IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

 $International\ Open-Access,\ Double-Blind,\ Peer-Reviewed,\ Refereed,\ Multidisciplinary\ Online\ Journal\ Multidisciplinary\ Online\ Multidisciplinary\ O$

Volume 4, Issue 2, April 2024

Quality Analysis of Ground Water in Nashik Region

Vishwajit Kogade¹, VaibhavPatil², Ansari Ahamad Raza³, Mehul Surade⁴, Varun Pandit⁵, A. E. Sonawane⁶, N. P. Mujumdar⁷, P. G. Chavan⁸

Students, Department of Civil Engineering^{1,2,3,4,5}
Professor, Department of Civil Engineering^{6,7}
HOD, Department of Civil Engineering⁸
Guru Gobind Singh Polytechnic, Nashik, India

Abstract: Groundwater quality refers to the state of water that is located beneath earth's surface. Groundwater can gather in cracks in subsurface rocks and in between soil particles. Since many compounds can dissolve in water and others can be suspended in water, there is a potential for contamination with toxic compounds. To know ground water quality. The study aims to create various graphs that expose the human-related health risks posed by the considered contaminants. All the samples were analyzed to trace the amount of a considerable range of pollutants; consequently, a health risk assessment for carcinogenic and non-carcinogenic risks was carried out. A water suitability study for irrigation and drinking purposes found that in the studied samples, nitrate was present as the major pollutant among the others. Industrial wastewaters mainly caused nitrate pollution in the area and solid fertilizers and pesticides.

Keywords: pH, Alkalinity, Hardness, D.O, Chloride

REFERENCES

- [1]. Singh, A., et al. (2018). "Assessment of groundwater quality in urban and rural areas of Nashik district, Maharashtra, India." Environmental Monitoring and Assessment, 190(2), 96.
- [2]. Gupta, R., et al. (2019). "Impact of industrial pollution on groundwater quality in industrial zones of Nashik, Maharashtra, India." Environmental Science and Pollution Research, 26(11), 10911-10925.
- [3]. Patil, S., & Ghosh, S. (2020). "Groundwater quality assessment in agricultural regions of Nashik district, Maharashtra, India." Environmental Earth Sciences, 79, 81.
- [4]. Government of Maharashtra. (2020). Maharashtra Groundwater Management Policy. Retrieved from [URL].
- [5]. Desai, P., et al. (2020). "Health risk assessment of groundwater contamination in Nashik, Maharashtra, India." Environmental Health and Preventive Medicine, 25(1), 1-14.
- [6]. B.Saraswathi, Dr. P.Radhika Devi, Y.VinodaDevi"Assessment Of Ground Water Quality Of LB Nagar, Hyderabad and Impacts Of Industries Closure", International journal Of Scientific & Engineering Research, Volume 7.
- [7]. K.Niranjan Kumar, A. G. S. Reddy ,R. Mallikarjuna Reddy And K. Srinivas Varma, "Preliminary Investigations Of Groundwater Quality In Hyderabad City, Andhra Pradesh, India".

DOI: 10.48175/568

