

**DETERMINATION OF MINIMUM ENVIRONMENTAL WATER REQUIREMENT
OF BAMDEJ WETLAND, SOUTH WEST OF IRAN**

Afkhami M.

Bamdej wetland with more than 4000 ha surface is one of the most important wetlands of Iran and situated at southwest of Iran, 40 km northwest of Ahwaz city capital of Khuzestan province. Many of people use this wetland water for drinking, agriculture and so many other purposes.

Bamdej wetland water pollution due to increasing water withdrawal from and wastewater discharge to this wetland has endangered the aquatic life of the wetland. Furthermore, the drinking and agricultural water quality standards have been violated in many regions. One of the most important management approaches is determination of wetland minimum Environmental water requirement.

In this study, after reviewing the current quantitative and qualitative conditions of the system, four sampling stations specified and quality parameters as BOD, COD, DO, PO₄, Temperature, NO₃, Ec, PH and TSS have measured. Water quality standard Index (WQI) for wetland stations in four seasons calculated. By using PREWET model from U.S. Army the minimum water requirement of wetland has calculated in six different scenarios. The results showed that 7.5 to 12.5 M³/s discharge of feeding river (Shavoor River) is required as the minimum wetland requirement.