## GROUND WATER PROSPECTS MAP (PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS) SCALE - 1: 50,000 **NORTH & SOUTH 24 PARGANAS DISTRICT, WEST BENGAL** MAP SHEET NO. 79B/10

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

LEGEND

MAP UNIT	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		
(HYDROGEOMORPHIC UNIT)  REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE  (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE DEPTH RANGE)					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)	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)
MS111	Bhagirathi Formation/Present day Deposits (Present Day) (S) (1111) (Hessent Day) (Hessent Day) (Hessent day Deposits	Meander Scar (MS)	No Well Observed	Good	LS	RW TW	10-15 m	200-250 LPM	High	P	Nil	Not Required	Groundwater prospects very hig with high recharge potential. Recharge structures not require
APM113	Panskura/Arambagh/Katwa Formation (Early to Late Holocene)	Alluvial Plain Younger (APY)	<u>16/8</u> 77	Good	LS	TW	>150 m	400-500 LPM	High	NP (As&Fe) [At shallow depth]	50	Not Required	Areas with high Arsenic and Iror concentration.Potable water available at depth range above 1
AC13	S T T T T T T T T T T T T T T T T T T T	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 groundw
	Ancient Estua (Early to Late	Deltaic Plain Older (DPO)	<u>9/6</u> 7	Good	LS	TW	>250 m	400-450 LPM	High	NP (As&Salinity) [At shallow depth]	8	Not Required	Areas affected by Arsenic & Salin Fresh water aquifers found at dep ranges of 250m and above.
F//Q D /QQ /	These are fa	e dykes, quartz reefs and						e likely to be sustainal			d fractures need to be c	confirmed by detailed ground surveys	j.

