

Study of Sefidroud River Water Quality in Roudbar

Maryam Moravatdoust

Anarkoli^{1*}

Sam Haeripour²

Reza Amirnezhad³

1. M.A. student in Natural Resources Engineering Environment, the Pollution of the Environment, Islamic Azad University, Tonekabon Branch, Tonekabon, Iran

2. Assistant Professor of the Environment Group, Islamic Azad University, Tonekabon Branch, Tonekabon, Iran

3. Assistant Professor of the Environment Group, Islamic Azad University, Tonekabon Branch, Tonekabon, Iran

***Corresponding author**

maryammoravatdoust@gmail.com

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Abstract

Due to the important values of Sefidroud as the most important and valuable drinking water source, agriculture, and aquatic environment in Guilan province, the study of water quality of this river is necessary. This research has been done with the purpose of studying the quality and the potential for self-purification of this river in Roudbar and also its quality status for drinking water, hygiene and agriculture. For this purpose, the water quality changes during the months of February, 2013 to January, 2014 (12 months) has been measured in four different stations along the river. The total number of 48 samples has been taken monthly. After the analysis of the obtained data and the calculation of the water index, the best water quality index in the discharging station of Sefidroud Dam has been observed in February with the amount of 84 and the worst water quality index was 58 in Ganje Station in October. The mean of WQI in Sefidroud in studied area was 69/19, which was in the mid-range. Also, from the discharging station to the station near the Tarik Dam, a visible quality loss was observed due to entering a high amount of different types of sewage into the water. This actually makes this water inappropriate for drinking and agriculture. The river has lost its potential for self-purification in downstream stations and also has increased its pollution.

Keyword: Sefidroud, Water Quality, Self-purification, Quality Parameters, WQI.