

# **A METHODOLOGY RESEARCH FOR ASSESSMENT OF THE QUALITY OF GROUNDWATER**

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## **EXPERTISE THESIS ABSTRACT**

Groundwater forms the significant part of the fresh water reserve of the world. Therefore, importance of the protection of groundwater is increasing continuously. It is required to know the quality of each groundwater body to establish an effective program for protection of groundwater against the pollution and deterioration.

EU Directives relevant with the assessment of the groundwater quality have been published after a long preparation phase. Moreover, some guidance documents and technical reports have been published to implement these directives practically and to form a common understanding about the implementation of the directives. In addition, these guidance documents and technical reports have been tested in EU countries.

Turkey is determined to join the European Union and this accelerated the works about the harmonization of EU relevant directives and implementations to our national legal system which also includes issues about groundwater quality protection and groundwater quality status. Therefore, it was required to make some reforms and set new requirements about protection of groundwater and assessment of its status. In this context, “By-Law about the Protection of Groundwater against the Pollution and Deterioration” has been entered into force in 2012 April.

The By-Law aims to carry out the implementations and to satisfy requirements that are stated and scheduled in the By-Law. “Assessment of groundwater quality status” is stated as a must implementation in the By-Law. In this context, by this thesis work, the approaches that are addressed in the relevant guidance documents, technical reports, projects done by EU member states and articles wrote by authorities are examined and these approaches are evaluated considering Turkey’s conditions and requirements about groundwater quality.

Finally, by this evaluation, methodology and approaches that are fits to Turkey are presented and some suggestions and critics are done for this methodology/ies.

**Key Words:** groundwater, quality assessment, guidance documents, metho

