

FORMULATION OF A GROUNDWATER POTENTIAL INDEX
IN
SRI LANKA

A PROJECT REPORT PRESENTED BY

RATHNAYAKE MUDIYANSELAGE WASANTHA KUMARA RATHNAYAKE

to the Board of Study in Earth Sciences of the
POSTGRADUATE INSTITUTE OF SCIENCE

*in partial fulfillment of the requirement
for the award of the degree of*

MASTER OF SCIENCE IN ENGINEERING GEOLOGY AND HYDROGEOLOGY

of the

UNIVERSITY OF PERADENIYA
SRI LANKA

2004

590976

ABSTRACT**FORMULATION OF A GROUNDWATER POTENTIAL INDEX
IN SRI LANKA****R.M.W.K. Rathnayake**

PostGraduate Institute of Science,

University of Peradeniya,

Sri Lanka

To cater to the water demand of the world is a considerable problem and this makes inconveniences for people. The water requirement is increasing with the increasing of population. The groundwater, as well as surface water, must be considered when meeting this water demand. The groundwater bearing formations are now being identified by using various geophysical methods. Before drilling a tube well for groundwater extraction, if the yield can be predicted it will be helpful in many ways. For that purpose few factors, which can be obtained before drilling a tube well, such as rainfall of the area, overburden thickness and fracture intensity etc., have been considered with yield to make a Groundwater Potential Index (GWPI).

For the study the locations were selected from the different regions of Sri Lanka excluding the Northern part. Data were collected for above factors and locations were separated into dry zone to wet zone. Results that are analyzed show that the relationships between above factors and yield is not a simple. Therefore for fine tuning the relationship, other factors such as geology of the area need to be considered.