

VISVESWARAIAH TECHNOLOGICAL UNIVERSITY, BELGAUM.



DHARWAD-580 002

PROJECT REPORT ON

**“ASSESSMENT OF WATER QUALITY INDEX
FOR GROUND WATER”
CASE STUDY: DHARWAD TALUKA**

UNDER THE GUIDANCE OF

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ABSTRACT

The present work is aimed at assessing the water quality index (WQI) for the groundwater of Dharwad Taluka. This has been determined by collecting groundwater samples and subjecting the samples to a comprehensive chemical analysis. For calculating the WQI, the parameters considered are: pH, total hardness, calcium, magnesium, alkalinity Chloride, nitrate, sulphate, total dissolved solids, iron, turbidity and fluorides. The WQI for the collected samples ranges from 6.507 to 299.601. The high value of WQI has been found to be mainly from the higher values of fluoride, TDS, total hardness in the groundwater. The analysis reveals that the groundwater of the area needs some degree of treatment before consumption, and it also needs to be protected from the perils of contamination

In Dharwad taluka, there are 176 villages, of which 108 are put under the category of revenue collecting villages. For our study, this whole area is divided into 4 parts i.e., North East, North West, South East and South West. In all these directions some of the villages are covered and locations of bore wells are determined using GPS. Later cadastral maps are analyzed in GIS environment.