

Identification of Groundwater Potential Zones using GIS

Aarya Chaudhari, Aaditi Kharade, Tanaya Patil, Ummehani Shaikh

Department of Civil Engineering

Guru Gobind Singh Polytechnic, Nashik, India

Abstract: Nowadays ground water is decreasing and therefore there is an increase in demand of water. Ground water is one of the major source that contributes to the total annual supply. The objective of this paper is to review techniques and methodologies applied for identifying groundwater potential zones using GIS and remote sensing. Several methods are used for mapping of ground water zones. The parameters that are used for controlling groundwater zones are soil, drainage density, land use/land cover, geology, geomorphology, rainfall, slope, and contour. Groundwater mapping techniques are described and derived from satellite remote sensing and additional data sources. These techniques includes both conventional methods and advanced methods. The thematic layers are used for mapping and identification of groundwater potential analysis. The importance of each thematic layer and its weight is discussed for the location groundwater potential zones using groundwater conditions. This groundwater potential information will be useful for effective identification of appropriate locations for extraction of water..

Keywords: ground water