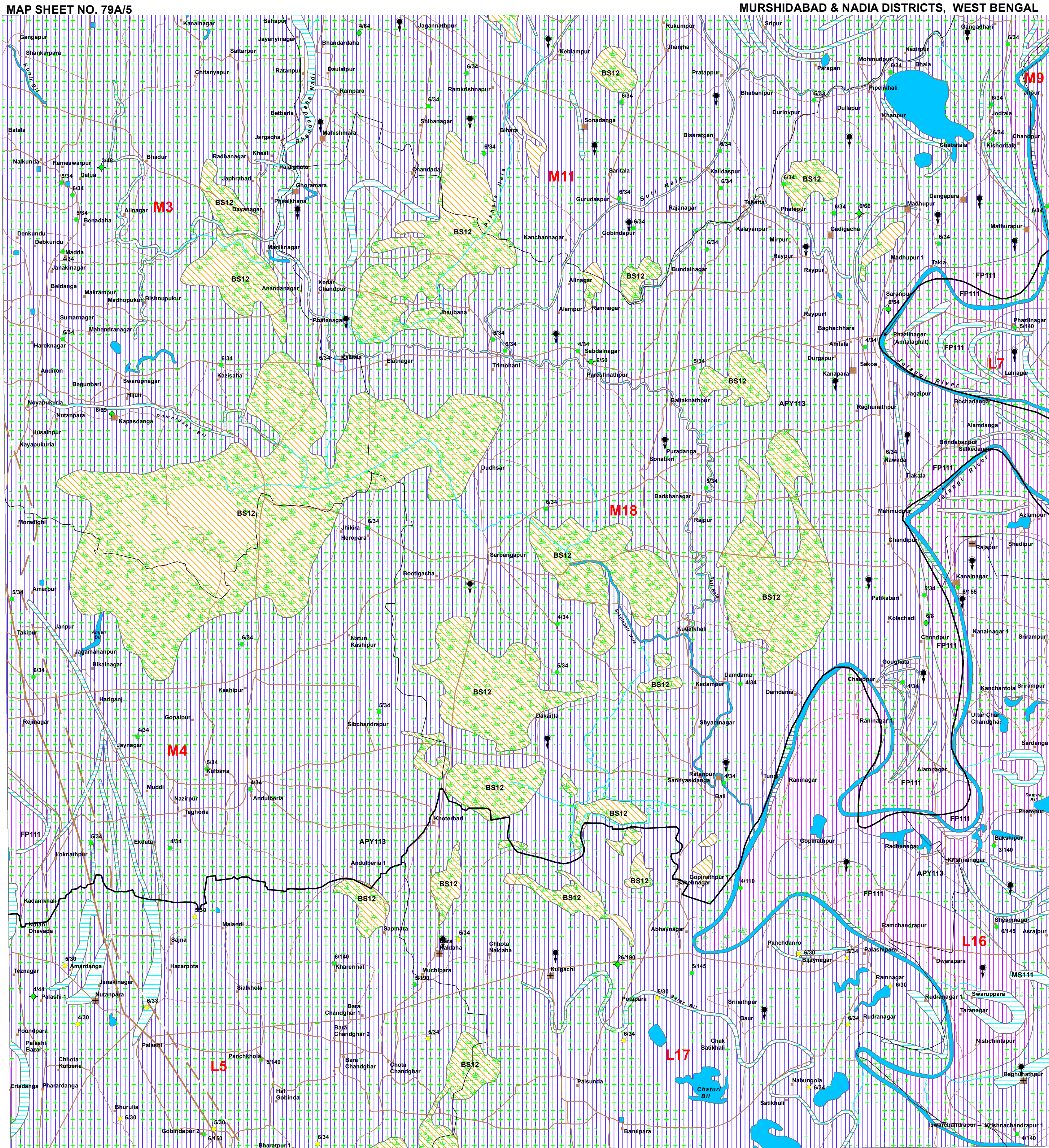
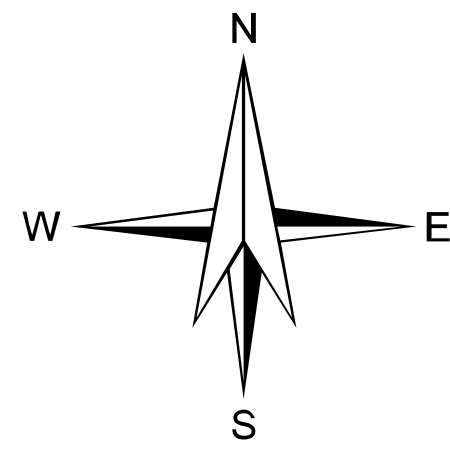
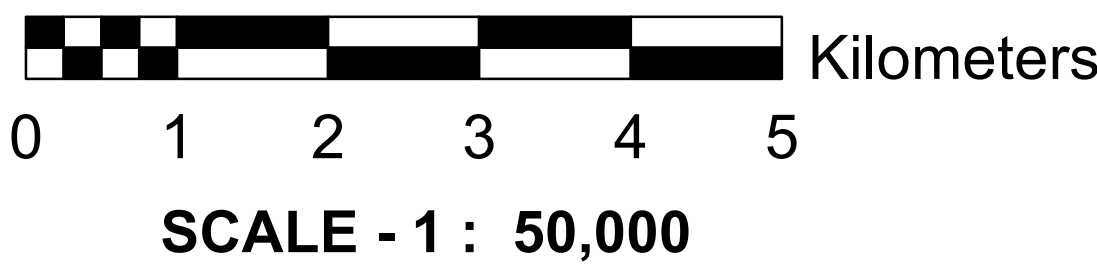


GROUND WATER PROSPECTS MAP

(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)



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	REMARKS (PROBLEMS / LIMITATIONS)	
					AQUIFER MATERIAL LS = LOOSE SEDIMENTS RS = RESSABLE ROCK FR = FRACTURED ROCK NW = NEATURSED MATERIAL M = IMPERVIOUS ROCK	TYPE OF WELLS SUITABLE DW = DOG WELL RW = RING WELL BW = BORE WELL TW = TUBE WELL SBW = DOG CUR-TUBE WELL DTW = DOG CUR-TUBE WELL	DEPTH RANGE OF WELLS (SUGGESTED) MN - 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) (INDICATE REASON BY NON-POTABLE)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)			
		Channel Bar (CB)	No well observed	Excellent	LS	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	300-500 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		Ox-bow Lake (OL)	No well observed	Very Good	LS	TW	10-15 m	200-300 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		Cut-off Meander (CM)	No well observed	Very Good	LS	RW TW	10-15 m	200-300 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		Meander Scar (MS)	7 / 4 3	Good	LS	RW TW	10-15 m	200-250 LPM	High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		Flood Plain (FP)	7 / 4 3	Very Good	LS	TW	>150 m	>800 LPM	Very High	P	47	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		Alluvium (Clay Dominant) (12)	Backswamp (BS)	7 / 5 1	Poor	LS	TW	60-70 m	40-50 LPM	Low	P	Nil	Not Required	Areas of low groundwater potential. Better potential at greater depths.
		Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	7 / 4 78	Good	LS	TW	80-100 m	350-450 LPM	High	NP (As & Fe) [At shallow depth]	61	RW Low	Areas with high Arsenic and Iron concentration. Potable water available at depth range above 80m.
		Alluvium (Sand, Silt & Clay) (13)	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 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	SHALLOW MODERATE DEEP	DESCRIPTION	SYMBOL	DIPS	BEDDING	SYCHISTOITY / FOLIATION	SYMBOL	DESCRIPTION	STATE INDEX
> 800 LPM	VIOLET	SHALLOW	SHALLOW	CANAL / TANK IRRIGATED AREA		GENTLE (< 15°)			NH-2	NATIONAL HIGHWAY	DISTRICT INDEX
400 - 800 LPM	INDIGO	MODERATE	MODERATE	GROUND WATER IRRIGATED AREA		MODERATE (15 - 45°)			SH-9	STATE HIGHWAY	
200 - 400 LPM	BLUE	DEEP	DEEP	RIVER / STREAM (with sand)		STEEP (45 - 80°)				METALLED ROAD	
100 - 200 LPM	GREEN			WATER BODY / SPRING		SUB-VERTICAL TO VERTICAL (> 80°)				OTHER ROAD	
50 - 100 LPM	YELLOW			CANAL		ANTICLINE / ANTIFORM				RAILWAY	
30 - 50 LPM	ORANGE			RAIN GAUGE STATION (with average annual rainfall in mm)	800	SYNCLINE / SYNFORM				CITY / VILLAGE	
20 - 30 LPM	BROWN			RECHARGE STRUCTURES SUGGESTED		TREND LINE				HABITATIONS : NON - COVERED (NC), PARTIALLY COVERED (PC)	
10 - 20 LPM	PINK			PERCOLATION TANK		ESCAPMENT				BOUNDARY :	
	RED			NALA BUND		LITHOLOGY / GEOMORPHIC UNIT				INTERNATIONAL	
				DESIGNING OF TANK		FAULT				STATE	
				SUBSURFACE DYKE		THRUST				DISTRICT	
				SOL CONSERVATION MEASURES		FRACTURE / LINEAMENT (Inferred)				BLOCK	
						FRACTURE / LINEAMENT (Inferred)				OTHER INFORMATION	
						SHEAR ZONE (Confirmed / Inferred)				Rainfall : 1377 mm (Source IMD)	
						DYKE (Confirmed / Inferred)					
						QUARTZ REEF (Confirmed / Inferred)					
						PEGMATITE VEIN (Confirmed / Inferred)					
						Lithologic contacts are inferred at places & Geomorphic boundaries are gradational					
PREPARED BY GEOINFORMATICS & REMOTE SENSING CELL W.B. STATE COUNCIL OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY GOVERNMENT OF WEST BENGAL 4TH FLOOR, BIKASH BHAVAN SALT LAKE, KOLKATA 700 091				TECHNICAL GUIDANCE & QUALITY CHECK NATIONAL REMOTE SENSING CENTRE INDIAN SPACE RESEARCH ORGANISATION (ISRO) DEPT. OF SPACE, GOVT. OF INDIA BALANAGAR, HYDERABAD - 500 625		PARTICIPATING ORGANIZATIONS 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		METHODOLOGY & PROJECT EXECUTION NATIONAL REMOTE SENSING CENTRE INDIAN SPACE RESEARCH ORGANISATION (ISRO) DEPT. OF SPACE, GOVT. OF INDIA BALANAGAR, HYDERABAD - 500 625		SPONSORED BY RAJIV GANDHI NATIONAL DRINKING WATER MISSION (PHASE IV) DEPARTMENT OF DRINKING WATER SUPPLY (DDWS) MINISTRY OF DRINKING WATER & SANITATION GOVERNMENT OF INDIA NEW DELHI	