

**GROUNDWATER RESOURCES POTENTIALS AND MANAGEMENT STRATEGY OF
UNCONFINED AQUIFERS OF MORIGAON DISTRICT, ASSAM STATE**

BY

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ABSTRACT

This paper embodies the results of hydrogeological studies of unconfined and shallow aquifers and their capacity with respect to their ground water resource potentials. The unconfined aquifer is an aquifer, whose upper surface is defined as water table and is in vertical contact with the atmosphere through the soil interstices. Their strategy has been made out on the basis of utilisation and balance of groundwater, which were computed to determine a judicious development of the resource in future. The feasibility of shallow groundwater abstraction structures and the distance between them to avoid interferences of their cones of depressions around them are recommended in the areas of all the blocks of the district. Their design criteria have also been suggested.

The components of the physiographic and meteorological data were analysed to evaluate potential evapotranspiration, water deficit and water surplus periods of the year.

The elements of chemical characteristics of the ground water are determined blockwise and their permissible/recommended limits have been discussed to know the quality and its uses for irrigation, domestic and industrial purposes. The areas of high concentrations of iron are demarcated.