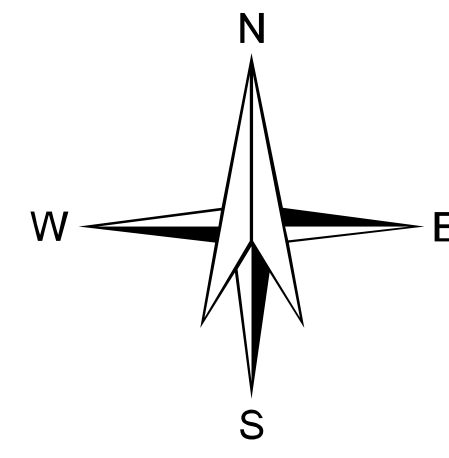
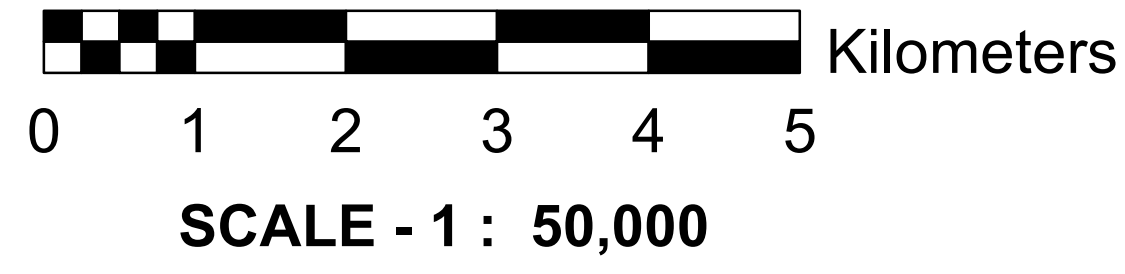
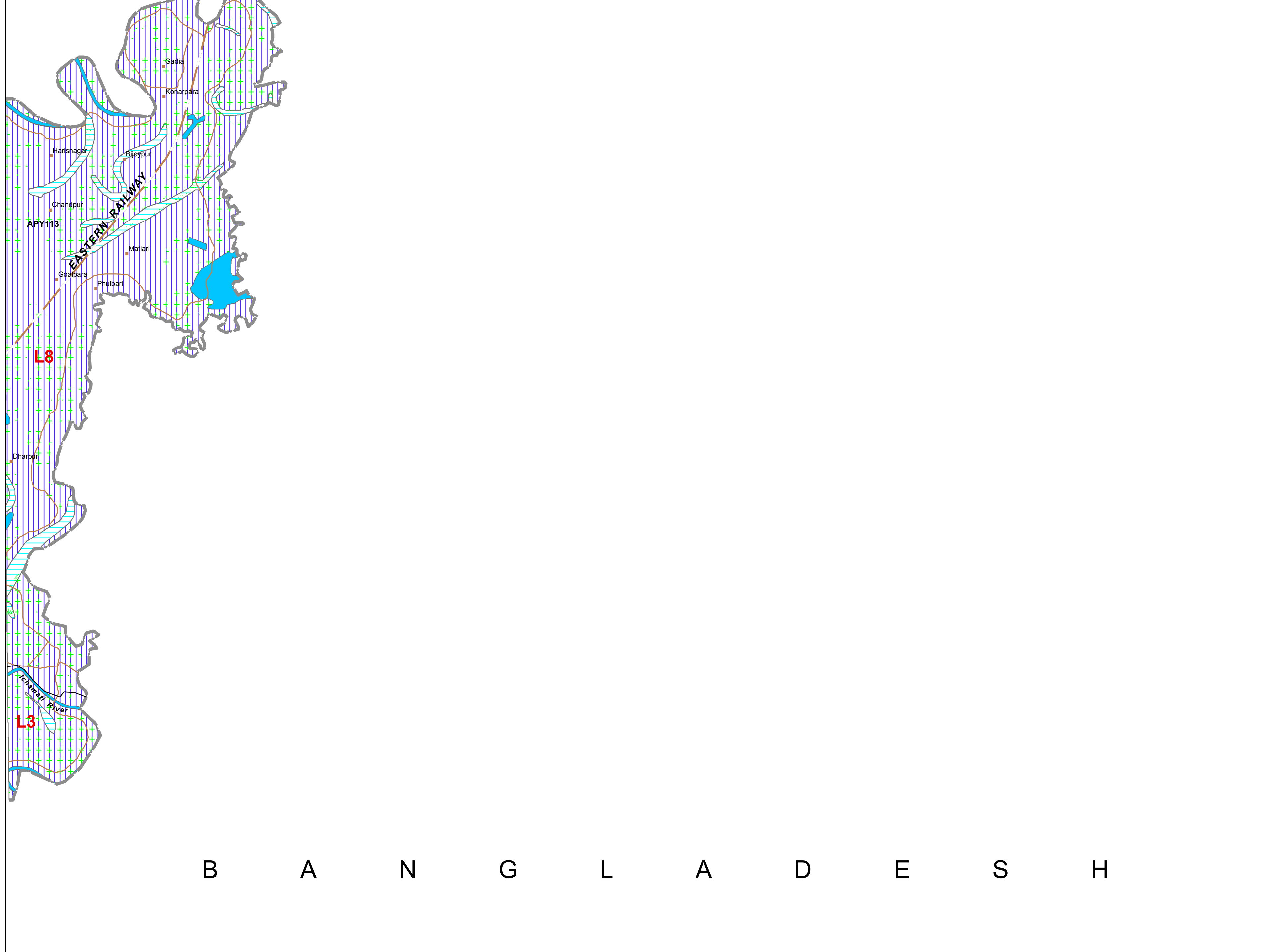


# GROUND WATER PROSPECTS MAP

(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)



MAP SHEET NO. 79A/15 NADIA DISTRICT, WEST BENGAL



## LEGEND

MAP UNIT (HYDROGEOLOGIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATES 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	RE MARKS (PROBLEMS / LIMITATIONS)	
					AQUIFER MATERIAL	TYPE OF WELLS SUITABLE	DEPTH RANGE OF WELLS (IN METERS)	YIELD RANGE OF WELLS (LPM)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)	QUALITY OF WATER (POSSIBLE FT. NON-POTABLE (NP))			GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)
CM111	111	Cut-off Meander (CM)	No well observed	Very Good	LS	RW TW	10-15 m	200-300 LPM	Very High	p	10	Not Required	Areas with high Arsenic concentration. Limited potability of groundwater.
MS111	111	Meander Scar (MS)	No well observed	Good	LS	RW TW	10-15 m	200-250 LPM	High	p	11	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.
APY110	113	Alluvial Plain Younger (APY)	No well observed	Good	LS	TW	80-100 m	400-500 LPM	High	NP (As & Fe) [At shallow depth]	99	RW Low	Areas with high Arsenic and iron concentration. Potable water available at depth range above 80m.

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.

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/Linements 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.

<b>GROUND WATER PROSPECTS INFORMATION</b> <table border="1"> <thead> <tr> <th rowspan="2">YIELD RANGE OF WELLS</th> <th rowspan="2">COLOUR CODE</th> <th colspan="3">DEPTH RANGE OF WELLS</th> </tr> <tr> <th>SHALLOW (0-10 METERS)</th> <th>MODERATE (10-45 METERS)</th> <th>DEEP (&gt;45 METERS)</th> </tr> </thead> <tbody> <tr> <td>&gt; 800 LPM</td> <td>VIOLET</td> <td>[Symbol]</td> <td>[Symbol]</td> <td>[Symbol]</td> </tr> <tr> <td>400 - 800 LPM</td> <td>INDIGO</td> <td>[Symbol]</td> <td>[Symbol]</td> <td>[Symbol]</td> </tr> <tr> <td>200 - 400 LPM</td> <td>BLUE</td> <td>[Symbol]</td> <td>[Symbol]</td> <td>[Symbol]</td> </tr> <tr> <td>100 - 200 LPM</td> <td>GREEN</td> <td>[Symbol]</td> <td>[Symbol]</td> <td>[Symbol]</td> </tr> <tr> <td>50 - 100 LPM</td> <td>YELLOW</td> <td>[Symbol]</td> <td>[Symbol]</td> <td>[Symbol]</td> </tr> <tr> <td>30 - 50 LPM</td> <td>ORANGE</td> <td>[Symbol]</td> <td>[Symbol]</td> <td>[Symbol]</td> </tr> <tr> <td>20 - 30 LPM</td> <td>BROWN</td> <td>[Symbol]</td> <td>[Symbol]</td> <td>[Symbol]</td> </tr> <tr> <td>10 - 20 LPM</td> <td>PINK</td> <td>[Symbol]</td> <td>[Symbol]</td> <td>[Symbol]</td> </tr> <tr> <td>&lt; 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