

Municipal Corporation of Gurugram (MCG)

Monsoon Preparedness & Flood Hotspot Management

WARD-WISE FLOOD HOTSPOT REPORT

For Use by Junior Engineers (JEs) at Ward Level

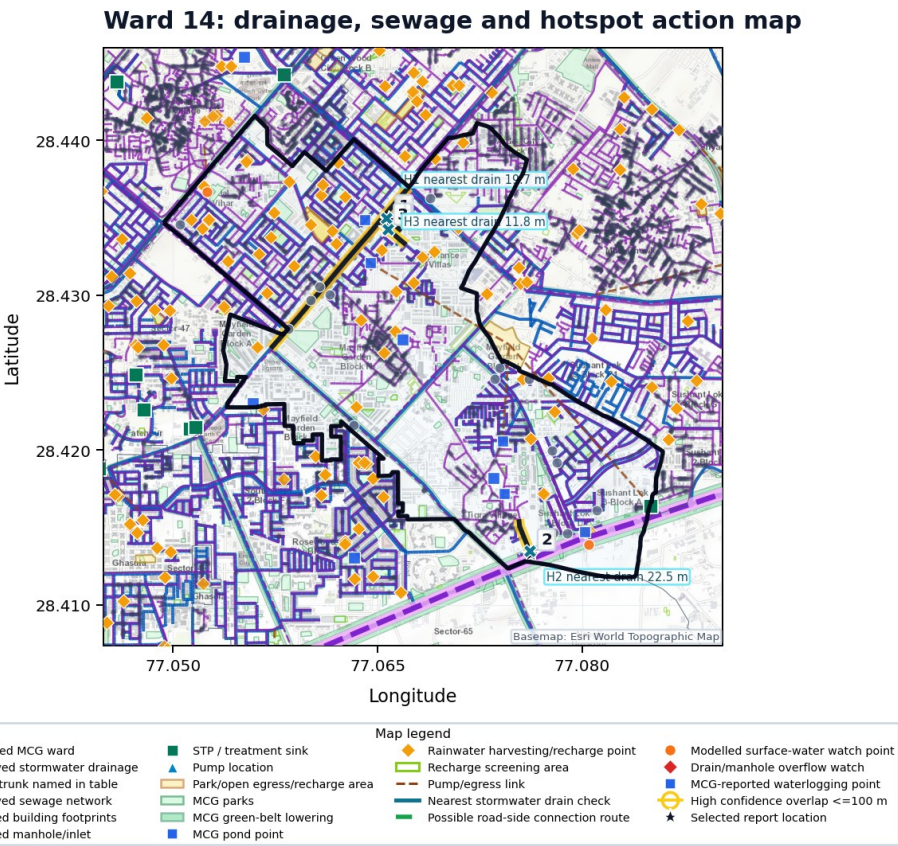
Ward Summary

WARD NUMBER	MCG IDENTIFIED LOCATIONS	MODEL IDENTIFIED LOCATIONS
14	5	21
Ward Name / Area Covered	Indira Colony 1; Indira Colony 2; Jal Vihar Colony(Jharsa Village); Mayfield Garden; Samaspur Village; Sector 46; Sector 47 Mayfield Garden; Sector 50 Mayfield Garden; Sector 51; Sector 51 Mayfield Garden; Sushant Lok Phase 3; Sushant Lok Phase 3 Extn; Tigra Village	
Zone	Zone II	
Division	Zone II	
Assigned JE	Neeraj Kumar HKRN 9990976362/ Manoj Kumar (R) 7015798081	
Report Date	29 July 2026	
Approved FloodAstra baseline	Approved June 5 current-assets baseline	
Utility assets	MCG/GMDA utility assets supplied up to 5 June 2026	
Rainfall used	July 2025 reported event, 133 mm / 12 h	
Hydraulic model	Apple MLX GPU; continuous city surface; roads, buildings, storm drains, sewers, manholes and recharge structures coupled dynamically	
Published depth range	0 to 1.50 m from field-reportable cells only	
Desilting / work status	9 mapped MCG work-status segments overlap this ward; 9 marked completed; 0 marked in progress. Confirm current completion with MCG field records.	
Priority action	Inspect drain/manhole overflow watch points, inlet condition, desilting status and downstream flow continuity	

Official Ward Contact Roster

Role	Supplied MCG contact
Councillor	Shri Pratham Chander BJP 9811127212
Executive Engineer (EE)	Sh. Pardeep Kumar, EE, 9821395225
Assistant Engineer (AE)	Sh. Manoj Ahlawat, AE, 9999965536
JE Development	Neeraj Kumar HKRN 9990976362/ Manoj Kumar (R) 7015798081
JE Enforcement	Kapil Yadav 9728822849
JE Horticulture	Priyadeep 8684870075
JE Electrical	Mohmmamd Azam 9467395603

Ward Action Map



Blue lines are received stormwater drains. Purple dashed lines are received sewage lines. Green areas are MCG parks/green-belt lowering assets; blue squares are MCG pond points; amber diamonds are rainwater-harvesting/recharge points. Gray building footprints are used only to avoid suggesting routes through buildings. Cyan lines show the hotspot-to-stormwater-drain check. Green dashed lines show a possible road-side route where one was found.

This ward map shows 9,996 stormwater line segments, 19,141 sewage line segments, 3,740 manhole/inlet points, 29 STP/treatment points, 637 MCG park polygons, 7 pond points, 121 green-belt lowering areas and 473 rainwater-harvesting/recharge points from the approved GIS packet.

Field Action Summary

#	Location	Expected water	Mapped drain option	First field action
H1	Sector 46	maximum modelled depth 0.49 m; average within 50 m 0.30 m; water remains above 15 cm for 7.5 h.	mapped stormwater drain near Sector 46 is 19.7 m away. The mapped roadside option is 23.4 m long and is not yet field-approved.	Check water backing up at the manhole; verify trunk drain level before pumping.
H2	Soshant Lok Phase 3	maximum modelled depth 0.58 m; average within 50 m 0.40 m; water remains above 15 cm for 11.7 h.	mapped stormwater drain near Soshant Lok Phase 3 is 22.5 m away. The mapped roadside option is 22.6 m long and is not yet field-approved.	Check water backing up at the manhole; verify trunk drain level before pumping.
H3	Sector 46	maximum modelled depth 0.51 m; average within 50 m 0.40 m; water remains above 15 cm for 9.2 h.	mapped stormwater drain near Sector 46 is 11.8 m away. The mapped roadside option is 16.1 m long and is not yet field-approved.	Check water backing up at the manhole; verify trunk drain level before pumping.

Complete Ward Location Register

No.	Source	Location	Lat	Lon	Expected water	How to use this point
R0 1	MCG	Sector 57 part 1	28.42060	77.07418	0.08 m; above 15 cm for 4 min	Confirm at this location
R0 2	MCG	Soshant Lok Phase 3	28.41472	77.08021	0.27 m; above 15 cm for 31 min	Supported by model within 97 m
R0 3	MCG	Sector 46	28.43489	77.06406	0.07 m; above 15 cm for 12 min	Confirm at this location
R0 4	MCG	Sector 57	28.41719	77.07430	0.34 m; above 15 cm for 4.1 h	Confirm at this location
R0 5	MCG	Sector 51	28.43210	77.06447	0.50 m; above 15 cm for 17 min	Confirm at this location
M0 1	Overflow watch	Sector 46	28.43485	77.06580	0.49 m; above 15 cm for 7.5 h	Confirm at this location

No.	Source	Location	Lat	Lon	Expected water	How to use this point
M0 2	Overflow watch	Soshant Lok Phase 3	28.41329	77.07623	0.58 m; above 15 cm for 11.7 h	Confirm at this location
M0 3	Overflow watch	Sector 46	28.43430	77.06568	0.51 m; above 15 cm for 9.2 h	Confirm at this location
M0 4	Overflow watch	Soshant Lok Phase 3	28.41470	77.07789	0.64 m; above 15 cm for 11.8 h	Confirm at this location
M0 5	Overflow watch	Soshant Lok Phase 3	28.41463	77.07892	0.50 m; above 15 cm for 10.7 h	Confirm at this location
M0 6	Overflow watch	Sector 51	28.43056	77.06074	0.47 m; above 15 cm for 6.1 h	Confirm at this location
M0 7	Overflow watch	Sector 47 Near DPS	28.42782	77.05844	0.53 m; above 15 cm for 7.6 h	Confirm at this location
M0 8	Overflow watch	Sector 57 part 1	28.42530	77.07390	0.49 m; above 15 cm for 6.9 h	Confirm at this location
M0 9	Overflow watch	Sector 57 part 1	28.42159	77.06327	0.50 m; above 15 cm for 5.2 h	Confirm at this location
M1 0	Overflow watch	Sector 46	28.43628	77.06887	0.44 m; above 15 cm for 9.1 h	Confirm at this location
M1 1	Overflow watch	Sector 57 part 1	28.42457	77.07360	0.38 m; above 15 cm for 4.6 h	Confirm at this location
M1 2	Overflow watch	Sector 57 part 1	28.41995	77.07778	0.40 m; above 15 cm for 8.3 h	Confirm at this location
M1 3	Model depth	Near H. no. 559, Sec-39, Bakhtawar Chowk	28.43666	77.05247	0.69 m; above 15 cm for 10.4 h	Confirm at this location
M1 4	Overflow watch	Sector 57 part 1	28.42462	77.07612	0.57 m; above 15 cm for 11.9 h	Confirm at this location
M1 5	Overflow watch	Sector 51	28.42970	77.06011	0.37 m; above 15 cm for 8.5 h	Confirm at this location
M1 6	Overflow watch	Sector 57 part 1	28.41921	77.07815	0.35 m; above 15 cm for 5.6 h	Confirm at this location

No.	Source	Location	Lat	Lon	Expected water	How to use this point
M17	Overflow watch	Soshant Lok Phase 3	28.41611	77.08106	0.47 m; above 15 cm for 4.9 h	Confirm at this location
M18	Model depth	Soshant Lok Phase 3	28.41451	77.07777	0.69 m; above 15 cm for 11.8 h	Confirm at this location
M19	Overflow watch	Sector 51	28.43003	77.06148	0.30 m; above 15 cm for 4.6 h	Confirm at this location
M20	Model depth	Soshant Lok Phase 3	28.41389	77.08050	0.60 m; above 15 cm for 11.9 h	Supported by MCG report within 97 m
M21	Overflow watch	Near H. no. 559, Sec-39, Bakhtawar Chowk	28.43455	77.05052	0.36 m; above 15 cm for 4.6 h	Confirm at this location

Hotspot-wise Details

HOTSPOT 1

1. Hotspot Identification

Hotspot Name	Sector 46
Latitude / Longitude	28.43485, 77.06580
Open location	Use the link below to open this point on Google Maps.

Google Map Links for Hotspot and Assets

Use these links for the field pin, nearby drainage/sewage assets and mapped support assets used in this report.

[H1: hotspot pin](#)

[H1: mapped receiving stormwater drain \(19.7 m\)](#)

[H1: nearest mapped stormwater line \(0.10 m\)](#)

[H1: mapped action drain - map label SWD-LINE-2255 \(0.10 m\)](#)

[H1: mapped main stormwater drain \(43.3 m\)](#)

[H1: nearest mapped sewage line \(3.50 m\)](#)

[H1: possible roadside connection route](#)

[H1: mapped pump - Sec-40 Cyber Park; capacity 33.3 L/s \(1,305 m\)](#)

[H1: open/green receptor or park - PARK; storage 5,989 m³ \(402 m\)](#)

[H1: MCG park - Shri Ram Park; ward 14 \(145 m\)](#)

[H1: MCG pond - Samaspur Village \(857 m\)](#)

[H1: MCG green-belt lowering area - Not in master plan \(21.2 m\)](#)

[H1: rainwater-harvesting/recharge point - In Front of Plot No - 271 , Sec - 51 \(219 m\)](#)

[H1: groundwater recharge screening area \(185 m\)](#)

[H1: nearest STP/treatment point - DISPOSAL \(1,281 m\)](#)

[H1: nearest manhole/inlet \(17.4 m\)](#)

Scan QR code to open this hotspot on phone maps.



Hotspot Action Card

Go to	28.43485, 77.06580
Water concern	maximum modelled depth 0.49 m; average within 50 m 0.30 m; water remains above 15 cm for 7.5 h.
Nearest stormwater drain	mapped stormwater drain near Sector 46 is 19.7 m away. The mapped roadside option is 23.4 m long and is not yet field-approved.
Roadside connection checks	Mapped roadside option: approximately 23.4 m from this point to the receiving stormwater drain. The map follows roads and avoids mapped buildings. The route starts and ends at the nearest road points, about 16.3 m and 1.80 m from the mapped locations. Before approval, survey the level at both ends, confirm continuous fall toward the drain, mark every utility crossing and check that the receiving drain can accept flow. Do not construct if any check fails.
Nearby MCG sewage line	MCG sewage line is about 3.50 m away. Check the nearest manhole for rising water. Do not discharge stormwater into this line.
First action at site	Check water backing up at the manhole; verify trunk drain level before pumping.
Before monsoon	Inspect and desilt mapped stormwater drain near Sector 46 (19.7 m) if silt/choking is seen.
Escalate if	Escalate if manhole overflow continues, trunk water level is high, or pumping has no safe discharge route.

2. Source

☐ MCG record	☒ Model-selected point
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3. Field Priority Level

☐ LOW	☐ MEDIUM	☐ HIGH	☒ VERY HIGH
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4. Flood Timing and Depth

At H1, record observed water depth, time, inlet condition and receiving-drain level. Compare these with the model estimate before work begins.

Field measure	Unit	Model estimate	Selected rainfall
Ponded water within 50 m	m³	2,125 m³	July 2025 rain
Time water remains above 15 cm	hours	7.5	July 2025 rain
Time to exceed 15 cm after rain starts	hours	8.5	July 2025 rain
Maximum depth at this point	m	0.49 m	July 2025 rain
Average depth within 50 m	m	0.30 m	July 2025 rain
Maximum modelled flow speed	m/s	0.02 m/s	July 2025 rain

H1: record observed water depth and time, then photograph the inlet and receiving-drain level before work starts.

5. Recommendations

a. Drainage and Sewage Checks

Stormwater check: mapped stormwater drain near Sector 46 is about 19.7 m away and the mapped roadside option is about 23.4 m long. Open the inlet and receiving-drain access point, then use a clean-water flow test or observe the next rainfall to confirm that water reaches the drain without backing up.

Sewage check: an MCG sewage line is about 3.50 m away. Inspect the nearest manhole for rising water, but never use the sewage line as a stormwater or pump outlet.

b. Possible New Stormwater Connection

Mapped option: approximately 23.4 m of roadside connection to mapped stormwater drain near Sector 46, which is 19.7 m away directly. Before sanctioning work, measure the source and receiving-drain levels, confirm continuous fall toward the drain, mark utility crossings and check that the receiving drain can accept the added flow. Do not construct if any one of these checks fails.

c. When to Desilt

Inspect the inlet, first upstream access point and first downstream access point leading to mapped stormwater drain near Sector 46. Record silt depth and the free opening at each point. Desilt only where silt narrows the waterway or a clean-water flow test shows restriction; clear the full restricted reach and take before/after photographs.

d. Temporary Pump Decision

S.No.	Pump Location	Discharge Point	Pump Capacity / Type
1	H1 / local low point	No mapped pump is shown near H1. If water remains after inlet clearing, use a temporary pump only toward mapped stormwater drain near Sector 46 (19.7 m) or a verified open/green area; do not use the nearby sewage line (3.50 m from H1) as discharge.	295 L/s for 2-hour clearing; 148 L/s for 4-hour clearing; confirm pump head and hose route at H1.

S.No.	Pump Location	Discharge Point	Pump Capacity / Type
2	Alternate discharge check for H1	Do not discharge to the nearby sewage line (3.50 m from H1); check safe storm drain/open area after checking route to mapped stormwater drain near Sector 46 (19.7 m).	Use only if site access and discharge permission are clear for H1.
3	Gravity route to mapped stormwater drain near Sector 46 (19.7 m)	Use gravity only if water from H1 can visibly enter mapped stormwater drain near Sector 46 (19.7 m) after inlet and drain-level check.	No pump needed only if flow into mapped stormwater drain near Sector 46 (19.7 m) is confirmed at site.

e. New Drain or Inlet Decision

For H1, nearest main stormwater drain is 43 m away; check road inlet level, drain level and downstream discharge before routing or pumping. Map screening used depth/persistence/drain return, 50 m local flood-volume estimate, screened park/open receptors, storm-drain proximity, sewer proximity caution, and site visit constraints. H1: survey the mapped 23.4 m roadside option to mapped stormwater drain near Sector 46, which is 19.7 m away directly. Measure levels at the source and receiving drain, confirm continuous fall, mark utilities and verify that the drain has capacity. Approve construction only when all four checks pass.

f. Rainwater Harvesting Check

Nearby open/receptor area: PARK; distance 402 m; possible temporary storage 5,989 m³; class priority. Use only after checking groundwater, water quality and ownership.

g. Temporary Diversion to Park or Pond

Possible receiving area: PARK; possible storage 5,989 m³; Check slope, access, permission and overflow route.

6. Site Visit Checklist for H1

Site check	Yes	No	Notes
Waterlogging seen at this pin	☐	☐	H1: 28.43485, 77.06580
Nearest drain/trunk visible	☐	☐	mapped stormwater drain near Sector 46 (19.7 m)
Roadside connection route surveyed	☐	☐	Mapped roadside option: approximately 23.4 m from this point to the receiving stormwater drain. The map follows roads and avoids mapped buildings. The route starts and ends at the nearest road points, about 16.3 m and 1.80 m from the mapped locations. Before approval, survey the level at both ends, confirm continuous fall toward the drain, mark every utility crossing and check that the receiving drain can accept flow. Do not construct if any check fails.
Levels at both ends measured	☐	☐	Record source and receiving-drain levels; confirm continuous fall and a lower downstream water level.
Inlet/manhole blockage checked	☐	☐	Check water backing up at the manhole; verify trunk drain level before pumping.
Silt visible in drain	☐	☐	Check mapped stormwater drain near Sector 46 (19.7 m).
Sewage manhole overflow checked	☐	☐	MCG sewage line is about 3.50 m away. Check the nearest manhole for rising water. Do not discharge stormwater into this line.
Safe pump discharge route available	☐	☐	Keep pump ready only after checking manhole/trunk level; estimated 2 h pump need is about 295 L/s.
Road/access safety checked	☐	☐	38 m from Vikas Marg (secondary)
Photos taken and attached	☐	☐	Photo label should include H1.
Needs escalation to senior engineer	☐	☐	Escalate if manhole overflow continues, trunk water level is high, or pumping has no safe discharge route.

7. Field Decision Box for H1

Decision	Select	Field note
Clean inlet/blockage immediately	☐	Check water backing up at the manhole; verify trunk drain level before pumping.
Inspect/desilt stormwater drain	☐	Inspect and desilt mapped stormwater drain near Sector 46 (19.7 m) if silt/choking is seen.
Survey a new roadside connection	☐	H1: survey the mapped 23.4 m roadside option to mapped stormwater drain near Sector 46, which is 19.7 m away directly. Measure levels at the source and receiving drain, confirm continuous fall, mark utilities and verify that the drain has capacity. Approve construction only when all four checks pass.
Use a temporary pump	☐	Keep pump ready only after checking manhole/trunk level; estimated 2 h pump need is about 295 L/s.
Escalate or restrict access	☐	Escalate if manhole overflow continues, trunk water level is high, or pumping has no safe discharge route.

HOTSPOT 2

1. Hotspot Identification

Hotspot Name	Soshant Lok Phase 3
Latitude / Longitude	28.41329, 77.07623
Open location	Use the link below to open this point on Google Maps.

Google Map Links for Hotspot and Assets

Use these links for the field pin, nearby drainage/sewage assets and mapped support assets used in this report.

[H2: hotspot pin](#)

[H2: mapped receiving stormwater drain \(22.5 m\)](#)

[H2: nearest mapped stormwater line \(0.30 m\)](#)

[H2: mapped action drain - map label SWD-LINE-2374 \(0.30 m\)](#)

[H2: mapped main stormwater drain \(34.5 m\)](#)

[H2: nearest mapped sewage line \(2.70 m\)](#)

[H2: possible roadside connection route](#)

[H2: MCG park - Park near Mandir; ward 14 \(197 m\)](#)

[H2: MCG pond - Tigra Village Pond \(609 m\)](#)

[H2: MCG green-belt lowering area - Existing 2 \(10.5 m\)](#)

[H2: rainwater-harvesting/recharge point - A-Block Opposite Mc Dee \(recorded as functional\) \(418 m\)](#)

[H2: groundwater recharge screening area \(388 m\)](#)

[H2: nearest STP/treatment point - BEHIND BIKANER SWEET F-BLOCK,SL-2 \(927 m\)](#)

[H2: nearest manhole/inlet \(171 m\)](#)

Scan QR code to open this hotspot on phone maps.



Hotspot Action Card

Go to	28.41329, 77.07623
Water concern	maximum modelled depth 0.58 m; average within 50 m 0.40 m; water remains above 15 cm for 11.7 h.
Nearest stormwater drain	mapped stormwater drain near Soshant Lok Phase 3 is 22.5 m away. The mapped roadside option is 22.6 m long and is not yet field-approved.

Roadside connection checks	Mapped roadside option: approximately 22.6 m from this point to the receiving stormwater drain. The map follows roads and avoids mapped buildings. The route starts and ends at the nearest road points, about 19.5 m and 3.10 m from the mapped locations. Before approval, survey the level at both ends, confirm continuous fall toward the drain, mark every utility crossing and check that the receiving drain can accept flow. Do not construct if any check fails.
Nearby MCG sewage line	MCG sewage line is about 2.70 m away. Check the nearest manhole for rising water. Do not discharge stormwater into this line.
First action at site	Check water backing up at the manhole; verify trunk drain level before pumping.
Before monsoon	Inspect and desilt mapped stormwater drain near Soshant Lok Phase 3 (22.5 m) if silt/choking is seen.
Escalate if	Escalate if manhole overflow continues, trunk water level is high, or pumping has no safe discharge route.

2. Source

☐ MCG record	☒ Model-selected point
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3. Field Priority Level

☐ LOW	☐ MEDIUM	☐ HIGH	☒ VERY HIGH
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4. Flood Timing and Depth

At H2, record observed water depth, time, inlet condition and receiving-drain level. Compare these with the model estimate before work begins.

Field measure	Unit	Model estimate	Selected rainfall
Ponded water within 50 m	m ³	2,540 m ³	July 2025 rain
Time water remains above 15 cm	hours	11.7	July 2025 rain
Time to exceed 15 cm after rain starts	minutes	26	July 2025 rain
Maximum depth at this point	m	0.58 m	July 2025 rain
Average depth within 50 m	m	0.40 m	July 2025 rain
Maximum modelled flow speed	m/s	0.01 m/s	July 2025 rain

H2: record observed water depth and time, then photograph the inlet and receiving-drain level before work starts.

5. Recommendations

a. Drainage and Sewage Checks

Stormwater check: mapped stormwater drain near Soshant Lok Phase 3 is about 22.5 m away and the mapped roadside option is about 22.6 m long. Open the inlet and receiving-drain access point, then use a clean-water flow test or observe the next rainfall to confirm that water reaches the drain without backing up. Sewage check: an MCG sewage line is about 2.70 m away. Inspect the nearest manhole for rising water,

but never use the sewage line as a stormwater or pump outlet.

b. Possible New Stormwater Connection

Mapped option: approximately 22.6 m of roadside connection to mapped stormwater drain near Soshant Lok Phase 3, which is 22.5 m away directly. Before sanctioning work, measure the source and receiving-drain levels, confirm continuous fall toward the drain, mark utility crossings and check that the receiving drain can accept the added flow. Do not construct if any one of these checks fails.

c. When to Desilt

Inspect the inlet, first upstream access point and first downstream access point leading to mapped stormwater drain near Soshant Lok Phase 3. Record silt depth and the free opening at each point. Desilt only where silt narrows the waterway or a clean-water flow test shows restriction; clear the full restricted reach and take before/after photographs.

d. Temporary Pump Decision

S.No.	Pump Location	Discharge Point	Pump Capacity / Type
1	H2 / local low point	No mapped pump is shown near H2. If water remains after inlet clearing, use a temporary pump only toward mapped stormwater drain near Soshant Lok Phase 3 (22.5 m) or a verified open/green area; do not use the nearby sewage line (2.70 m from H2) as discharge.	353 L/s for 2-hour clearing; 176 L/s for 4-hour clearing; confirm pump head and hose route at H2.
2	Alternate discharge check for H2	Do not discharge to the nearby sewage line (2.70 m from H2); check safe storm drain/open area after checking route to mapped stormwater drain near Soshant Lok Phase 3 (22.5 m).	Use only if site access and discharge permission are clear for H2.
3	Gravity route to mapped stormwater drain near Soshant Lok Phase 3 (22.5 m)	Use gravity only if water from H2 can visibly enter mapped stormwater drain near Soshant Lok Phase 3 (22.5 m) after inlet and drain-level check.	No pump needed only if flow into mapped stormwater drain near Soshant Lok Phase 3 (22.5 m) is confirmed at site.

e. New Drain or Inlet Decision

For H2, nearest main stormwater drain is 35 m away; check road inlet level, drain level and downstream discharge before routing or pumping. Map screening used depth/persistence/drain return, 50 m local flood-volume estimate, screened park/open receptors, storm-drain proximity, sewer proximity caution, and site visit constraints. H2: survey the mapped 22.6 m roadside option to mapped stormwater drain near Soshant Lok Phase 3, which is 22.5 m away directly. Measure levels at the source and receiving drain, confirm continuous fall, mark utilities and verify that the drain has capacity. Approve construction only when all four checks pass.

f. Rainwater Harvesting Check

Not identified/applicable in current approved data

g. Temporary Diversion to Park or Pond

Possible receiving area: Nearest main stormwater drain (map label TRUNK-LEG-3) is 35 m away; check road inlet level, drain level and downstream discharge before routing Nearby landmark: Soshant Lok Phase 3.; possible storage Check slope, access, permission and overflow route.

6. Site Visit Checklist for H2

Site check	Yes	No	Notes
Waterlogging seen at this pin	☐	☐	H2: 28.41329, 77.07623
Nearest drain/trunk visible	☐	☐	mapped stormwater drain near Soshant Lok Phase 3 (22.5 m)
Roadside connection route surveyed	☐	☐	Mapped roadside option: approximately 22.6 m from this point to the receiving stormwater drain. The map follows roads and avoids mapped buildings. The route starts and ends at the nearest road points, about 19.5 m and 3.10 m from the mapped locations. Before approval, survey the level at both ends, confirm continuous fall toward the drain, mark every utility crossing and check that the receiving drain can accept flow. Do not construct if any check fails.
Levels at both ends measured	☐	☐	Record source and receiving-drain levels; confirm continuous fall and a lower downstream water level.
Inlet/manhole blockage checked	☐	☐	Check water backing up at the manhole; verify trunk drain level before pumping.
Silt visible in drain	☐	☐	Check mapped stormwater drain near Soshant Lok Phase 3 (22.5 m).
Sewage manhole overflow checked	☐	☐	MCG sewage line is about 2.70 m away. Check the nearest manhole for rising water. Do not discharge stormwater into this line.
Safe pump discharge route available	☐	☐	Keep pump ready only after checking manhole/trunk level; estimated 2 h pump need is about 353 L/s.
Road/access safety checked	☐	☐	25 m from Golf Course Extension Road (secondary)
Photos taken and attached	☐	☐	Photo label should include H2.
Needs escalation to senior engineer	☐	☐	Escalate if manhole overflow continues, trunk water level is high, or pumping has no safe discharge route.

7. Field Decision Box for H2

Decision	Select	Field note
Clean inlet/blockage immediately	☐	Check water backing up at the manhole; verify trunk drain level before pumping.
Inspect/desilt stormwater drain	☐	Inspect and desilt mapped stormwater drain near Soshant Lok Phase 3 (22.5 m) if silt/choking is seen.
Survey a new roadside connection	☐	H2: survey the mapped 22.6 m roadside option to mapped stormwater drain near Soshant Lok Phase 3, which is 22.5 m away directly. Measure levels at the source and receiving drain, confirm continuous fall, mark utilities and verify that the drain has capacity. Approve construction only when all four checks pass.
Use a temporary pump	☐	Keep pump ready only after checking manhole/trunk level; estimated 2 h pump need is about 353 L/s.
Escalate or restrict access	☐	Escalate if manhole overflow continues, trunk water level is high, or pumping has no safe discharge route.

HOTSPOT 3

1. Hotspot Identification

Hotspot Name	Sector 46
Latitude / Longitude	28.43430, 77.06568
Open location	Use the link below to open this point on Google Maps.

Google Map Links for Hotspot and Assets

Use these links for the field pin, nearby drainage/sewage assets and mapped support assets used in this report.

[H3: hotspot pin](#)

[H3: mapped receiving stormwater drain \(11.8 m\)](#)

[H3: nearest mapped stormwater line \(0.00 m\)](#)

[H3: mapped action drain - map label SWD-LINE-2216 \(0.00 m\)](#)

[H3: mapped main stormwater drain \(73.4 m\)](#)

[H3: nearest mapped sewage line \(3.20 m\)](#)

[H3: possible roadside connection route](#)

[H3: mapped pump - Sec-40 Cyber Park; capacity 33.3 L/s \(1,348 m\)](#)

[H3: open/green receptor or park - PARK; storage 5,989 m³ \(384 m\)](#)

[H3: MCG park - PARK NEAR HOUSE NO 272; ward 14 \(101 m\)](#)

[H3: MCG pond - Samaspur Village \(798 m\)](#)

[H3: MCG green-belt lowering area - Not in master plan \(51.9 m\)](#)

[H3: rainwater-harvesting/recharge point - In Front of Plot No - 271 , Sec - 51 \(157 m\)](#)

[H3: groundwater recharge screening area \(184 m\)](#)

[H3: nearest STP/treatment point - DISPOSAL \(1,324 m\)](#)

[H3: nearest manhole/inlet \(6.60 m\)](#)

Scan QR code to open this hotspot on phone maps.



Hotspot Action Card

Go to	28.43430, 77.06568
Water concern	maximum modelled depth 0.51 m; average within 50 m 0.40 m; water remains above 15 cm for 9.2 h.

Nearest stormwater drain	mapped stormwater drain near Sector 46 is 11.8 m away. The mapped roadside option is 16.1 m long and is not yet field-approved.
Roadside connection checks	Mapped roadside option: approximately 16.1 m from this point to the receiving stormwater drain. The map follows roads and avoids mapped buildings. The route starts and ends at the nearest road points, about 13.9 m and 2.10 m from the mapped locations. Before approval, survey the level at both ends, confirm continuous fall toward the drain, mark every utility crossing and check that the receiving drain can accept flow. Do not construct if any check fails.
Nearby MCG sewage line	MCG sewage line is about 3.20 m away. Check the nearest manhole for rising water. Do not discharge stormwater into this line.
First action at site	Check water backing up at the manhole; verify trunk drain level before pumping.
Before monsoon	Inspect and desilt mapped stormwater drain near Sector 46 (11.8 m) if silt/choking is seen.
Escalate if	Escalate if manhole overflow continues, trunk water level is high, or pumping has no safe discharge route.

2. Source

☐ MCG record	☒ Model-selected point
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3. Field Priority Level

☐ LOW	☐ MEDIUM	☐ HIGH	☒ VERY HIGH
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4. Flood Timing and Depth

At H3, record observed water depth, time, inlet condition and receiving-drain level. Compare these with the model estimate before work begins.

Field measure	Unit	Model estimate	Selected rainfall
Ponded water within 50 m	m³	1,907 m³	July 2025 rain
Time water remains above 15 cm	hours	9.2	July 2025 rain
Time to exceed 15 cm after rain starts	hours	8.4	July 2025 rain
Maximum depth at this point	m	0.51 m	July 2025 rain
Average depth within 50 m	m	0.40 m	July 2025 rain
Maximum modelled flow speed	m/s	0.01 m/s	July 2025 rain

H3: record observed water depth and time, then photograph the inlet and receiving-drain level before work starts.

5. Recommendations

a. Drainage and Sewage Checks

Stormwater check: mapped stormwater drain near Sector 46 is about 11.8 m away and the mapped roadside option is about 16.1 m long. Open the inlet and receiving-drain access point, then use a clean-water flow test or observe the next rainfall to confirm that water reaches the drain without backing up.

Sewage check: an MCG sewage line is about 3.20 m away. Inspect the nearest manhole for rising water, but never use the sewage line as a stormwater or pump outlet.

b. Possible New Stormwater Connection

Mapped option: approximately 16.1 m of roadside connection to mapped stormwater drain near Sector 46, which is 11.8 m away directly. Before sanctioning work, measure the source and receiving-drain levels, confirm continuous fall toward the drain, mark utility crossings and check that the receiving drain can accept the added flow. Do not construct if any one of these checks fails.

c. When to Desilt

Inspect the inlet, first upstream access point and first downstream access point leading to mapped stormwater drain near Sector 46. Record silt depth and the free opening at each point. Desilt only where silt narrows the waterway or a clean-water flow test shows restriction; clear the full restricted reach and take before/after photographs.

d. Temporary Pump Decision

S.No.	Pump Location	Discharge Point	Pump Capacity / Type
1	H3 / local low point	No mapped pump is shown near H3. If water remains after inlet clearing, use a temporary pump only toward mapped stormwater drain near Sector 46 (11.8 m) or a verified open/green area; do not use the nearby sewage line (3.20 m from H3) as discharge.	265 L/s for 2-hour clearing; 132 L/s for 4-hour clearing; confirm pump head and hose route at H3.
2	Alternate discharge check for H3	Do not discharge to the nearby sewage line (3.20 m from H3); check safe storm drain/open area after checking route to mapped stormwater drain near Sector 46 (11.8 m).	Use only if site access and discharge permission are clear for H3.
3	Gravity route to mapped stormwater drain near Sector 46 (11.8 m)	Use gravity only if water from H3 can visibly enter mapped stormwater drain near Sector 46 (11.8 m) after inlet and drain-level check.	No pump needed only if flow into mapped stormwater drain near Sector 46 (11.8 m) is confirmed at site.

e. New Drain or Inlet Decision

For H3, inspect the nearest stormwater drain, inlet blockage, silt and downstream continuity. Use a pump route only if flow into mapped stormwater drain near Sector 46 (11.8 m) cannot be restored. H3: survey the mapped 16.1 m roadside option to mapped stormwater drain near Sector 46, which is 11.8 m away directly. Measure levels at the source and receiving drain, confirm continuous fall, mark utilities and verify that the drain has capacity. Approve construction only when all four checks pass.

f. Rainwater Harvesting Check

Nearby open/receptor area: PARK; distance 385 m; possible temporary storage 5,989 m³; class priority. Use only after checking groundwater, water quality and ownership.

g. Temporary Diversion to Park or Pond

Possible receiving area: PARK; possible storage 5,989 m³; Check slope, access, permission and overflow route.

6. Site Visit Checklist for H3

Site check	Yes	No	Notes
Waterlogging seen at this pin	☐	☐	H3: 28.43430, 77.06568
Nearest drain/trunk visible	☐	☐	mapped stormwater drain near Sector 46 (11.8 m)
Roadside connection route surveyed	☐	☐	Mapped roadside option: approximately 16.1 m from this point to the receiving stormwater drain. The map follows roads and avoids mapped buildings. The route starts and ends at the nearest road points, about 13.9 m and 2.10 m from the mapped locations. Before approval, survey the level at both ends, confirm continuous fall toward the drain, mark every utility crossing and check that the receiving drain can accept flow. Do not construct if any check fails.
Levels at both ends measured	☐	☐	Record source and receiving-drain levels; confirm continuous fall and a lower downstream water level.
Inlet/manhole blockage checked	☐	☐	Check water backing up at the manhole; verify trunk drain level before pumping.
Silt visible in drain	☐	☐	Check mapped stormwater drain near Sector 46 (11.8 m).
Sewage manhole overflow checked	☐	☐	MCG sewage line is about 3.20 m away. Check the nearest manhole for rising water. Do not discharge stormwater into this line.
Safe pump discharge route available	☐	☐	Keep pump ready only after checking manhole/trunk level; estimated 2 h pump need is about 265 L/s.
Road/access safety checked	☐	☐	69 m from Vikas Marg (secondary)
Photos taken and attached	☐	☐	Photo label should include H3.
Needs escalation to senior engineer	☐	☐	Escalate if manhole overflow continues, trunk water level is high, or pumping has no safe discharge route.

7. Field Decision Box for H3

Decision	Select	Field note
Clean inlet/blockage immediately	☐	Check water backing up at the manhole; verify trunk drain level before pumping.
Inspect/desilt stormwater drain	☐	Inspect and desilt mapped stormwater drain near Sector 46 (11.8 m) if silt/choking is seen.
Survey a new roadside connection	☐	H3: survey the mapped 16.1 m roadside option to mapped stormwater drain near Sector 46, which is 11.8 m away directly. Measure levels at the source and receiving drain, confirm continuous fall, mark utilities and verify that the drain has capacity. Approve construction only when all four checks pass.
Use a temporary pump	☐	Keep pump ready only after checking manhole/trunk level; estimated 2 h pump need is about 265 L/s.
Escalate or restrict access	☐	Escalate if manhole overflow continues, trunk water level is high, or pumping has no safe discharge route.