

ATAL BHUJAL YOJANA (AtalJal)

State : HARYANA

**Department : IRRIGATION & WATER
RESOURCE DEPARTMENT**

BLOCK : HATHIN

DISTRICT : PALWAL

YEAR : 2023-2024

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

HYDROGEOLOGICAL REPORT

(YEAR: 2023-24)

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

A GENERAL INFORMATION			
1.	Geographical area (Ha)	:	35990.49
2.	No. of Gram Panchayats	:	75
3.	No. of towns	:	1
4.	No. of villages	:	89
5.	Population (2011)	:	Male
			Female
			Total
			133301
			115714
			249952
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)	:	29920
3.	Net sown area (Ha)	:	27772
4.	Gross cropped area (Ha)	:	50073

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)	:	27772				
2.	Gross irrigated area (Ha)	:	39621				
3.	Area under irrigation (Ha) (Source-wise)	:	DW	BW/TW	Tanks/Ponds	Canals	Others
			0	38919	0	702	0

E GEOLOGY & HYDROGEOLOGY			
1.	Predominant rock type	:	Fine to medium grained Sand with Silt and Kankar
2.	Major geological formations	:	Older and Newer 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 Level(WL) monitoring.	:	Open wells			BW/TW/ PZ		
			CGWB	SGWB	Total	CGWB	SGWB	Total
			0	21	21	2	5	7
2.	Monitoring mechanism (Nos.)	:	Manual		DWLR		Telemetry	
			CGWB	SGWB	CGWB	SGWB	CGWB	SGWB
			2	26	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		
			0.8 (Mandkola)			19.95 (Gharrota)		
			0.9 (Pondri)			18.85 (Alimeo)		
6.	Seasonal WL fluctuation range (m)	:	Minimum/ Village			Maximum/ Village		
			-3.72 (Pahadpur)			1.85 (Bahin)		

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
			4	20	24	2	5	7
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 ₃ ,HCO ₃ ,,SO ₄ ,Cl,F,NO ₃				
			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)		8183.64					
4.	Current annual GW extraction (ha.m)		5306.52					
5.	Net GW availability for future use (ha.m)		2877.12					
6.	Stage of GW extraction (%)		64.84%					
7.	Category of block/taluk/ (2022)		Safe					
8.	Category of block/taluk/ in previous assessments		2020	2017	2013	2011	2009	2004
			Safe	Critical	Over Exploited	Over Exploited	Critical	Safe

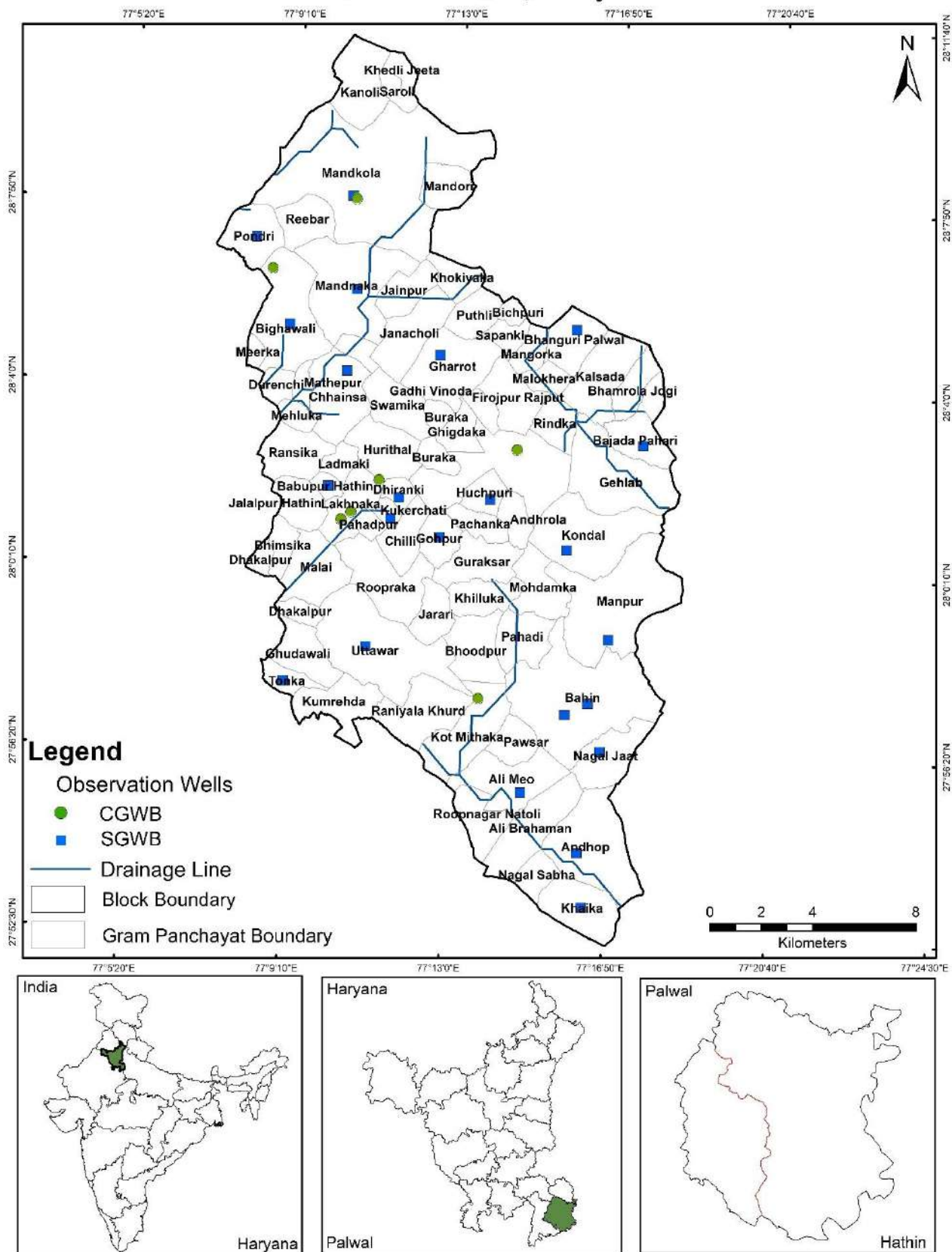
I WATER-RELATED SCHEMES

I.	Schemes with a bearing on ground water, being implemented in the block / taluk.		
Centrally Sponsored /Central Sector Schemes	i)	PMKSY	
	ii)	MNREGA	
	iii)	JJM	
	iv)	RKVY	
State Schemes	i)	State Plan Scheme for providing assistance on adopting water saving technologies (2402)	
	ii)	MPMV	
	iii)		
	iv)		

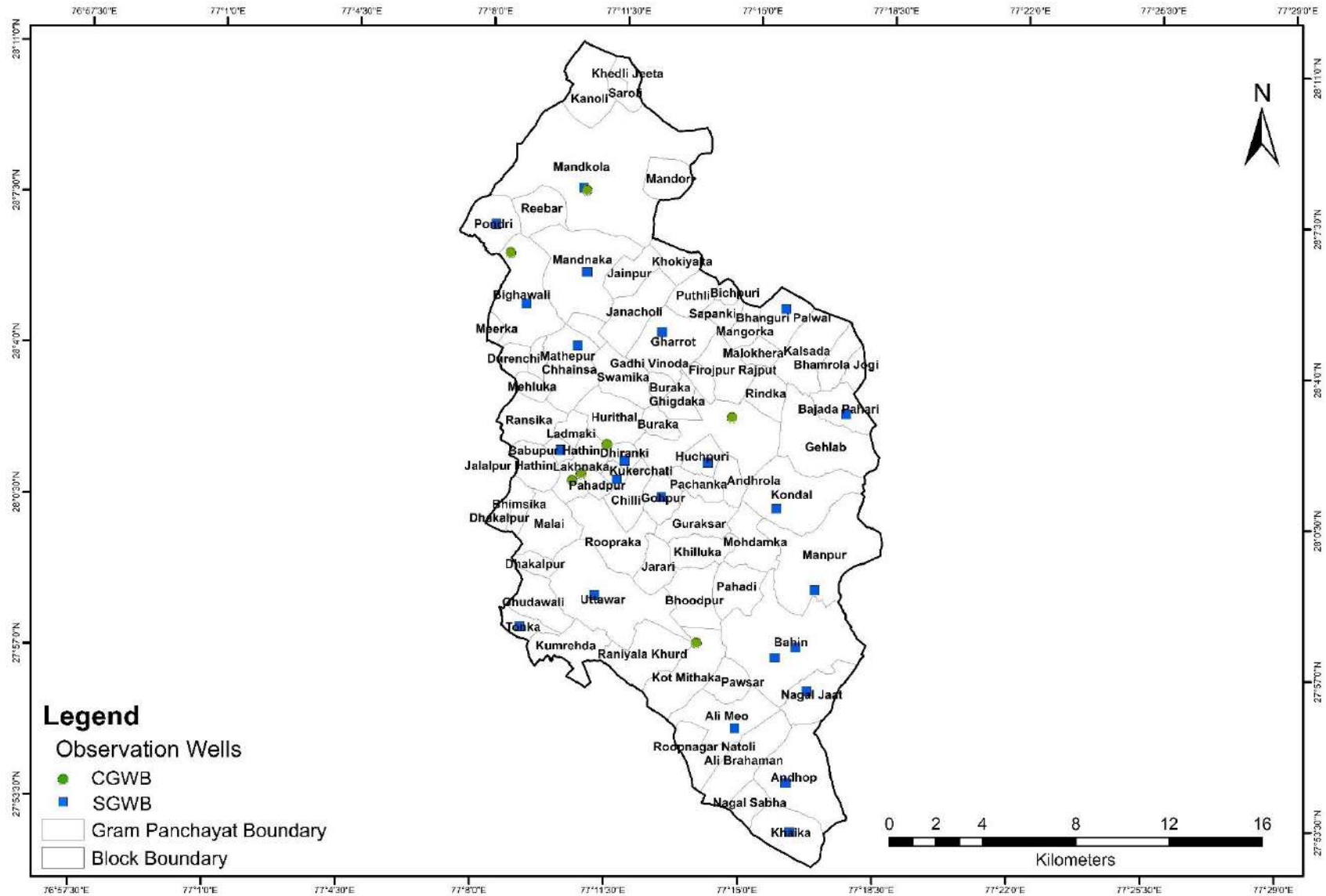
J	GROUND WATER RELATED ISSUES	
I.	Ground water related issues of the block/	
	i) Issues related to GW availability	: Sustainability issues, over exploitation of ground water
	ii) Issues related to GW quality	: The shallow ground water of the block is alkaline in nature and is moderately to highly saline. 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.	:

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

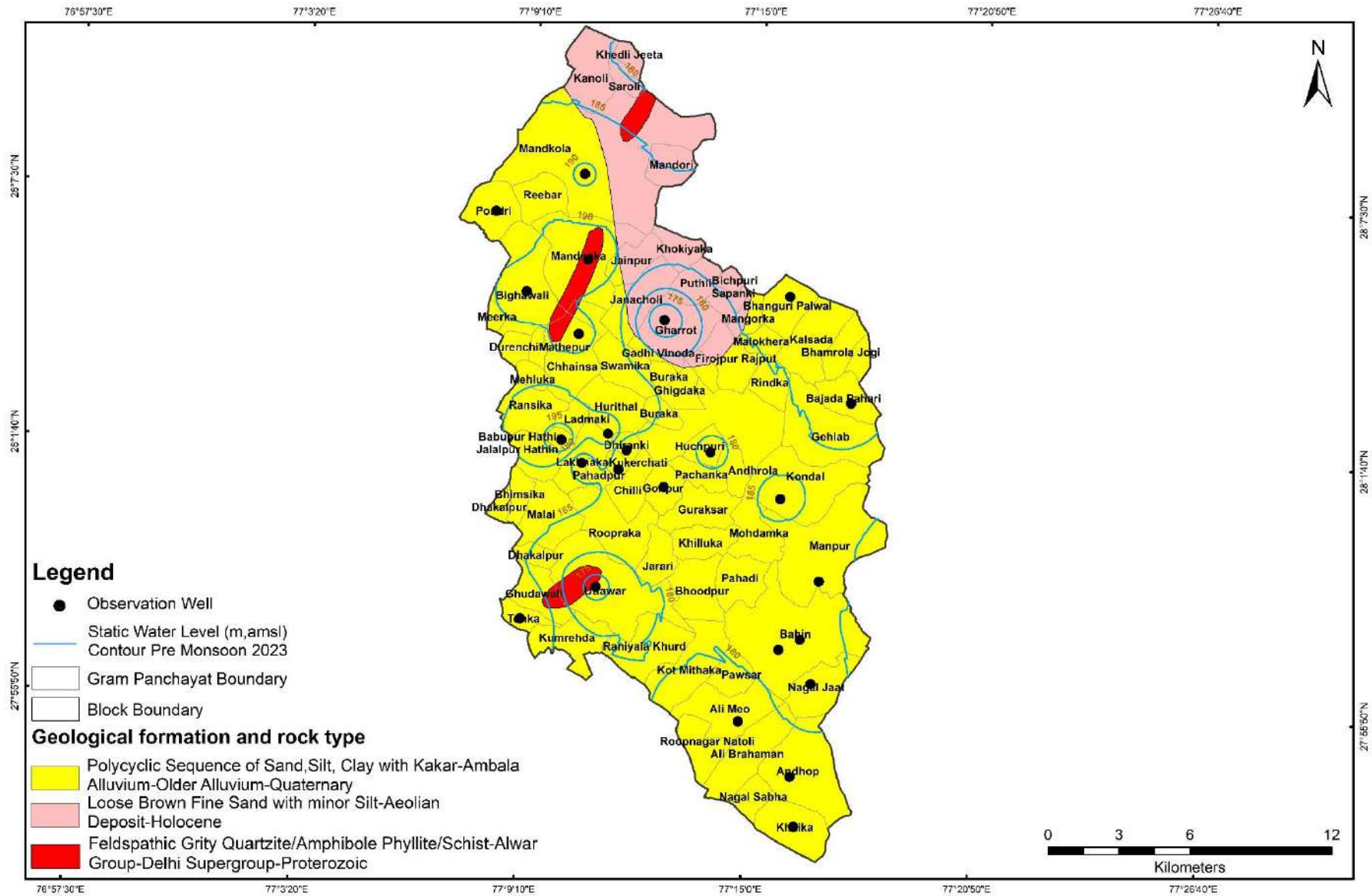
Location Map of Block- Hathin, District- Palwal, Haryana



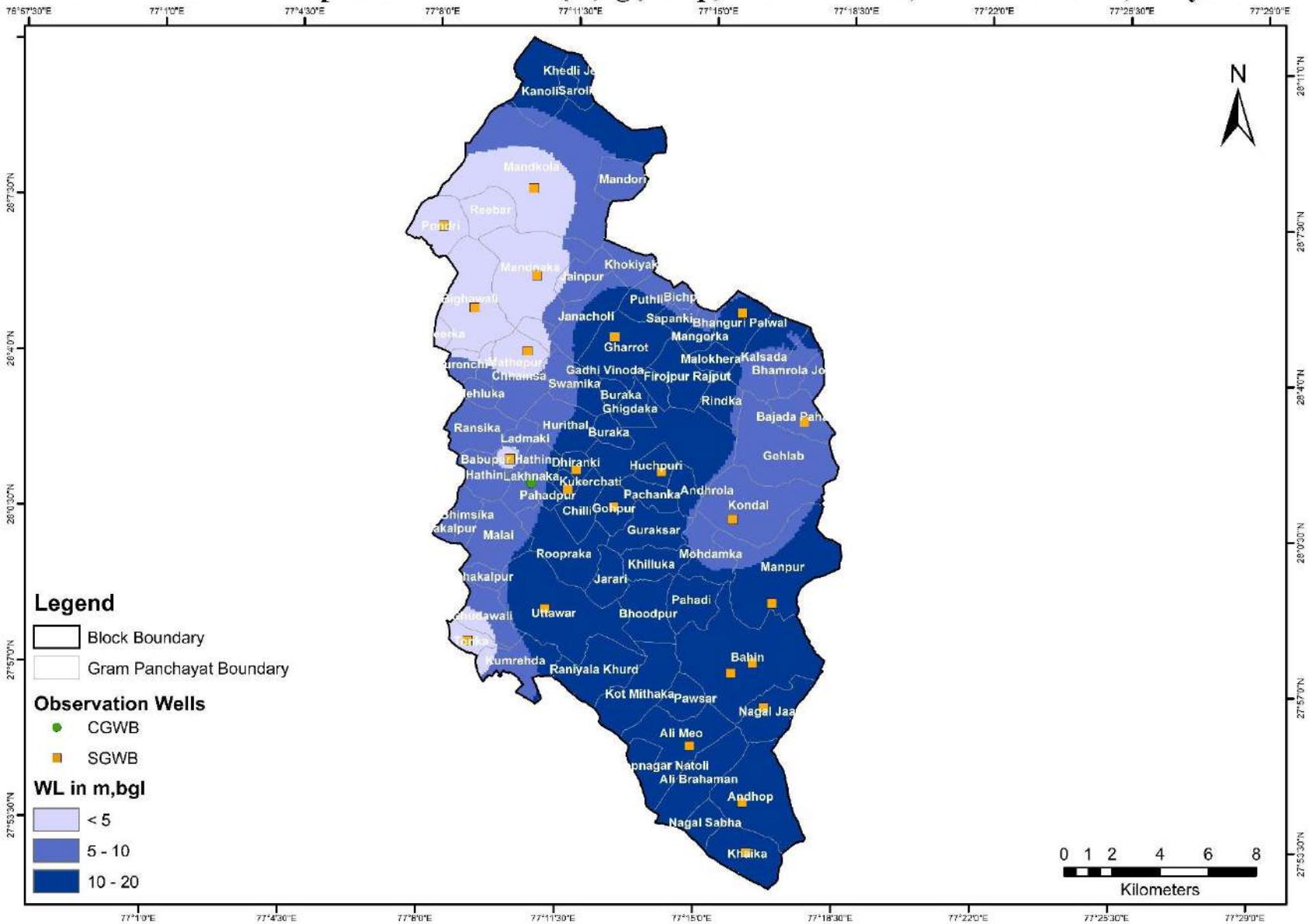
Location of Observation Wells for Monitoring Water Levels and Water Quality, Block- Hathin, District- Palwal, Haryana



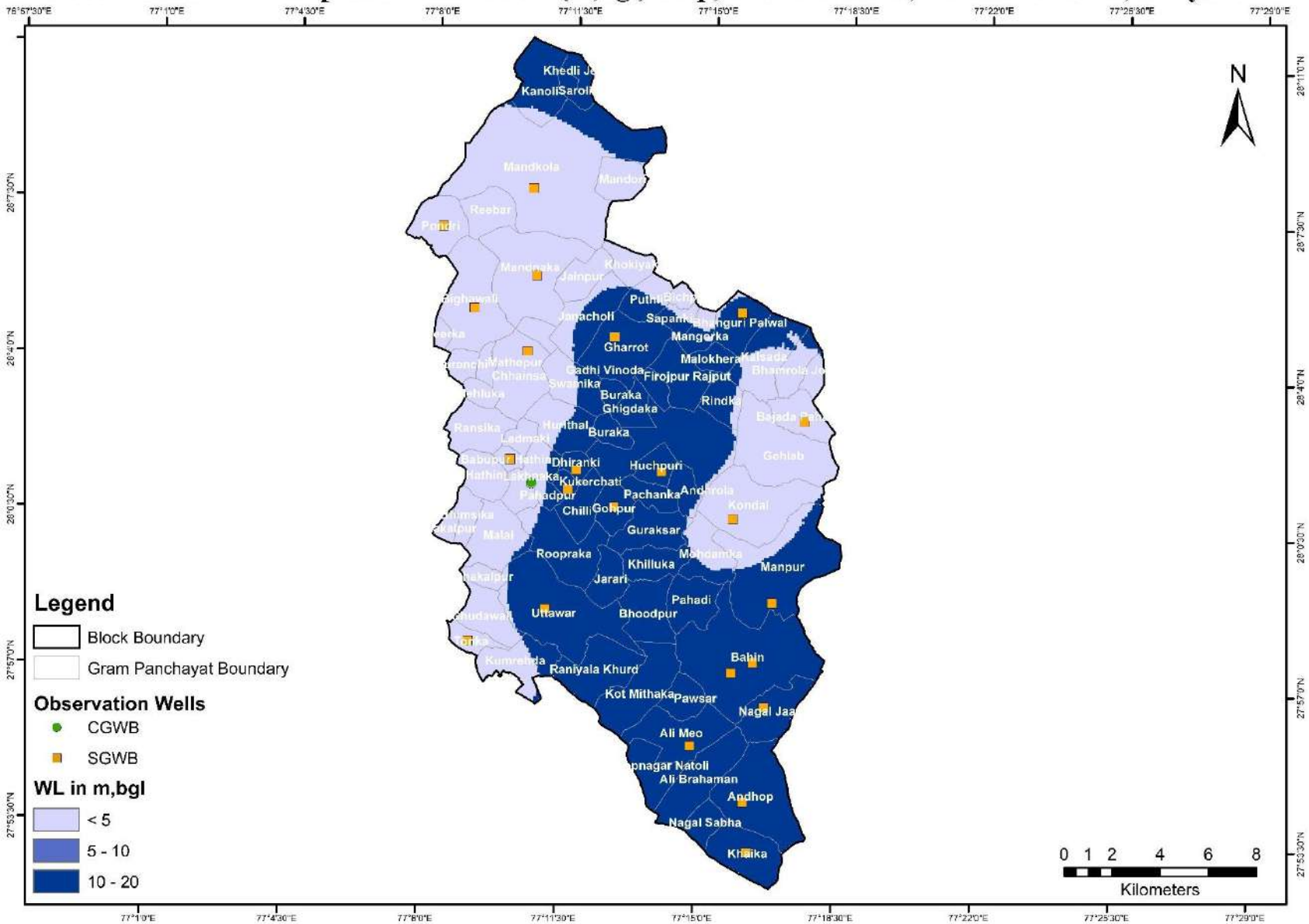
Hydrogeological Map, Block- Hathin, District- Palwal, Haryana



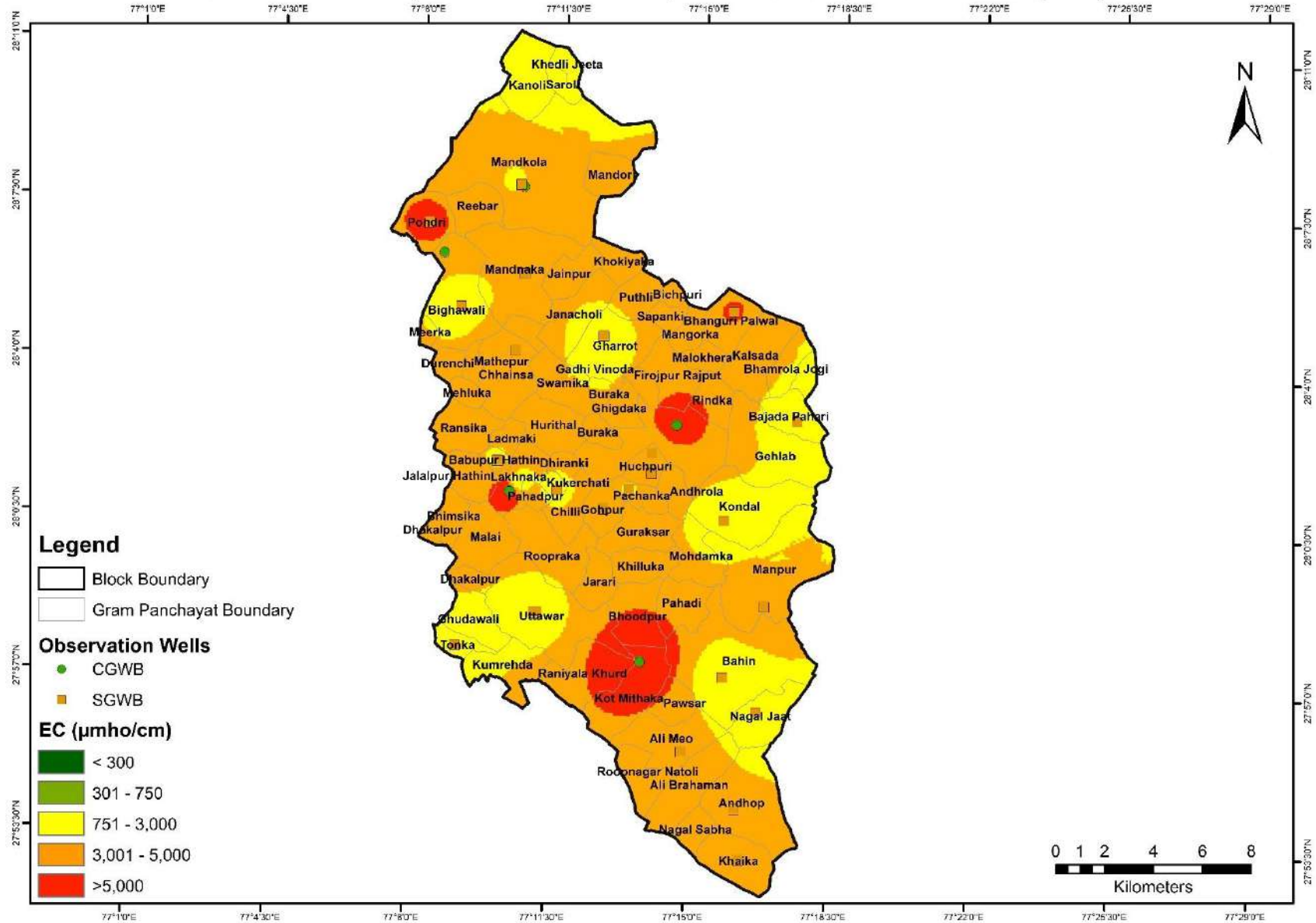
Pre Monsoon 2023 Depth to Water Level (m,bgl) Map, Block - Hathin, District - Palwal, Haryana



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



Electrical Conductivity of Groundwater-2023, Block - Hathin, District - Palwal, Haryana



ANNEXURE: 1
BASIC DATA OF MONITORING WELLS

State	Haryana				District	Palwal				Block	Hathin				
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	Ch_28.072_77.174	Chhainsa_28792	Chainssa	Panchyati RHS of Hathin Nuh Road, OW	28.07173	77.17366	DW	193.7	Unconfined to Semi Confined	1.25	7.7	2	Both	Manual	SGWB
2	An_27.905_77.27	Andhop_28783	Andhop	Panchyati in front of school, OW	27.90509	77.26997	DW	193.25	Unconfined to Semi Confined	1.25	45	2	Both	Manual	SGWB
3	Gh_28.078_77.21	Gharrot_28798	Gharrot	Jaya Kali pandit's well RHS of Hathin Mandkola road on SW direction of village, OW	28.07797	77.21031	DW	195.05	Unconfined to Semi Confined	1.25	23	2	Both	Manual	SGWB
4	Go_28.014_77.212	Gohpur_28800	Gohpur	Panchyati near Talab RHS on Hathin utawar Road, OW	28.01425	77.21214	DW	190.29	Unconfined to Semi Confined	1.25	35	2	Both	Manual	SGWB
5	Ha_28.028_77.232	Hathin	Hathin	BDPO office, PT	28.02806	77.23179	DW	192.04	Unconfined to Semi Confined	1.25	22.71	2	Both	Manual	SGWB
6	Ha_28.028_77.232	Hathin	Hathin	Inder Singh s/o shri raghubir singh in front of govt. school RHS of hathin gehlab road N-W OF Vill., KOW	28.02806	77.23179	PZ	193.41	Unconfined to Semi Confined	0.65	16.8	0.1	Both	Manual	SGWB
7	Kh_28.021_77.223	Dhiranki_28794	Khanoewali	Govt. Primary School, PT	28.02146	77.22259	PZ	193.74	Unconfined to Semi Confined	0.65	20	0.1	Both	Manual	SGWB
8	Kh_27.886_77.272	Khaika_273402	Khika Hathin	West of village on Dinu S/o Meru field, OW	27.88608	77.27225	DW	193.33	Unconfined to Semi Confined	1.25	18	2	Both	Manual	SGWB
9	Ko_28.011_77.262	Kondal_28812	Kondal	Krishan pandit well near pyare lal TW	28.01102	77.26241	DW	193.72	Unconfined to Semi	1.25	20.3	2	Both	Manual	SGWB

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				towards Manpur village Path, OW					Confined						
10	Ba_27.953_77.264	Bahin_287_86	Bahin	Harijan well on hodal road, OW	27.953_43	77.26357	DW	195.17	Unconfined to Semi Confined	1.25	40	2	Both	Manual	SGWB
11	Ku_28.02_77.192	Kukerchati_245701	Kukarchati	Natha S/o Malkhan on LHS of Dhiraka path to village on pond, OW	28.020_43	77.19247	DW	195.66	Unconfined to Semi Confined	1.25	13.77	2	Both	Manual	SGWB
12	Ba_28.048_77.292	Bajada Pahari_287_87	Bajida Pahari	Mandira Well just outside of north side of village, OW	28.048_32	77.29158	DW	194.31	Unconfined to Semi Confined	1.25	7.54	2	Both	Manual	SGWB
13	La_27.958_77.273	Bahin_287_86	Lalgarh	Panchyati near mandir, OW	27.9575_2	77.2725_9	DW	NA	Alluvium	NA	NA	NA	WL	Manual	SGWB
14	Ma_28.133_77.174	Mandkola_28821	Mandkola	LHS of Mandkola Nuh road near Bud Tree, OW	28.1328_8	77.17413	DW	194.11	Unconfined to Semi Confined	1.25	6.13	2	Both	Manual	SGWB
15	Ma_28.133_77.174	Mandkola_28821	Mandkola	Irrigation Rest house, PT	28.1328_8	77.17413	PZ	194.19	Unconfined to Semi Confined	0.65	10	0.1	Both	Manual	SGWB
16	Ma_28.177_77.177	Mandnaka_28816	Mandnaka	Mandir well LHS of road from mandkola, OW	28.1002_4	77.17666	DW	194.5	Unconfined to Semi Confined	1.25	11.74	2	Both	Manual	SGWB
17	Ma_27.98_77.28	Manpur_28820	Manpur	Saneliya S/o Mariya well west side of village on LHS of path from Kundal village, OW	27.98	77.28	DW	193.62	Unconfined to Semi Confined	1.25	18.7	2	Both	Manual	SGWB
18	Na_27.941_77.278	Nagal Jaat_28827	Nagal Jat	Panchyati north of village on RHS of Hodal Uthawar road, OW	27.940_79	77.27782	DW	195.53	Unconfined to Semi Confined	1.25	30	2	Both	Manual	SGWB
19	Po_28.118_77.137	Pondri_28833	Pondri	Panchyati at the end of approach road to village, OW	28.1177_6	77.13652	DW	193.02	Unconfined to Semi Confined	1.25	8.4	2	Both	Manual	SGWB
20	To_27.963_77.152	Tonka_28844	Tonka	Rehmat S/o Mussa Fiedl RHS of Uttawar to sikarwa road, OW	27.962_5	77.15207	DW	207.34	Unconfined to Semi Confined	1.25	13.31	2	Both	Manual	SGWB
21	Ut_27.975_77.184	Uttawar_28845	Uttawar	Samlati north of village in chabaria mohala, OW	27.9753_9	77.18428	PZ	203.91	Unconfined to Semi Confined	0.65	21.29	0.1	Both	Manual	SGWB
22	Ut_27.975_77.184	Uttawar_28845	Uttawar	In field on Har Nath	27.9753_9	77.18428	TWs	203.61	Unconfined	0.7	20	0.254	Both	Manual	SGWB

Atal Bhujal Yojana - Block Hydrogeological Report

	77.184	8845		S/o Asseem near Idgah, PT	9				to Semi Confined						
23	Bh_28.088_77.264	Bhanguri Palwal_24 5700	Bhanguri	Mati ram bhramin in front of munsu ram house LHS of Hathin road, OW	28.088 32	77.26401	DW	198.8	Unconfined to Semi Confined	1.25	30	2	Both	Manual	SGWB
24	Bh_28.08_77.151	Bighawali_28789	Bhopawali	Samlati near house of Indu s/o Sh. Sadhu Mehtab, OW	28.0873 8	77.15069	DW	193.71	Unconfined to Semi Confined	1.25	6.4	2	Both	Manual	SGWB
25	Al_27.926_77.247	Ali Meo_2878 2	Alimeo	In the Village	27.925 69	77.2471	DW	194.33	Unconfined to Semi Confined	1.25	90	2	Both	Manual	SGWB
26	Bi_28.031_77.168	Babupur Hathin_28 785	Bibipur	School Well, OW	28.0310 7	77.16763	DW	203.04	Unconfined to Semi Confined	1.25	7.01	2	Both	Manual	SGWB
27	W280205 077111501	Lakhnaka_28815	Lakhnaka	Lakhnaka	28.033 89	77.1875	PZ	194	Unconfined to Semi Confined	1.5	92.7	0.15	WL	Manual	CGW B
28	W2801210 77103601	Pahadpur_28830	Pehladpur	Pehladpur-Pz	28.0169 4	77.17667	PZ	192	Unconfined to Semi Confined	1	100	0.1	WL	Manual	CGW B
32	W280845 077083001	Bighawali_28789	Akbarpur	Akbarpur	28.1069 4	77.14306	Dug Well	NA	Alluvium	NA	NA	NA	WQ	Manual	CGW B
33	W280245 077143001	Hathin	Hathin	Hathin	28.045 83	77.24167	Tube Well	NA	Alluvium	NA	NA	NA	WQ	Manual	CGW B
34	W2812150 77142001	Teharaki_2 8910	Jaindapur	Jaindapur	28.2041 7	77.2388 9	Dug Well	NA	Alluvium	NA	NA	NA	WQ	Manual	CGW B
35	W2757300 77134501	Kot Mithaka_2 8813	Kot	Kot	27.9583 3	77.22917	Tube Well	NA	Alluvium	NA	NA	NA	WQ	Manual	CGW B
36	W280205 077111501	Lakhnaka_28815	Lakhnaka	Lakhnachs	28.0197 5	77.17289	Dug Well	194	Alluvium	1.5	NA	1.52	WQ	Manual	CGW B
37	W2808570 77110701	Mandkola_28821	Mandkola	Mandkola	28.1321 1	77.17539	Dug Well	194	Alluvium	0.45	NA	1.02	WQ	Manual	CGW B

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

State	Haryana	District	Palwal	Block	Hathin
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	Chhainsa_28792	SGWB	PZ	28.07173	77.17366	1.80	1.75	2.90	2.80	2.90	2.40	2.93	2.90	3.25	3.20	3.35	3.3	2.30	2.70	2.50	2.15	2.85	2.00
2	Andhop_28783	SGWB	DW	27.90509	77.26997	15.60	15.74	15.35	15.80	16.03	16.13	16.11	15.48	17.20	16.95	17.83	17.66	18.10	17.33	18.88	18.65	19.10	18.65
3	Gharrot_28798	SGWB	DW	28.07797	77.21031	17.45	17.60	18.35	18.60	19.10	19.25	19.45	19.10	20.25	19.95	21.1	20.9	18.10	19.10	19.50	17.45	19.95	18.00
4	Gohpur_28800	SGWB	DW	28.01425	77.21214	12.05	12.10	12.50	12.35	12.55	12.40	12.63	12.50	13.50	13.35	14.15	13.8	12.75	13.50	13.20	12.40	13.65	13.00
5	Huchpuri_28803	SGWB	DW	28.02806	77.23179	69.05	9.12	9.55	9.85	10.05	10.90	10.15	10.05	10.85	10.60	11.35	11.1	10.25	9.85	11.20	10.35	11.85	10.05
6	Huchpuri_28803	SGWB	Pz	28.02806	77.23179	10.00	10.05	10.45	10.55	11.95	11.55	12.00	11.70	12.55	12.35	13.2	13.1	14.10	13.55	13.85	13.25	13.45	13.10
7	Dhiranki_28794	SGWB	Pz	28.0278	77.1957	9.70	9.72	10.10	10.30	10.75	10.60	10.85	10.45	11.15	10.7	11.7	11.4	11.80	11.30	12.50	12.30	12.95	12.05
8	Khaika_273402	SGWB	DW	27.88608	77.27225	13.65	13.80	14.55	14.85	14.95	15.05	15.08	14.40	15.75	15.35	16.35	16	13.50	13.65	13.80	13.50	14.10	13.35
9	Kondal_28812	SGWB	DW	28.01102	77.26241	6.35	6.42	6.90	6.80	6.85	6.60	6.90	6.60	7.80	7.65	8.4	8.2	5.60	6.20	6.00	5.70	5.60	4.75
10	Bahin_28786	SGWB	DW	27.95343	77.26357	6.40	6.52	7.00	6.85	6.95	6.80	7.00	6.90	7.55	7.40	7.85	7.5	11.35	10.10	11.65	11.50	11.95	13.80
11	Kukerchati_245701	SGWB	DW	28.02043	77.19247	9.60	9.80	10.40	10.25	10.45	10.20	10.57	10.40	11.95	11.70	12.55	12.4	9.80	10.25	10.60	10.45	10.95	10.25
12	Bajada Pahari_28787	SGWB	DW	28.04832	77.29158	5.75	5.82	6.25	5.80	6.10	5.80	6.30	6.18	6.50	6.40	6.75	6.45	7.15	5.90	6.40	4.95	6.00	5.55
13	Bahin_28786	SGWB	DW	27.95752	77.27259	11.65	11.75	12.85	12.80	12.30	12.20	12.39	12.20	13.10	13.00	13.7	13.5	NA	NA	11.60	NA	11.95	13.80
14	Mandkola_28821	SGWB	DW	28.13288	77.17413	1.45	1.40	1.95	1.40	1.40	1.30	1.43	1.35	1.70	1.55	2.1	2.05	4.20	1.90	2.40	2.10	2.70	3.55

Atal Bhujal Yojana - Block Hydrogeological Report

15	Mandkola_28 821	SG WB	Pz	28.132 88	77.17413	1.40	1.6 0	1.95	1.60	1.50	1.35	1.60	1.40	1.55	1.5	1.6	1.4	1.60	1.80	1.00	0.95	0.8 0	2.30
16	Mandnaka_28 816	SG WB	DW	28.100 24	77.1766 6	1.60	1.65	2.3 5	1.70	1.70	1.55	1.70	1.67	2.3 0	2.2 5	2.4 5	2.3 5	2.3 0	1.45	2.95	1.35	3.15	1.05
17	Manpur_2882 0	SG WB	DW	27.98	77.28	6.75	6.8 5	7.3 0	7.2 0	7.2 5	7.10	7.13	6.9 5	7.35	7.2 5	7.7 5	7.5 5	10.2 0	10.7 5	11.05	10.85	11.3 5	11.00
18	Nagal Jaat_28827	SG WB	DW	27.940 79	77.2778 2	9.4 5	9.4 0	10.0 0	10.1 5	10.3 0	10.2 0	10.3 5	10.8 0	11.3 0	11.1 5	12. 4	12. 2	9.9 0	10. 40	10.60	10.20	10. 95	10.00
19	Pondri_28833	SG WB	DW	28.1177 6	77.1365 2	1.60	1.68	2.0 5	1.85	1.90	1.65	1.92	1.80	2.3 0	2.2 5	2.4 5	2.3 5	1.35	1.95	0.97	0.85	0.8 5	0.90
20	Tonka_28844	SG WB	DW	27.962 5	77.1520 7	2.0 0	2.0 5	2.4 5	2.2 0	2.5 5	2.10	2.2 7	2.2 0	2.35	2.2 5	2.4 5	2.1	2.3 0	1.70	2.00	1.85	1.8 0	1.90
21	Uttawar_288 45	SG WB	Pz	27.975 39	77.1842 8	12.7 0	12.7 2	13.3 5	13.1 5	13.4 5	13.3 0	13.5 8	13.7 0	14.6 5	14.3 5	15.1 5	15.1	12.6 5	14.1 5	13.05	12.75	19.1 0	17.85
22	Uttawar_288 45	SG WB	TW	27.975 39	77.1842 8	13.8 0	13.9 4	14. 40	14. 25	14.8 5	14.3 0	14.5 0	10.1 5	15.0 0	14.7 0	16. 65	16. 3	16.9 0	16.1 5	18.20	18.00	13.4 5	12.55
23	Lakhnaka_28 815	CG WB	Pz	28.033 89	77.1875	8.0 8	10. 62	8.8 3	9.7 3	8.10	8.4 2	8.5 0	8.7 0	12.6 6	8.6 4	NA	NA	NA	NA	Abando ned	Abando ned	NA	Abando ned
24	Pahadpur_288 30	CG WB	Pz	28.018 79	77.1792 8	6.75	6.4 2	7.15	6.2 4	7.4 7	6.9 5	7.5 0	5.5 4	2.2 0	7.16	8.4	7.4	8.6 3	6.01	8.45	6.07	9.4 5	5.73
25	Bhanguri Palwal_24570 0	SG WB	DW	28.088 32	77.2640 1	8.8 0	8.9 5	9.6 0	9.9 0	10.3 0	10.2 0	10. 40	10.0 5	10.9 0	10.6 5	11.4	11.2	9.4 5	9.9 0	10.20	10.00	10. 65	8.05
26	Bighawali_287 89	SG WB	DW	28.087 38	77.1506 9	3.15	3.2 2	3.75	3.6	3.7	3.5	3.77	3.6 5	3.65	3.4 5	3.8	3.5 5	4.2 5	2.8	3.65	3.55	3.2 5	3.65
27	Ali Meo_28782	SG WB	DW	27.925 69	77.2471	13.9	14	14.8	15.2	15.5	15.4	15.5 7	15	16.6	16.1	17.2 5	17.1	19.8	17	18.9	18.6	18.1 5	18.85
28	Babupur Hathin_28785	SG WB	DW	28.031 07	77.16763	3.25	3.3 5	3.8	3.5 5	3.7 5	3.6	3.8 8	3.8	4	3.6 5	4.2	4.0 5	4.9 5	3.0 5	4	3.75	3.8 5	3.70

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

State	Haryana	District	Palwal	Block	Hathin
Month of Collection of sample for WQ monitoring*					June

Village	Source	Type of well	Latitude	Longitude	Year	pH	EC	TDS	TH	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	NO ₃	
Akbarpur	CGWB	Dw	28.10694444	77.14305556	2015	8.6	2615	ND	439.0	16.4	96.7	435.0	8.5	46.8	380.8	305.0	472.5	1.85	11.00	
Akbarpur	CGWB	Dw	28.10694444	77.14305556	2016	8.1	4960	ND	970.4	198.4	115.4	760.0	8.0	0.0	169.3	785.0	1167.3	1.30	16.00	
Akbarpur	CGWB	Dw	28.10694444	77.14305556	2017	Sample not collected from this location														
Akbarpur	CGWB	Dw	28.10694444	77.14305556	2018	7.71	3031	ND	598.0	63.0	107.0	421.0	6.2	0.0	446.0	285.0	584.0	1.13	42.00	
Akbarpur	CGWB	Dw	28.10694444	77.14305556	2019	8.64	1460	ND	413.0	56.0	66.0	197.0	1.0	60.0	219.0	107.0	305.0	0.49	7.23	
Akbarpur	CGWB	Dw	28.10694444	77.14305556	2020	8.27	3130	ND	430.8	46.3	76.6	485.0	90.0	0.0	363.1	348.0	652.3	0.61	8.60	
Akbarpur	CGWB	Dw	28.10694444	77.14305556	2021	8.78	1521	ND	390.3	16.0	85.1	188.0	4.0	78.0	269.7	10.0	297.8	0.39	9.00	
Akbarpur	CGWB	Dw	28.10694444	77.14305556	2022	Sample not collected from this location														
Akbarpur	CGWB	Dw	28.10694444	77.14305556	2023	Sample not collected from this location														
Hathin	CGWB	Tw	28.04583333	77.24166667	2015	8.56	3811	ND	643.1	32.7	136.4	640.0	5.8	93.6	380.8	485.0	743.5	0.29	14.00	
Hathin	CGWB	Tw	28.04583333	77.24166667	2016	7.8	9315	ND	2476.5	291.5	424.9	1070.0	4.6	0.0	338.7	528.0	2570.8	3.20	420.00	
Hathin	CGWB	Tw	28.04583333	77.24166667	2017	Sample not collected from this location														
Hathin	CGWB	Tw	28.04583333	77.24166667	2018	7.93	6824	ND	1235.0	86.0	248.0	1057.0	4.7	0.0	630.0	562.0	1570.0	1.01	257.00	
Hathin	CGWB	Tw	28.04583333	77.24166667	2019	8.5	1250	ND	330.0	48.0	51.0	183.0	4.0	48.0	147.0	126.0	269.0	0.10	14.15	
Hathin	CGWB	Tw	28.04583333	77.24166667	2020	7.98	6914	ND	1631.3	96.2	338.0	860.0	5.0	0.0	317.3	271.0	2056.0	2.10	18.00	
Hathin	CGWB	Tw	28.04583333	77.24166667	2021	8.26	7331	ND	1611.3	68.1	350.2	960.0	3.5	0.0	190.4	560.0	2084.5	0.70	16.00	
Hathin	CGWB	Tw	28.04583333	77.24166667	2022	7.85	7440	ND	1680.0	74.0	363.3	975.0	4.9	0.0	178.0	587.0	2145.0	0.64	24.00	
Hathin	CGWB	Tw	28.04583333	77.24166667	2023	7.88	6997	ND	1247.0	224.0	167.0	1042.0	8.0	0.0	398.0	1987.0	738.0	0.62	18.00	
Jaindapur	CGWB	Dw	28.20416667	77.23888889	2015	8.65	2362	ND	398.1	8.2	91.8	385.0	8.0	46.8	487.9	272.0	333.5	2.10	9.10	
Jaindapur	CGWB	Dw	28.20416667	77.23888889	2016	8.4	4430	ND	545.8	76.9	86.0	800.0	9.6	66.6	485.4	542.0	701.8	1.06	278.00	
Jaindapur	CGWB	Dw	28.20416667	77.23888889	2017	7.6	4380	ND	1241.0	216.0	170.0	570.0	9.0	0.0	366.0	789.0	950.0	0.50	35.00	
Jaindapur	CGWB	Dw	28.20416667	77.23888889	2018	7.61	3392	ND	667.0	82.0	112.0	524.0	8.6	0.0	577.0	237.0	730.0	0.29	84.00	
Jaindapur	CGWB	Dw	28.20416667	77.23888889	2019	Sample not collected from this location														
Jaindapur	CGWB	Dw	28.20416667	77.23888889	2020	8.07	3437	ND	710.6	56.1	138.6	479.0	8.3	0.0	280.7	305.0	822.4	0.62	42.00	

Atal Bhujal Yojana - Block Hydrogeological Report

Jaindapur	CGWB	Dw	28.20416667	77.23888889	2021	8.55	3715	ND	680.3	37.2	142.8	560.0	2.5	46.8	111.1	376.0	921.7	0.14	39.00	
Jaindapur	CGWB	Dw	28.20416667	77.23888889	2022	7.89	3881	ND	710.6	76.2	126.5	607.0	11.0	0.0	461.3	354.0	850.8	0.30	68.00	
Jaindapur	CGWB	Dw	28.20416667	77.23888889	2023	7.89	3401	ND	530.0	87.0	76.0	524.0	7.1	0.0	440.0	487.0	522.0	0.68	109.00	
Kot	CGWB	Tw	27.95833333	77.22916667	2015	7.8	3915	ND	1082.1	143.1	176.1	460.0	5.0	0.0	285.6	662.0	785.1	0.21	62.00	
Kot	CGWB	Tw	27.95833333	77.22916667	2016	8.2	4352	ND	1000.7	101.2	181.8	600.0	4.0	0.0	169.3	858.0	875.5	0.62	44.00	
Kot	CGWB	Tw	27.95833333	77.22916667	2017	Sample not collected from this location														
Kot	CGWB	Tw	27.95833333	77.22916667	2018	7.57	4686	ND	1078.0	137.0	179.0	625.0	5.0	0.0	551.0	730.0	848.0	0.34	32.00	
Kot	CGWB	Tw	27.95833333	77.22916667	2019	8.83	3080	ND	410.0	36.0	78.0	536.0	15.0	96.0	378.0	195.0	631.0	0.83	19.81	
Kot	CGWB	Tw	27.95833333	77.22916667	2020	7.76	15850	ND	2175.2	159.9	431.6	2657.0	20.0	0.0	682.6	251.0	5033.9	2.10	19.00	
Kot	CGWB	Tw	27.95833333	77.22916667	2021	8.79	4670	ND	650.5	16.0	148.4	464.0	520.0	140.4	602.9	348.0	836.6	0.33	60.00	
Kot	CGWB	Tw	27.95833333	77.22916667	2022	7.71	9281	ND	2381.9	320.6	384.3	1087.0	9.5	0.0	333.2	678.0	2637.5	0.39	16.00	
Kot	CGWB	Tw	27.95833333	77.22916667	2023	7.36	9592	ND	2347.0	540.0	242.7	1167.0	14.0	0.0	189.0	1798.0	1974.0	0.77	28.00	
Lakhnachs	CGWB	Dw	28.01975	77.17288889	2015	8	4357	ND	888.1	163.5	116.6	490.0	186.0	0.0	178.5	563.0	1007.5	0.29	38.00	
Lakhnachs	CGWB	Dw	28.01975	77.17288889	2016	8.35	5250	ND	1061.3	178.1	149.8	760.0	0.8	33.3	79.0	845.0	1188.1	3.30	27.00	
Lakhnachs	CGWB	Dw	28.01975	77.17288889	2017	7.96	6125	ND	1341.0	184.0	214.0	1151.0	7.0	0.0	513.0	1236.0	1503.0	3.40	18.00	
Lakhnachs	CGWB	Dw	28.01975	77.17288889	2018	Sample not collected from this location														
Lakhnachs	CGWB	Dw	28.01975	77.17288889	2019	7.75	7430	ND	1991.0	489.0	187.0	762.0	87.0	0.0	183.0	751.0	1978.0	0.53	22.91	
Lakhnachs	CGWB	Dw	28.01975	77.17288889	2020	8.2	5831	ND	1166.4	126.3	206.8	840.0	6.0	0.0	232.4	704.0	1410.9	0.40	27.00	
Lakhnachs	CGWB	Dw	28.01975	77.17288889	2021	8.34	5170	ND	910.7	72.1	177.5	770.0	6.0	46.8	158.7	465.0	1304.6	2.21	25.00	
Lakhnachs	CGWB	Dw	28.01975	77.17288889	2022	7.85	7941	ND	2111.7	292.6	335.6	920.0	11.0	0.0	333.2	787.0	2098.6	1.00	38.00	
Lakhnachs	CGWB	Dw	28.01975	77.17288889	2023	7.82	7972	ND	1784.0	327.0	235.1	968.0	11.0	0.0	479.0	1958.0	1065.0	1.00	39.00	
Mandkola	CGWB	Dw	28.13211111	77.17538889	2015	8.68	2950	ND	643.1	12.3	148.8	415.0	4.4	93.6	345.1	290.0	548.9	0.97	36.00	
Mandkola	CGWB	Dw	28.13211111	77.17538889	2016	8.5	3052	ND	495.3	48.6	90.9	490.0	4.7	88.8	282.2	390.0	542.0	1.84	11.00	
Mandkola	CGWB	Dw	28.13211111	77.17538889	2017	7.78	2830	ND	600.0	72.0	131.0	502.0	2.0	0.0	928.0	310.0	425.0	3.65	0.00	
Mandkola	CGWB	Dw	28.13211111	77.17538889	2018	8.35	2789	ND	539.0	20.0	119.0	411.0	4.2	39.0	538.0	180.0	507.0	1.16	25.00	
Mandkola	CGWB	Dw	28.13211111	77.17538889	2019	Sample not collected from this location														
Mandkola	CGWB	Dw	28.13211111	77.17538889	2020	7.84	2530	ND	578.0	84.2	89.4	324.0	1.7	0.0	682.6	57.0	418.3	2.52	81.00	
Mandkola	CGWB	Dw	28.13211111	77.17538889	2021	8.81	1251	ND	310.2	16.0	65.7	148.0	3.0	62.4	222.1	0.0	219.8	0.36	28.00	
Mandkola	CGWB	Dw	28.13211111	77.17538889	2022	7.86	4301	ND	1180.9	116.2	216.4	487.0	33.0	0.0	474.1	302.0	921.7	0.64	300.00	
Mandkola	CGWB	Dw	28.13211111	77.17538889	2023	7.3	4218	ND	785.0	82.0	141.0	581.0	38.0	0.0	474.0	537.0	652.0	0.87	289.00	

Atal Bhujal Yojana - Block Hydrogeological Report

Name of District	Name of Block	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
Palwal_619	Hathin_466	SGWB	BAJIDA PAHARI	28.0483	77.2916	1800	2000	3000	2100
Palwal_619	Hathin_466	SGWB	BHOPAWALI	28.0874	77.1507	1700	NA	2200	2150
Palwal_619	Hathin_466	SGWB	BIBIPUR	28.0311	77.1676	1900	NA	3200	2750
Palwal_619	Hathin_466	SGWB	CHAINSSA	28.0717	77.1737	3100	8000	8200	5000
Palwal_619	Hathin_466	SGWB	GHARROT	28.078	77.2103	6500	2000	1800	2350
Palwal_619	Hathin_466	SGWB	KONDAL	28.011	77.2624	2500	2600	8800	1650
Palwal_619	Hathin_466	SGWB	KUKARCHATI	28.0204	77.1925	5200	2750	3100	2500
Palwal_619	Hathin_466	SGWB	KHIKA HATHIN	27.8861	77.2723	1430	5300	5600	3900
Palwal_619	Hathin_466	SGWB	MANPUR	27.98	77.28	3000	4700	4600	4000
Palwal_619	Hathin_466	SGWB	MANDKOLA	28.1329	77.1741	8000	3150	3600	2050
Palwal_619	Hathin_466	SGWB	MANDNAKA	28.1002	77.1767	2400	NA	3300	3000
Palwal_619	Hathin_466	SGWB	NANGAL JAT	27.9408	77.2778	1850	NA	3400	2150
Palwal_619	Hathin_466	SGWB	TONKA	27.9625	77.1521	2300	NA	2800	2300
Palwal_619	Hathin_466	SGWB	UTTAWAR	27.9754	77.1843	1800	NA	2800	2400
Palwal_619	Hathin_466	SGWB	BAHIN	27.9534	77.2636	1850	1900	1700	1400

Atal Bhujal Yojana - Block Hydrogeological Report

Palwal_619	Hathin_466	SGWB	BHANGURI	28.0883	77.264	6300	4800	4800	5100
Palwal_619	Hathin_466	SGWB	ALIMEO	27.9257	77.2471	2700	NA	3400	3400
Palwal_619	Hathin_466	SGWB	GOHPUR	28.0142	77.2121	5600	NA	1900	3900
Palwal_619	Hathin_466	SGWB	HATHIN	28.0281	77.2318	3100	4100	5000	3250
Palwal_619	Hathin_466	SGWB	PONDRI	28.1178	77.1365	3900	7000	6200	5500
Palwal_619	Hathin_466	SGWB	ANDHOP	27.9051	77.27	3900	NA	2300	3000
Palwal_619	Hathin_466	SGWB	HATHIN	28.035	77.2317	1350	NA	4000	3250
Palwal_619	Hathin_466	SGWB	MANDKOLA	28.1329	77.1741	NA	NA	3400	2050
Palwal_619	Hathin_466	SGWB	KHANOEWALI	28.0215	77.2226	4400	NA	4500	2900
Palwal_619	Hathin_466	SGWB	UTTAWAR	27.9756	77.1858	NA	NA	2300	2400

Note: Only EC data of SGWB is available.