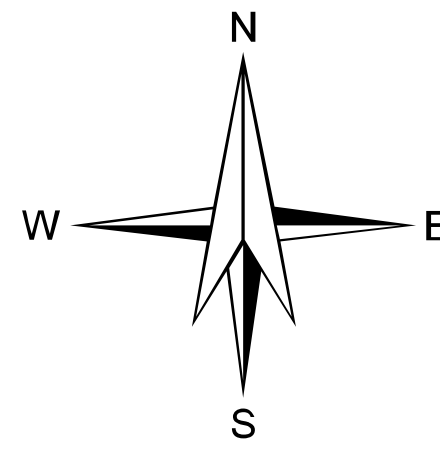
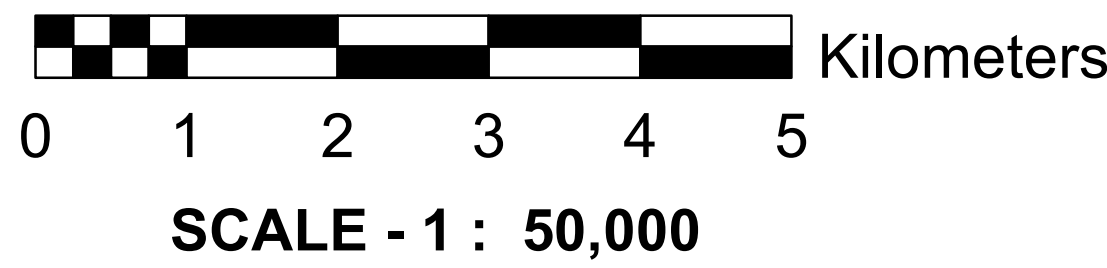
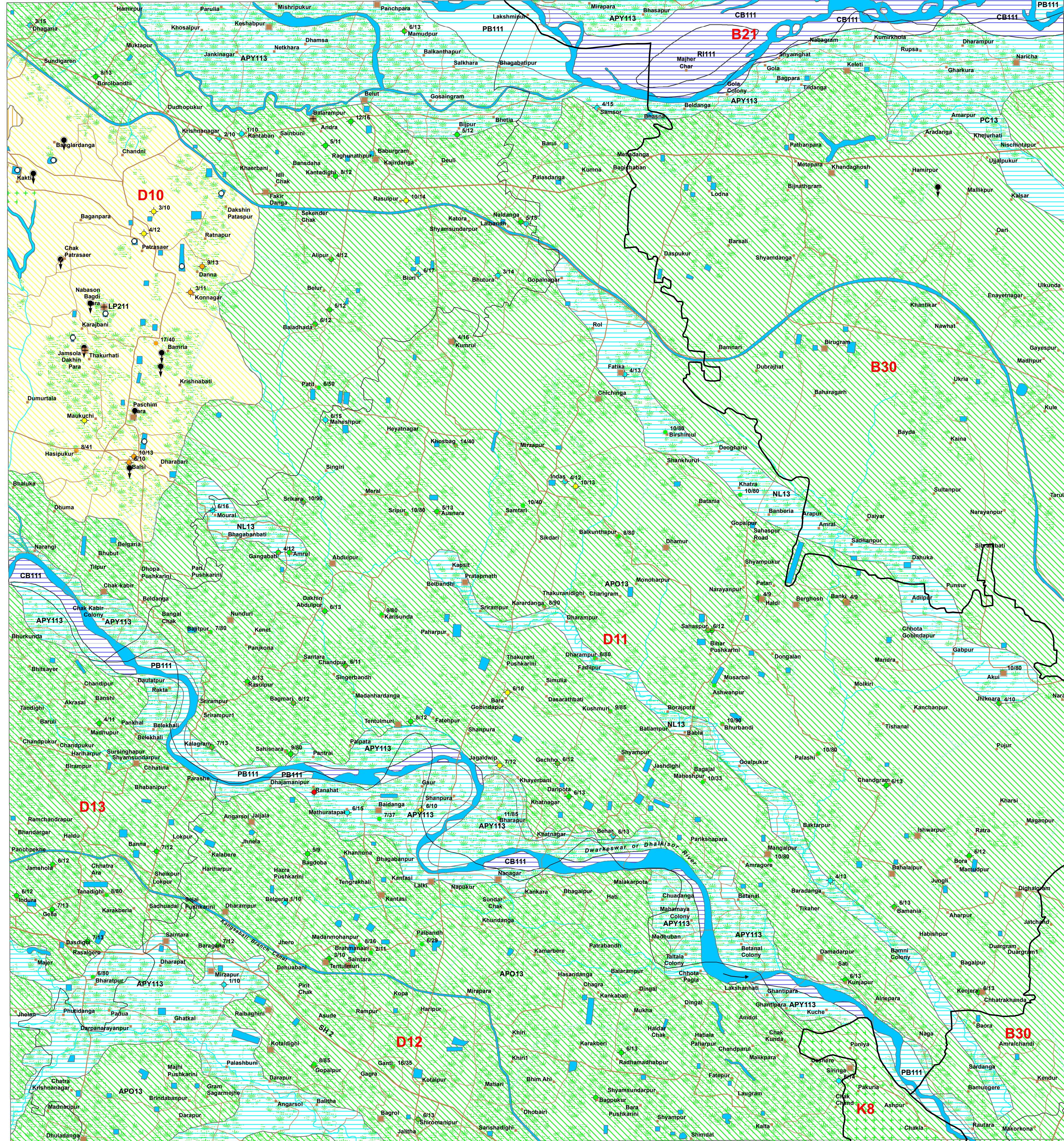


GROUND WATER PROSPECTS MAP

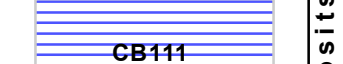
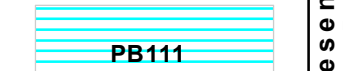
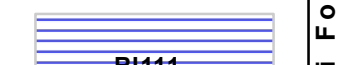

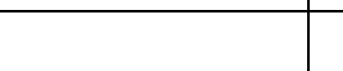

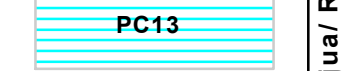

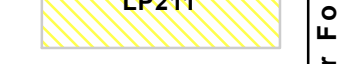

(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)

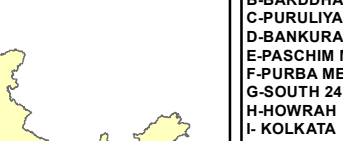




MAP SHEET NO. 73M/12 BANKURA, BARDHAMAN & HUGLI DISTRICTS, WEST BENGAL



LEGEND

MAP UNIT (HYDROGEOLOGIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE DEPTH RANGE)	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 SUITABLE & PRIORITY PT = PERCOLATION TANK CD = CHECK DAM NB = NALA BOND RB = RECHARGE BELL DT = DRAINAGE OF TANK SD = RECHARGE OF SURFACE RS = RECHARGE SHAFT ST = STORAGE TANK SCW = SOIL CONSERVATION MEASURES	REMARKS (PROBLEMS / LIMITATIONS)		
					AQUIFER MATERIAL LS = LOOSE SEDIMENTS PM = PERMEABLE ROCK PR = FRAGILE ROCK PD = FRACTURED ROCK WR = WEATHERED ROCK WM = WEATHERED MATERIAL RI = IMPERVIOUS ROCK	TYPE OF WELLS SUITABLE DW = DIG WELL RW = RABO WELL RW = RABO WELL RW = RABO WELL DW / DT = DIG CUM DRAIN WELL DT = DIG CUM TIE WELL	DEPTH RANGE OF WELLS (SUGGESTED) MIN - MAX (IN METERS)	YIELD RANGE OF WELLS (EXPECTED) (IN LPM OR M ³ / DAY)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY) VERY HIGH HIGH MODERATE LOW	QUALITY OF WATER POTABLE (P) NON-POTABLE (NP)			GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)	
	Alluvium (Sand Dominant) (111)	Channel Bar (CB)	No well observed	Excellent	LS	RW TW	5-10 m	400-500 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		Point Bar (PB)	No well observed	Very Good	LS	RW TW	5-10 m	300-400 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		River Island (RI)	No well observed	Excellent	LS	RW TW	5-10 m	400-500 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
	Pasture Formation (Early to Late Holocene)	Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	8 / 4 10	Good	LS	TW	25 - 30 m	200-250 LPM	High	P	Nil	Not Required	Potable water available at shallow depth.
	Silur / Rampurhat Formation (Late Pleistocene to Early Holocene)	Natural Levee (NL)	9 / 5 9	Good	LS	TW	20-30 m	200-250 LPM	High	P	Nil	Not Required	Areas of good groundwater potential at shallow depth. Recharge good, recharge structures not required.	
		Abandoned Channel (AC)	8 / 6 1	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 groundwater.	
		Paleo-channel (PC)	No well observed	Very Good	LS	RW TW	10-15 m	200-250 LPM	Very High	P	Nil	Not Required	Areas of very high groundwater potential at shallow depth. Most suitable for extraction of groundwater.	
		Alluvial Plain Older (APO)	9 / 4 80	Moderate to Good	LS	TW	40-60 m	150-200 LPM	Moderate to High	P	10	RW Moderate to Low	Moderate groundwater potential at intermediate depths.	
	Lalgarh / Iltambazar Formation (Middle to Upper Pleistocene)	Laterite Plain (LP)	10 / 4 9	Limited	WM+FR	TW/BW	50-60 m	50-100 LPM	Moderate	P	Nil	RW / DT High	Areas of exposed lithomarge clay. Fracture zones form the aquifer, recharge structures will enhance groundwater development.	
		Dissected Laterite Upland (DLU)	No well observed	Nil to Moderate	WM+R (Impervious Material)	TW/BW	80-100 m	30-50 LPM	Low	P	Nil	Not Required	Essentially run-off zone where hard capping is present. Areas of nodular laterites are recharge zones with deep water table conditions. Primarily forest areas with sparse settlements. Not suitable for large scale development of groundwater.	
F --- F / --- / --- These are fault / fracture zones, which generally act as conduits for movement of ground water in hard rocks. Along these zones, the yields are significantly higher and wells are likely to be sustainable for longer duration. However, the inferred fractures need to be confirmed by detailed ground surveys.														
D --- D / Q --- Q / P --- P D --- D / Q --- Q / P --- P These are dykes, quartz reefs and pegmatite veins, which generally act as barriers for ground water movement.														
N.B. -The depth range and yield range of wells may vary within the unit because of certain inhomogeneities. Fractures/Lineaments which are clearly observed / inferred from the satellite image are indicated on the map. There could be some obscured fractures which also influence the ground water prospects. Locations of the recharge structures shown in the map are tentative. This map is useful for narrowing down the target zones, and exact location on the ground for wells and recharge structures should be identified based on follow-up ground hydrogeological/geophysical surveys.														

GROUND WATER PROSPECTS INFORMATION				HYDROLOGICAL INFORMATION				STRUCTURAL INFORMATION				BASE MAP INFORMATION				LOCATION INFORMATION			
YIELD RANGE OF WELLS	COLOUR CODE	DEPTH RANGE OF WELLS		DESCRIPTION	SYMBOL	DIPS		BEDDING	SCHISTOSITY / FOLIATION	SYMBOL		DESCRIPTION	SYMBOL	STATE INDEX		DISTRICT INDEX			
		SHALLOW (0-10 METERS)	MODERATE (10-25 METERS)			DEEP (> 25 METERS)	GENTLE (< 15°)			MODERATE (15-45°)	STEEP (45-80°)			SEE 'VERTICAL' TO 'VERTICAL' (> 80°)	ANTICLINE / ANTIFORM	SYNCLINE / SYNFORM	NH - 2	NATIONAL HIGHWAY	
> 800 LPM	VIOLET			CANAL / TANK IRRIGATED AREA															
400 - 800 LPM	INDIGO			RIVER / STREAM (with sand)															
200 - 400 LPM	BLUE			WATER BODY / SPRING															
100 - 200 LPM	GREEN			CANAL															
50 - 100 LPM	YELLOW			RAIN GUAGE STATION (With average annual rainfall in mm)	800														
30 - 50 LPM	ORANGE			PERCOLATION TANK															
20 - 30 LPM	BROWN			NALA BUND															
10 - 20 LPM	PINK			DISBURTING OF TANK															
Prospects only (with water potential only)	RED			80% CONSERVATION MEASURES															
Prospects only (with water potential only)	RED			WELL RANGE															
Prospects only (with water potential only)	RED			WELL RANGE															
Prospects only (with water potential only)	RED			WELL RANGE															
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