Plan of Springs Management to Preserve Springs Function in The Part of Gajah Wong River, Yogyakarta City, Yogyakarta Special Region

ABSTRACT

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Springs found around Gajah Wong River with the average discharged about 0,4 L/sec. Dense building, concrete, and asphalted road cause the water infiltrated into the soil. The objectives of this research are for knowing the springs susceptibility and plan of springs management based on the springs susceptibility.

This research use survey method, mapping, and scoring. Parameter valued are rainfall, slope, hydraulic conductivity, infiltration, springs debit, and landuse. There are eight springs (Karangbendo, Padak Baru, Tirta Ganesha, Jepang, Belik, Bonbin, Umbul Wadon, and Pleretan Springs) and categorized by six observation sites.

Management plan for each susceptibility accompanied by apply the 200 metres zone. Low susceptibility grade use vegetative conservation and apply the zero runoff system (ZROS). Medium susceptibility grade uses constructive conservation ("broncaptering") type general hydrants with spring pumping system.

Keywords: Plan, Management, Springs, Springs Function, Gajah Wong River