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## Impact of Municipal Solid Waste Dump Yard on Ground Water –A Case Study of Kanchipuram Municipality, Tamilnadu, India

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**Abstract :** Improper municipal solid waste dumping may lead to serious environmental hazards. This study was conducted to understand the ground water quality of Kanchipuram municipal solid waste dump yard surroundings. In this process 15 groundwater samples were collected close to the dump yard during July 2015. Water quality parameters like pH, Total Dissolved Solids (TDS), Electrical Conductivity (EC), Total Alkalinity (TA), Total Hardness (TH), Calcium (Ca), Magnesium (Mg), Iron (Fe), Manganese (Mn), Free Ammonia (NH<sub>3</sub>), Nitrate (NO<sub>3</sub>), Chloride (Cl), Fluoride (F), Sulphate (SO<sub>4</sub>) and Phosphate (PO<sub>4</sub>) were analysed. The analysis result was compared with World Health Organization (WHO) and Bureau of Indian Standard (BIS) potable drinking water standards. Water quality index (WQI) has been calculated for each sample location by using standard calculation methods. In statistical method, the correlation coefficient was applied with sample test result. The study concludes that ground water nearby to the municipal solid waste dump yard in Kanchipuram municipality gets polluted. So it is necessary to do proper treatment before consuming the ground water. **Keywords :** Groundwater, WQI, Correlation, Water quality and Solid waste.

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