

**PRINCIPLES OF DETERMINATION OF SENSITIVE AREAS AND WATER QUALITY
OBJECTIVES IN TERMS OF WATER POLLUTION AND MANAGEMENT OF
SENSITIVE AREAS**

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EXPERTISE THESIS ABSTRACT

In this study, it is aimed to form a methodology for the determination of sensitive water areas in terms of water pollution, nitrate sensitive water areas and nitrate vulnerable zones, and to reveal management principals to be taken to improve water quality in sensitive water areas.

Within the scope of the aim, primarily, national and international legislation related to sensitive areas have been investigated and legislation requirements for the identification of sensitive areas and management have been presented. Existing studies and EU member country practices in sensitive areas have been revised and the applicability to our country by analyzing the positive and negative aspects has been discussed. The methodology developed within the Project that is being carried out in our country on the identification of sensitive areas has been examined. All the methods used for the management of eutrophication in water have been researched and the methods that can be applied in our country have been evaluated with the advantages-disadvantages in order to determine management principles on sensitive areas.

Uluabat Lake Sub Basin which is also an important ecologically sensitive water body has been chosen as a pilot area. All forms of pressures and calculated pollution loads that resulted from urban, industrial and agricultural activities have been evaluated in the context of a holistic approach to the principles of the WFD. Trophic status has been determined by analyzing the present monitoring studies results and primarily, the conclusion that measures should be taken regarding as reduction of nitrogen-phosphorus load from external sources to the lake have been obtained for a permanent solution. In this context, "Treatment of Domestic and Industrial Wastewater, Prevention of Agricultural Pollution, Carrying to the Landfill of Solid Waste,

Reforestation and Formation of the Bulrush Cutting Plan" measures that are necessary to improve the eutrophic lake's water quality and implementation schedule have been determined.

Keywords: sensitive water areas, vulnerable zone, eutrophication, integrated water management.