral dynamics of groundwater levels in August 2025, providing a critical examination of changes relative to the referenced temporal benchmarks.

3.1 RAINFALL

(source: https://mausam.imd.gov.in/newdelhi/mcdata/seasonal_report.pdf)

The rainfall data collected and compiled from monthly weather reports from Indian Meteorological Department were used to analyze the rainfall for the period of March 2025 - June 2025. Monsoon has withdrew from Delhi on 2nd October 2024 in the last year against its normal date of withdrawal 25th September (1971-2019). In the year 2025, the southwest monsoon (SWM) made its onset over Delhi on 29th June, 2025 against its normal onset date of 27th June (1961-2019). In last 124 years, the earliest onset of southwest monsoon was in 2008 when it arrived in Delhi on 15th June and most delayed onset was in 1987 when it arrived on 26th July. In Delhi, seasonal rainfall (June to September) in the monsoon 2024 was in the category of Large excess (departure of 61%) with actual rainfall 1029.9 mm against its normal value (1971-2020) of 640.4 mm. This year, Delhi received 7th highest seasonal rainfall in the monsoon season since 1901.

Table 1: Highest Seasonal Rainfall (June- September) over Delhi

S. No	Year	Seasonal Rainfall (in mm)
1	1933	1421.6
2	1964	1190.9
3	1975	1155.6
4	2003	1052.8
5	2010	1031.5
6	2021	1169.7
7	2024	1029.9

Table 2: The rainfall recorded during monsoon season in NCT, Delhi 2025

S. No	Month	Rainfall (in mm)
1	March	1.8
2	April	0.7
3	May	186.4
4	June	107.1

3.2 DEPTH TO WATER LEVEL: AUGUST 2025

The analysis of the water level behavior in August 2025, as illustrated in (***Figure 2),*** unveils critical insights into regional hydrological dynamics.

The depth to water level map, serving as a pivotal tool in this evaluation, highlights significant variations in groundwater table depths across different locales.

In August 2025, the depth to the water level in Delhi exhibits a significant range, from a mere 0.22 mbgl in Rain Kera Dug Well within the Rohini in the North West district to a substantial 68.69 mbgl in Gadaipur Pz in the Mehrauli in South district.

Notably, the areas which are characterized by extremely shallow water levels ranging from 0 to 2 mbgl, observed in 17% of monitoring wells, signify localized water logging within 5% of the state's area. Similarly, shallow water levels between 2 to 5 mbgl are recorded in 17% of wells encompassing 18% area across North West, North, Central, South West, South East and New Delhi Districts.

Depth to water level ranges of 5 to 10 mbgl is exhibited by 31% of the monitoring wells. These wells span 33% of the total area and are dispersed across South West, West. North, North West, Central, New Delhi, South East, North East and East Districts. Moderate water levels, ranging from 10 to 20 mbgl, are observed in approximately 19% of wells, spanning 25% of the area North, South West, West, New Delhi, South, South East, Central, East, Shahdara and North East Districts. Deep water levels, ranging from 20 to 40 mbgl, are found in 14% of wells, covering 18% of the area South, New Delhi, South East, East, Shahdara, North East, and North districts. Very deep water levels exceeding 40 mbgl occur in 2% of the wells and 1% of the area, including South and New Delhi districts (***Figure 2, Figure 3, Figure 4, and Figure 5 & Table 3).***

Table 3: Number of Wells monitored and Area Covered falling in different Depths to Water Level Ranges (August 2025)

Depth to water level in meter	Wells Monitored		Area Covered	
	No.	% Age	Km2	% Age
>2 m	21	17%	68.72	5%
2 to 5 m	21	17%	273.27	18%
5 to10 m	39	31%	487.16	33%
10 to 20 m	23	19%	377.91	25%
20 to 40 m	17	14%	261.09	18%
>40 m	3	2%	14.85	1%
Total	**124**	**100%**	**1483**	**100%**

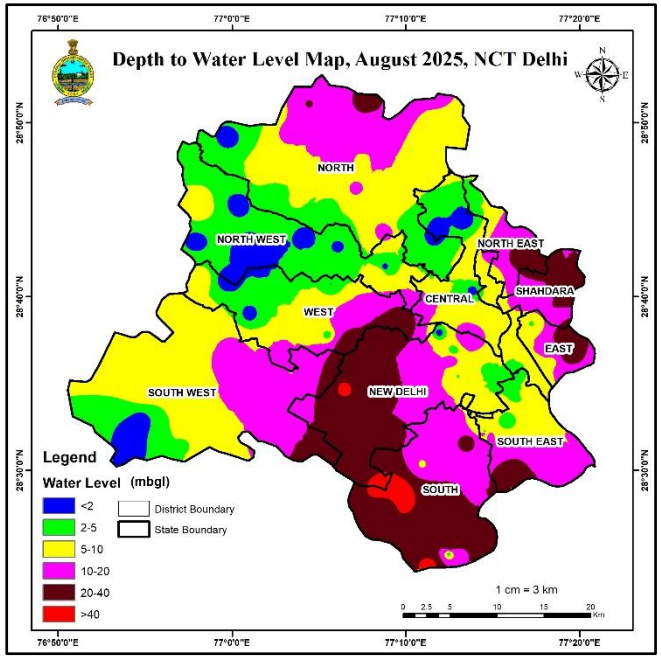

Figure 2: Depth to Water Level Map, August 2025, NCT Delhi

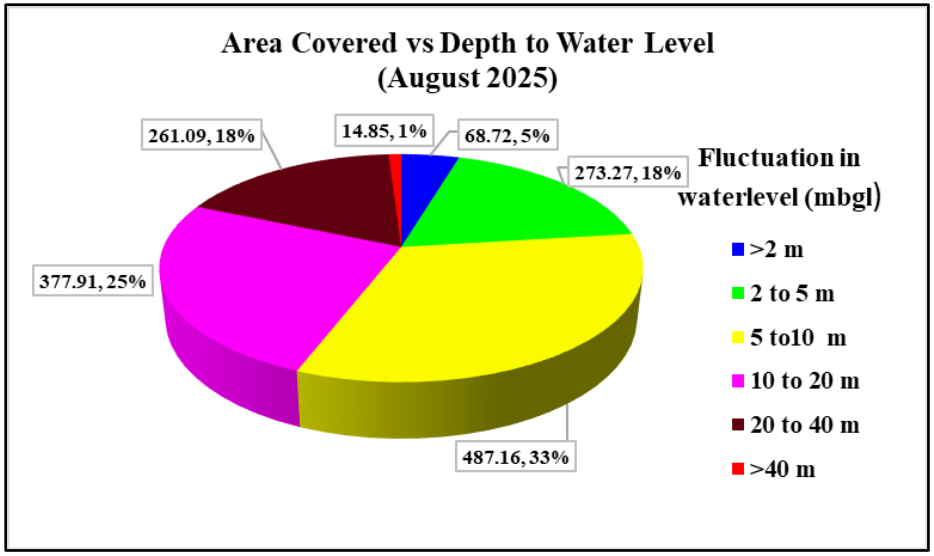

Figure 3: Area Covered Vs Water Level Depth Range (August 2025)

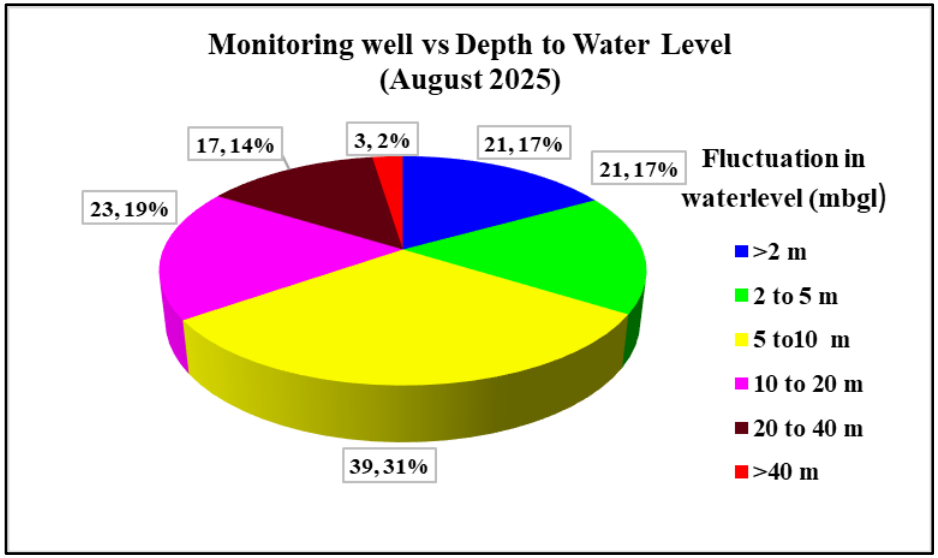

Figure 4 Monitoring Wells Vs Water Level Depth Range (August 2025)

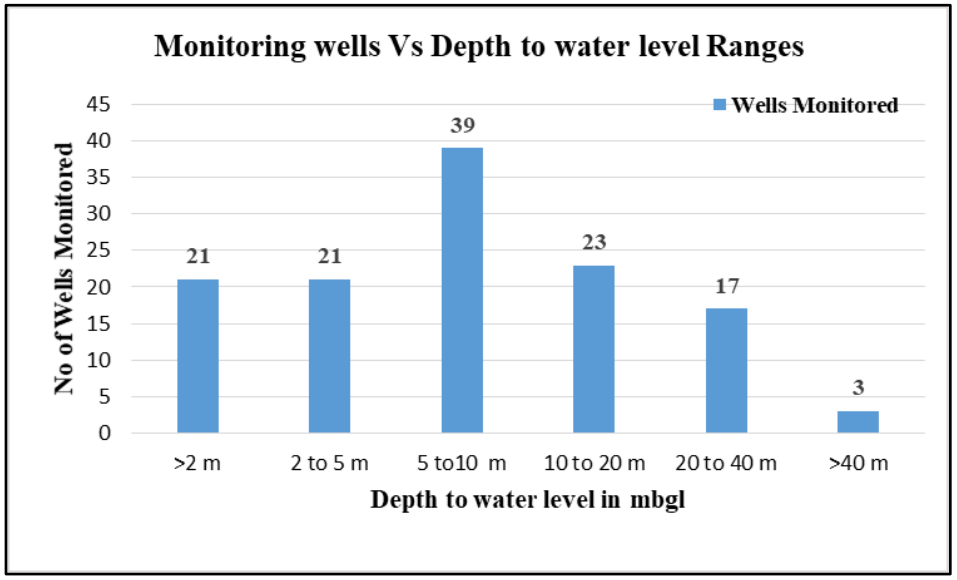

Figure 5: Monitoring Well Vs Water Level Depth Range (August 2025)

3.3.1 SEASONAL WATER LEVEL FLUCTUATIONS: (NOVEMBER 2024 – AUGUST 2025)

The comparative analysis of water level data from August 2025 with the previous measurements recorded in November 2024 elucidates the seasonal fluctuations in groundwater levels. This comparative evaluation, which captures the variability in groundwater levels across different times of the year, is critical for understanding the cyclical behavior of aquifer recharge and depletion (***Figure 6***).

The analysis of seasonal fluctuations reveals a predominant rise in groundwater levels across 63% of the monitored wells, encompassing 77% of the state's area. Specifically, a rise is seen around 0 to 2 meter in range, is seen in 52 % of monitoring well and 66 % of state area, which is predominating the whole state like North, North West, West, South West, New Delhi, South, South East, Central, and North East districts.

The water level of 2 to 4 meter is seen in 8 % of monitoring well and 5% of State area in patches of South, New Delhi, South East and Central districts. Water level >4 m is seen in 3 % of well with an area of 6 % in patches in the Southern part of Delhi like South, South East, and New Delhi districts. (***Figure 7, Figure 8 & Table 4***).

Conversely, water level decreased are recorded in 37% of the wells and 22 % of the area, with a decline of 0-2 meters noted in 31 % of wells and 22 % of the area, in North, North West, West, North East, Shahdara, East and South East Districts.

Instances of water level decline exceeding 2 meters are observed, with 2-4 meters encompassing an area of 4 % and occurring in 1 % of the total monitoring wells. These cover small patches of North West, West, North, North East, and East districts. Greater than 4-meter ranges showing 2 % occurrences in wells and <1 % state area is seen in West and North West district of the state.

Table 4: Number of Wells monitored and areas covered falling in different Water Level Fluctuation Ranges (November 24 & August 2025)

Water Level Fluctuation Range in meter		Wells Monitored		Area Covered	
		No.	% Age	Km2	% Age
Fall	0 to 2 m	38	31%	326.89	22%
	2 to 4 m	5	4%	14.13	1%
	>4 m	2	2%	2.96	0%
Rise	0 to 2 m	63	52%	975.07	66%
	2 to 4 m	10	8%	75.53	5%
	>4 m	4	3%	88.42	6%
Total		**122**	**100%**	**1483**	**100%**

The seasonal water level fluctuation, i.e. the change in the depth to water level of August 2025 with respect to November 2024 reveals the effective Rise of groundwater levels owing to the Monsoon season. A number of wells showing the change in groundwater level in the region over a period from November 2024 to August 2025 is presented below (***Figure 9***).

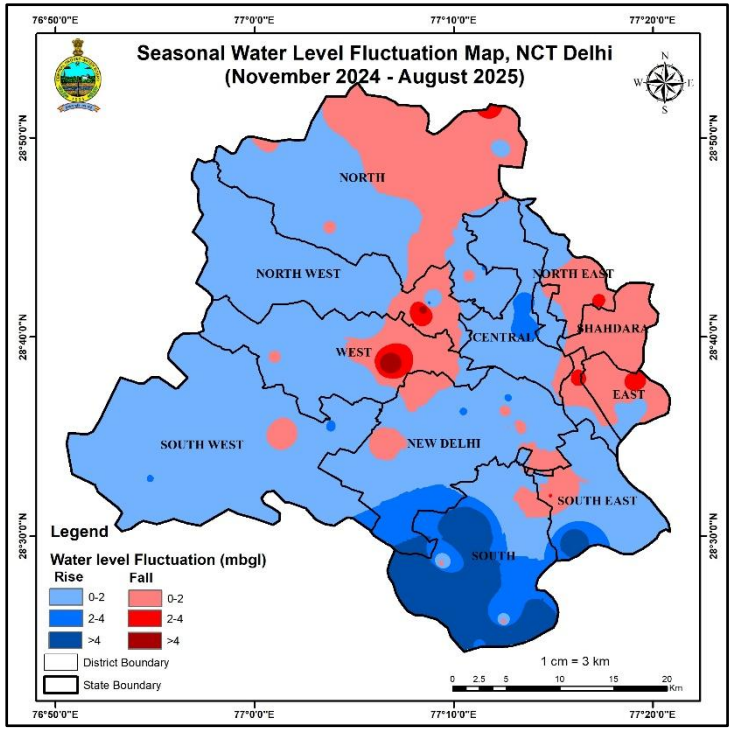

Figure 6: Water Level Fluctuation Map of NCT of Delhi (November 2024 & August 2025)

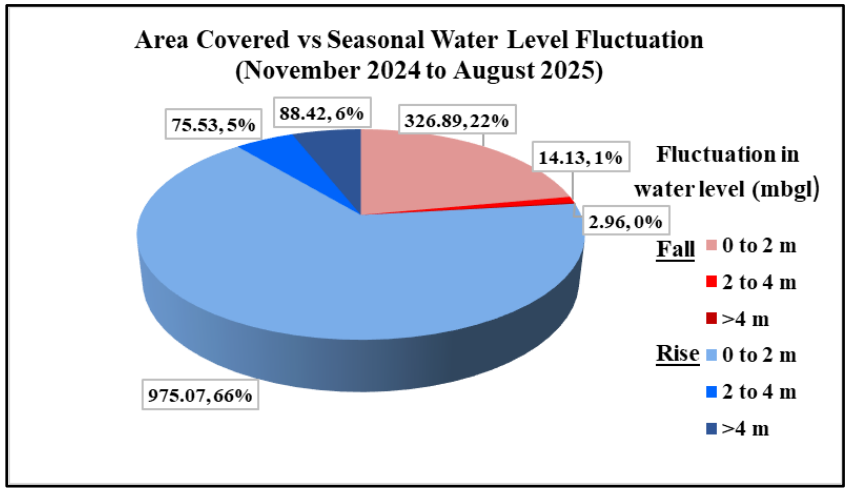

Figure 7: Fluctuations in Water Level by Area (Nov 24 & August 25)

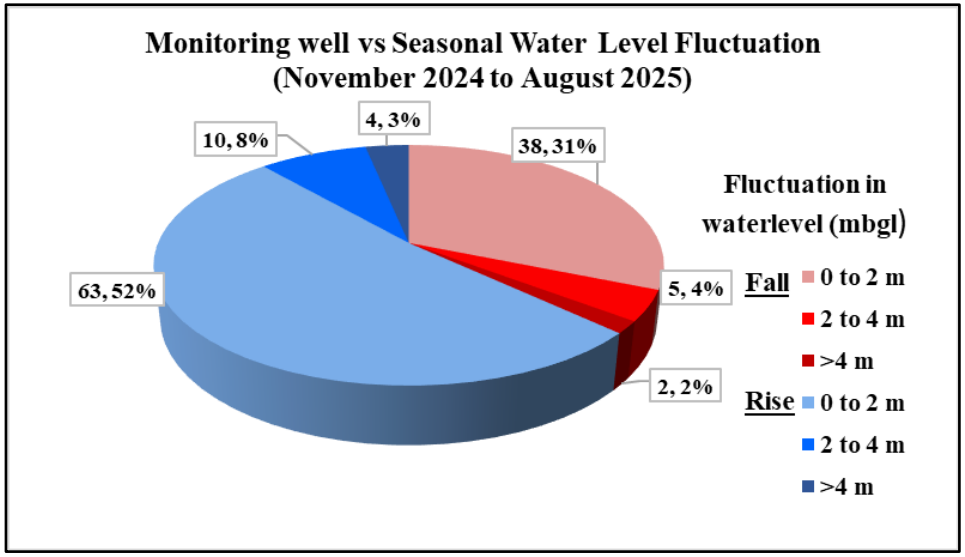

Figure 8: Fluctuation in Water Level (November 2024 & August 2025)

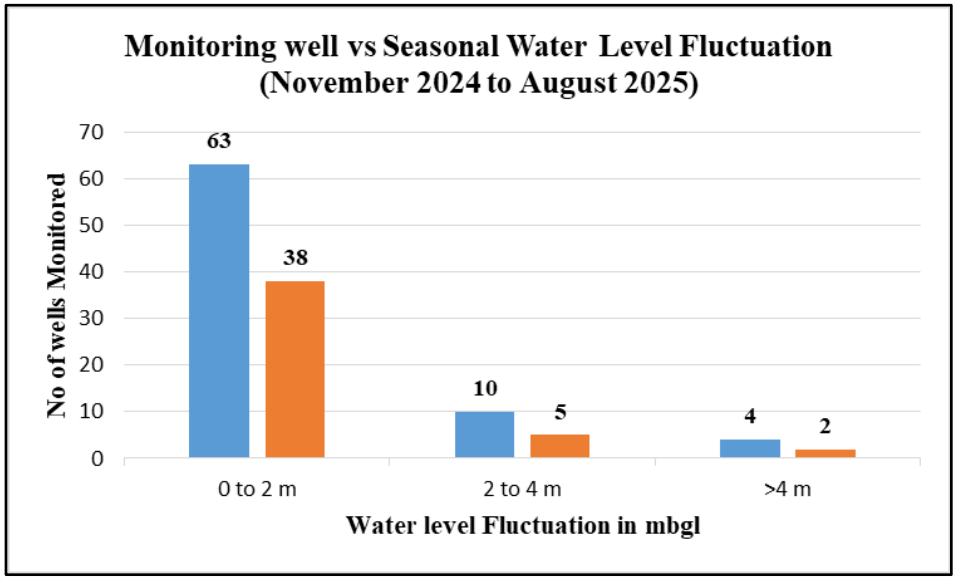

Figure 9: Fluctuation in Water Level: November 2024 - August 2025

3.3.2 SEASONAL WATER LEVEL FLUCTUATIONS: (JANUARY 2025 – AUGUST 2025)

The comparative analysis of water level data from August 2025 with the previous measurements recorded in January 2025 elucidates the seasonal fluctuations in groundwater levels. This comparative evaluation, which captures the variability in groundwater levels across different times of the year, is critical for understanding the cyclical behavior of aquifer recharge and depletion (***Figure 10***).

The analysis of seasonal fluctuations reveals a predominant rise in groundwater levels across 64 % of the monitored wells, encompassing 73 % of the state's area. Specifically, a rise is seen around 0 to 2 meter in range, is seen in 58% of monitoring well and 64% of state area predominantly in North, North West, West, South West, New Delhi, South, South East, Central and North East districts.

The water level of 2 to 4 meter is seen in 2 % of monitoring well and 3% of State area in patches of South, South East and New Delhi districts. Water level >4 m is seen in 4 % of wells with an area of 6 % in South, South East and New Delhi district (***Figure 11, Figure 12 & Table 5***).

Conversely, water level decreases are recorded in 36 % of the wells and 27 % of the area, with a rise of 0 - 2 meters noted in 29 % of wells and 25 % of the area, primarily North, North East, Shahdara, East, North West, West, Central and New Delhi districts. Instances of water level rise exceeding 2 meters are observed, with 2 - 4 meters encompassing an area of 2 % and occurring in 5% of the total monitoring wells. These cover patches of North, North West, West, New Delhi, East, and North East districts. Greater than 4-meter ranges showing 2 % occurrences in wells and <1 % state area West and North West districts.

Table 5: Number of Wells monitored and areas covered falling in different Water Level Fluctuation Ranges (January 2025 & August 2025)

Water Level Fluctuation Range in meters		Wells Monitored		Area Covered	
		No.	% Age	Km2	% Age
Fall	0 to 2 m	34	29%	368.64	25%
	2 to 4 m	6	5%	25.76	2%
	>4 m	2	2%	4.02	0%
Rise	0 to 2 m	68	58%	946.41	64%
	2 to 4 m	2	2%	46.45	3%
	>4 m	5	4%	91.72	6%
Total		**117**	**100%**	**1483**	**100%**

The seasonal water level fluctuation, i.e. the change in the depth to water level of August 2025 with respect to January 2024 reveals the effective decline of groundwater levels owing to the summer season. A number of wells showing the change in groundwater level in the region over a period from August to January is presented below (***Figure 13***).

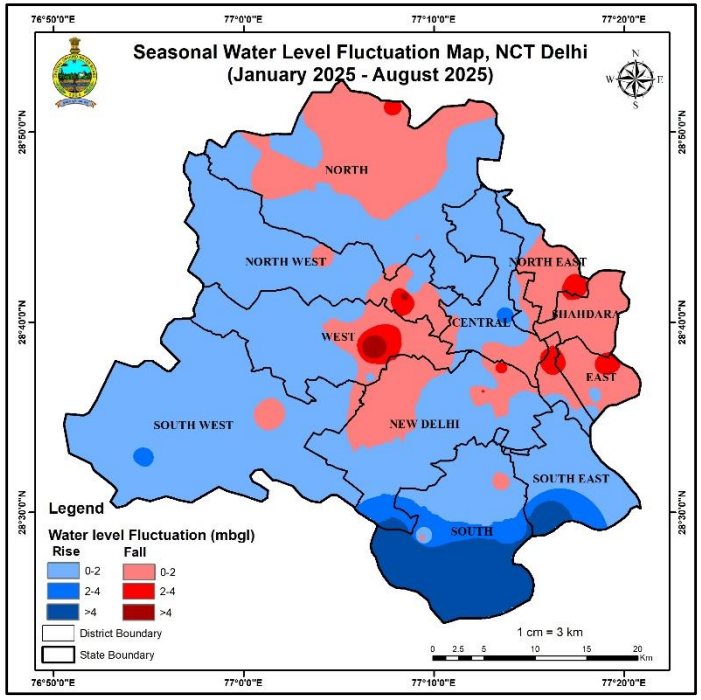

Figure 10: Water Level Fluctuation Map of NCT of Delhi (January 2025 & August 2025)

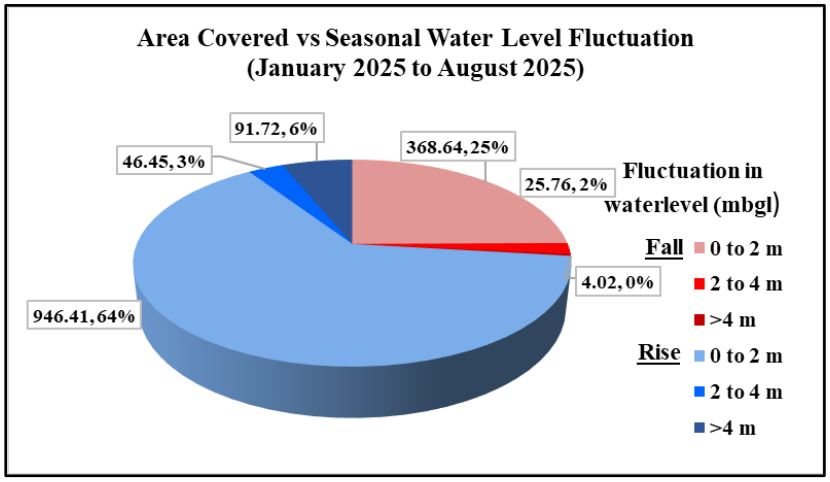

Figure 11: Fluctuations in Water Level by Area (January 2025 & August 2025)

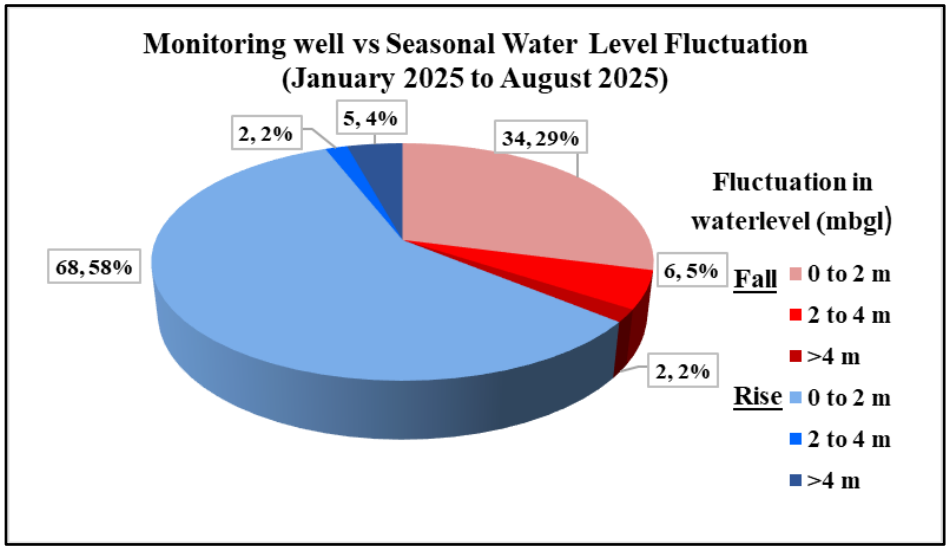

Figure 12: Fluctuation in Water Level (January 2025 & August 2025)

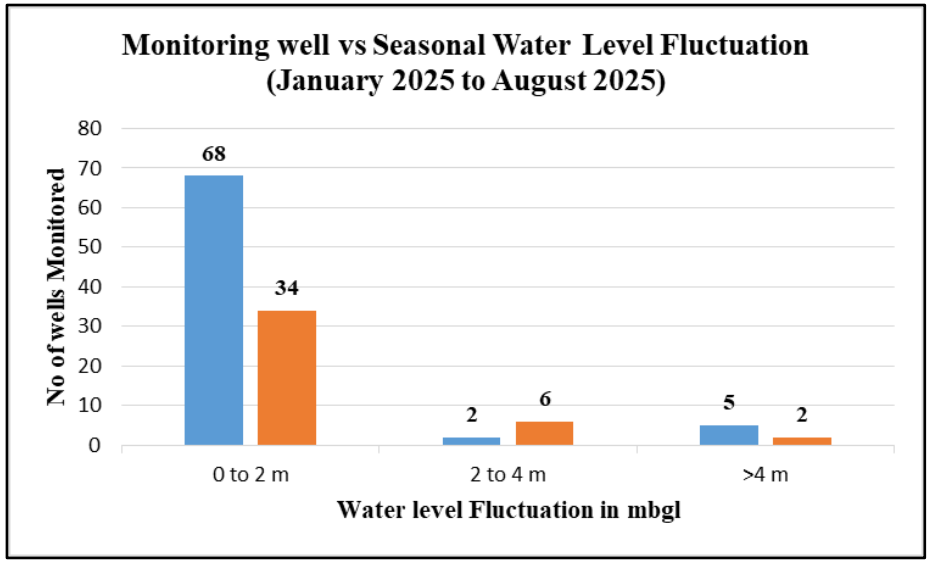

Figure 13: Fluctuation in Water Level: January 2025 - August 2025

3.3.3 SEASONAL WATER LEVEL FLUCTUATIONS: (MAY 2025 – AUGUST 2025)

The comparative analysis of water level data from May 2025 with the previous measurements recorded in August 2025 elucidates the seasonal fluctuations in groundwater levels. This comparative evaluation, which captures the variability in groundwater levels across different times of the year, is critical for understanding the cyclical behavior of aquifer recharge and depletion (***Figure 14***).

The analysis of seasonal fluctuations reveals a predominant rise in groundwater levels across 77 % of the monitored wells, encompassing 86 % of the state's area. Specifically, a rise is seen around 0 to 2 meter in range, is seen in 55 % of monitoring well and 65 % of state area predominantly in the Delhi state like North, North West, West, South West, South, New Delhi. South East, Central, East, North East and Shahdara. The water level of 2 to 4 meter is seen in 16 % of monitoring well and 14 % of State area in patches North, North West, South West, South, South East, Central and North East districts. Water level >4 m is seen in 6 % of wells with an area of 7 % in South, New Delhi, South East and Central district. (***Figure 15, Figure 16 & Table 6***).

Conversely, water level decreased are recorded in 23 % of the wells and 14 % of the area, with a fall of 0 - 2 meters noted in 18% of wells and 13 % of the area North, North West, West, New Delhi, East, Shahdara, North East and small patches in South West, South, South East district. Instances of water level rise exceeding 2 meters are observed, encompassing an area of 1% and occurring in 5 % of the total monitoring wells. These cover West, North West, and East districts.

Table 6: Number of Wells monitored and areas covered falling in different Water Level Fluctuation Ranges (May 2025 & August 2025)

Water Level Fluctuation Range in meter		Wells Monitored		Area Covered	
		No.	% Age	Km2	% Age
Fall	0 to 2 m	22	18%	189.49	13%
	2 to 4 m	4	3%	9.94	1%
	>4 m	2	2%	3.35	0%
Rise	0 to 2 m	68	55%	968.11	65%
	2 to 4 m	20	16%	203.36	14%
	>4 m	7	6%	108.75	7%
Total		**123**	**100**	**1483**	**100**

The seasonal water level fluctuation, i.e. the change in the depth to water level of August 2025 with respect to May 2025 reveals the effective rise of groundwater levels owing to the monsoon season. A number of wells showing the change in groundwater level in the region over a period from August to May is presented below (***Figure 17***).

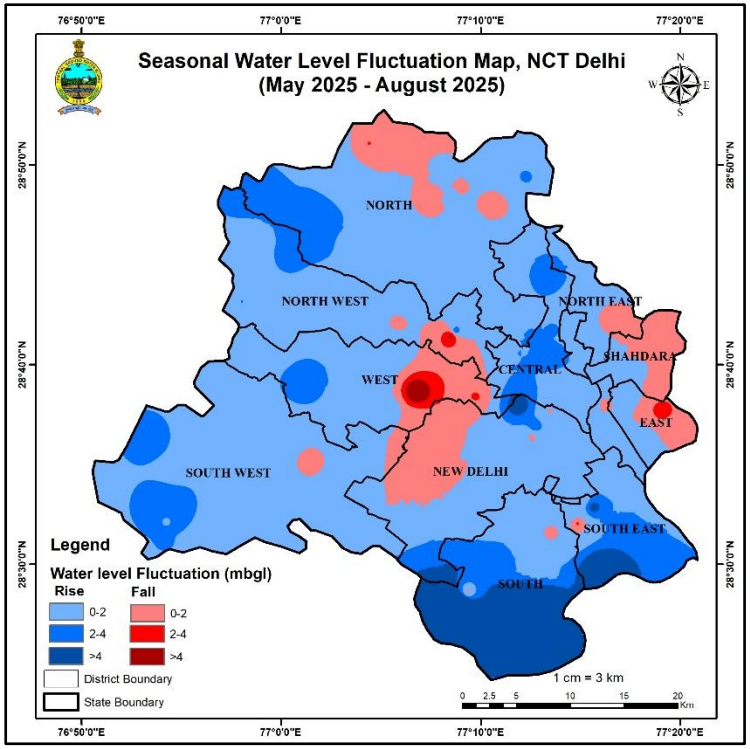

Figure 14: Water Level Fluctuation Map of NCT of Delhi (May 2025 & August 2025)

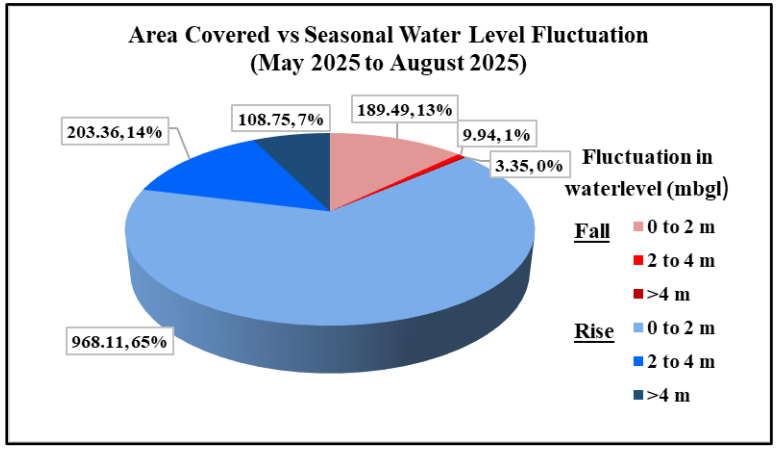

Figure 15: Fluctuations in Water Level by Area (May 2025 & August 2025)

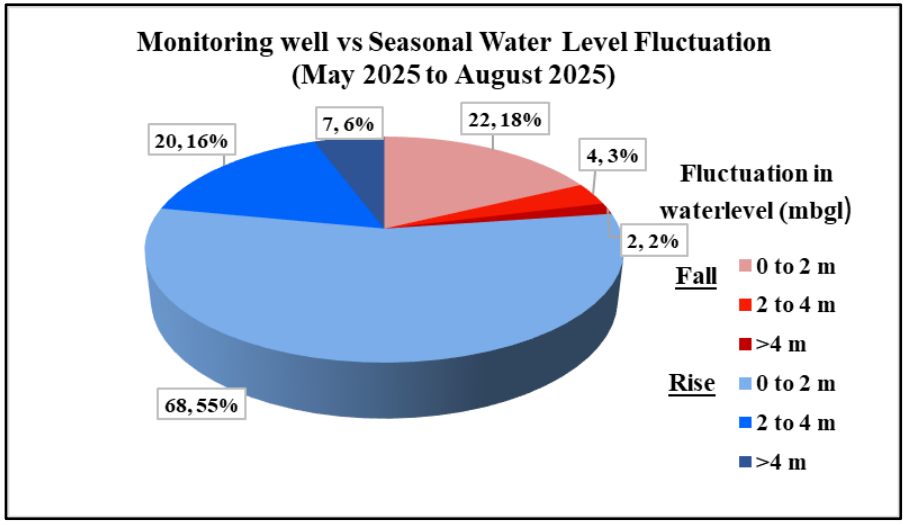

Figure 16: Fluctuation in Water Level (May 2025 & August 2025)

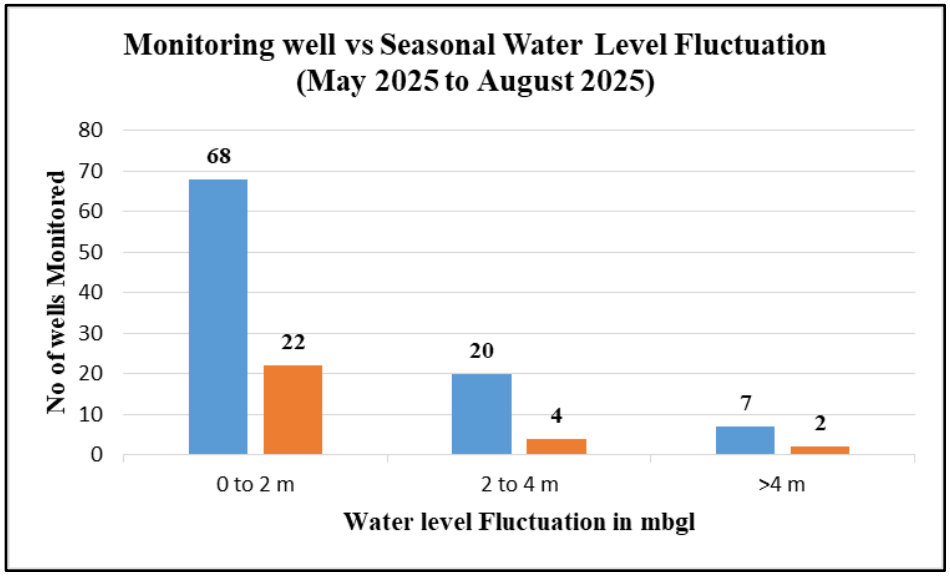

Figure 17: Fluctuation in Water Level: May 2025 - August 2025

3.4.1 ANNUAL FLUCTUATIONS: (AUGUST 2023 - AUGUST 2025)

To assess the effects of rainfall and groundwater extraction over the past year, we computed annual water level fluctuations between August 2023 and August 2025. The resulting behavior is detailed below and illustrated in (***Figure 18).***

The interpretation of the data reveals that water levels rise in approximately 63 % of monitored wells, encompassing 71 % of the state's total area. Specifically, a rise of 0-2 meters was noted in 45 % of wells, affecting 60 % of the area, encompassing District like North, North West, West, South West, New Delhi, South, South East, and Central. While a 2-4 meter rise was observed only in 12 % of wells and 9 % of the area in the districts of South West, New Delhi, South, South East and Central. More significant rise, exceeding 4 meters only in 6 % of wells and 2 % of the area in patches of the district New Delhi, South and South East.

Conversely, water levels decline in 37 % of the wells, covering 29 % of the area. A fall of 0-2 meters was most prevalent, detected in 25 % of wells and 23 % of the state area in the district of North, North West, West, South West, New Delhi, South, North East, Shahdara, and East. Notably, a 2-4 meter fall occurred in 8 % of wells and 4 % area in the patches of districts like North, North West, West, South, New Delhi, North East, Shahdara, and East. Water levels over 4 meters of fall are observed in 4 % of wells and 2% in small patches in West, North West, south and New Delhi districts. (***Figure 19 & Figure 20 & Table 7***).

Table 7: Number of Wells monitored and areas covered falling in different Water Level Fluctuation Ranges (August 2023 & August 2025)

Water Level Fluctuation Range in meter		Wells Monitored		Area Covered	
		No.	% Age	Km2	% Age
Fall	0 to 2 m	28	25%	341.57	23%
	2 to 4 m	9	8%	59.31	4%
	>4 m	4	4%	26.62	2%
Rise	0 to 2 m	50	45%	889.61	60%
	2 to 4 m	13	12%	128.12	9%
	>4 m	7	6%	37.77	2%
Total		**111**	**100%**	**1483**	**100%**

The Annual water level fluctuation i.e., from August 2023 with respect to August 2025 reveals the effective rise of groundwater levels. A number of wells showing the change in groundwater level in the region over a period from August 2023 to August 2025 is presented below. Each of these observations can be spotted in the following graph (***Figure 21***).

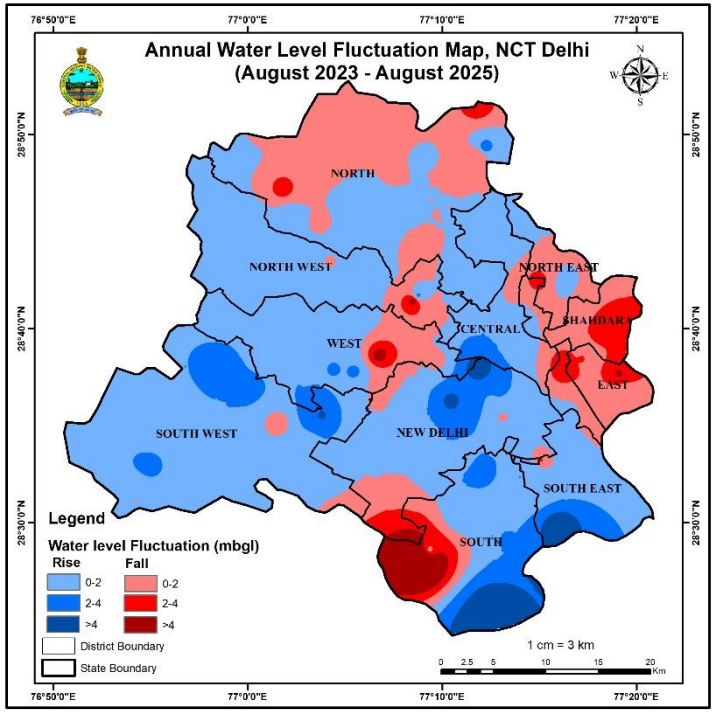

Figure 18: Depth to Water Level Fluctuation Map of NCT of Delhi (August 2023 & August 2025)

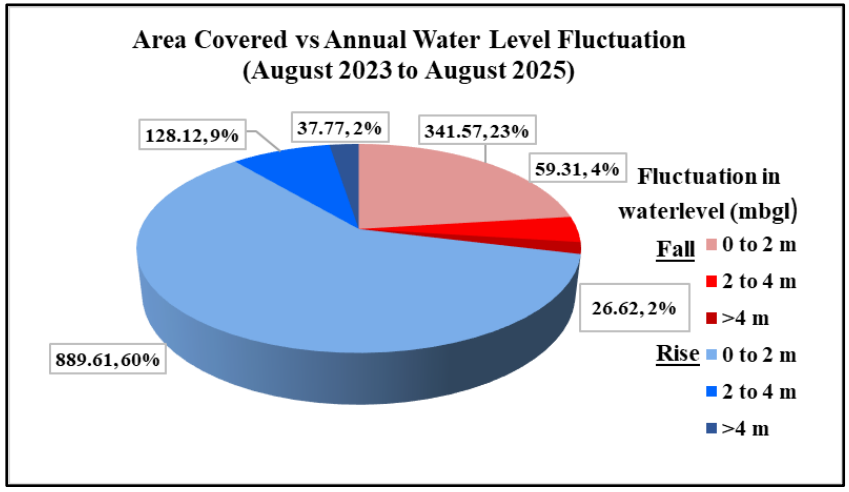

Figure 19: Fluctuation in Water Level by Area (August 2023 Vs August 2025)

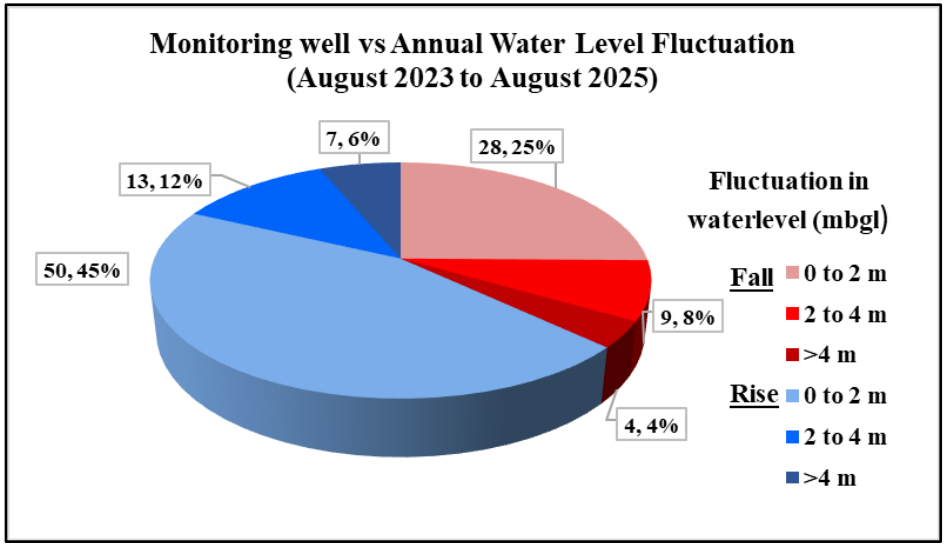

Figure 20: Fluctuation in Water Level: August 2023 Vs August 2025

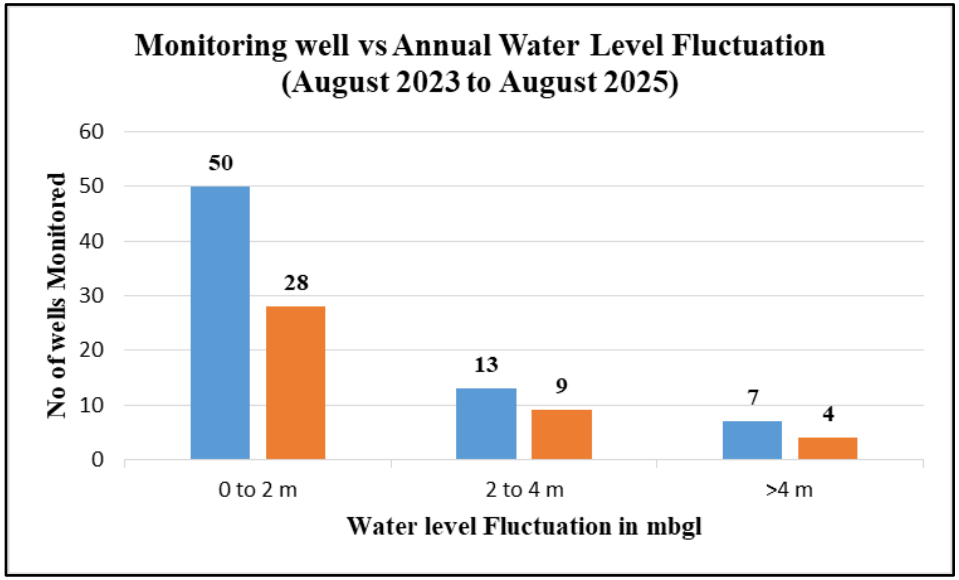

Figure 21: Fluctuation in Water Level: August 2023- August 2025

3.4.2 ANNUAL FLUCTUATIONS: (AUGUST 2024 - AUGUST 2025)

To assess the effects of rainfall and groundwater extraction over the past year, we computed annual water level fluctuations between August 2024 and August 2025. The resulting behavior is detailed below and illustrated in (***Figure 22)***.

The interpretation of the data reveals that water levels rise in approximately 71 % of monitored wells, encompassing 85 % of the state's total area. Specifically, a rise of 0-2 meters was noted in 59 % of wells, affecting 73 % of the area, encompassing the whole Delhi, districts like North, North West, West, South west, New Delhi, South, South East, Central, East and North East. While a 2-4 meter rise was observed in 6 % of monitored wells, and 9% of the area in districts like West, New Delhi, South, South East, and East. More significant rise, exceeding 4 meters, encompass 6% of monitored wells, and 3% of the area, which encompasses West, South, and South east.

Conversely, water levels decline in 29 % of the wells, covering 15 % of the area. A fall of 0-2 meters was most prevalent, detected in 22 % of wells and 14 % of the state area, encompassing districts North, North West, West, South West, Shahdara, East, North East and South East.

Notably, a 2-4 meter fall occurred in 4 % of wells and 1 % area encompassing West, North West, and East. Water levels over 4 meters of fall are observed in 3 % of wells and <1 % of the region West, North West district. (***Figure 23 & Figure 24 & Table 8***).

Table 8: Number of Wells monitored and areas covered falling in different Water Level Fluctuation Ranges (August 2024 & August 2025)

Water Level Fluctuation Range in meter		Wells Monitored		Area Covered	
		No.	% Age	Km2	% Age
Fall	0 to 2 m	25	22%	212.28	14%
	2 to 4 m	4	4%	14.64	1%
	>4 m	3	3%	2.54	0%
Rise	0 to 2 m	67	59%	1074.18	73%
	2 to 4 m	7	6%	139.24	9%
	>4 m	7	6%	40.12	3%
Total		**113**	100%	**1483**	100%

The Annual water level fluctuation i.e., from August 2024 with respect to August 2025 reveals the effective rise of groundwater levels. A number of wells showing the change in groundwater level in the region over a period from August 2024 to August 2025 is presented below. Each of these observations can be spotted in the following graph (***Figure 25***).

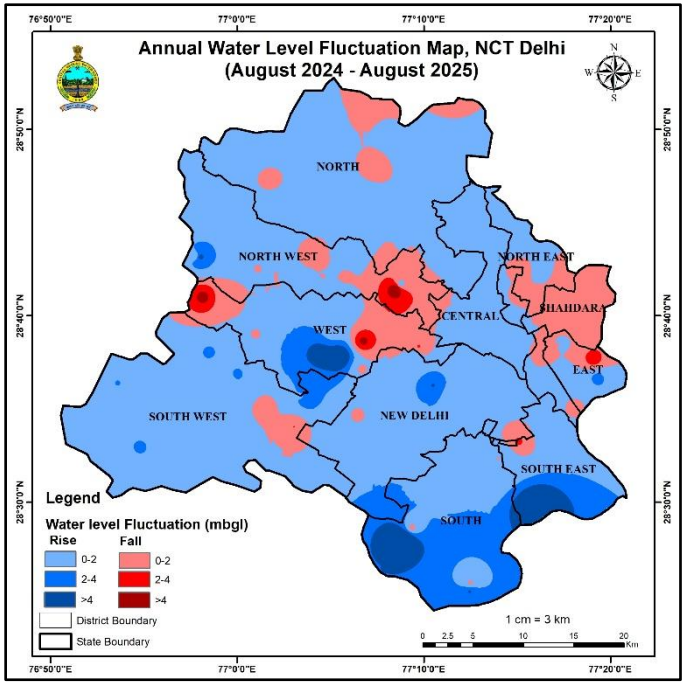

Figure 22: Depth to Water Level Fluctuation Map of NCT of Delhi (August 2024 & August 2025)

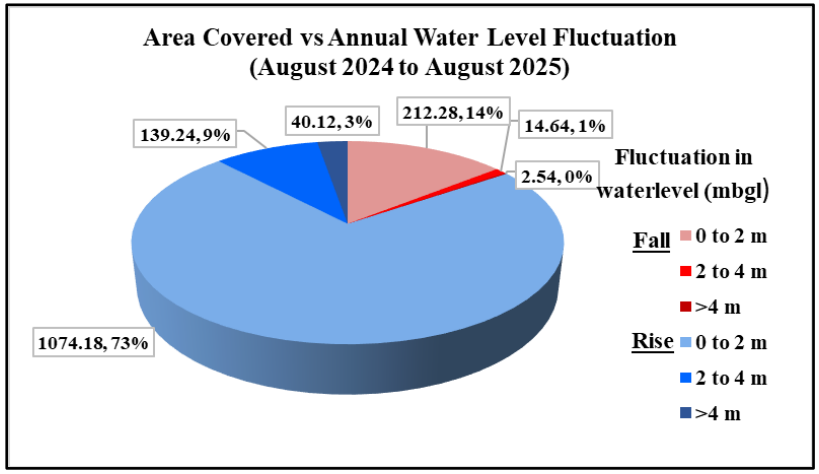

Figure 23: Fluctuation in Water Level by Area (August 2024 Vs August 2025)

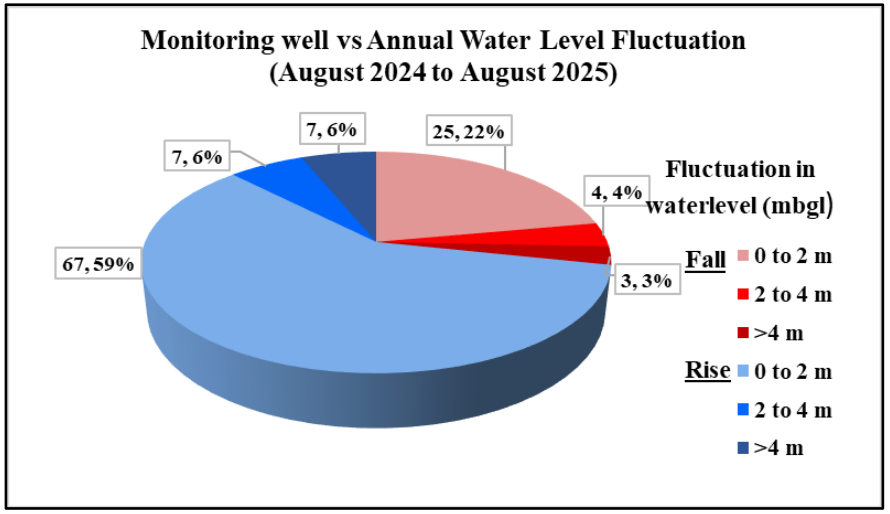

Figure 24: Fluctuation in Water Level: August 2024 Vs August 2025

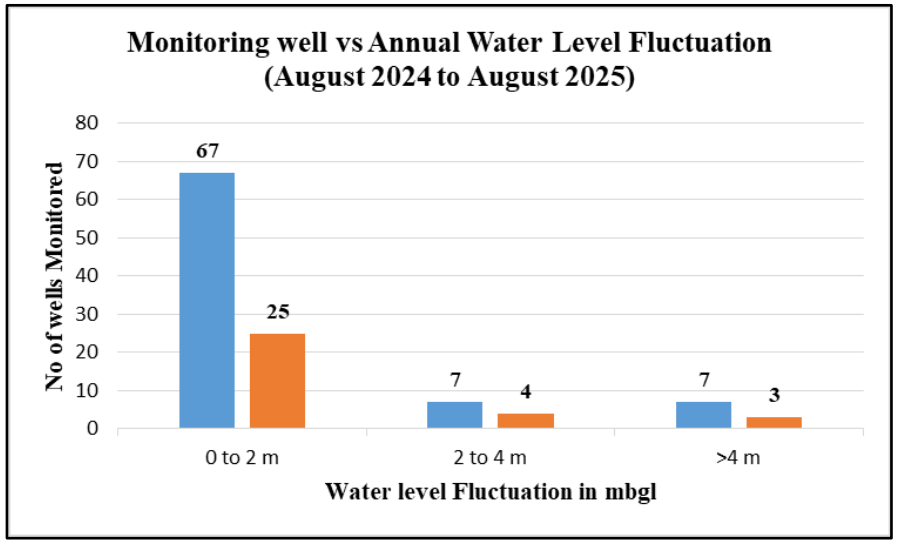

Figure 25: Fluctuation in Water Level: August 2024- August 2025

3.5 DECADAL MEAN FLUCTUATIONS AUGUST (2015-2024) & AUGUST 2025

The changes in groundwater level behavior over the last decade have been assessed using decadal mean data. For each groundwater observation well, the mean water level for the period 2015-2024 was computed and compared with the corresponding water level data from August 2025. The observed trends over this period are detailed below, with accompanying (***Figure 26)***.

The interpretation of decadal mean fluctuations reveals that 24 % of the wells exhibit a water level decline, impacting approximately 17 % of the state's total area. A decline in the 0 - 2 meter range is noted in 13 % of the wells, affecting 12 % of the state in North, North West, West, North East, Shahdara, East and New Delhi districts. Additionally, a decline between 2-4 meters has been reported in 4% of wells, encompassing 4% of the state's area in North, North West, West, North East, Shahdara and East districts. While more severe declines of over 4 meters were observed in 7 % of wells and 1 % of the area, seen in small patches of North, North West, West, North East and East districts. (***Figure 27 &Figure 28 & Table 9***).

Conversely, a water level rise has been recorded in 76 % of wells, covering 83 % of the state's area. A small yet significant rise in the 0-2 meter range was observed in 34 % of wells, spanning 36% of the state's area, seen in North, North West, West, South West, New Delhi, Central and East district. Rises of 2-4 meters were noted in 17 % of wells, covering 21 % of the state in North West, West, South west, New Delhi, South, South East districts. While more substantial rises of over 4 meters were recorded in 25 % of wells, affecting 26 % of the area, which is seen to cover the southern part of the State like South, South East, New Delhi, South West, West and North West district.

Table 9: Number of Wells monitored and areas covered falling in different Water Level Fluctuation Ranges (August 2015-24) & August 2025)

Water Level Fluctuation Range in meter		Wells Monitored		Area Covered	
		No.	% Age	Km2	% Age
Fall	0 to 2 m	11	13%	174.78	12%
	2 to 4 m	3	4%	60.65	4%
	>4 m	6	7%	8.19	1%
Rise	0 to 2 m	30	34%	528.12	36%
	2 to 4 m	15	17%	320.15	21%
	>4 m	22	25%	391.11	26%
Total		**87**	**100%**	**1483**	**100%**

The Decadal information has been depicted in statistical format in the graphs following (***Figure 29).***The number of wells showing the change in groundwater level in the region over a period from August 2015-2024 to August 2025.

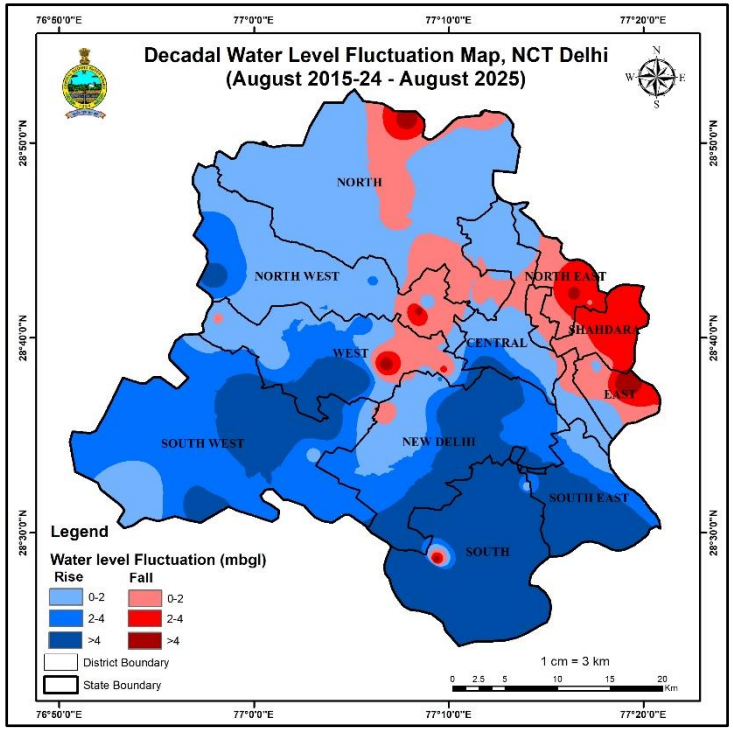

Figure 26: Water Level Fluctuation Map of NCT of Delhi Decadal Mean August (2015-2024) & August 2025

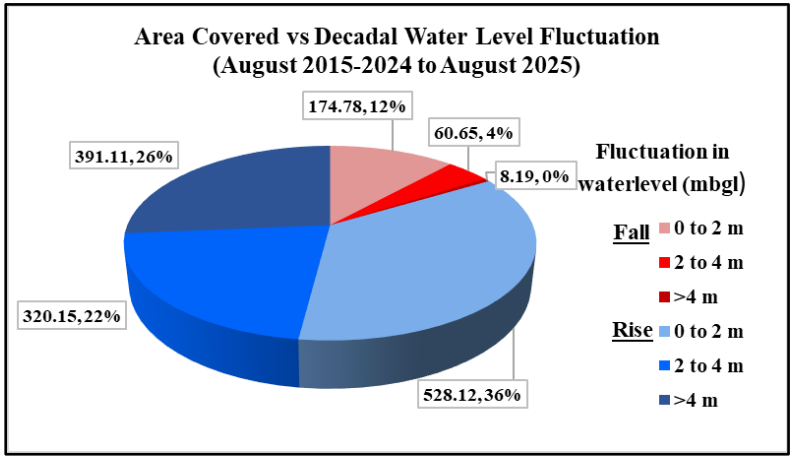

Figure 27: Fluctuation in Water Level by Area (August 2015-2024) Vs August 2025

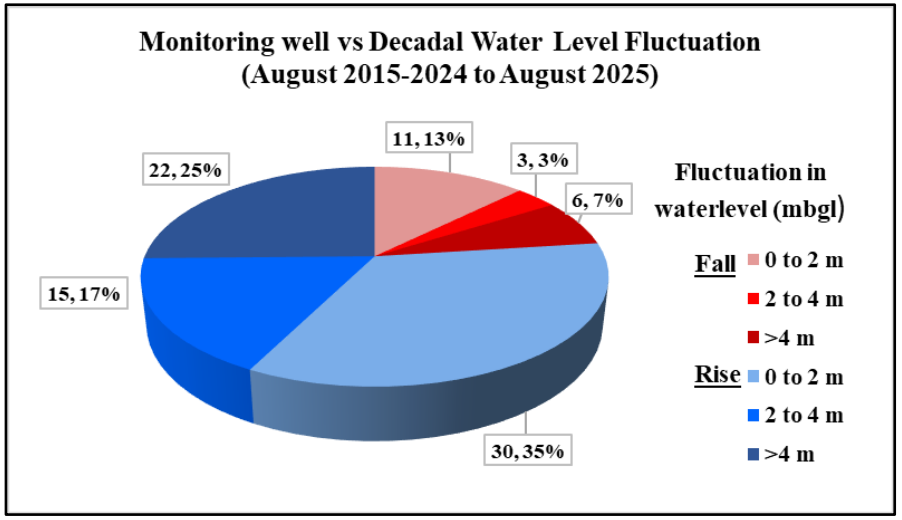

Figure 28: Fluctuation in Water Level: August (2015-2024) - August 2025

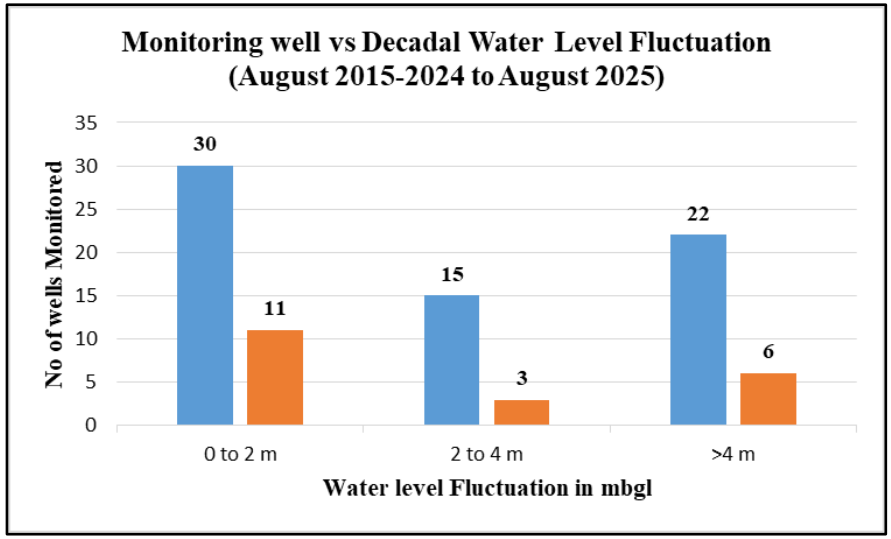

Figure 29: Fluctuations in Water Level: August (2015-2024) - August 2025

4. CONCLUSIONS

The interpretation results of the August 2025 water levels shows that New Delhi, West, South, North East, Shahdara and South East Delhi districts are showing a deeper water level in monsoon season. Water level fluctuation map of November 2024 vs August 2025 shows that Water level is declining with the fluctuation in North, North West, North East, Shahdara, New Delhi, South West, East and West Districts. Water level fluctuation map of January 2025 vs August 2025 clearly depict that 25 % of the area is showing a decline in water level. However, the other parts of the State like North, North West, West, South West, New Delhi, South, East, South West and Central District shows the rising water level situation which means these areas having recharge from rainfall and as well as from other sources. Water level fluctuation map of May 2025 vs August 2025 clearly depict that 13% of the area is showing 0 -2 range of decline in water level. However, the other parts of the State like New Delhi, South West, West, North West, North, South East, North East, and East District shows the rising water level situation which means these areas having recharge from rainfall and as well as from other sources.

The interpretation of decadal mean fluctuations reveals that most of the southern part of Delhi shows a rising water level greater than 4 mbgl. Like Central, West, South West, South East, North West and South district and the districts like North, North East, Shahdara, North West, and East district shows decline in water level in the 2-4 meter. The 83 % area of NCT Delhi is showing rising trend due to strict regulation of CGWA guideline by State Government, Rainfall and intervention for recharging of Ground Water by State Government.

5. RECOMMENDATION

(I) Parts of New Delhi, South, South East, South West districts are showing rising water level and parts of North East, East and Shahdara, South East, New Delhi district are showing decline water level, along with deeper water level (>10 m). So, in these districts Artificial Recharge, Roof Top Rain Water Harvesting (RTRWH) should be promoted so that water will get recharged. Other than that surface water supply may be provided for reducing ground water extraction. Dual water supply system can also be promoted with the use of treated waste water.

(II) In the parts of districts like New Delhi, South and South East, South West where water level is in the rising trend along with 2-4 m water level range, tube wells may be constructed with sustainable development coupled with Artificial Recharge measures.

(III) In the parts of district like North East, North West, South West, New Delhi, Central, North water logging problem occurs, (Water level in the range of 2 – 5 mbgl), dewatering is required by over pumping of Ground Water.

(IV) The Urban Development (UD) department sent a DO letter to the CEO (DJB) regarding identifying the leakage points and preparing a complete mapping of pipelines. Delhi Jal Board (Water Supply) should stop the leakage of supply water so that groundwater extraction will be reduced by providing a proper supply of surface water.

(V) In Over Exploited Tehsils (OE), and Deeper water level areas the construction of RTRWHS compulsory in all Government and private buildings to increase Groundwater recharge. Also, an implementable notification must be issued for buildings having more than 100 Sq. m area.

(VI) For Horticulture purposes use STP water only and not Groundwater. NDMC and DJB have to take responsibility for providing STP water through tankers or pipelines. It is recommended to stop dependency on groundwater within one year for horticulture purposes.

(VII) Directorate of Environment to expedite issuance of guidelines for the regulation of the groundwater in line with the guidelines notified by the MoJS for control and regulation of groundwater extraction with pan-India applicability on 24.09.2020 and amendments dated 29.03.2023.

(VIII) In areas, where extraction is more, NOC for groundwater extraction is only issued when they have to maintain the balance of the quantity of extraction water and the same or more than extraction, water has to recharge. Otherwise, no NOC will be issued.

ANNEXURE - GROUND WATER LEVEL DATA OF NCT DELHI FOR AUGUST 2025

District	Block Name	Site Name	Water Level
Central	Civil Lines	Burari Djb Ex.Engg Office Pz	1.1
Central	Kotwali	Chandini Chowk Dug Well	5.67
Central	Civil Lines	Isbt (Kashmiri Gate) Dw	0.81
Central	Civil Lines	Jagatpur Pz 2	0.22
Central	Civil Lines	Majnu Ka Tila Dw	7.53
Central	Civil Lines	Sonia Vihar Djb Wtp	12.05
East	Preet Vihar	Bank Enclave Pz	4.11
East	Mayur Vihar	Chilla Regulator	9.59
East	Mayur Vihar	Chilla Saroda Pz	8.32
East	Preet Vihar	Ghazipur Crossing Pz	30.75
East	Preet Vihar	Gujarat Vihar Pz	6.6
East	Mayur Vihar	Kondli Djb Wtp	26.88
East	Mayur Vihar	Trilokpuri Bps	8.45
Nazul Land	Nazul Land	Lalita Park (Pz)	5.78
Nazul Land	Nazul Land	Ushmanpur Pz	5.13
New Delhi	Chanakyapuri	Agrasen Ki Baoli	14.4
New Delhi	Chanakyapuri	Agrasen Ki Baoli (Dhobi Ghat)	17.89
New Delhi	Chanakyapuri	Birla Mandir Dw	0.72
New Delhi	Delhi Cantonment	Cvd Depot Cant (Dp)	27.34
New Delhi	Delhi Cantonment	Kabul Line Pz	30.23
New Delhi	Chanakyapuri	Lodhi Garden (D)	3.98
New Delhi	Chanakyapuri	Lodhi Garden.(Sh)	3.83
New Delhi	Chanakyapuri	Lodhi Graden Dw	7.22
New Delhi	Chanakyapuri	Mahabir Vansth.	16.15
New Delhi	Chanakyapuri	Nehru Park Dw	15.45
New Delhi	Delhi Cantonment	Pusa (Wtc)	23.84
New Delhi	Vasant Vihar	R.K Puram Sec-3	17.87
New Delhi	Chanakyapuri	Safdarjung Tomb	8.24
New Delhi	Chanakyapuri	Shanti Path American Embassy	18.01
New Delhi	Delhi Cantonment	Shekhawati Line Pz	44.34
New Delhi	Chanakyapuri	Shram Shakti Bhawan 1	2.97
New Delhi	Chanakyapuri	Shram Shakti Bhawan 2	3.3
New Delhi	Chanakyapuri	Sundar Nursery Pz	3.61
New Delhi	Delhi Cantonment	Tagore Garden Pz	19.21

District	Block Name	Site Name	Water Level
North	Alipur	Alipur Garhi Pz	9.57
North	Narela	Auchandi Pz	0.7
North	Alipur	Bakoli Deep Pz	10.13
North	Alipur	Bakoli Shallow Pz	10.41
North	Narela	Bankner-Pz	20.4
North	Narela	Barwala Pz	5.38
North	Narela	Bawana Je Store	8.3
North	Narela	Bawana Wtp	11.46
North	Alipur	Bhalaswa Lake Pz	2
North	Model Town	Coronation Pillar Pz Djb Rwtp	0.94
North	Alipur	Haiderpur Pz	14.48
North	Narela	Hareoli Dw	2.26
North	Alipur	Hiranki Village Pz	7.31
North	Model Town	Kewal Park Pz	2.11
North	Alipur	Khera Kalan Pz	10.64
North	Alipur	Narela Djb Wtp	19
North	Alipur	Palla Temple	7.41
North	Alipur	Palla Zero Rd	10.86
North	Narela	Qatlupur Dw	1.5
North	Narela	Rohini Sec-28	4.43
North	Alipur	Samaypur Badli Pz	8.94
North	Alipur	Singhu Village Pz	25.03
North	Alipur	Tiggipur Deep Pz	7.91
North	Alipur	Tiggipur Shallow Pz	6.16
North East	Yamuna Vihar	Gokulpuri E Pz	25.53
North East	Yamuna Vihar	Yamuna Vihar Djb Wtp	26.58
North West	Kanjhawala	Jaunti Dug Well	9.2
North West	Kanjhawala	Majara Dabas	0.73
North West	Kanjhawala	Nizampur	1.33
North West	Kanjhawala	Nizampur Mandir Dw	1.6
North West	Kanjhawala	Qutubgarh	2.26
North West	Rohini	Rani Khera Dw	0.22
North West	Rohini	Rithala Pz Sec5 Rohini	1.29
North West	Rohini	Rohini Sec-23	0.95
North West	Rohini	Rohini Sector - 11	4.07

District	Block Name	Site Name	Water Level
North West	Saraswati Vihar	Sandesh Vihar Pz	0.99
North West	Saraswati Vihar	Sanjay Van Pz	7.45
North West	Rohini	Sector 1 Rohini Pz	2.11
North West	Rohini	Sultanpur Dabas	3.72
Shahdara	Vivek Vihar	Cbd Shahdara Pz	16.95
Shahdara	Vivek Vihar	Vivek Vihar (Pz)	24.66
Shahdara	Shahdara	Yamuna Sports Complex Tw-1	21.26
South	Saket	Balbir Nagar Dw	3.41
South	Saket	Bhatti Pz	29.52
South	Mehrauli	Gadaipur Pz	68.69
South	Mehrauli	Hauz Khas Pz	19.19
South	Saket	Jamali Kamali	9.19
South	Mehrauli	Jaunapur Djb	28.92
South	Mehrauli	Jheel Khoh Dw	45.74
South	Hauz Khas	Pusp Vihar Pz	35.73
South East	Kalkaji	Aastha Kunj Dwlr	7.43
South East	Kalkaji	Asola Pz	36.87
South East	Kalkaji	Gk 2 Metro Gate No.1	5.96
South East	Kalkaji	Gk 2 Metro Gate No.2	6.55
South East	Kalkaji	Gk 2 Metro North Side Tw	5.1
South East	Kalkaji	Jahapana Park Dw	9.3
South East	Kalkaji	Kalkaji Park Dw	2
South East	Defence Colony	Mahila Park	4.19
South East	Defence Colony	Nangli Rajpura Pz	1.83
South East	Kalkaji	Okhla Djb Wtp Pz	6.09
South East	Kalkaji	R-Block, Gk-1	5.71
South East	Kalkaji	S-Block Park Gk-Ii Pz	11.61
South East	Kalkaji	Sehgal Market-1 Gk-Ii Pz	2.72
South East	Kalkaji	Sehgal Market-2 Gk-Ii Pz	12.45
South West	Kapeshera	Daulatpur Pz	9
South West	Najafgarh	Dichaon Kalan Dw 2	9.25
South West	Dwarka	Dwarka Sec-16 (Tp)	14.75
South West	Dwarka	Dwarka Sec-23 Dda Park	13.69
South West	Dwarka	Dwarka Sec-6	10.87
South West	Najafgarh	Gummanhera Dw	0.64

District	Block Name	Site Name	Water Level
South West	Najafgarh	Jhuljhuli Dw	0.38
South West	Najafgarh	Mundela Kalan Pz	6.2
South West	Najafgarh	Najafgarh Town	12.39
South West	Kapeshera	Raota	0.54
South West	Kapeshera	Sikarpur Deep	4.88
South West	Kapeshera	Sikarpur Shallow	4.81
South West	Najafgarh	Surheda Dw	8.55
South West	Najafgarh	Surheda Tw	8.97
South West	Najafgarh	Ujwah Pz	7.91
West	Punjabi Bagh	Baprola Dug Well	1.08
West	Patel Nagar	Dwarka Sec-5 Dda Park	9.79
West	Punjabi Bagh	Hiran Kudna Dw	0.38
West	Patel Nagar	Janakpuri Pz	3.17
West	Patel Nagar	Keshopur Djb Wtp	8.72
West	Rajouri Garden	Mayapuri Pz	36.34
West	Punjabi Bagh	Peera Garhi Dw	5.05
West	Punjabi Bagh	Peera Garhi Pz	1.83
West	Patel Nagar	Pusa (Nrl) Pz	30.9
West	Punjabi Bagh	Tikri Kalan Pz	7.78
West	Patel Nagar	Vikashpuri Pz	5.21