

**TEKNIK KONSERVASI MATA AIR UNTUK KETERSEDIAAN AIR
BERSIH DI DESA PURWOHARJO, KECAMATAN SAMIGALUH,
KABUPATEN KULONPROGO, DAERAH ISTIMEWA YOGYAKARTA**

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INTISARI

Desa Purwoharjo, Kecamatan Samigaluh, Kabupaten Kulonprogo terletak pada ketinggian 500 mdpl dengan jumlah penduduk 3392 jiwa. Satu-satunya sumber air potensial di desa tersebut adalah mata air akan tetapi belum adanya bak penampung sehingga kualitas air dapat terganggu dan air dapat terbuang percuma serta belum adanya pendistribusian air yang baik. Pengelolaan mata air dilakukan guna menjaga kuantitas dan kualitas mata air. Penelitian ini bertujuan untuk mengetahui tipe serta potensi mata air (kualitas dan kuantitas) dan mengetahui sistem pengelolaan mata air.

Metode yang digunakan yaitu metode survey dan pemetaan, metode wawancara, metode matematik dan metode laboratorium. Karakteristik mata air yang di kaji berupa sebaran mata air dan tipe mata air. Potensi mata air yng dikaji berupa kuantitas berupa debit dan kualitas mata air. Penentuan sampel untuk kualitas mata air menggunakan teknik *purposive sampling*. Kualitas mata air yang digunakan berupa pH, COD, BOD, DO, TDS, TSS, CaCO₃, kekeruhan dan total coliform yang dianalisa berdasarkan kualitas air standar kelas I Peraturan Gubernur DIY Nomor 20 Tahun 2008.

Hasil penelitian menunjukkan bahwa menurut Bryan (1919) tipe mata air berdasarkan konsistensi pengalirannya ke-5 mata air ini termasuk tipe *intermittent* karena debitnya berfluktuasi tergantung curah hujan. Berdasarkan debitnya, ke-5 mata air ini termasuk tipe kelas VI dengan debit berkisar 0,1-L/detik. Berdasarkan tenaga gravitasi, tipe ke-5 mata air ini adalah mata air rekahan yang terbentuk karena retakan-retakan batuan yang terpotong oleh lereng (topografi). Pengelolaan mata air yang dilakukan berupa bak penampung dan sistem distribusi serta pembuatan teras individu.

Kata Kunci : Mata air, Karakteristik Mata air, Potensi Mata air, Konservasi Mata air, Daerah Imbuhan.

**SPRING CONSERVATION FOR CLEAN WATER AVAILABILITY IN
PURWOHARJO VILLAGE, SAMIGALUH DISTRICT, KULONPROGO
REGENCY, SPECIAL DISTRICT OF YOGYAKARTA**

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ABSTRACT

Purwoharjo Village, Samigaluh Subdistrict, Kulonprogo Regency is located at an altitude of 500 meters above sea level with a population of 3392 inhabitants. The only potential water source in the village is spring but there is no reservoir so that the quality of the water can be disrupted and water can be wasted. Springs management needs to be done to maintain the quality and quantity of the spring. This study aims to determine the type and potential of springs (quality and quantity) and to know the springs management system.

The method used were survey and mapping method, interview method, mathematical method and laboratory method. The characteristics of the spring studied were distribution of springs and type of springs. The potential of the springs studied is in the form of quantities (discharge) and quality of springs. Determination of samples for spring quality using purposive sampling technique. Water quality was analysed based on pH, COD, BOD, DO, TDS, TSS, CaCO₃, turbidity and total coliform and compared to water quality standard class I Peraturan Gubernur DIY Nomor 20 Tahun 2008.

The results showed that according to Bryan (1919), the type of springs based on the flow consistency of these 5 springs was the intermittent type because the discharge fluctuated significantly depend on the rainfall. Based on the discharge these 5 springs were categorised as class VI with a discharge ranging from 0,1-1 L / sec. Based on the gravitational power, the type of these 5 springs was fracture springs that are formed due to rock cracks cut by the slope (topography). The management of springs is carried out in the form of reservoirs and distribution systems and the making of individual terrace.

Keywords: Springs, Springs Characteristic, Springs Potential, Springs Conservation, Recharge Area.