

GIS Aided Groundwater Potential Mapping of the Langat Basin

KHAIRUL, A.M.¹, JUHARI, M.A.² & IBRAHIM, A.²

¹Malaysian Centre for Remote Sensing (MACRES)
No.13, Jalan Tun Ismail, 50480 Kuala Lumpur, Malaysia

²Universiti Kebangsaan Malaysia
43600 Bangi, Selangor, Malaysia

Groundwater constitutes an important source of water supply for various purposes, such as domestic industries and agriculture needs. In the hydrological cycle, groundwater occurs when surface water (rainfall) seeps to a greater depth filling the spaces between particles of soil or sediment or the fractures within rock. Groundwater flows very slowly in the subsurface toward points of discharge, including wells, springs, rivers, lakes and the ocean. In this study, the integration of remote sensing and geographic information system (GIS) methods were used to produce a map that classified the groundwater potential zone to either very high, high, moderate, low or very low in terms of groundwater yield. Almost all alluvial plains have a high potential of groundwater occurrence. Meanwhile, in the hard rock areas, groundwater potential is in the high density lineament zones.