

# GROUND WATER PROSPECTS MAP

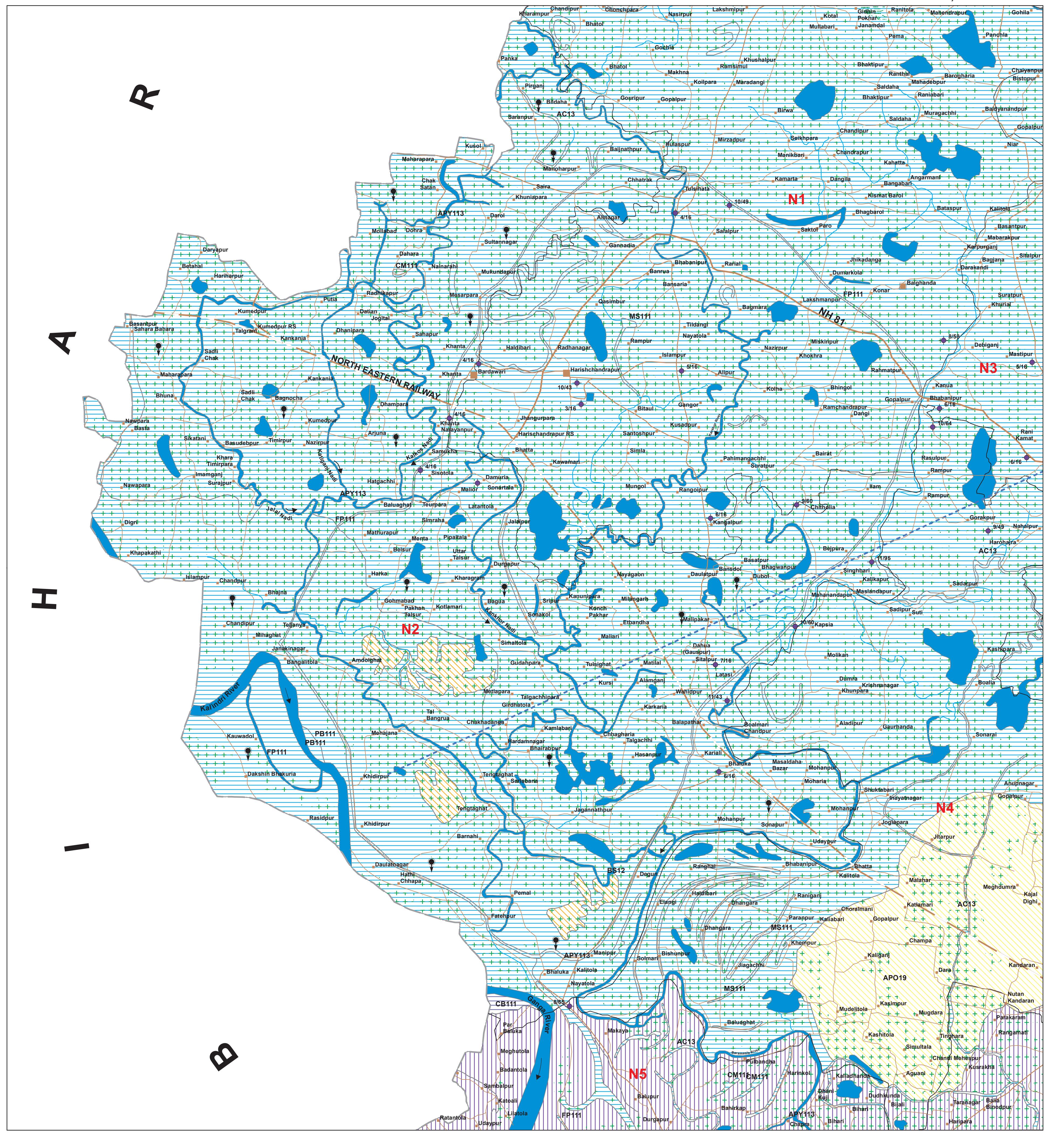
( PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS )



0 1 2 3 4

SCALE - 1 : 50,00

# **MAP SHEET NO. 72O/15**



MAP UNIT (HYDROGEOMORPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE  (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE 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)	RECHARGE CONDITIONS  BASED ON AVAILABILITY OF WATER	G R O U N D W A T E R P R O S P E C T S							RECHARGE STRUCTURES SUITABLE & PRIORITY	R E M A R K S ( PROBLEMS / LIMITATIONS )	
					AQUIFER MATERIAL  ( RAINFALL & OTHER SOURCES )	TYPE OF WELLS SUITABLE	DEPTH RANGE OF WELLS ( SUGGESTED )	YIELD RANGE OF WELLS ( EXPECTED ) ( in LPM or m <sup>3</sup> / day )	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS ( PROBABILITY )	QUALITY OF WATER POTABLE (P) NON - POTABLE (NP)  ( INDICATE REASONS IF NON POTABLE )	GROUND WATER IRRIGATED AREA  ( APPROX. RANGE IN PERCENTAGE )			
CB411	Shaugon Formation (Present Day Deposits)	Alluvium (Sand Dominant) (111)	Channel Bar (CB)	No Well Observed	Excellent	LS	TW	5-10 m	400-500 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.
PB411			Point Bar (PB)	No Well Observed	Very Good	LS	RW TW	5-10 m	300-400 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.
MS111			Meander Scar (MS)	No Well Observed	Very Good	LS	RW TW	10-15 m	200-250 LPM	High	P	Nil	Not Required	Highly productive shallow aquifers with good recharge.
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	TW	<30 m	250-350 LPM	Very High	P	Nil	Not Required	Potable water available at shallow depth.
FP111				No Well Observed	Very Good	LS	TW	80-100 m	600-800 LPM	Very High	NP (As & Fe) (at shallow depth)	10	Not Required	Areas with high concentration of Arsenic & Iron. Potable water available at deeper depth.
BS12	Majda / Jai Pariguri / Gangani - Koshi Formation (Early - Late Holocene)	Alluvium (Clay Dominant) (12)	Back Swamp (BS)	No Well Observed	Poor	LS	TW	60-70 m	40-50 LPM	Low to Moderate	P	100	Not Required	Areas of low groundwater potential. Better potential at greater depths.
APY113		Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	9 / 5 22	Good	LS	TW	25-30 m	200- 250 LPM	High	P	98	RW	Water available at shallow depth, however, parts of the unit falling under Harishchandrapur-II block under semi-critical category, recharge structure suggested.
APY113				9 / 6 1	Good	LS	TW	100-120 m	400- 500 LPM	High	NP (As & Fe) (at shallow depth)	45	Not Required	Areas with high Arsenic & Iron content. Potable water available at deeper depth.
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 aquifers with good recharge from base flow.
APO19	Baing Formation (Lt. Pleistocene - Et. Holocene)	Alluvium (Silt Dominant) (Caliche & Fe-Nodules Bearing) (19)	Alluvial Plain Older (APO)	No Well Observed	Moderate	LS	TW	50-60 m	75 - 100 LPM	Moderate	P	25	Not Required	Shallow aquitards form due to clayey sediments. Aquifers occurred at more depth.
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 / Q / Q / P / P													These are dykes, quartz reefs and pegmatite veins, which generally act as barriers for ground water movement.

