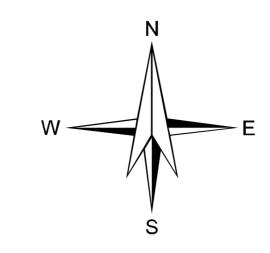
## GROUND WATER PROSPECTS MAP

(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)





SCALE - 1: 50,000 PURBA MEDINIPUR & PASCHIM MEDINIPUR DISTRICTS, WEST BENGAL MAP SHEET NO. 73N/8

NRSC (ISRO), DEPT. OF SPACE, GOVT. OF INDIA DATA USED: IRS - P6 LISS III FCC dated September 2005-February 2006, GROUND TRUTH & WELL OBSERVATION during March-June, 2012 & Oct 2012-Jan 2013, Published Geological maps & Literatures. Designed & Developed by Hydrogeology Division, NRSC, ISRO

L E G E N D

MAP UNIT	CEOL	OGICAL SEQUENCE /	GEOMORPHIC	DEPTH TO	RECHARGE			UNDW		ROSPE	 стѕ		RECHARGE	
(HYDROGEOMORPHIC UNIT)  REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE  (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE DEPTH RANGE)	1	ROCK TYPE  (REPRESENTED IN THE MAP WITH NUMERIC CODE)	UNIT / LANDFORM  (REPRESENTED IN THE MAP WITH ALPHABETIC CODE)	WATER LEVEL  PRE / POST- MONSOON (AVERAGE IN METERS)  NO. OF WELLS OBSERVED	CONDITIONS  BASED ON AVAILABILITY OF WATER  (RAINFALL & OTHER SOURCES)	AQUIFER MATERIAL  LS = LOOSE SEDIMENTS PR = PERMEABLE ROCK FIR = FISSURED ROCK FR = FRACTURED ROCK WR /= WEATHERED ROCK / WM WEATHERED MATERIAL IR = IMPERIVIOUS ROCK	TYPE OF WELLS SUITABLE  DW = DUG WELL RW = RING WELL BW = BORE WELL TW = TUBE WELL DBW / = DUG CUM-BORE WELL / DTW DUG CUM-TUBE WELL	DEPTH RANGE OF WELLS (SUGGESTED) MIN - MAX (IN METERS)	YIELD RANGE OF WELLS (EXPECTED) (in LPM or m <sup>3</sup> / day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)  VERY HIGH HIGH MODERATE LOW	QUALITY OF WATER POTABLE (P) NON - POTABLE (NP) (INDICATE REASONS IF NON POTABLE)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)	STRUCTURES SUITABLE & PRIORITY  PT = PERCOLATION TANK CD = CHECK DAM NB = NALA BUND RW = RECHARGE WELL DT = DESILTING OF TANK RP = RECHARGE PIT SD = SUBSURFACE DYKE RS = RECHARGE SHAFT ST = STORAGE TANK SCM = SOIL CONSERVATION MEASURES	REMARKS (PROBLEMS/LIMITATIONS)
FP111	Bhagirathi Formation (Present Day)	Alluvium (Sand Dominant) (111)	Flood Plain (FP)	No well observed	Very Good	LS	RW	<30 m	250-350 LPM	Very High	P	87	Not Required	Potable water available at shallow depth.
APY113	Panskura/Arambagh Formation (Early to Late Holocene) (Early to Late Holocene) (Early to Late Holocene) (Early to Late Holocene)	Alluvium	Alluvial Plain Younger (APY)	<u>15/ 8</u> 2	Good	LS	TW	>150 m	400-500 LPM	High	Р	Nil	Not Required	Potable water available at depth range above 150 m within and around Moyna basin.
APY113		(Sand and Silt) (113)	Alluvial Plain Younger (APY)	<u>11/7</u> 5	Good	LS	TW	25-30 m	200-250 LPM	High	Р	26.4	Not Required	Potable water available at depth range below 30 m in areas adjacent to APO.
APO13	Sijua Formation (Late Pleistocene-Early Holocene)	Alluvium (Sand,Silt & Clay) (13)	Alluvial Plain Older (APO)	<u>25/ 14</u> 17	Moderate to Good	LS	TW	150-250 m	200-250 LPM	Moderate to High	Р	73.5	RW Moderate to Low	Moderate groundwater potential at intermediate depths.
VF\$211	ation sne)	ne)	Valley Fill Shallow (VFS)	No well observed	M o derate	LS underlain by WM+FR	TW/BW	50-60 m	75-100 LPM	Moderate	P	Nil	DT Moderate	Recharge structure will increase the sustainability of groundwater source.
	crust, lateritic nodu	(Ferricrete-Hard crust, lateritic nodules & lithomarge clay)	Lateritic Plain (LP)	<u>12/7</u> 23	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.
	Lalga (Mic		Dissected Lateritic Upland (DLU)	No well observed	Nil to Moderate	WM+IR (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. Primari forest areas with sparse settlements. Not suitable for large scale development of groundwater.
FF//						hard rocks. Along these zones		y higher and wells are	likely to be sustainal	ble for longer duration	n. However, the inferre	d fractures need to be c	confirmed by detailed ground survey	s.
	N.B7	he depth range and yield Locations of the	range of wells may vary recharge structures sho	within the unit because of wn in the map are tentativ	f certain inhomogeneities e. This map is useful for i	. Fractures/Lineaments whi narrowing down the target 2	ch are clearly observed cones,and exact location	/ inferred from the s	satellite image are i wells and recharge	indicated on the ma structures should	ap. There could be s be identified based	ome obscured fractu on follow-up ground	res which also influence the gro hydrogeological/geophysical su	und water prospects. ırveys.

