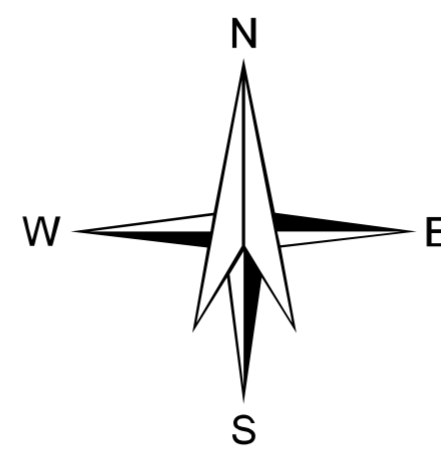
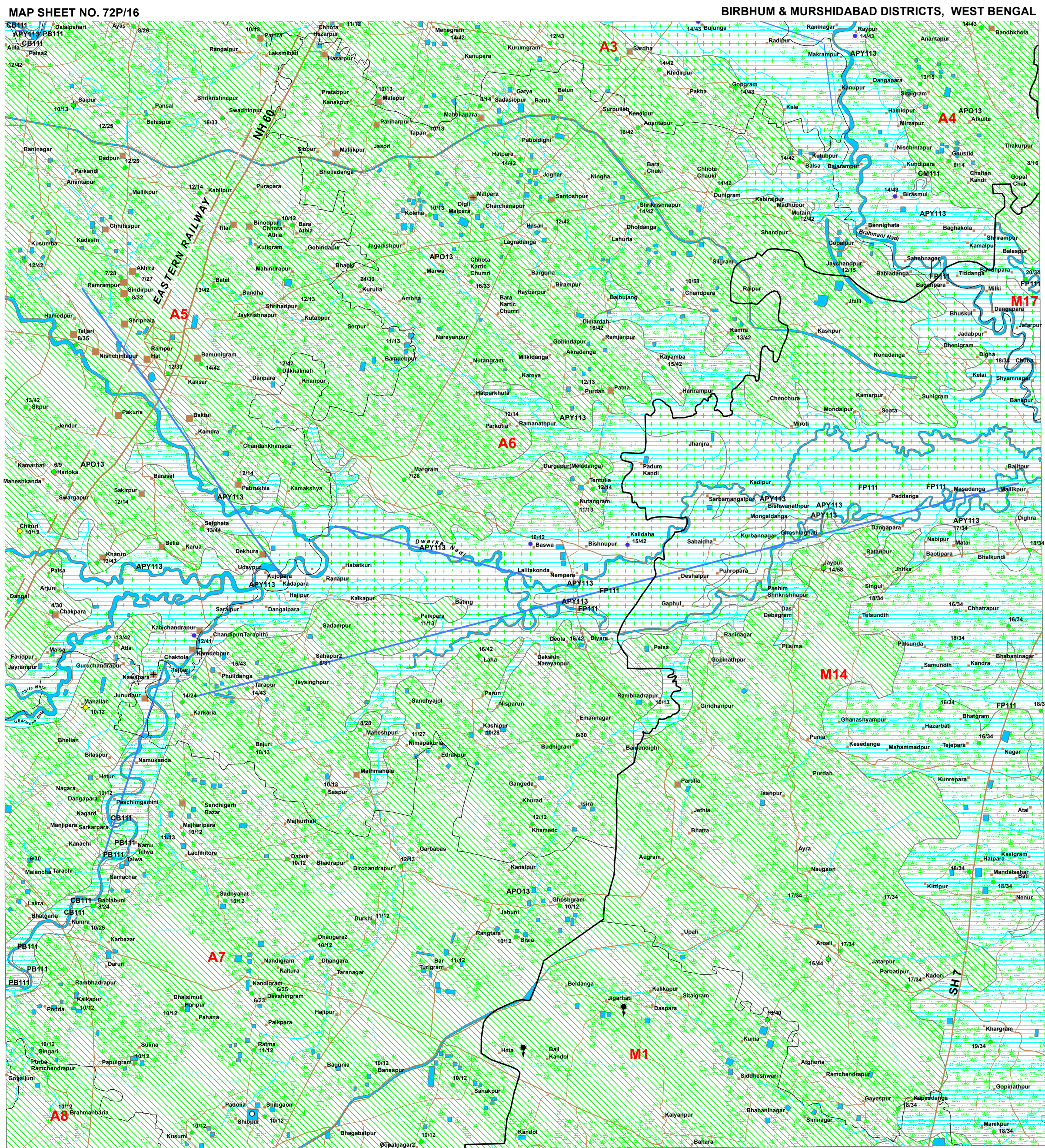


0 1 2 3 4 5 Kilometers

SCALE - 1 : 50,000



MAP UNIT <small>(HYDROGEOMORPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE (COLOUR INDICATES YIELD RANGE AND MATCHING INDICATE DEPTH RANGE)</small>		GEOLOGICAL SEQUENCE / ROCK TYPE	GEOMORPHIC UNIT / LANDFORM	DEPTH TO WATER LEVEL <small>PRI / POST-MONSOON AVERAGE IN METERS</small>	RECHARGE CONDITIONS <small>BASED ON AVAILABILITY OF WATER (RAINFALL & OTHER SOURCES)</small>	GROUND WATER PROSPECTS							RECHARGE STRUCTURES SUITABLE & PRIORITY	REMARKS <small>(PROBLEMS / LIMITATIONS)</small>
						AQUIFER MATERIAL <small>LS = LOOSE SEDIMENTS PS = FINEGRAINED ROCK PB = FRAGMENTED ROCK WR = WEATHERED ROCK RW = RECHARGED NATURAL IR = IMPERVIOUS ROCK</small>	TYPE OF WELLS SUITABLE <small>DW = DUG WELL RW = RABBIT WELL PW = POINT WELL TW = TUBE WELL DWY = DUG CUM CORE WELL, DTW = DUG CUM TUBE WELL</small>	DEPTH RANGE OF WELLS <small>(SUGGESTED) MIN - MAX (IN METERS)</small>	YIELD RANGE OF WELLS <small>(EXPECTED) (LPM OR M³/DAY)</small>	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS <small>(PROBABILITY) VERY HIGH MODERATE LOW</small>	QUALITY OF WATER <small>POTABLE (P) NON-POTABLE (NP) (EXCLUDE REASON IF NON POTABLE)</small>	GROUND WATER IRRIGATED AREA <small>(APPROX. RANGE IN PERCENTAGE)</small>	<small>P1 = PERCOLATION TANK CD = CHECK DAM SD = SAND TRAP ST = STORAGE TANK QT = QUANTITY OF TANK RD = RECHARGE DITCH SB = SUBSURFACE PIPE RS = RECHARGE SHAFT ST = STORAGE TANK SCM = SOL CONSERVATION MEASURES</small>	
			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.
			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 shallow depth.
			Flood Plain (FP)	$\frac{19}{16} \times \frac{16}{2}$	Very Good	LS	RW/TW	<30 m	250-350 LPM	Very High	P	7.46	Not Required	Potable water available at shallow depth.
			Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	$\frac{18}{15} \times \frac{15}{20}$	Good	LS	RW/TW	20-30 m	200-250 LPM	High	P	21.0	Not Required
	Alluvium (Sand,Silt & Clay) (13)	Alluvial Plain Older (APO)	$\frac{25}{18} \times \frac{18}{111}$	Moderate to Good	LS	TW	40-60 m	150-200 LPM	Moderate to High	P	71.5	RW Moderate to Low	Moderate groundwater potential at intermediate depths.	
<p> 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.</p> <p> These are dykes, quartz reefs and pegmatite veins, which generally act as barriers for ground water movement.</p> <p>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.</p>														



GROUND WATER RESOURCES INFORMATION			HYDROLOGICAL INFORMATION		STRUCTURAL INFORMATION		BASE MAP INFORMATION		LOCATION INFORMATION	
YIELD RANGE OF WELLS > 800 LPM 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 20 - 50 LPM 10 - 20 LPM Prospec- tions limited to water potential only (shallow, intermediate & deep) Shallow water	COLOR CODE VIOLET INDIGO BLUE GREEN YELLOW ORANGE BROWN RED	DEPTH RANGE OF WELLS SHALLOW < 10 METERS MODERATE 10 - 30 METERS DEEP > 30 METERS	DESCRIPTION CANAL / TANK / IRRIGATED AREA GROUND WATER IRRIGATED AREA RIVER / STREAM (with name) WATER BODY / SPRING CANAL RAIN GAUGE STATION (WB average annual rainfall in mm) RECHARGE STRUCTURES SUGGESTED PERCOLATION TANK MULA BUND DESTING OF TANK SUBSURFACE DYKE SOIL CONSERVATION MEASURES CHECK DAM RECHARGE WELL RECHARGE PIT RECHARGE SHAFT STORAGE TANK BORE WELL YIELD RANGE & LPM 800-1000 LPM 200-400 LPM 100-200 LPM 50-100 LPM 20-50 LPM 10-20 LPM 5-10 LPM 0-5 LPM Color inside well symbol indicates yield range. The figures on the top right hand side of well indicates the depth to water level and depth of well in meters DWS - CUM-B - BORE WELL ARTESIAN WELL OBSERVATION WELL OF G.W. DEPT. 1 C.O.W.B.	SYMBOL 	DIPS GENTLE (< 15°) MODERATE (15 - 45°) STEEP (> 45° - 80°) SUB-VERTICAL TO VERTICAL (> 80°) ANTICLINE / ANTIFORM SYNCLINE / SYNFORM TREND LINE ESCARPMENT LITHOLOGY / GEOMORPHIC UNIT BOUNDARY FAULT THRUST FRACTURE / LINEAMENT FRACTURE / LINEAMENT (Inferred) SHEAR ZONE (Confirmed / Inferred) DYKE (Confirmed / Inferred) QUARTZ REEF (Confirmed / Inferred) PEGMATITE VEIN (Confirmed / Inferred) Lithologic contacts are inferred at places & Geomorphologic boundaries are gradational	SCHISTOSITY / FOLIATION 	SYMBOL NH - 2 SH - 9 METALLISED ROAD OTHER ROAD RAILWAY CITY / VILLAGE HABITATIONS : NON - COVERED (NC) PARTIALLY COVERED (PC) BOUNDARY : INTERNATIONAL STATE DISTRICT BLOCK OTHER INFORMATION Rainfall : 1431 mm (Source IMD)	STATE INDEX 	DISTRICT INDEX A. BARHAT B. BALIGHATIA C. CHITRA D. SPASCHIN MEDHAPUR E. PURBA MEDHAPUR F. GOWDAPUR G. BALANAGAR H. JALPAIGURI I. JALPAIGURI J. JALPAIGURI K. HULLI L. KOLKATA M. KOLKATA N. KOLKATA O. KOLKATA P. KOLKATA Q. KOLKATA R. KOLKATA S. KOLKATA T. KOLKATA U. KOLKATA V. KOLKATA W. KOLKATA X. KOLKATA Y. KOLKATA Z. KOLKATA AA. KOLKATA AB. KOLKATA AC. KOLKATA AD. KOLKATA AE. KOLKATA AF. KOLKATA AG. KOLKATA AH. KOLKATA AI. KOLKATA AJ. KOLKATA AK. KOLKATA AL. KOLKATA AM. KOLKATA AN. KOLKATA AO. KOLKATA AP. KOLKATA AQ. KOLKATA AR. KOLKATA AS. KOLKATA AT. KOLKATA AU. KOLKATA AV. KOLKATA AW. KOLKATA AX. KOLKATA AY. KOLKATA AZ. KOLKATA BA. KOLKATA BB. KOLKATA BC. KOLKATA BD. KOLKATA BE. KOLKATA BF. KOLKATA BG. KOLKATA BH. KOLKATA BI. KOLKATA BJ. KOLKATA BK. KOLKATA BL. KOLKATA BM. KOLKATA BN. KOLKATA BO. KOLKATA BP. KOLKATA BQ. KOLKATA BR. KOLKATA BS. KOLKATA BT. KOLKATA BU. KOLKATA BV. KOLKATA BW. KOLKATA BX. KOLKATA BY. KOLKATA BZ. KOLKATA CA. KOLKATA CB. KOLKATA CC. KOLKATA CD. KOLKATA CE. KOLKATA CF. KOLKATA CG. KOLKATA CH. KOLKATA CI. KOLKATA CJ. KOLKATA CK. KOLKATA CL. KOLKATA CM. KOLKATA CN. KOLKATA CO. KOLKATA CP. KOLKATA CQ. KOLKATA CR. KOLKATA CS. KOLKATA CT. KOLKATA CU. KOLKATA CV. KOLKATA CW. KOLKATA CX. KOLKATA CY. KOLKATA CZ. KOLKATA DA. KOLKATA DB. KOLKATA DC. KOLKATA DD. KOLKATA DE. KOLKATA DF. KOLKATA DG. KOLKATA DH. KOLKATA DI. KOLKATA DJ. KOLKATA DK. KOLKATA DL. KOLKATA DM. KOLKATA DN. KOLKATA DO. KOLKATA DP. KOLKATA DQ. KOLKATA DR. KOLKATA DS. KOLKATA DT. KOLKATA DU. KOLKATA DV. KOLKATA DW. KOLKATA DX. KOLKATA DY. KOLKATA DZ. KOLKATA EA. KOLKATA EB. KOLKATA EC. KOLKATA ED. KOLKATA EE. KOLKATA EF. KOLKATA EG. KOLKATA EH. KOLKATA EI. KOLKATA EJ. KOLKATA EK. KOLKATA EL. KOLKATA EM. KOLKATA EN. KOLKATA EO. KOLKATA EP. KOLKATA EQ. KOLKATA ER. KOLKATA ES. KOLKATA ET. KOLKATA EU. KOLKATA EV. KOLKATA EW. KOLKATA EX. KOLKATA EY. KOLKATA EZ. KOLKATA FA. KOLKATA FB. KOLKATA FC. KOLKATA FD. KOLKATA FE. KOLKATA FF. KOLKATA FG. KOLKATA FH. KOLKATA FI. KOLKATA FJ. KOLKATA FK. KOLKATA FL. KOLKATA FM. KOLKATA FN. KOLKATA FO. KOLKATA FP. KOLKATA FQ. KOLKATA FR. KOLKATA FS. KOLKATA FT. KOLKATA FU. KOLKATA FV. KOLKATA FW. KOLKATA FX. KOLKATA FY. KOLKATA FZ. KOLKATA GA. KOLKATA GB. KOLKATA GC. KOLKATA GD. KOLKATA GE. KOLKATA GF. KOLKATA GH. KOLKATA GI. KOLKATA GJ. KOLKATA GK. KOLKATA GL. KOLKATA GM. KOLKATA GN. KOLKATA GO. KOLKATA GP. KOLKATA GQ. KOLKATA GR. KOLKATA GS. KOLKATA GT. KOLKATA GU. KOLKATA GV. KOLKATA GW. KOLKATA GX. KOLKATA GY. KOLKATA GZ. KOLKATA HA. KOLKATA HB. KOLKATA HC. KOLKATA HD. KOLKATA HE. KOLKATA HF. KOLKATA HG. KOLKATA HH. KOLKATA HI. KOLKATA HJ. KOLKATA HK. KOLKATA HL. KOLKATA HM. KOLKATA HN. KOLKATA HO. KOLKATA HP. KOLKATA HQ. KOLKATA HR. KOLKATA HS. KOLKATA HT. KOLKATA HU. KOLKATA HV. KOLKATA HW. KOLKATA HX. KOLKATA HY. KOLKATA HZ. KOLKATA IA. KOLKATA IB. KOLKATA IC. KOLKATA ID. KOLKATA IE. KOLKATA IF. KOLKATA IG. KOLKATA IH. KOLKATA II. KOLKATA IJ. KOLKATA IK. KOLKATA IL. KOLKATA IM. KOLKATA IN. KOLKATA IO. KOLKATA IP. KOLKATA IQ. KOLKATA IR. KOLKATA IS. KOLKATA IT. KOLKATA IU. KOLKATA IV. KOLKATA IW. KOLKATA IX. KOLKATA IY.	
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 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 S.P.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 (DWS) MINISTRY OF DRINKING WATER & SANITATION GOVERNMENT OF INDIA NEW DELHI	