

# ATAL BHUJAL YOJANA (AtalJal)

**State : HARYANA**

**Department : IRRIGATION & WATER  
RESOURCE DEPARTMENT**

**BLOCK : HODAL**

**DISTRICT : PALWAL**

**YEAR : 2023-2024**

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*Towards partial fulfilment of requirements for Disbursement of  
Incentive under DLI -1*

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# HYDROGEOLOGICAL REPORT

## (YEAR: 2023-24)

STATE	:	HARYANA
DISTRICT	:	PALWAL
BLOCK/TALUK	:	HODAL
BLOCK/TALUK HQs	:	HODAL

A		GENERAL INFORMATION			
1.	Geographical area (Ha)	:	29913.48		
2.	No. of Gram Panchayats	:	34		
3.	No. of towns	:	1		
4.	No. of villages	:	38		
5.	Population (2011)	:	Male	Female	Total
			92005	80937	172942
6.	Rainfall (mm)(2021)	:	Monsoon	Non-monsoon	Annual
			435.65	240.1	675.75
7.	River basin	:	Yamuna river basin		
8.	Major soil types	:	Tropical and Brown Soil		

B		LAND USE		
1.	Forest area (Ha)	:	0	
2.	Cultivable area (Ha)	:	21161	
3.	Net sown area (Ha)	:	20234	
4.	Gross cropped area (Ha)	:	40329.75	

C		CROPPING PATTERN (As in 2022-23)				
1.	Major crops grown	:	Kharif	Rabi	Summer	Perennial
			Paddy	Wheat	Pulses	NA
			Pulses	Mustard	Tomato	
			Sesame	Vegetable		
			Vegetable			
			Cotton			

D		IRRIGATION FACILITIES (As in 2022-23)					
1.	Net irrigated area (Ha)	:	20234				
2.	Gross irrigated area (Ha)	:	28410				
3.	Area under irrigation (Ha) (Source-wise)	:	DW	BW/TW	Tanks/Ponds	Canals	Others
			-	27568	0	842	0

E		GEOLOGY & HYDROGEOLOGY		
1.	Predominant rocktype	:	Sand, Silt and Clay	
2.	Major geological formations	:	Older Alluvium	
3.	Important water-bearing formations	:	Coarse grain sand	
4.	Status of coverage under NAQUIM	:	Covered	

F		GROUND WATER CONDITIONS		
1.	No. of wells used for Water	:	Open wells	BW/TW/ PZ

	Level(WL) monitoring.		CGWB	SGWB	Total	CGWB	SGWB	Total
			1	14	15	1	0	1
2.	Monitoring mechanism (Nos.)	:	Manual		DWLR		Telemetry	
			CGWB	SGWB	CGWB	SGWB	CGWB	SGWB
			2	14	0	0	0	0
3.	Monitoring frequency	:	Agency	No. of times monitored/year				
			CGWB	02 times/ year				
			SGWB	02 times/ year				
4.	Period of water level data availability.	:	Agency	Period of WL data availability (From - To)				
				From (year)		To (year)		
			CGWB	2015		2023		
			SGWB	2015		2023		
5.	Water level range (m.bgl)	:	Minimum/Village			Maximum/Village		
	Pre-monsoon (2023)		6.65 (Bhiduki)			24.25 (Banchari)		
	Post-monsoon (2023)		5.0 (Banswa)			23.65 (Banchari)		
6.	Seasonal WL fluctuation range (m)	:	Minimum/ Village			Maximum/ Village		
			-2.20 (Banswa)			0.25 (Khatela Sarai)		

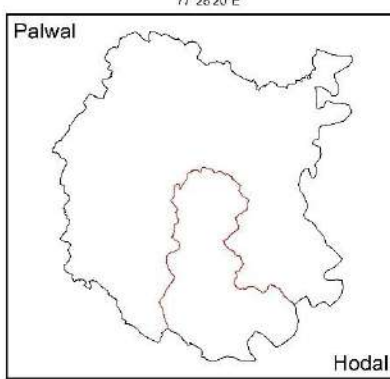
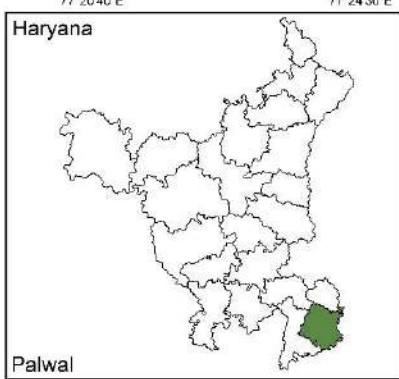
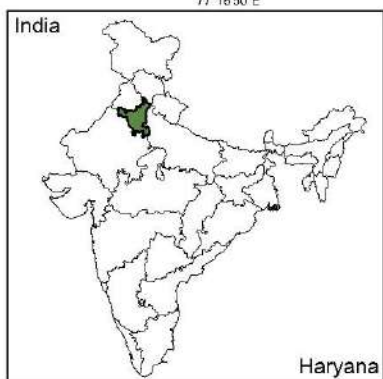
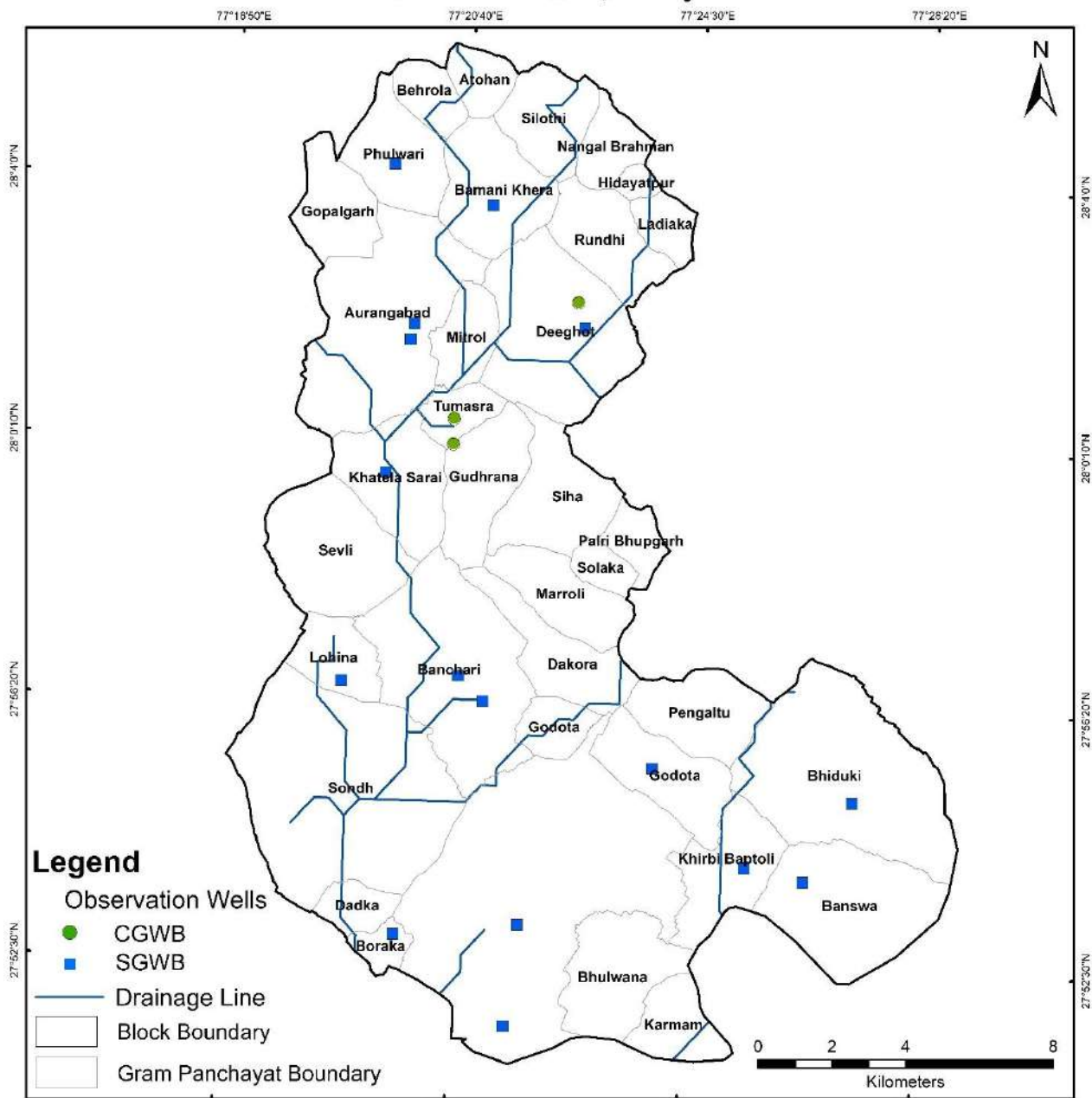
G GROUND WATER QUALITY								
1.	No. of wells used for Water Quality (WQ) monitoring.		Open Wells			BW/TW/ PZ		
			CGWB	SGWB	Total	CGWB	SGWB	Total
			6	14	20	2	0	2
2.	Monitoring frequency	Agency	No. of times monitored/year					
		CGWB	1 times/ year					
		SGWB	2 times/ year					
3.	Period of water quality data availability	Agency	Period of WQ data availability (Years)					
		CGWB	2015 to 2023					
		SGWB	2020to 2023					
4.	Parameters analysed	Agency	Parameters Analysed					
		CGWB	pH, EC, TH, Ca, Mg, Na, K, CO <sub>3</sub> , HCO <sub>3</sub> , SO <sub>4</sub> , Cl, F, NO <sub>3</sub>					
		SGWB	EC					
5.	Known ground water quality issues, if any		Moderately to highly saline					
H. GROUND WATER RESOURCES								
1.	Latest assessment year		2022					
2.	Assessment Unit		Block					
3.	Annual extractable GW resource (ha.m)		7578.93					
4.	Current annual GW extraction (ha.m)		6282.35					
5.	Net GW availability for future use (ha.m)		1296.58					
6.	Stage of GW extraction (%)		82.89%					
7.	Category of block/taluk/ (2022)		Semi Critical					
8.	Category of block/taluk/ in previous assessments		2020	2017	2013	2011	2009	2004
			Semi Critical	Critical	Over Exploited	Over Exploited	Over Exploited	Safe
I WATER-RELATED SCHEMES								
1.	Schemes with a bearing on ground water, being implemented in the block / taluk.							
	Centrally	i)	PMKSY					

Sponsored /Central Sector Schemes	ii)	MGNREGA
	iii)	RKVY
	iv)	NAQUIM
	v)	JJM
	vi)	
	State Schemes	i)
	ii)	MPMV
	iii)	
	iv)	

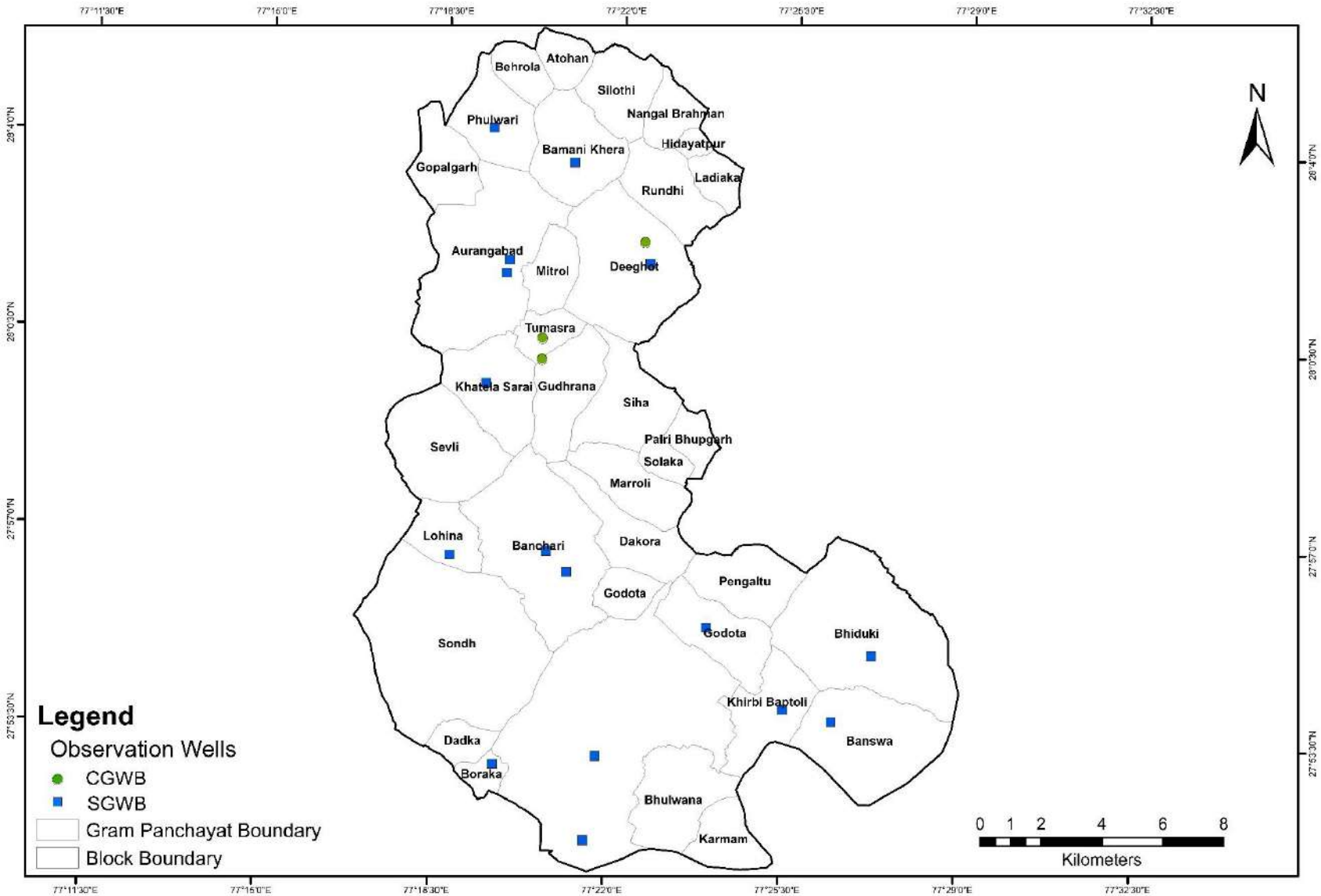
<b>J</b>	<b>GROUND WATER RELATED ISSUES</b>	
1.	Ground water related issues of the block/	
	i) Issues related to GW availability	: No such issue
	ii) Issues related to GW quality	: The shallow ground water of the block is alkaline in nature and is moderately to highly saline. It is found that more than half of the ground waters are not suitable for drinking purposes mainly due to fluoride content that exceeds the maximum permissible limit of 1.5mg/l. These waters are not suitable for customary irrigation as they may cause salinity and sodium hazards.
	iii) Other issues if any.	:

<b>K</b>	<b>ANNEXURES</b>
I	Basic data of observation wells – Attached
II.	Historical water level data – Attached
III.	Historical water quality data – Attached

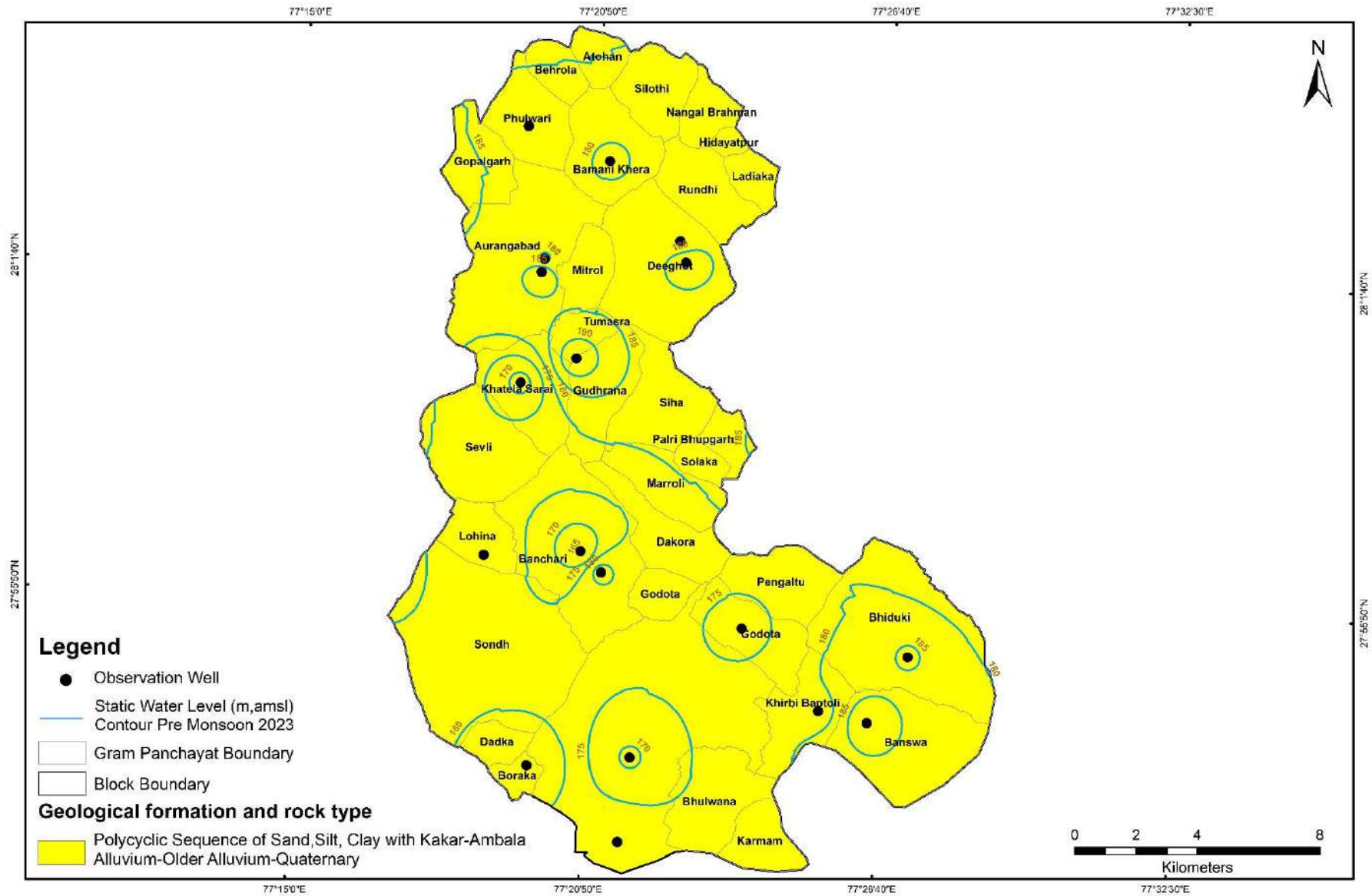
## Location Map of Block- Hodal, District- Palwal, Haryana



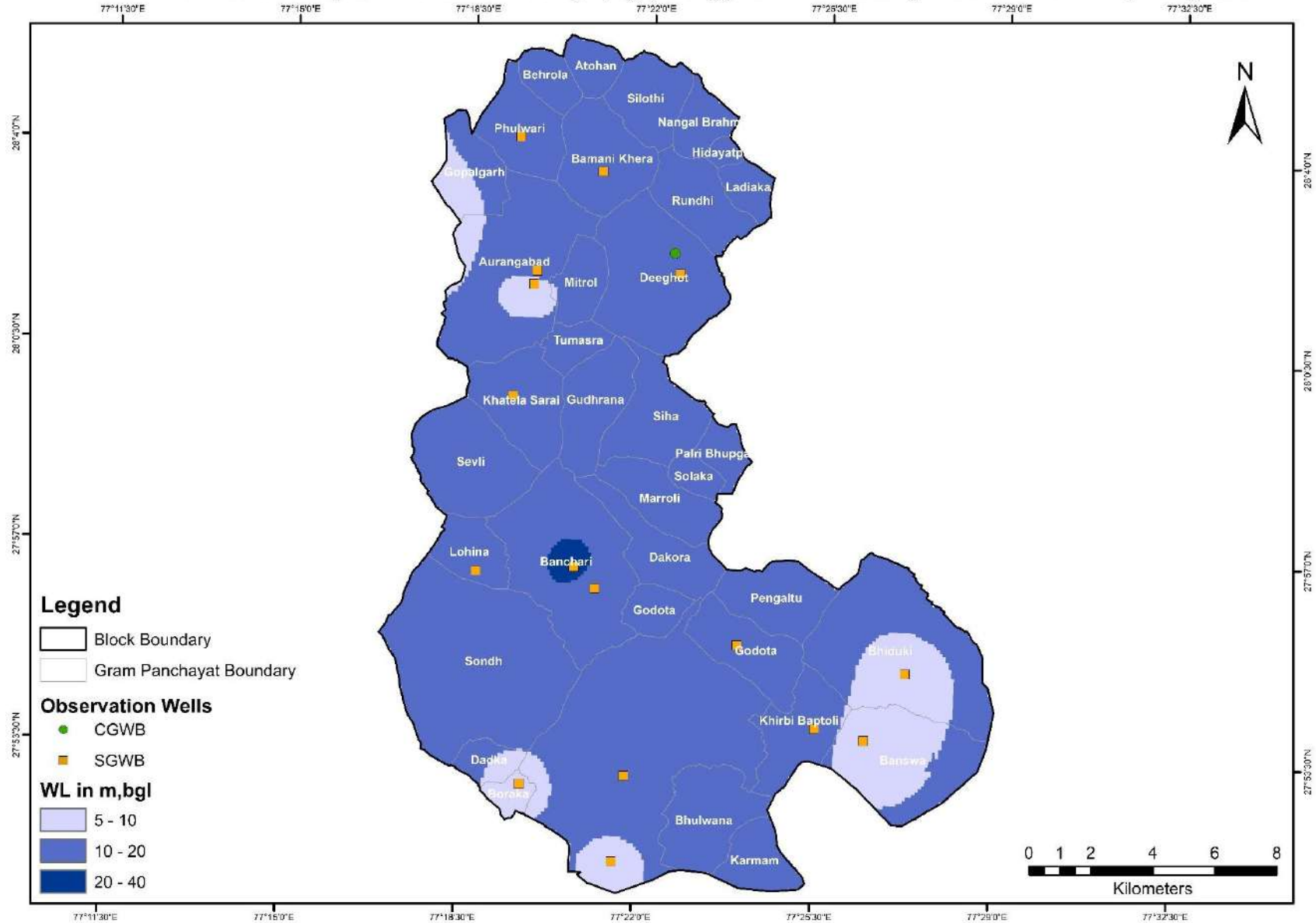
## Location of Observation Wells for Monitoring Water Levels and Water Quality, Block- Hodal, District- Palwal, Haryana



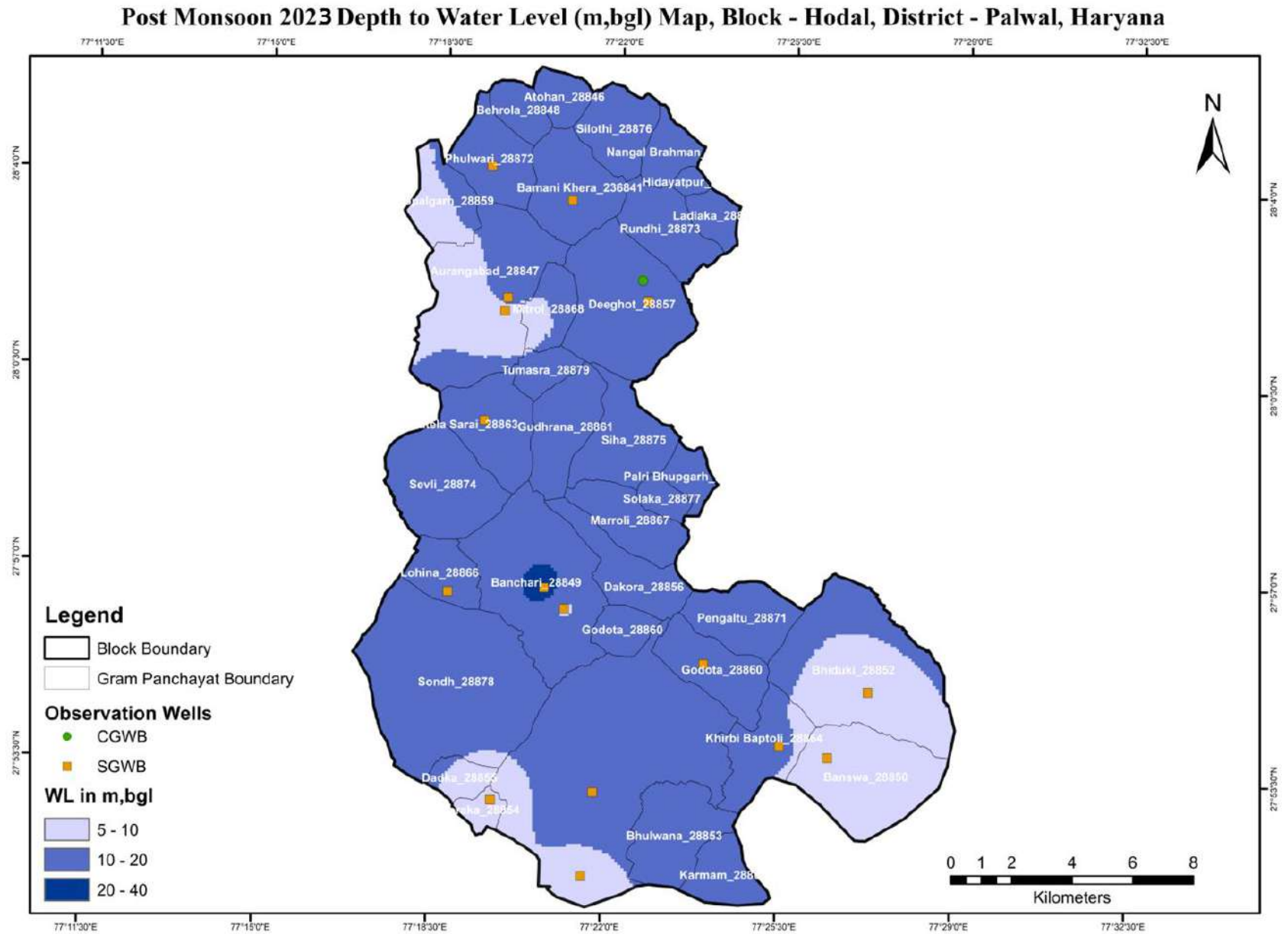
# Hydrogeological Map, Block- Hodal, District- Palwal, Haryana



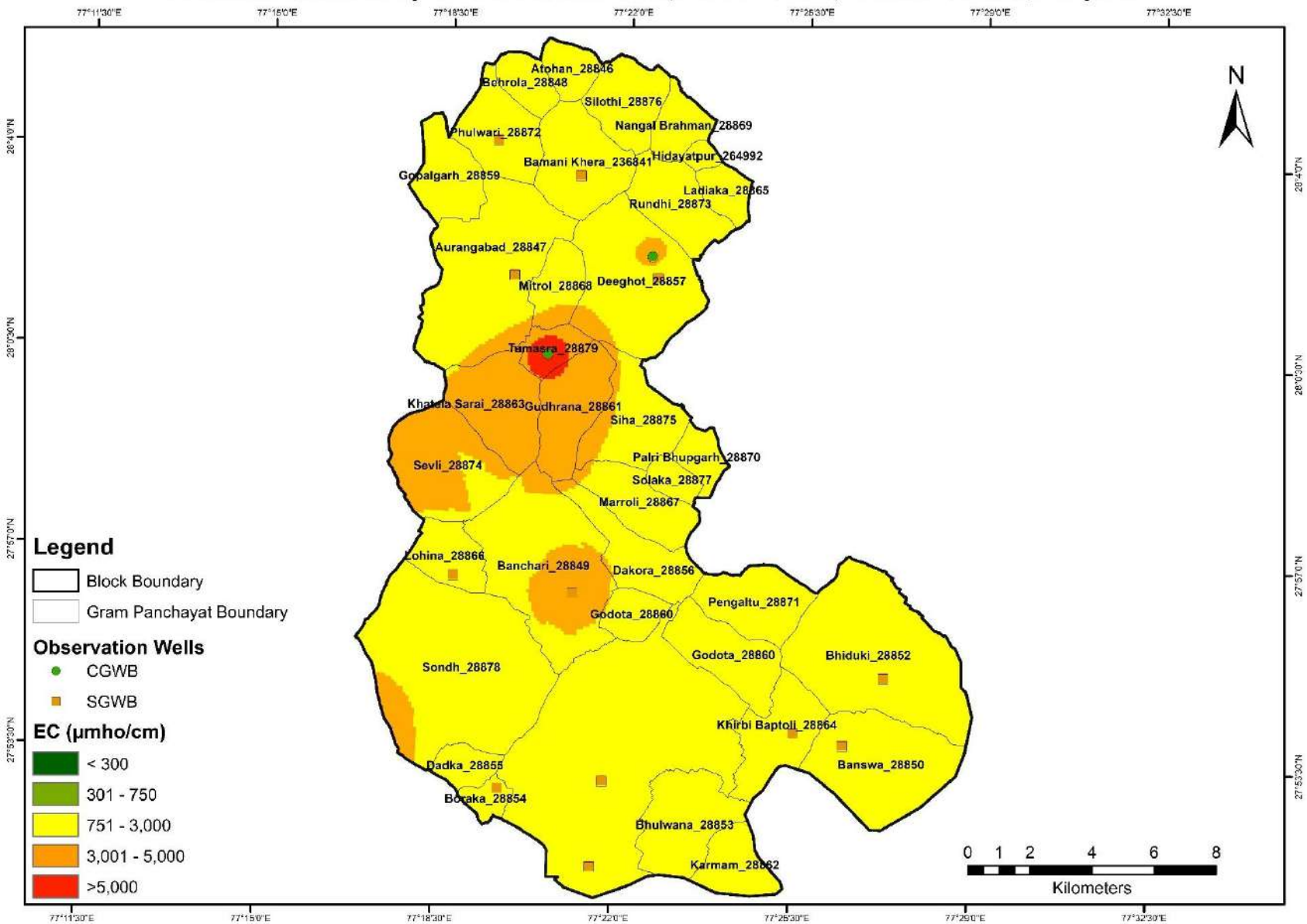
### Pre Monsoon 2023 Depth to Water Level (m,bgl) Map, Block - Hodal, District - Palwal, Haryana







### Electrical Conductivity of Groundwater-2023, Block - Hodal, District - Palwal, Haryana



**ANNEXURE: 1**  
**BASIC DATA OF MONITORING WELLS**

State	Haryana				District	Palwal				Block	Hodal				
S.No	Well ID	GP Name	Name of the village	Site Name	Latitude	Longitude	Type of Well (DW/Pz)	Reduced Level (m,asl)	Aquifer Type/Lithology	Height of Measuring (m,agl)	Depth (m,bgl)	Diameter (m)	Purpose of Monitoring (WL/WQ)	Monitoring Mechanism	Agency
1	De_28.031_77.377	Deeghot_28857	Deeghot	Samlati seva ashram on bus stand, OW	28.03122	77.37712	DW	193.1	Unconfined to Semi Confined	1.25	48	2	Both	Manual	SGWB
2	Ga_27.86_77.36	Garhi Patti	Garhi Patti	Ranglal s/o Cheeranjee near road in front of school, OW	27.86	77.36	DW	189.21	Unconfined to Semi Confined	1.25	16.13	2	Both	Manual	SGWB
3	Gh_28.072_77.21	Godota_28860	Gharrota	Panchyati near veterinary hospital on bhiduki road, OW	28.07181	77.20977	DW	191.2	Unconfined to Semi Confined	1.25	10.69	2	Both	Manual	SGWB
4	Au_28.031_77.33	Aurangabad_28847	Aurangabad	Budha S/o Chiranjee Dharamshala in front of High School, OW	28.03112	77.33012	DW	190.5	Unconfined to Semi Confined	1.25	40	2	Both	Manual	SGWB
5	Ho_27.885_77.363	Hodel	Hodel	LHS hodal to garhi patti road near dushera ground, KOW	27.885	77.3632	DW	188.83	Unconfined to Semi Confined	1.25	21	2	Both	Manual	SGWB
6	Kh_27.9_77.425	Khirbi Bapoli_28864	Khirbi	Shyam Lal s/o Nathiram south of village near the end of approach road, OW	27.90028	77.42519	DW	190.55	Unconfined to Semi Confined	1.25	40	2	Both	Manual	SGWB
7	Lo_27.943_77.313	Lohina_28866	Lohina	Harijan Panchyati well near nala on the village road, OW	27.94344	77.31284	DW	195.73	Unconfined to Semi Confined	1.25	40	2	Both	Manual	SGWB
8	Ba_28.061_77.351	Bamani Khera_236841	Bamni Khera	Shiv lal S/o Nathu LHS of bamni khera to hassanpur, OW	28.06052	77.35087	DW	191.96	Unconfined to Semi Confined	1.25	18.75	2	Both	Manual	SGWB

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9	Ph_28.07_7 7.324	Phulwari_28872	Phulwari	Panchyati near Khemchand s/o Chhote ram house, OW	28.07008	77.32358	DW	191.75	Unconfined to Semi Confined	1.25	20.6	2	Both	Manual	SGWB
10	Ba_27.939_77.352	Banchari_28849	Banchari	Mandir Well 100 yds from village towards hodal on GT road, OW	27.93927	77.35192	DW	190.23	Unconfined to Semi Confined	1.25	19	2	Both	Manual	SGWB
11	Ba_27.89_77.441	Banswa_28850	Banswa	Baba ki bageeche before cannal RHS of road, OW	27.89715	77.44141	DW	190.46	Unconfined to Semi Confined	1.25	7.65	2	Both	Manual	SGWB
12	Sa_28.843_75.849	Khatela Sarai_28863	Sarai	Near Dharam shalla, OW	28.84333	75.84873	DW	182.7	Unconfined to Semi Confined	1.25	40	2	Both	Manual	SGWB
13	W280215077223001	Deeghot_28857	Dighaut	Dighaut	28.033	77.375	PZ	195	Unconfined to Semi Confined	1.4	203	152mm	Both	Manual	CGWB
15	W280030077203001	Tumsara_28879	Tumsara	Tumsara	28.002	77.341	DW	193.26	Unconfined to Semi Confined	1.12	17.95	2.57m	Both	Manual	CGWB
16	Bh_27.91_77.454	Bhiduki_28852	Bhiduki	Panchyati in front of Bhadi Choupal near post office, OW	27.91691	77.45434	DW	189.81	Unconfined to Semi Confined	1.25	9.48	2	Both	Manual	SGWB
17	Bu_27.882_77.329	Boraka_28854	Buraka	Mandir well near pond, OW	27.88185	77.32909	DW	192.7	Unconfined to Semi Confined	1.25	11.1	2	Both	Manual	SGWB
18	W280245077280001	Achheja	Achheja	Achheja_DW	28.0458	77.4667	DW	NA	Alluvium	NA	NA	NA	WQ	Manual	CGWB
19	W280245077280001	Bhavana_265277	Achheja	Achheja	28.04583	77.46667	Dug Well	191	Alluvium	0.46	NA	1.85	WQ	Manual	CGWB
20	Bad_28.069_77.433	Badoli	Badoli	Badoli	28.07644	77.43269	Dug Well	199	Alluvium	1	NA	1.55	WQ	Manual	CGWB
21	W300400077113001	Deeghot_28857	Dighaut	Dighaut	28.0375	77.375	Hand Pump	NA	Alluvium	NA	NA	NA	WQ	Manual	CGWB
22	W275815077250001	Khambi_28763	Khambi	Khambi	27.97083	77.41667	Dug Well	NA	Alluvium	NA	NA	NA	WQ	Manual	CGWB
23	Pir_28.031_77.474	Karimpur_265279	Pirgow	Pirgow	28.03114	77.47417	Dug Well	NA	Alluvium	NA	NA	NA	WQ	Manual	CGWB

ANNEXURE: 2  
WATER LEVEL (WL) DATA OF MONITORING WELLS

State	Haryana	District	Palwal	Block	Hodal
Month of Pre-monsoon Water Level Measurement					June
Month of Post-monsoon water Level measurement					October/November

S.No.	Observation Point	Source	Well Types	Co-ordinate		Water Level (m)																	
				Latitude	Longitude	2015		2016		2017		2018		2019		2020		2021		2022		2023	
						Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	Deeghot_28857	SGWB	DW	28.0312	77.3771	10	10	11	11	11.4	11	11	11	12	12	12.6	12.3	13	13	13.20	13.00	13.65	12.85
2	Garhi Patti	SGWB	DW	27.86	77.36	5.6	5.7	6.6	6.6	7.3	7.2	7.4	7	7.6	7.4	7.85	7.65	8.1	7.3	8.30	8.05	8.65	7.95
3	Godota_28860	SGWB	DW	28.0718	77.2098	14	14	14	15	15.1	15	15	15	17	16	17.1	16.3	NA	NA	17.85	16.20	17.95	17.00
4	Aurangabad_28847	SGWB	DW	28.0311	77.3301	2	2.1	12	13	12.8	13	13	13	14	14	14.1	13.6	15	14	14.56	13.65	13.95	12.40
5	Hodel	SGWB	DW	27.885	77.3632	11	12	12	12	12.6	12	12	12	14	13	14.4	14.1	17	17	17.10	16.70	17.45	16.50
6	Aurangabad_28847	SGWB	DW	28.0272	77.3292	3.9	4	4.4	4	4.1	3.9	4.1	4	4.2	4.1	4.25	4.1	NA	NA	6.10	5.70	6.70	5.80
7	Khirbi Bapoli_28864	SGWB	DW	27.9003	77.4252	4.6	4.9	5.4	5.1	5.15	4.8	5.2	5	10	10	10.5	10.4	11	11	11.45	11.20	11.85	10.90
8	Lohina_28866	SGWB	DW	27.9434	77.3128	10	10	11	11	11.7	12	12	11	12	12	12.6	12.4	13	12	13.10	12.85	13.45	12.65
9	Bamani Khera_236841	SGWB	DW	28.0605	77.3509	9.5	9.6	10	9.9	10	9.8	10	10	11	10	10.9	10.7	10	14	11.90	12.45	12.70	10.75
10	Phulwari_28872	SGWB	DW	28.0701	77.3236	9.9	10	10	11	10.7	11	11	10	11	11	11.7	11.5	14	14	13.05	12.65	12.85	12.90
11	Banchari_28849	SGWB	DW	27.9393	77.3519	7.3	7.4	9.7	9.4	9.57	9.3	9.6	9.2	10	9.7	11	10.3	11	11	11.40	9.55	10.45	9.30
12	Banchari_28849	SGWB	DW	27.9453	77.345	19	19	19	19	20.1	20	20	20	22	21	22.4	22.1	NA	NA	24.15	NA	24.25	23.65
13	Banswa_28850	SGWB	DW	27.8971	77.4414	6.6	6.5	7.1	7	7.08	6.7	7.1	6.8	7.1	7	7.38	7.18	7.5	6.2	7.85	6.75	7.20	5.00
14	Khatela Sarai_28863	SGWB	DW	27.9946	77.3234	9.7	9.8	11	11	11.1	11	13	13	14	13	14.3	13.8	15	13	14.20	14.00	13.85	14.10

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15	Deeghot_28 857	CGWB	PZ	28.0339	77.375	9.3	12	12	11	12.1	11	13	12	13	13	NA	13.4	14	13	12	13	13.30	13.16
16	Tumsara_2 8879	CGWB	DW	28.0021	77.3417	9.6	9.3	7.8	6.7	5.42	5.4	6.2	5.6	7	5.2	7.23	8.88	9.9	11	NA	NA	Aban don ed	Aban done d
17	Bhiduki_28 852	SGWB	DW	27.9169	77.4543	5.7	5.7	6.6	6.3	6.2	6.1	6.2	6.1	6.7	6.5	6.95	6.6	5.4	6.1	6.3	5.5	6.65	5.10
18	Boraka_288 54	SGWB	DW	27.8819	77.3291	6.2	6.3	6.9	6.6	6.9	6.6	7	6.7	7.2	6.7	7.35	7	7.5	7.2	7.8	6.1	7.95	6.00

ANNEXURE: 3  
HISTORICAL WATER QUALITY (WQ) DATA OF MONITORING WELLS

State	Haryana	District	Palwal	Block	Hodal
Month of Collection of samples for WQ monitoring*					June

Village	Source	Type of well	Latitude	Longitude	Year	pH	EC	TDS	TH	Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	F	NO <sub>3</sub>	
Achheja	CGWB	Dw	28.04583333	77.46666667	2015	8.65	1590	ND	296.0	16.4	62.0	225.0	35.0	58.5	285.6	272.0	125.1	0.98	35.00	
Achheja	CGWB	Dw	28.04583333	77.46666667	2016	8.6	915	ND	181.9	16.2	34.4	130.0	3.4	55.5	124.2	112.0	97.3	0.80	17.00	
Achheja	CGWB	Dw	28.04583333	77.46666667	2017	7.88	1325	ND	250.0	44.0	24.0	174.0	4.8	0.0	391.0	127.0	113.0	1.70	20.00	
Achheja	CGWB	Dw	28.04583333	77.46666667	2018	8.1	1212	ND	255.0	51.0	31.0	187.0	4.3	0.0	511.0	90.0	90.0	1.51	20.00	
Achheja	CGWB	Dw	28.04583333	77.46666667	2019	8.74	1114	ND	150.0	40.0	12.0	219.0	6.6	120.0	366.0	12.0	78.0	0.86	1.63	
Achheja	CGWB	Dw	28.04583333	77.46666667	2020	8.45	1271	ND	126.1	16.8	20.4	235.0	3.5	42.8	450.2	25.0	120.5	0.30	11.00	
Achheja	CGWB	Dw	28.04583333	77.46666667	2021	8.8	1281	ND	130.1	28.1	14.6	240.0	3.0	78.0	380.8	0.0	120.5	2.79	30.00	
Achheja	CGWB	Dw	28.04583333	77.46666667	2022	8.23	1158	ND	250.2	52.1	29.2	192.0	5.0	0.0	525.4	51.0	106.4	1.98	21.00	
Achheja	CGWB	Dw	28.04583333	77.46666667	2023	7.7	1412	ND	421.0	57.0	67.0	126.0	6.2	0.0	287.0	171.0	185.0	1.70	32.00	
Badoli	CGWB	Dw	28.06934	77.4332	2015	8.72	1146	ND	296.0	4.1	69.5	125.0	12.0	58.5	202.3	125.0	125.1	0.45	7.35	
Badoli	CGWB	Dw	28.06934	77.4332	2016	8.05	2725	ND	475.1	64.8	76.1	410.0	35.0	0.0	372.5	330.0	528.1	0.98	9.33	
Badoli	CGWB	Dw	28.06934	77.4332	2017	7.69	1465	ND	470.0	68.0	73.0	114.0	4.9	0.0	452.0	88.0	184.0	0.63	0.00	
Badoli	CGWB	Dw	28.06934	77.4332	2018	Sample not collected from this location														
Badoli	CGWB	Dw	28.06934	77.4332	2019	8.48	1659	ND	370.0	28.0	73.0	242.0	9.0	72.0	268.0	99.0	312.0	0.33	17.56	
Badoli	CGWB	Dw	28.06934	77.4332	2020	8.23	1870	ND	178.6	16.8	33.2	352.0	8.7	0.0	537.3	89.0	283.6	0.30	11.00	
Badoli	CGWB	Dw	28.06934	77.4332	2021	8.75	2658	ND	400.0	16.0	87.6	415.0	6.0	62.4	190.4	241.0	553.0	0.36	19.00	
Badoli	CGWB	Dw	28.06934	77.4332	2022	Sample not collected from this location														
Badoli	CGWB	Dw	28.06934	77.4332	2023	7.73	1754	ND	725.6	28.1	13.1	82.0	0.6	0.0	268.5	nd	475.0	0.80	10.34	
Dighaut	CGWB	Hp	28.0375	77.375	2015	8.63	3218	ND	449.2	20.4	96.7	540.0	60.0	93.6	285.6	545.0	521.1	0.79	1.18	
Dighaut	CGWB	Hp	28.0375	77.375	2016	8.2	4420	ND	353.8	52.6	54.0	800.0	336.0	0.0	620.9	990.0	680.9	1.16	10.00	
Dighaut	CGWB	Hp	28.0375	77.375	2017	7.68	4870	ND	1098.0	104.0	156.0	888.0	203.0	0.0	732.0	1022.0	993.0	0.85	30.00	
Dighaut	CGWB	Hp	28.0375	77.375	2018	7.74	4241	ND	363.0	51.0	57.0	671.0	272.0	0.0	748.0	652.0	598.0	0.93	18.00	
Dighaut	CGWB	Hp	28.0375	77.375	2019	8.75	2550	ND	250.0	16.0	51.0	503.0	37.0	144.0	366.0	297.0	361.0	0.90	14.09	

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Dighaut	CGWB	Hp	28.0375	77.375	2020	Sample not collected from this location														
Dighaut	CGWB	Hp	28.0375	77.375	2021	8.37	4243	ND	412.3	12.4	92.7	790.0	24.0	124.8	523.6	687.0	553.0	1.05	28.00	
Dighaut	CGWB	Hp	28.0375	77.375	2022	8.81	2703	ND	547.0	21.0	120.2	371.0	8.9	62.0	324.0	274.0	471.0	0.84	34.00	
Dighaut	CGWB	Hp	28.0375	77.375	2023	7.8	3410	ND	719.0	134.0	93.4	469.0	21.0	0.0	514.0	587.0	467.0	1.20	31.00	
Khambhi	CGWB	Dw	27.97083333	77.41666667	2015	8.5	1774	ND	71.5	12.3	9.9	385.0	5.0	105.3	357.0	162.0	194.5	0.59	0.58	
Khambhi	CGWB	Dw	27.97083333	77.41666667	2016	8.7	1505	ND	192.1	24.3	31.9	280.0	0.8	66.6	259.6	150.0	215.4	2.55	9.40	
Khambhi	CGWB	Dw	27.97083333	77.41666667	2017	8.2	1590	ND	440.0	72.0	63.0	216.0	12.0	0.0	464.0	210.0	227.0	1.90	0.00	
Khambhi	CGWB	Dw	27.97083333	77.41666667	2018	8	1821	ND	304.0	43.0	48.0	282.0	11.0	0.0	498.0	142.0	250.0	2.94	6.20	
Khambhi	CGWB	Dw	27.97083333	77.41666667	2019	8.52	5200	ND	901.0	44.0	192.0	651.0	338.0	84.0	207.0	835.0	1092.0	0.55	21.46	
Khambhi	CGWB	Dw	27.97083333	77.41666667	2020	8.47	1236	ND	220.7	33.7	33.2	181.0	20.0	57.1	261.4	51.0	177.3	1.32	13.00	
Khambhi	CGWB	Dw	27.97083333	77.41666667	2021	8.79	1323	ND	230.2	24.0	41.3	194.0	12.0	46.8	253.8	0.0	262.3	1.66	26.00	
Khambhi	CGWB	Dw	27.97083333	77.41666667	2022	8.39	2034	ND	400.3	36.1	75.4	298.0	47.0	75.6	525.4	103.0	283.6	1.02	4.00	
Khambhi	CGWB	Dw	27.97083333	77.41666667	2023	7.36	1976	ND	540.0	93.0	74.8	167.0	82.0	0.0	286.0	117.0	433.0	1.68	7.00	
Pirgow	CGWB	Dw	28.03113889	77.47416667	2015	8.5	2080		173.5	24.5	27.3	405.0	5.0	81.9	440.3	165.0	264.0	0.80	16.00	
Pirgow	CGWB	Dw	28.03113889	77.47416667	2016	8.72	1802		141.5	28.3	17.2	400.0	3.4	88.8	440.3	308.0	104.2	7.10	14.00	
Pirgow	CGWB	Dw	28.03113889	77.47416667	2017	8.03	1530		280.0	40.0	44.0	206.0	1.5	0.0	683.0	10.0	106.0	3.20	0.00	
Pirgow	CGWB	Dw	28.03113889	77.47416667	2018	Sample not collected from this location														
Pirgow	CGWB	Dw	28.03113889	77.47416667	2019	Sample not collected from this location														
Pirgow	CGWB	Dw	28.03113889	77.47416667	2020	8.18	1621		252.2	29.5	43.4	257.0	5.9	0.0	450.2	142.0	212.7	0.50	11.00	
Pirgow	CGWB	Dw	28.03113889	77.47416667	2021	Sample not collected from this location														
Pirgow	CGWB	Dw	28.03113889	77.47416667	2022	Sample not collected from this location														
Pirgow	CGWB	Dw	28.03113889	77.47416667	2023	Sample not collected from this location														
Tumsara	CGWB	Dw	28.00833333	77.34166667	2015	8.45	4740	ND	745.2	12.3	173.6	605.0	285.0	117.0	880.5	263.0	861.6	0.71	17.00	
Tumsara	CGWB	Dw	28.00833333	77.34166667	2016	8.45	3465	ND	535.7	72.9	86.0	590.0	8.3	66.6	395.1	486.0	618.4	3.35	2.40	
Tumsara	CGWB	Dw	28.00833333	77.34166667	2017	7.59	5190	ND	2022.0	248.0	340.0	230.0	100.0	0.0	781.0	533.0	908.0	1.06	209.00	
Tumsara	CGWB	Dw	28.00833333	77.34166667	2018	7.74	3565	ND	686.0	82.0	117.0	521.0	6.6	0.0	604.0	261.0	737.0	1.53	22.00	
Tumsara	CGWB	Dw	28.00833333	77.34166667	2019	8.83	5920	ND	1020.0	56.0	214.0	873.0	166.0	156.0	732.0	522.0	1198.0	0.72	27.10	
Tumsara	CGWB	Dw	28.00833333	77.34166667	2020	8.37	5561	ND	987.8	16.8	229.8	797.0	98.0	128.5	769.7	452.0	1013.9	0.35	87.00	
Tumsara	CGWB	Dw	28.00833333	77.34166667	2021	8.87	5781	ND	1000.8	12.0	235.9	804.0	110.0	171.6	713.9	284.0	1134.4	0.35	142.00	
Tumsara	CGWB	Dw	28.00833333	77.34166667	2022	7.89	5798	ND	990.8	64.1	201.9	886.0	87.0	0.0	627.9	121.0	1659.1	0.56	36.00	
Tumsara	CGWB	Dw	28.00833333	77.34166667	2023	7.41	5749	ND	810.0	102.0	134.9	908.0	78.0	0.0	476.0	1163.0	901.0	0.64	34.00	



Source	Name of village/ OW data	Latitude	Longitude	Value of EC June 2020	Value of EC June-2021	Value of EC June-2022	Value of EC June-2023
SGWB	BAMNI KHERA	28.0605	77.350871	1500	1700	1100	800
SGWB	BHIDUKI	27.9169	77.454336	3200	3700	2500	2050
SGWB	BANSWA	27.8971	77.441412	2650	2700	3200	1000
SGWB	GHARROTA	28.0718	77.20977	3900	3950	3500	2200
SGWB	GARHI PATTI	27.86	77.36	1300	1300	1200	2000
SGWB	KHIRBI	27.9003	77.425187	14500	NA	3100	2800
SGWB	PHUL WARI	28.0701	77.323579	1200	3700	4200	2100
SGWB	AURANGABAD	28.0311	77.330117	1850	NA	3100	2800
SGWB	SARAI	28.8433	75.848729	1900	1950	2700	2500
SGWB	BURAKA	27.8819	77.329092	2400	2450	2700	2350
SGWB	LOHINA	27.9434	77.312843	3000	3050	2900	2600
SGWB	DEEGHOT	28.0312	77.377122	2300	2350	2100	2000
SGWB	BANCHARI	27.9393	77.351924	3500	3600	2500	3200
SGWB	HODEL	27.885	77.3632	2000	NA	3100	2100

Note: Only EC data of SGWB is available.