

Evaluation of Quality and Estimation of Changes Volume Water in the Wetlands of Poldokhtar County

Mehdi mehdinasab^{1*}

Reza Mirzaei²

1. Club Researchers and Elite young, Khoramabad Branch, Islamic Azad University, Khoramabad, Iran

2. Ph.D. Student in Geology, Trend Tectonic, Tehran South Branch, Islamic Azad University, Tehran, Iran

***Corresponding author:**

Mehdi_4531@yahoo.com

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Abstract

Among the aquatic ecosystems, wetlands are ecologically and environmental important because they are as: the place of accumulation and acceptance of nutrients and non-Nutrients, the protection of biodiversity of animals and plants, natural purification of water quality, the Effects of Micro-Climi in the region, play an effective role. So, evaluation the quality chemical, physical and water is essential for quality control, pollution control and biodiversity conservation. qualitative in dicators and hydrological bulletin are the methods that can be used as a strong management tool for decision making on qualitative and quantitative water resources management. Poldokhtar County has 11 wetlands with 8 permanent and 3 seasonal wetlands, known as the wetland city of iran. in this research, which was held in the summer of 2017, water qualitative water quality index (WQI) was used to determine the quality of drinking water and aquatic ecosystems based on the calculation of nine physical and chemical parameters of water including Nitrite(NO₂), Nitrate(NO₃), Alkalinity, Hardness(MgcaCO₃), Turbidity(TURB), Electrical Conductivity(EC), Dissolved Oxygen(DO), Acidity(PH) and biological oxygen demand(BOD₅), The Statistics of Physical and Chemical Characteristics of Water in Wetlands in Summer of 2017 In order to estimate annual water volume in wetlands, rainfall data, surface runoffs and groundwater nutrition as inputs of water and only water outlet of evaporation wetland, 2005 as normal precipitation, 1993 and 2008, were very severe droughts, and physiographic characteristics of the catchment area and Water balance equation were used. the results of this study based on the WQI index and the hydrological bulletin showed that their water quality of drinking water is in the good and poor classes, and in terms of ecologically clean water, the changes volume and area of the annual water area of the wetlands in the year extreme drought and fatigue, 1747545 cubic meter, 29.89 Hectares is showing.

Keywords: Wetland, Chemical and Physical Properties, Water Quality Index (WQI), Hydrological Bulletin, Poldokhtar County.