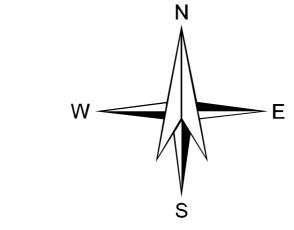
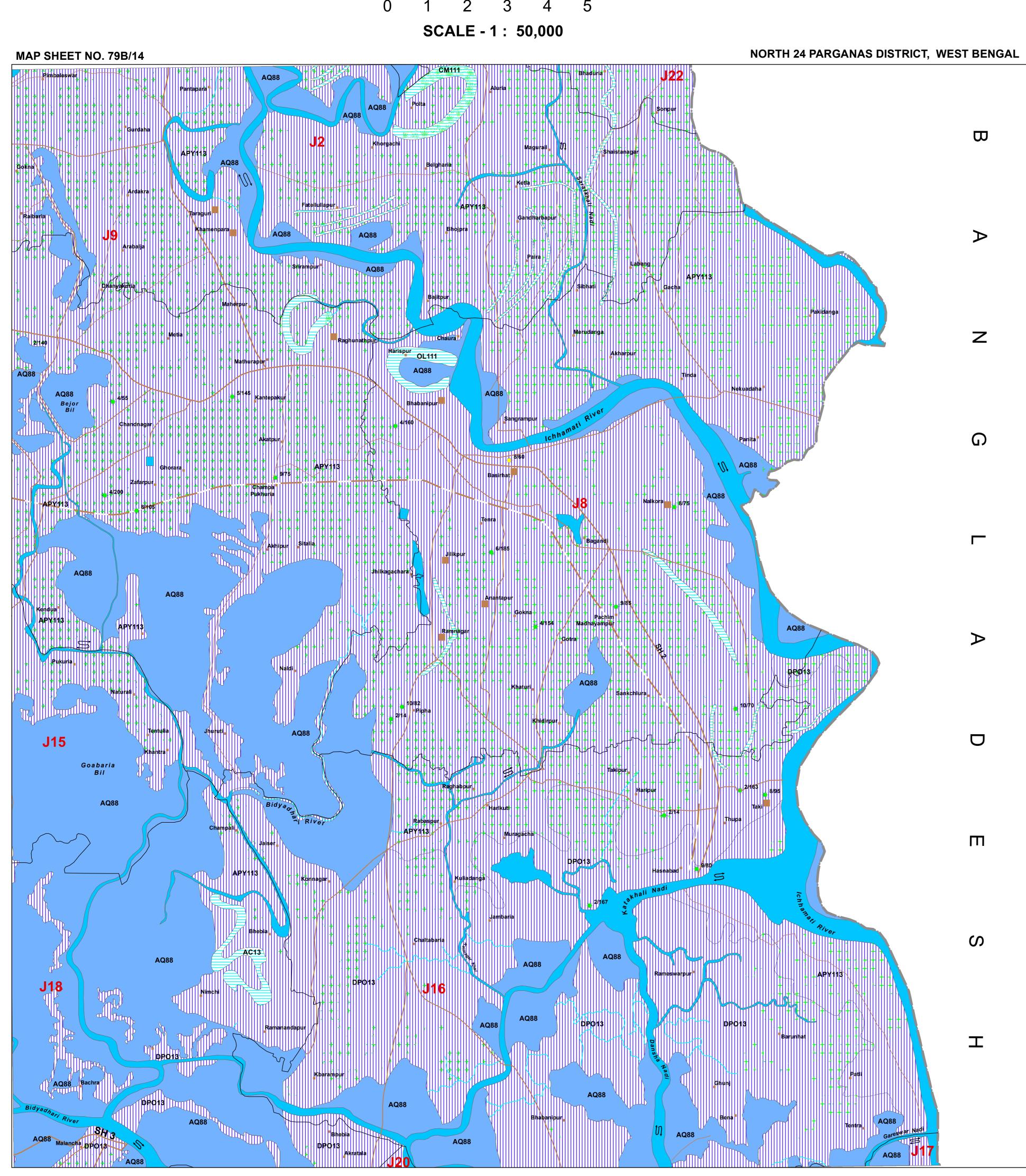
GROUND WATER PROSPECTS MAP (PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)

0 1 2 3 4 5





NRSC (ISRO), DEPT. OF SPACE, GOVT. OF INDIA DATA USED: IRS - P6 LISS III FCC dated September 2005-February 2006, GROUND TRUTH & WELL OBSERVATION during March-June, 2012 & Oct 2012-Jan 2013, Published Geological maps & Literatures. Designed & Developed by Hydrogeology Division, NRSC, ISRO

LEGEND

MAP UNIT	GEOLOGICAL SEQUENCE / ROCK TYPE (REPRESENTED IN THE MAP WITH NUMERIC CODE)		GEOMORPHIC UNIT / LANDFORM (REPRESENTED IN THE MAP WITH ALPHABETIC CODE)	DEPTH TO WATER LEVEL PRE / POST- MONSOON (AVERAGE IN METERS) NO. OF WELLS OBSERVED	RECHARGE CONDITIONS BASED ON AVAILABILITY OF WATER (RAINFALL & OTHER SOURCES)	GROUND WATER PROSPECTS						RECHARGE STRUCTURES		
(HYDROGEOMORPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE						AQUIFER MATERIAL LS = LOOSE SEDIMENTS PR = PERMEABLE ROCK FIR = FISSURED ROCK FR = FRACTURED ROCK WR /= WEATHERED ROCK /	TYPE OF WELLS SUITABLE DW = DUG WELL RW = RING WELL BW = BORE WELL TW = TUBE WELL DBW /= DUG CUM-BORE WELL /	DEPTH RANGE OF WELLS (SUGGESTED) MIN - MAX (IN METERS)	YIELD RANGE OF WELLS (EXPECTED) (in LPM or m³/day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY) VERY HIGH HIGH MODERATE	QUALITY OF WATER POTABLE (P) NON - POTABLE (NP) (INDICATE REASONS IF NON POTABLE)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)	SUITABLE & PRIORITY PT = PERCOLATION TANK CD = CHECK DAM NB = NALA BUND RW = RECHARGE WELL DT = DESILTING OF TANK RP = RECHARGE PIT SD = SUBSURFACE DYKE RS = RECHARGE SHAFT	REMARKS (PROBLEMS / LIMITATIONS)
OL111	mation		Ox-bow Lake (OL)	No Well Observed	Very Good	WM WEATHERED MATERIAL IR = IMPERIVIOUS ROCK LS	TW	10-15 m	200-300 LPM	WODERATE LOW Very High	P	Nil	ST = STORAGE TANK SCM = SOIL CONSERVATION MEASURES Not Required	Limited potability of groundwate
	B h a g i r b a d h a l b a d	(Sand Dominant)	Cut-off Meander (CM)	No Well Observed	Very Good	LS	RW TW	10-15 m	200-300 LPM	Very High	P	Nil	Not Required	Potable water available at shallo depth.
			Meander Scar (MS)	No Well Observed	Good	LS	RW TW	10-15 m	200-250 LPM	High	P	Nil	Not Required	Groundwater prospects very hig with high recharge potential. Recharge structures not require
	Panskura/Chinsura/Katwa Formation (Early to Late Holocene)	Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	8/4 18	Good	LS	TW	>150 m	400-500 LPM	High	NP (As&Fe) [At shallow depth]	44	Not Required	Areas with high Arsenic and Iron concentration.Potable water available at depth range above 150m
AC13	e Holocene) Alluvium	Abandoned Channel (AC)	No Well Observed	Very Good	LS	RW TW	10-15 m	250-300 LPM	Very High	P	Nil	Not Required	Areas of very high groundwater potential at shallow depth. Most suitable for extraction of ground	
DP 01 3	Ancient Estua (Early to Lat	(Sand,Silt & Clay) (13)	Deltaic Plain Older (DPO)	7/5	Good	LS	TW	>250 m	400-450 LPM	High	NP (Salinity&As)	11	Not Required	Areas affected by salinity and arse contamination. Fresh water aquife found at depth ranges of 250m and above.
F//QQQ			oult / fracture zones, which ge								on. However, the inferre	d fractures need to be c	onfirmed by detailed ground surve	vs.

GROUND WATER PROSPECTS INFORMATION			MATION	HYDROLOGICAL INF	STRUCTURAL INFORMATION			BASE MAP INFORMATION		LOCATION INFORMATION			
YIELD	COLOUR	DEPTH	RANGE OF W	ELLS	DESCRIPTION	SYMBOL	DIPS	BEDDING	SCHISTOSITY/ FOLIATION	SYMBOL	DESCRIPTION	STATE INDEX	DISTRICT INDEX
RANGE F WELLS	CODE	SHALLOW	MODERATE	DEEP	CANAL / TANK IRRIGATED AREA	Me	GENTLE (< 15)	/	<i>A</i>	NH - 2	NATIONAL HIGHWAY		A-BIRBHUM B-BARDDHAMAN
WELLS		< 30 METERS	30 - 80 METERS	> 80 METERS	GROUND WATER IRRIGATED AREA	+ + +	MODERATE (15 - 45)	*	Á				C-PURULIYA D-BANKURA N E-PASCHIM MEDINIPUR
800 LPM	VIOLET				RIVER / STREAM (with sand)		STEEP (45 - 80)	ķ	Á	SH - 9	STATE HIGHWAY		F-PURBA MEDINIPUR G-S24 PARGANAS
					WATER BODY / SPRING	<u></u> ≰/ ŏ	SUB - VERTICAL TO VERTICAL (> 80)	×	×		METALLED ROAD		H-HOWRAH I- KOLKATA J-N24 PARGANAS
0 - 800 LPM	INDIGO				CANAL RAIN GUAGE STATION (With average annual rainfall in mm)	800	ANTICLINE / ANTIFORI	М	← ←		OTHER ROAD	INDIA	C D B L
0 - 400 LPM	BLUE				RECHARGE STRUCTURES		SYNCLINE / SYNFORM	ı	←		RAILWAY	₩EST	K K
- 200 LPM	GREEN				NALA BUND R DESILTING OF TANK R SUBSURFACE DYKE	CHECK DAM RECHARGE WELL RECHARGE PIT	TREND LINE				CITY / VILLAGE	BENGAL	K-HUGLI L-NADIA M-MURSHIDABAD
- 100 LPM	YELLOW				SOIL CONSERVATION MEASURES WELLS OBSERVED DURING FIEL		ESCARPMENT LITHOLOGY / GEOMORF	PHIC LINIT	Weeker July	# / H	ABITATIONS : NON - COVERED (NC) PARTIALLY COVERED (PC)		
- 100 LF W	TELEOW				YIELD RANGE BORE / YIELD RA IN LPM TUBE WELL IN m ³ / da > 800 LPM → 15/70 > 400 m	RING WELL	BOUNDARY	MINOR	MAJOR			BLOCK INDEX	MAPSHEET INDEX
- 50 LPM	ORANGE				400 - 800 LPM	m³ / day 8/15	FAULT THRUST	FF TT	F F		BOUNDARY: INTERNATIONAL	J2 J22	79B 9 79B 13 79F0
) - 30 LPM	BROWN				100 - 200 LPM	, _	FRACTURE / LINEAMENT				STATE DISTRICT	war and a second	
7 - 30 LPW					30 - 50 LPM	3	FRACTURE / LINEAMENT (Inferred)				BLOCK	J8 J8	79B_10
- 20 LPM	PINK				20 - 30 LPM + 15/70 10 - 15 m	3	SHEAR ZONE (Confirmed / Inferred) S	s/s- s	отн	ER INFORMATION	J15 / 12 / 12 / 12 / 12 / 12 / 12 / 12 /	
spects					10 - 20 LPM	3 / day8/15	DYKE (Confirmed / Inferred)	D/DD			J18 J16	79B_11
ted to valley tions only ls, Plateaus	RED				< 10 LPM	ge. The figures on the top right	QUARTZ REEF (Confirmed / Inferred)	Q/QQ	Rainf	all : 1624 mm	J20 J17 J2-BADURIA J17-HAINGALGANJ J8-BASIRHAT I J18-MINAKHAN	
n-off zone/	KLD		<u> </u>		DUG - CUM- BORE WELL	HAND PUMP WELL	PEGMATITIE VEIN (Confirmed / Inferred)	P P P	(Sc	ource IMD)	J9-BASIRHAT II J20-SANDESHKHALI I J15-HAROA J22-SWARUPNAGAR J16-HASNABAD	
rier for I. movement			(Inselberg / Ridge	/ Dyke etc.)	ARTESIAN WELL	OBSERVATION WELL OF G.W DEPT. / C.G.W.B.	Lithologic contacts are are gradational	inferred at places & Ge	eomorphic boundaries	,	,		
	PF	REPARED I	ВҮ		TECHNICAL GUIDANCE & C	QUALITY CHECK	·	ATING ORGANIZA	TIONS	METHODOLOG	Y & PROJECT EXECUTION	SPONSO	RED BY
			OTE SENSIN	I	इसरी डिन्ट					इसरो ंडन्व		RAJIV GANDHI NATIONAL I	DRINKING WATER MISS
STATE COUNCIL OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY GOVERNMENT OF WEST BENGAL 4TH FLOOR, BIKASH BHAVAN SALT LAKE, KOLKATA 700 091			I	NATIONAL REMOTE SEN	SURVEY OF INDIA GEOLOGICAL SURVEY OF INDIA PHED, GOVT. OF WEST BENGAL STATE WATER INVESTIGATION DIRECTORATE, GOWB P.S.MAPS (LAND RECORD), GOVT OF WEST BENGAL			NATIONAL REM	OTE SENSING CENTRE	(PHASE IV)			
			1	INDIAN SPACE RESEARCH OF				INDIAN SPACE RES	EARCH ORGANISATION (ISRO)	DEPARTMENT OF DRINKING WATER SUPPLY (DD' MINISTRY OF DRINKING WATER & SANITATION			
				DEPT. OF SPACE, GO BALANAGAR, HYDERA				DEPT. OF S	SPACE, GOVT. OF INDIA R, HYDERABAD - 500 625	GOVERNMENT OF INDIA NEW DELHI			