The Black Sea is the world's largest enclosed sea with a surface area of 413,000 km², a volume of 547,000 km³ and a maximum depth of 2212m [1]. The Black Sea is surrounded by six countries located in Europe and Asia; Bulgaria, Georgia, Romania, Russia, Turkey and Ukraine. In fact the Black Sea is influenced by seventeen countries in eastern and central Europe [2]. The Black Sea is fed by several large rivers originating in Europe and Asia which carry substantial loads of organic matter, nutrients and anthropogenic contaminants. The major river flowing into the Black Sea is Danube River which accounts for 64% of the riverine water discharge [3]. The Black Sea has suffered from extensive pollution over the last few years due to unmanaged fishing, unrestricted shipping, mineral exploitation, dumping of toxic wastes, discharge of domestic wastes from coastal cities and pollutants carried by rivers [4]. The aim of this study was to investigate the water and sediment quality in the Mid-Black Sea coast of Turkey. The samples were collected from 10 stations including rivers, sea water and sediments seasonally at 2007. Investigated parameters were total carbon (TC), total inorganic carbon (TIC), total organic carbon (TOC), biochemical oxygen demand (BOI5), phenol, methylene blue active substances (MBAS), nitrogen, phosphorus, sulphate, chloride, dissolved oxygen, pH, conductivity, salinity, redox potential in water samples and TC, TIC, TOC, phosphorus, pH, conductivity, redox potential and water content in sediment samples. All measurements were performed according to standard methods [5]. Carbon analyses were performed by Apollo 9000 TOC analyzer. For all carbon analyses, quality assurance and quality control tests were performed by repeating random sample analysis, blank analysis, reference materials and statistical calculations. Relative standard deviations (RSD) were in between 2.55-11.53% for TOC and 0.77-3.52% for TC. Conventional parameters were analyzed by PG-T70 UV-VIS spectrophotometer with proper kits and calibrations were calculated with linear regression corrections. The seasonal variation in the concentration of pollutants was determined and the total quantity of the pollutants discharged from the rivers was presented.