

Analysis of temporal change in land use and impact of water resource in Delta's Jeneberang Makassar, South Sulawesi

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Abstract. Twelve groundwater samples were collected in the delta Jeneberang River to study the possible impact of municipal solid waste (MSW) cause by land use cover change. The groundwater samples were collected for assessment in terms of physicochemical parameters such as pH and turbidity. A statistical analysis has been done with the calculation of the correlation coefficient and the water quality index (WQI) was used to analyze the groundwater quality of the study area. The study has revealed that the correlation between these parameters is about -0.476155325. Further, the WQI at the first location has a rating scale of C known as a poor water quality with an index value of 61.5 and the worst is at the 12th location has an index value of 90.58, or with a D rating as very poor water quality.