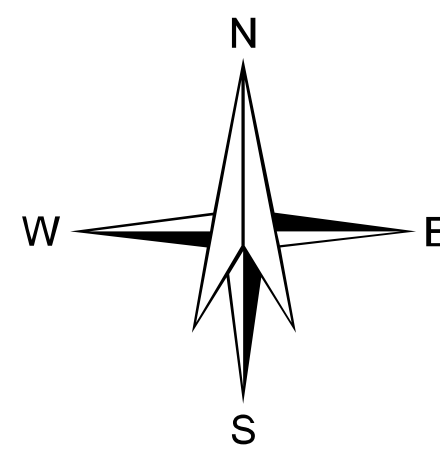
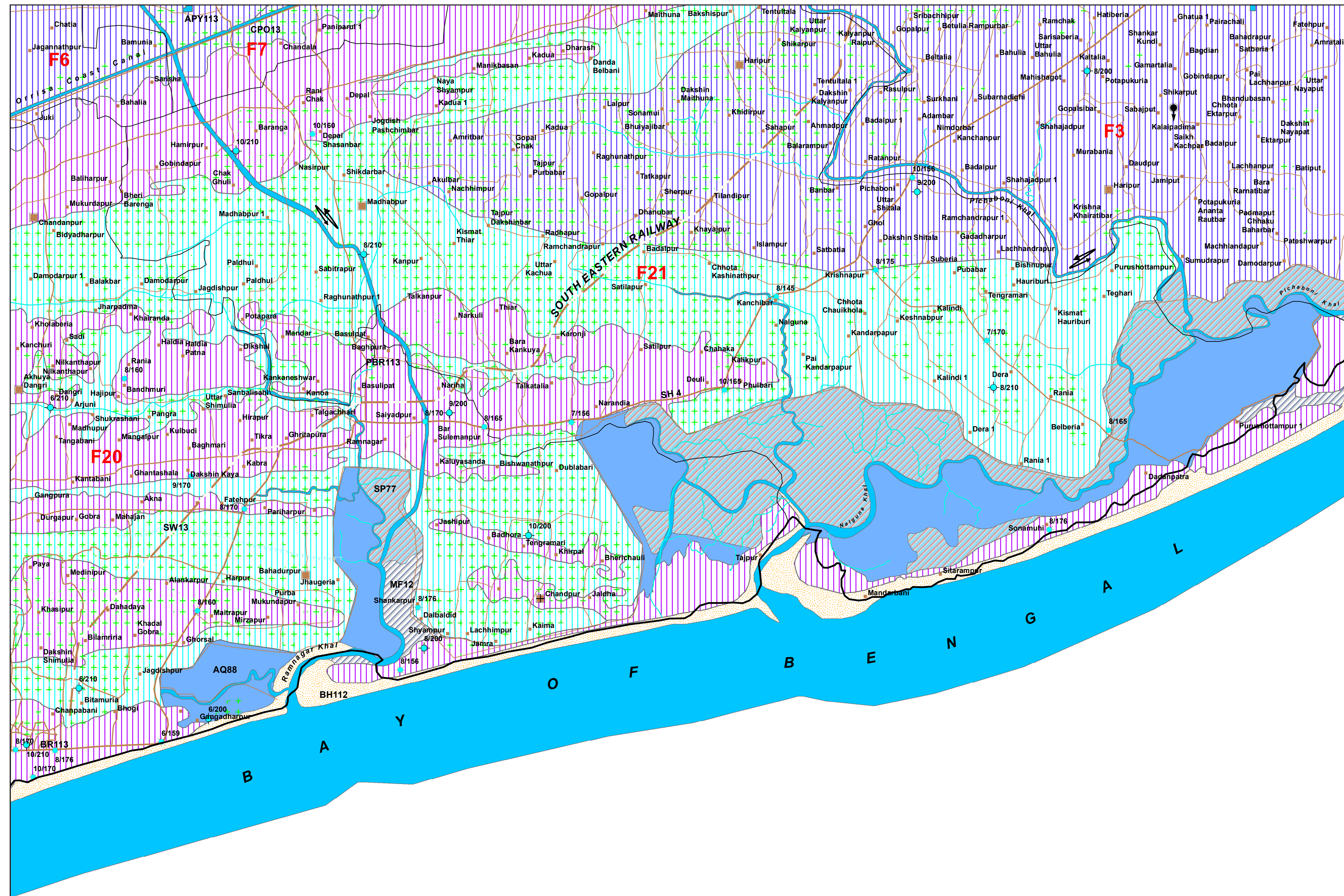


0 1 2 3 4 5 Kilometers

SCALE - 1 : 50,000

**PURBA MEDINIPUR DISTRICT, WEST BENGAL**

MAP UNIT (HYDROGEO MORPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE DEPTH RANGE)	GEOLOGICAL SEQUENCE / ROCK TYPE	GEO MORPHIC UNIT / LANDFORM	DEPTH TO WATER LEVEL PRE / POST-MONSOON (AVERAGE IN METERS)	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 (SUGGESTED)	YIELD RANGE OF WELLS (EXPECTED) (in LPM or m ³ /day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)	QUALITY OF WATER POTABLE (P) NON-POTABLE (NP)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)			
LS = LOOSE SEDIMENTS PS = PERMEABLE ROCK PS = FISSURED ROCK PS = FRACTURED ROCK WP = WEATHERED ROCK NM = WEATHERED MATERIAL IR = IMPERVIOUS ROCK	QW = QUO WELL BW = BING WELL TW = TUBE WELL CW = COW CORE WELL DW = DOW CORE WELL SW = SOW CORE WELL	NN = MAX (IN METERS)		VEP HIGH MODERATE LOW										
APY113	Panskul/Arambagh Formation (Early to Late Holocene)	Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	No well observed	Good	LS	TW	>150 m	500-600 LPM	High	NP (Salinity) (At shallow depth)	22	Not Required	Areas affected by Salinity.Potable water available at depth range above 150 m.
BR113		Alluvium (Sand and Silt) (113)	Beach Ridge (BR)	10 / 6 8	Very Good	LS	TW	150-250 m	>800 LPM	Very High	NP (Salinity) (At shallow depth)	4	Not Required	Areas affected by Salinity. Fresh water available at depth ranges of 150-250m
PBR113			Paleo Beach Ridge (PBR)	11 / 7 11	Good	LS	TW	150-250 m	>800 LPM	High	NP (Salinity) (At shallow depth)	15	Not Required	Areas affected by Salinity. Fresh water available at depth ranges of 150-250 m
SW13		Ancient Estuarine Deposits (Early to Late Holocene)	Alluvium (Sand,Silt & Clay) (13)	Swale (SW)	9 / 6 10	Moderate to Good	LS	TW	150-250 m	300-400 LPM	Moderate to High	P	56	Not Required
CPD13	Coastal Plain Older (CPO)			11 / 7 3	Good	LS	TW	150-250 m	600-800 LPM	High	NP (Salinity) (At shallow depth)	23	Not Required	Areas affected by Salinity. Fresh water available at depth ranges of 150-250 m.
F --- F/ --- / ---														
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.														
D --- D / Q --- Q / P --- P D --- D / Q --- Q / P --- P														
These are dykes, quartz reefs and pegmatite veins, which generally act as barriers for ground water movement.														
Aquaculture (AQ88), Salt Pan (SP77) & Beach (BH112) are not used for extraction of groundwater.														
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.														

GROUND WATER PROSPECTS INFORMATION

YIELD RANGE OF WELLS	COLOUR CODE	DEPTH RANGE OF WELLS		
		SHALLOW 0-20 METERS	MODERATE 20-40 METERS	DEEP 40-100 METERS
> 800 LPM	VIOLET	[Pattern]	[Pattern]	[Pattern]
400-800 LPM	INDIGO	[Pattern]	[Pattern]	[Pattern]
200-400 LPM	BLUE	[Pattern]	[Pattern]	[Pattern]
100-200 LPM	GREEN	[Pattern]	[Pattern]	[Pattern]
50-100 LPM	YELLOW	[Pattern]	[Pattern]	[Pattern]
30-50 LPM	ORANGE	[Pattern]	[Pattern]	[Pattern]
20-30 LPM	BROWN	[Pattern]	[Pattern]	[Pattern]
10-20 LPM	PINK	[Pattern]	[Pattern]	[Pattern]
Prospects neither to rely on nor to develop (PDR)	RED	[Pattern]	[Pattern]	[Pattern]

Prepared by: GEONFORMATICS & 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

HYDROLOGICAL INFORMATION

DESCRIPTION SYMBOL

CANAL / TANK / IRRIGATED AREA

GROUND WATER IRRIGATED AREA

RIVER / STREAM (with band)

WATER BODY / SPRING

CANAL

RAIN GAUGE STATION (With average annual rainfall in mm)

RECHARGE STRUCTURES SUGGESTED

PERCOLATION TANK

NALA BAND

DESILTING OF TANK

SUBSURFACE DYE

SOIL CONSERVATION MEASURES

WELLS (GENERAL OR FILLING ONLY)

YIELD RANGE OF WELLS

SHALLOW TUBE WELL

MODERATE TUBE WELL

DEEP TUBE WELL

ARTESIAN WELL

DUG - CUM - BORE WELL

HAND PUMP WELL

OBSERVATION WELL OF LOW DEPTH (C.G.W.)

STRUCTURAL INFORMATION

DIPS

REDDING

SCHISTOSITY / FOLIATION

ANTICLINE / ANTIFORM

SYNCLINE / SYNFORM

TREND LINE

ESCAPMENT

LITHOLOGY / GEOMORPHIC UNIT BOUNDARY

FAULT

THRUST

FRACTURE / LINEAMENT (Inferred)

FRACTURE / LINEAMENT (Inferred)

SHEAR ZONE (Confirmed / Inferred)

DYKE (Confirmed / Inferred)

QUARTZ REEF (Confirmed / Inferred)

PEGMATITE VEIN (Confirmed / Inferred)

Lithologic contacts are inferred at places & Geomorphic boundaries are approximate

BASE MAP INFORMATION

SYMBOL DESCRIPTION

NW - 2 NATIONAL HIGHWAY

SH - 9 STATE HIGHWAY

METALLED ROAD

OTHER ROAD

RAILWAY

CITY / VILLAGE

HABITATIONS - NON - COVERED (NC) PARTIALLY COVERED (PC)

BOUNDARY: INTERNATIONAL, STATE, DISTRICT, BLOCK

OTHER INFORMATION

Rainfall : 1703 mm (Source IMD)

LOCATION INFORMATION

STATE INDEX

DISTRICT INDEX

BLOCK INDEX

MAPSHEET INDEX

RAJIV GANDHI NATIONAL DRINKING WATER MISSION (PHASE IV), DEPARTMENT OF DRINKING WATER SUPPLY (DDWS), MINISTRY OF DRINKING WATER & SANITATION, GOVERNMENT OF INDIA, NEW DELHI