

SUMMARY

Mufti Ananda, Water Resources Engineering, Engineering Faculty, Brawijaya University, January 27, 2015, Study of Groundwater Pollution Vulnerability in Rubbish collection places Ngijo Karangploso District of Malang by using *DRASTIC* methods. Academic Supervisor Dr. Eng. Andre Primantyo H., ST., MT and Dr. Ir. Endang Purwati, MP.

Currently the groundwater used for various purposes be it industrial, domestic or irrigation. In this case that must be considered is that the groundwater in an area of low quality, so that the ground water as a natural resource that can be updated as well need to be protected from pollution.

Studies of groundwater vulnerability in Ngijo Waste Depot District of Karangploso an analysis to determine the level of vulnerability of groundwater against pollution. In this case, to determine the level of groundwater vulnerability to pollution of the study sites used drastic methods. Methods drastic has seven parameters that are used as a reference in determining the level of vulnerability of groundwater against pollution, namely: Depth to Watertable (Kedalaman Muka Airtanah), Recharge (Infiltrasi), Aquifer Media (media akuifer), Soil Media (Tekstur Tanah), Topography (Kemiringan Lereng), zone Vadose Impact of the Media (kondisi Zona Tak jenuh), Hydraulic conductivity of the Aquifer (konduktivitas hidraulik). Data analysis for each parameter multiplied by the value weighted rating to obtain a certain score value of the seven parameters to obtain the index precipitously. Drastic index = $Dr Dw + Rr + Rw + Ar Aw Sw Sr Tr Tw + Ir + Iw + Cr Cw$.

After analysis and calculation, this thesis obtained the vulnerability of groundwater against pollution in waste collection places Ngijo District of Karangploso is low. Due to the layer of soil in the study area is clay, so to 4 parameters drastically namely, media aquifers, soil texture, type of zone and not Saturated hydraulic conductivity produces a small score. For the most influential factors on the susceptibility of groundwater at the site of the research is the depth of the ground water level was stressed that the distance is not too deep. After knowing the potential vulnerability of groundwater at the site is expected penenelitian location and management of waste in a landfill in accordance with the provisions of, for example, according to SNI 03-3241-1994 and Operation and Maintenance Manual Final Disposal (TPA) Controlled System and Sanitary Landfill Landfill.

Keywords: groundwater, levels of vulnerability, *DRASTIC*.