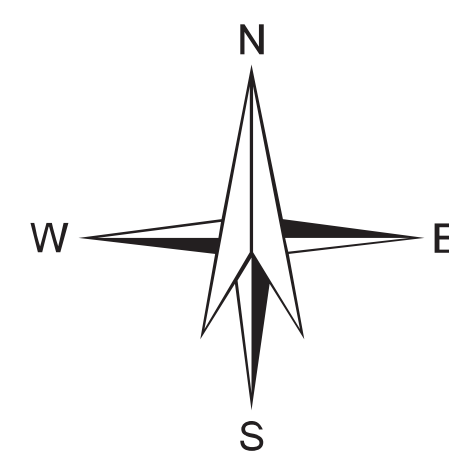


0 1 2 3 4 5 Kilometers

**SCALE - 1 : 50,000**



MAP UNIT (HYDROGEOGRAPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE  (COLOUR INDICATES YIELD RANKING AND HATCHING INDICATE DEPTH RANKING)	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  P/E / 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 = FRAGMENTAL ROCK FR = FRACTURED ROCK WM = WEATHERED MATERIAL IM = IMPERVIOUS ROCK IM+FR = IMPERVIOUS MATERIAL	TYPE OF WELLS SUITABLE  DW = DUG WELL BW = BORE WELL TW = TUBE WELL DWB / DUB = COMB BORE WELL DTW = COMB 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  POSSIBLE OR NON-POSSIBLE (P)  (NODICY RESIDUES P, NON-POSSIBLE F)	GROUND WATER BRIGADE AREA  (APPROX. RANGE IN PERCENTAGE)			
												PT = PERCOLATION TANK CB = CHECK DAM NB = NALANDA RP = RECHARGE WELL DT = DRAINAGE TANK SD = STORAGE DAM RB = RECHARGE DRAIN ST = STORAGE TANK SCW = SOIL CONSERVATION MEASURES		
CB111	Aluvium (Sand Dominant) (111)	Channel Bar (CB)	Excellent	5 - 6 2	LS	RW TW	5-10	400-500	Very High	P	42%	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
APY113	Aluvium (Sand and Silt) (113)	Aluvial Plain Younger (APY)	3.38 DW - 1	Very Good	LS	DW TW	10 - 12 20 - 30	125 - 150 m <sup>3</sup> /day 250 - 300 LPM	Very High	P	Nil	Not Required	Aquifer is formed of sandy part of alluvium. Recharge structures are not required as good recharge conditions prevail	
AP013	Aluvium (Sand silt and clay) (13)	Aluvial Plain Older (APO)	No wells observed	Good	LS	DW TW	10 - 15 30 - 40	75 - 100 m <sup>3</sup> /day 150 - 200 LPM	High	P	Nil	Not Required	Aquifer is formed of sandy part of alluvium. Recharge structures are not required as good recharge conditions prevail	
VFS211		Valley Fill Shallow (VFS)	No wells observed	Moderate	LS Underlain by WM+FR	TW / BW	50 - 60	75 - 100 LPM	Moderate	P	Nil	DT Moderate	Recharge structure will increase the sustainability of groundwater	
LP211	Laterite (Ferricrete-hard crust, lateritic nodules and lithomene clay) (211)	Lateritic Plain (LP) (Lithomene Clay)	No wells observed	Limited	WM+FR	DW TW / BW	15 - 20 50 - 60	25 - 50 m <sup>3</sup> /day 50 - 100 LPM	Moderate	P	Nil	RW / DT High	Areas of exposed lithomene clay fracture zones form the aquifer/recharge structures will enhance groundwater development	
DLU211		Dissected Lateritic Upland (DLU) (Hard crust and Lateritic nodules)	No wells observed	Poor to limited	IM+IR (Impervious material)	TW / BW	80 - 100	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 condition. Primarily forest areas with sparse settlements. Not suitable for large scale development of groundwater	
HTW81		Granite (81)	No wells observed	Limited	WM+FR	DW TW / BW	< 5 25 - 30	< 5 m <sup>3</sup> /day 30 - 50 LPM	Low	P	Nil	RP Moderate	Prospects limited. Better prospects along fracture controlled valleys	
BPS73		Anorthosite and Gabbroic Anorthosites (73)	6.17 DW - 1	Limited	WM+FR	DW TW/BW	5 - 10 40 - 60	< 5 m <sup>3</sup> /day 30 - 50 LPM	Low	P	Negligible	RP/DT High	Limited groundwater resources. Priority of recharge structures is high	
VFS832		Valley Fill Shallow (VFS)	No wells observed	Moderate	LS Underlain by WM+FR	TW / BW	30 - 50	150 - 175 LPM	Moderate	P	Negligible	CD/DT Moderate	Prospects inferred as no wells observed. Recharge condition is moderate with moderate groundwater prospects	
BPM832		Buried Pediplain Moderate (BPM)	No wells observed	Moderate	WM+FR	DW TW / BW	5 - 10 40 - 50	15 - 25 m <sup>3</sup> /day 150 - 175 LPM	Moderate	P	Nil	Not Required	Small units/recharge structures not required	
BPS832		Buried Pediplain Shallow (BPS)	5.54 - 6.55 HP - 2	Limited	WM+FR	DW TW / BW	5 - 10 40 - 60	10 - 15 m <sup>3</sup> /day 75 - 100 LPM	Low	P	5%	RP High	Recharge structures will improve sustainability of groundwater sources	
PPS832		Weathered Pediplain Shallow (PPS)	No wells observed	Poor	FR	DW TW / BW	5 - 10 40 - 60	5 - 10 m <sup>3</sup> /day 30 - 50 LPM	Low	P	Nil	RP High	Due to high run-off and poor infiltration, recharge structures are required to maintain sustainability of groundwater sources	
RH832		Residual Hill (RH)	No wells observed	—	—	—	—	—	—	—	—	—	Run-off zone. Not suitable for groundwater development	
DHM832		Denudational Hill/ Moderately dissected (DHM)	No wells observed	—	—	—	—	—	—	—	—	—	Run-off zone. Not suitable for groundwater development	
VFS923		Valley Fill Shallow (VFS)	No wells observed	Moderate	LS Underlain by WM+FR	TW / BW	30 - 50	100 - 125 LPM	Moderate	P	10%	CD/DT Moderate	Prospects inferred as no well observed. Recharge condition is moderate with moderate groundwater prospects	
BPS923		Buried Pediplain Shallow (BPS)	1.71 - 6.43 DW - 6 HP - 1	Limited	WM+FR	DW TW / BW	5 - 10 40 - 60	5 - 10 m <sup>3</sup> /day 50 - 75 LPM	Low	P	Negligible	RP High	Recharge structure will improve sustainability of groundwater sources	
PPS923		Weathered Pediplain Shallow (PPS)	5.33 DW - 1	Poor	FR	DW TW / BW	5 - 10 40 - 60	5 - 10 m <sup>3</sup> /day 30 - 50 LPM	Low	P	Negligible	RP High	Due to high run-off and poor infiltration, recharge structures are required to maintain sustainability of groundwater sources	
BJS923		Bajada Shallow (BJS)	No wells observed	Moderate	LS Underlain by WM+FR	DW TW / BW	10 - 15 90 - 100	10 - 15 m <sup>3</sup> /day 100 - 125 LPM	Moderate	P	Nil	Not Required	Recharge is moderate. Better yields at greater depths within fractured rocks	
HTW923		Hill Top Weathered (HTW)	No wells observed	Limited	WM+FR	DW TW / BW	< 5 25 - 30	< 5 m <sup>3</sup> /day 30 - 50 LPM	Low	P	10%	Not Required	Prospects limited. Better prospects along fracture zones	
RH923		Residual Hill (RH)	No wells observed	—	—	—	—	—	—	—	—	—	Run-off zone. Not suitable for groundwater development	
DHM923		Denudational Hill/ Moderately dissected (DHM)	5.67 DW - 1	—	—	—	—	—	—	—	—	—	Run-off zone. Not suitable for groundwater development	

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.

N.B.-The depth range and yield range of wells may vary within the unit because of certain inhomogeneities. Fractures/Lines/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.

