

KONSERVASI MATA AIR UNTUK KEBUTUHAN AIR BERSIH DI DESA MARGOYOSO, KECAMATAN SALAMAN, KABUPATEN MAGELANG, JAWA TENGAH

Oleh :
Reyhan Jof Sakti
114140115

INTISARI

Kekeringan merupakan masalah utama bagi penduduk desa Margoyoso saat musim kemarau. Desa Margoyoso merupakan desa yang berada pada Kecamatan Salaman, yang rawan akan kekeringan. Ketersediaan air dari mata air di daerah tersebut sebenarnya dapat dikatakan cukup memenuhi kebutuhan air bersih penduduk, namun debit mata air menjadi kecil saat musim kemarau. Kondisi mataair yang digunakan memiliki kualitas air yang tidak memenuhi standar bakumutu. Debit mataair di Desa Margoyoso juga cukup kecil dan kondisinya belum terlindungi. Tujuan penelitian yaitu untuk mengetahui karakteristik dan potensi mataair sehingga dapat menentukan arahan pengelolaan yang tepat dalam pemenuhan ketersediaan air .

Metode yang digunakan meliputi metode survey, laboratorium, wawancara, matematis dan evaluasi. Karakteristik mataair meliputi tipe mataair berdasarkan debit, sifat pengalirannya serta genetik mataair. Potensi mataair diketahui dari debit (kuantitas) dan kualitas mataair. Parameter yang digunakan untuk analisis laboratorium meliputi sifat fisik (warna, bau, rasa, kekeruhan), sifat kimia (pH, TDS, DO, dan Kesadahan), yang mengacu pada Permenkes No. 32 Tahun 2017 Tentang Standar Baku Mutu Kesehatan Lingkungan dan Persyaratan Kesehatan Air Untuk Keperluan Higiene Sanitasi, Kolam Renang, *Solus Per Aqua*, dan Pemandian Umum.

Mata air Desa Margoyoso tersebar pada dua dusun, diantaranya mataair Telogosari, dan Tubansari yang termasuk mataair dengan sifat pengaliran menahun (*perennial springs*). Tipe mataair berdasarkan kelas debit mataair Telogosari dan Tubansari termasuk dalam kelas rendah. Tipe kedua mataair termasuk tipe mataair depresi. Kualitas air dari kedua mataair tergolong buruk, sehingga jika dikonsumsi harus dimasak terlebih dahulu karena mengandung pH serta kekeruhan yang tinggi. Berdasarkan perbandingan debit air dan kebutuhan air, kuantitas dari kedua mata air masih mencukupi kebutuhan air bersih warga karena pengukuran dilakukan pada musim penghujan. Konservasi yang dilakukan berupa konservasi mataair dan daerah imbuhan. Konservasi mataair dilakukan secara teknologi (pembuatan Bak Reservoir, dan Hidran Umum), konservasi daerah imbuhan secara vegetative (penanaman jati, mahoni, sengon laut), dan secara teknik (Pematang Bulan Sabit pada kelas daerah imbuhan baik, Biopori pada kelas buruk dan Teras Gulud pada klasifikasi kelas imbuhan sedang), serta pendekatan kepada masyarakat dan pemerintah.

Kata Kunci : Mata Air, Karakteristik Mata Air, Potensi Mata Air, Daerah Imbuhan, Perlindungan Mata Air

SPRING CONSERVATION FOR CLEAN WATER NEEDS IN MARGOYOSO VILLAGE, SALAMAN DISTRICT, MAGELANG CITY, CENTRAL JAVA

By :
Reyhan Jof Sakti
114140115

ABSTRACT

Drought is a major problem for residents of Margoyoso village during the dry season. Margoyoso is an area that located in Salaman District, which is prone to drought. The availability of water from springs in the area can actually to be sufficient to meet the clean water needs of the population, but the spring discharge becomes lower during the dry season. The condition of the springs that people used were not meet the requirements of standards water quality. discharge of the springs in Margoyoso villages is low and springs have not been protected for long period of time. The research objective were to determine characteristic and potential of water from springs so as to determine the direction as well for water needs.

The methods used include survey methods, laboratory, interview, mathematics and evaluation method. The study examined the characteristics of spring types based on its discharge, stream characteristics, and genetic of the springs. Potential of spring is known from the discharge (quantity) and the water quality of spring. The water quality of spring is known from laboratory analytical with parameter that used were physical characteristics (color, smell, taste, turbidity), chemical characteristics (pH, TDS, DO, and hardness), based on regulation of Minister of Health Water Requitments For Sanitation Hygiene, Swimming Pools, Solus Per Aqua, and Public Baths.

There were two springs in Margoyoso Village, they are Telogosari and Tubansari springs ,that classifieds as perennial springs. Based on its discharge, springs type of Margoyoso springs were in low class. All of them were depression springs. The water quality of two springs was bad, because they are classified into acid and turbidity. Based on the comparison between discharge of spring and water demand, the water quantity of the springs are still sufficient to supply the clean water needs for society who used it, because the measurement of spring discharge was done in the rainy season Spring conservation can be done are conservastion on springs and conservations on recharge areas. Spring conservation can be done technologically (by making reservoirs and public hydrants), by vegetatively conservations of recharge areas (planting teak, mahogany, sengon laut), and by technically (Crescent moon making on well clasification, creation of biopori infiltration holes on bad clasification, and making ridge terrace on medium classification of recharge areas),as well as approaches to communities and government.

Keywords: Springs, Characteristics of Springs, Potential of Springs, Addition Areas, Protection of Springs