In the last 50 years, water, soil and air pollutions in Istanbul and her surroundings have increased due to the industrialization and the increase in her population. Especially, domestic and industrial wastes has an important pollution effect on water sources.

The Riva Stream flowing into Blacksea is passed through the small villages of Beykoz in Istanbul that comprises several chicken farms and agricultural fields. Their organic discharge eventually pollutes the Riva Stream excessively that is very important wetland for Istanbul. This encouraged us to convey some detailed investigation to determine the quantity of pollution in the Riva Stream from its surroundings.

With this aim, water samples were taken from four sampling stations near the Riva Stream each month at March 2006-February 2007 interval. Biological oxygen demanded (BOD), orthophosphate (OP) and total nitrate (TN) concentrations in the samples were measured along with the water temperature and pH values and dissolved oxygen (DO) concentrations at the stations during the study period. The results have been discussed according to the regulations of environmental authorities (such as Ministry of Environmental Affairs and Forestry and EU) demonstrated that significant poor water quality in the Riva Stream has been observed during the period 2006-2007. Organic pollution was increased when the temperature was increased, especially in July 2006. Besides, pH values near the chicken farmings were measured higher than those in natural water. The former values were measured the highest in May 2006 and the lowest in March 2006. The amount of the total nitrate (NO$_3^-$) and orthophosphate (PO$_4^{3-}$) was measured 11.52-12.5 mg/L and 1.06-3.54 mg/L, respectively.

In this work, the physical and chemical measurements indicate that the Riva Stream has been polluted with organical pollutants. The Riva Stream should be protected from the surrounding pollutants; otherwise, the pollution of this reservoir will cause irreversible economic, ecological and biological losses and destruction.