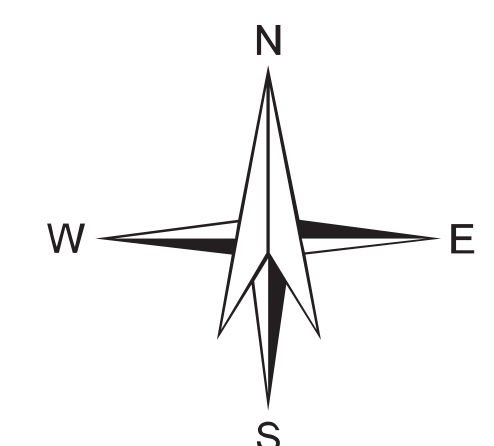
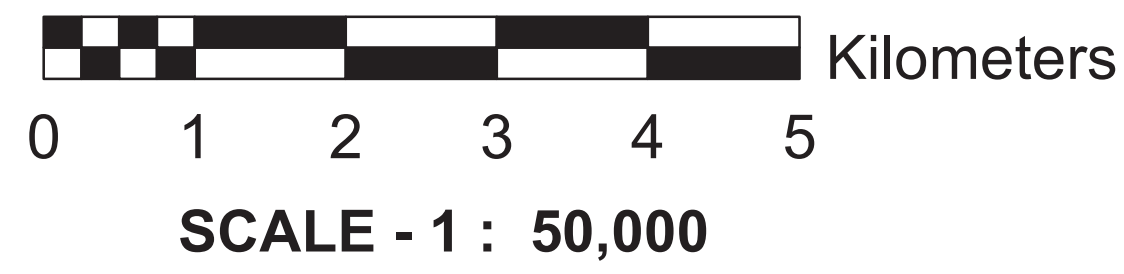


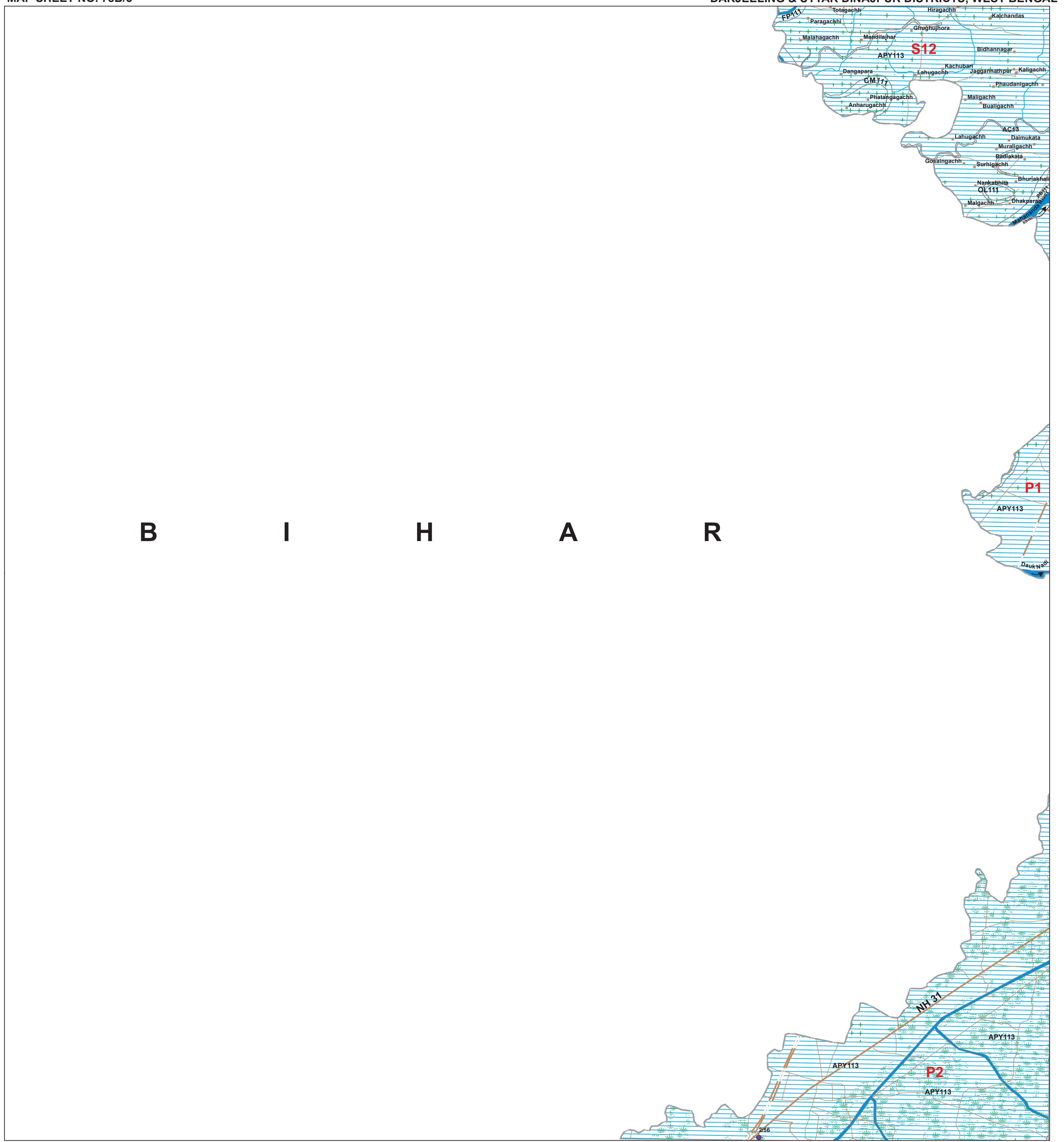
# GROUND WATER PROSPECTS MAP

(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)



MAP SHEET NO. 78B/3

DARJEELING & UTTAR DINAJPUR DISTRICTS, WEST BENGAL



B I H A R

## 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 (BASED ON POST-MONSOON AVERAGE IN METERS) NO. OF WELLS OBSERVED	RECHARGE CONDITIONS (BASED ON AVAILABILITY OF WATER (RAINFALL & OTHER SOURCES))	GROUNDWATER PROSPECTS						RECHARGE STRUCTURES SUITABLE & PRIORITY	REMARKS (PROBLEMS / LIMITATIONS)		
					AQUIFER MATERIAL LS = LOOSE SEDIMENTS PS = SANDSTONE FR = FINE GRAINED ROCK FM = FINE GRAINED ROCK WF = WEATHERED ROCK WV = WEATHERED MATERIAL M = METAMORPHIC ROCK	TYPE OF WELLS SUITABLE DW = DUG WELL RW = RIGID WALL WELL DWM = DUG CUM SORE WELL RTW = RIGID WALL TUBEWELL	DEPTH RANGE OF WELLS (IN METERS) (OBSERVED)	YIELD RANGE OF WELLS (EXPECTED) (LPM or m <sup>3</sup> /day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)	QUALITY OF WATER (POTABLE OR NON-POTABLE (NP)) (BASED ON AVAILABLE DATA)			GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)	
BB111		Braid Bar (BB)	No Well Observed	Excellent	LS	TW	5-10 m	400-500 LPM	Very High	P	Nil	Not Required	Highly productive shallow aquifer with good recharge from the river base flow.	
PB111		Point Bar (PB)	No Well Observed	Very Good	LS	RW	5-10 m	300-400 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
OL111		Oxbow Lake (OL)	No Well Observed	Good	LS	TW	20-30 m	200-300 LPM	Moderate	P	Nil	Not Required	Though occur as waterbodies, but highly productive aquifer occurs at depth.	
CM111		Cut-off Meander (CM)	No Well Observed	Good	LS	RW/TW	10-20m	300-400 LPM	High	P	Nil	Not Required	Highly productive shallow aquifers with good recharge from the river base flow.	
FP111		Flood Plain (FP)	No Well Observed	Very Good	LS	RW	<30 m	250-350 LPM	Very High	P	Nil	Not Required	Potable water available at shallow depth.	
APY113		Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	4/1 1	LS	RW/TW	25-30 m	200-250 LPM	High	P	20	Not Required	Highly productive aquifer at shallow depth with good recharge.	
AC13		Alluvium (Sand, Silt & Clay) (13)	Abandoned Channel (AC)	No Well Observed	Excellent to Very Good	LS	RW/TW	10-15 m	250-300 LPM	Very High	P	Nil	Not Required	Highly productive shallow depth aquifers with good recharge from base flow.

<b>GROUND WATER PROSPECTS INFORMATION</b> <table border="1"> <thead> <tr> <th>YIELD RANGE OF WELLS</th> <th>COLOR CODE</th> <th>DEPTH RANGE OF WELLS</th> </tr> </thead> <tbody> <tr> <td>&gt; 800 LPM</td> <td>VIOLET</td> <td>SHALLOW (&lt; 10 METERS)</td> </tr> <tr> <td>400 - 800 LPM</td> <td>INDIGO</td> <td>MODERATE (10-25 METERS)</td> </tr> <tr> <td>200 - 400 LPM</td> <td>BLUE</td> <td>DEEP (&gt; 25 METERS)</td> </tr> <tr> <td>100 - 200 LPM</td> <td>GREEN</td> <td></td> </tr> <tr> <td>50 - 100 LPM</td> <td>YELLOW</td> <td></td> </tr> <tr> <td>20 - 50 LPM</td> <td>ORANGE</td> <td></td> </tr> <tr> <td>10 - 20 LPM</td> <td>BROWN</td> <td></td> </tr> <tr> <td>Prospects better to valley bottom only (Rivers, Ponds etc.)</td> <td>RED</td> <td></td> </tr> <tr> <td>Recharge canal (Beneficial to G.W. movement)</td> <td>Red line</td> <td></td> </tr> </tbody> </table>	YIELD RANGE OF WELLS	COLOR CODE	DEPTH RANGE OF WELLS	> 800 LPM	VIOLET	SHALLOW (< 10 METERS)	400 - 800 LPM	INDIGO	MODERATE (10-25 METERS)	200 - 400 LPM	BLUE	DEEP (> 25 METERS)	100 - 200 LPM	GREEN		50 - 100 LPM	YELLOW		20 - 50 LPM	ORANGE		10 - 20 LPM	BROWN		Prospects better to valley bottom only (Rivers, Ponds etc.)	RED		Recharge canal (Beneficial to G.W. movement)	Red line		<b>HYDROLOGICAL INFORMATION</b> <table border="1"> <thead> <tr> <th>DESCRIPTION</th> <th>SYMBOL</th> </tr> </thead> <tbody> <tr> <td>CANAL / TANK IRRIGATED AREA</td> <td>[Symbol]</td> </tr> <tr> <td>GROUND WATER IRRIGATED AREA</td> <td>[Symbol]</td> </tr> <tr> <td>RIVER / STREAM (with sand)</td> <td>[Symbol]</td> </tr> <tr> <td>WATER BODY / SPRING</td> <td>[Symbol]</td> </tr> <tr> <td>CANAL</td> <td>[Symbol]</td> </tr> <tr> <td>RAIN GAUGE STATION (With average annual rainfall in mm)</td> <td>[Symbol]</td> </tr> <tr> <td colspan="2"><b>RECHARGE STRUCTURES SUGGESTED</b></td> </tr> <tr> <td>PERCOLATION TANK</td> <td>[Symbol]</td> </tr> <tr> <td>MALA BUND</td> <td>[Symbol]</td> </tr> <tr> <td>DESILTING OF BANK</td> <td>[Symbol]</td> </tr> <tr> <td>SUBSURFACE DYKE</td> <td>[Symbol]</td> </tr> <tr> <td>SOIL CONSERVATION MEASURES</td> <td>[Symbol]</td> </tr> <tr> <td colspan="2"><b>WELL RANGES</b></td> </tr> <tr> <td>WELL RANGE</td> <td>WELL MARKS</td> </tr> <tr> <td>&gt; 800 LPM</td> <td>● 15/20</td> </tr> <tr> <td>400 - 800 LPM</td> <td>● 10/15</td> </tr> <tr> <td>200 - 400 LPM</td> <td>● 5/10</td> </tr> <tr> <td>100 - 200 LPM</td> <td>● 2/5</td> </tr> <tr> <td>50 - 100 LPM</td> <td>● 1/2</td> </tr> <tr> <td>20 - 50 LPM</td> <td>● 0.5/1</td> </tr> <tr> <td>10 - 20 LPM</td> <td>● 0.2/0.5</td> </tr> <tr> <td>&lt; 10 LPM</td> <td>● 0.1/0.2</td> </tr> <tr> <td colspan="2">Color codes with symbols indicate yield range. 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