

**THE MANAGEMENT OF SPRING BASED ON THE CHARACTERISTICS
AND THE POTENTIALS FOR DOMESTIC NEEDS IN GERBOSARI
VILLAGE, SAMIGALUH DISTRICT, REGENCY OF KULON PROGO,
SPECIAL REGION YOGYAKARTA**

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ABSTRACT

Spring is one of the water resources. Gerbosari village use spring as a water resource. The number of people who use water more and more years increases with population growth. During the dry season the population difficult to get clean water for necessary. The springs management that studied are still not good enough. This study is for find out characteristic and potential of the spring in Gerbosari village and springs management in the area.

The characteristic that studies include types of spring based on discharge, trendness, and gravity. Potential of spring detect by discharge (quantity) and quality of the spring water. The evaluation about potential of spring also detect from groundwater availability. The quantity of the spring find out use volumetric method. The quality of the spring knowed from measuring in location and laboratory. The parameter are odor, taste, turbidity, temperature, TDS, pH, Ca^{2+} , Mg^{2+} , Na^+ , K^+ , HCO_3^- , SO_4^{2-} , Cl^- , NO_3^- , and total coliform. To determine the groundwater genetic, the laboratory test results were analyzed using the method of Trilinier Piper. Projection of polulation growth for 10 years more use geomethric method. The groundwater availability use water balance method.

The fifth spring namely Kalipancur spring, Kalisemurup spring, Kenongo spring, Kalimanggis spring, and Sekepyar spring included parenial springs. The springs appeared through the cracks in the breksi andesit rock. Quality of the fifth spring are bad. Based on the analysis result trilinier piper method, it can be stated that genetic of groundwater at the study site is generally has a carbonate hardness (alkalinity secondary) more than 50% of groundwater dominated by weak acid and alkaline soil. The quantity of the fifth spring is still enough to meet the needs of if their accomodated well. The condition of recharge area is intermediate. Management for the springs are spring protection and making tank water.

Key words: Characteristic of spring, potential of spring, trilinier piper, management