

**TEKNIK PENGELOLAAN MATAAIR SEBAGAI SUMBER AIR
DOMESTIK DI DUSUN KALIDADAP DAN SEKITARNYA, DESA
SELOPAMIORO, KECAMATAN IMOIRI, KABUPATEN BANTUL, D.I.
YOGYAKARTA**

Oleh :

Rendi Yoga Darmawan

114130152

INTISARI

Peta Indeks Kekeringan dari RTRW Kabupaten Bantul tahun 2011 menunjukkan, Dusun Kalidadap, Desa Selopamioro, Kecamatan Imogiri, Kabupaten Bantul merupakan daerah yang termasuk dalam kawasan dengan indeks kekeringan tinggi. Mataair di Dusun Kalidadap yakni Mataair Padukan dan Mataair Wonosari digunakan oleh sebagian besar penduduk di Dusun Kalidadap, namun dalam pengelolaannya masih belum efisien. Oleh karena itu, perlu dilakukan penelitian untuk mengetahui karakteristik, dan potensi mataair, serta teknik pengelolaan mataair yang tepat di daerah penelitian.

Metode yang digunakan dalam penelitian ini adalah metode survey, matematis, evaluasi dan wawancara. Karakteristik yang dikaji meliputi tipe mataair berdasarkan debit, sifat pengaliran, dan tenaga gravitasi. Potensi mataair diketahui dari debit (kuantitas) dan kualitas air mataair. Kualitas air dari mataair diketahui menggunakan analisis laboratorium. Parameter yang digunakan untuk analisis laboratorium secara keseluruhan yaitu sifat fisik (bau, rasa, kekeruhan, TDS), sifat kimia (Ca, Mg, COD, DO, Fe, Cl⁻, kesadahan CaCO₃, Ca²⁺, Mg²⁺, NO₃⁻, NO₂⁻, SO₄²⁻, NH₃-N, BOD), dan sifat biologi (Total Coliform) dengan acuan Peraturan Menteri Kesehatan No.492 Tahun 2010 Tentang Persyaratan Kualitas Air Minum.

Mataair Wonosari dan Mataair Padukan termasuk mataair depresi, dengan sifat pengaliran menahun. Debit Mataair Wonosari adalah 18.070.128 liter/tahun, sedangkan debit Mataair Padukan adalah 22.327.488,0 liter/tahun. Kebutuhan air domestik penduduk Dusun Kalidadap 1 di tahun 2027 adalah 108.439.440 liter/tahun, sedangkan kebutuhan air domestik penduduk Kalidadap 2 adalah 97.446.212 liter/tahun. Kualitas air dari kedua mataair tergolong baik. Kedua mataair di daerah penelitian berpotensi sedang, karena kuantitas kedua mataair tidak dapat memenuhi kebutuhan domestik penduduk di Dusun Kalidadap 1 dan Dusun Kalidadap 2 di tahun 2027 hanya mampu memenuhi kebutuhan air untuk minum, masak dan kakus. Pengelolaan untuk mataair adalah perawatan bak penangkap mataair, pembangunan bak penampung dan pembuatan teras bangku. Pengelolaan daerah imbuhan adalah penanaman rumput dan pohon, pembuatan pematang bulan sabit, pembuatan teras bangku dengan guludan dan saluran.

Kata Kunci : Mataair, Karakteristik Mataair, Potensi Mataair, Pengelolaan, Daerah Imbuhan, Bak Penampung, Teras Bangku

**SPRING MANAGEMENT TECHNIQUE AS DOMESTIC SOURCE OF WATER
IN AROUND DUSUN KALIDADAP, DESA SELOPAMIORO, KECAMATAN
IMOGIRI, KABUPATEN BANTUL, D.I. YOGYAKARTA**

Written By :

Rendi Yoga Darmawan

114130152

ABSTRACT

Drought index map from RT - RW Bantul District year of 2011 shows, The village of Kalidadap, Selopamioro, Imogiri Districts, Bantul is one of the area with the highest drought index. Padukan spring and Wonosari spring in Dusun Kalidadap is currently being used by most of the resident of Kalidadap however the management of that spring is not yet being close to efficient. Because of that, a research to determine the characteristic and spring potential also a spring management technique research need to be done.

The study method that used was survey, mathematics, evaluation, and interview. The quality of water was known by using laboratorium analysis. The characteristic that being studied included the type of spring based on debit, stream characteristic, and the power of gravity. The potential of the spring can be determined by knowing the debit (quantity) and the quality of water from that spring. The parameter being used itself was physical nature (smell, taste, turbidity, TDS), chemical nature (Ca, Mg, COD, DO, Fe, Cl-, the hardness of CaCO₃, Ca²⁺, Mg²⁺, NO₃⁻, NO₂⁻, SO₄²⁻, NH₃-N, BOD), and the biology nature (total coliform) with the regulation from The Governor of Special Region of Yogyakarta No. 20 Year of 2008 about standard quality of number one class water.

Wonosari Spring, and Padukan Spring were classified as depression spring, with yearly stream characteristic. Wonosari Spring debit was 18.070.129 litre/year meanwhile Padukan Spring debit was 22.327.488,0 litre/year. Domestic water needs of Dusun Kalidadap 1 in the year of 2027 is 108.439.440 litre/year. Meanwhile the domestic needs of Kalidadap 2 citizen is 97.466.212 litre/year. The water quality from both of the spring was classified as good. Both of the spring had a medium potential, because the quantity of both of that spring doesn't fulfill the domestic needs of people in Dusun Kalidadap 1 and Dusun kalidadap 2 in the year of 2027. The spring can only fulfill the demand of drinking, cooking, and sanitary clean water needs. The water quality from that spring is appertain as good. Both of the spring in that area have a mid potential. The management of that spring was water tank treatment, and water tank & terracesconstruction. Meanwhile the management of recharge area was by plantating grass and trees, cresscent embankment construction, terraces contruction, and the make of bunds terrace with water dump pathway.

Keywords : Spring, Spring Characteristic, Spring Potential, Management, Recharge Area, Water Tank, Terraces