

## POTENSI MATA AIR DAN PEMANFAATANNYA OLEH MASYARAKAT DI KAWASAN WISATA *BLUE LAGOON*, NGEMPLAK, SLEMAN, YOGYAKARTA

Aina Nur Fitri<sup>1</sup>, Ambar Kusumandari<sup>2</sup>

### INTISARI

Objek wisata *Blue Lagoon* merupakan objek wisata alam berbasis pemandian yang terletak di Dusun Dalem, Desa Widodomartani, Kecamatan Ngemplak, Kabupaten Sleman. *Blue Lagoon* didirikan pada tahun 2014 dan dikelola secara swadaya oleh kelompok masyarakat. Pembukaan kawasan ini berpengaruh terhadap masyarakat yang tidak lagi memanfaatkan sumber air di objek wisata *Blue Lagoon*. Namun, masyarakat kembali memanfaatkan sumber mata air sebagai alternatif ketika sumur kering akibat kemarau panjang. Selain itu, terjadi peningkatan kebutuhan air karena kehadiran pengunjung objek wisata *Blue Lagoon*. Penelitian ini dilakukan untuk menganalisis debit air dari sumber mata air di kawasan wisata *Blue Lagoon*, mengetahui kebutuhan air masyarakat dan pengunjung, menganalisis potensi sumber mata air di kawasan wisata *Blue Lagoon*, dan mengetahui strategi pengelolaan yang dapat diterapkan di kawasan wisata *Blue Lagoon*.

Debit ketersediaan air diperoleh dengan menggunakan metode volumetrik dan *area velocity*. Data kebutuhan air masyarakat dan pengunjung diperoleh dengan wawancara terstruktur. Indeks Penggunaan Air (IPA) dihitung dengan membandingkan kebutuhan dan ketersediaan air. Prediksi potensi mata air diketahui berdasarkan perhitungan neraca air. Strategi pengelolaan diperoleh dari analisis SWOT (*Strength, Weakness, Opportunity*, dan *Threat*).

Berdasarkan penelitian ditemukan tiga titik mata air yang dimanfaatkan masyarakat dan pengunjung *Blue Lagoon*, yaitu Sendang Lanang, Sendang Wadon, dan titik mata air baru. Total debit air dari ketiga mata air tersebut adalah 1.459.106,951 liter/hari, sementara total kebutuhan air dari 362 jiwa masyarakat dan 118 jiwa pengunjung sebesar 35.638,71 liter/hari. Perhitungan IPA menunjukkan kelas sangat rendah dengan nilai sebesar 0,027. Prediksi selama 5 tahun diperoleh bahwa neraca air masih mengalami *surplus* hingga tahun 2028.

**Kata kunci:** *Ketersediaan Air, Kebutuhan Air Domestik, Prediksi Potensi Mata Air*

---

<sup>1</sup> Mahasiswa Departemen Konservasi Sumber Daya Hutan, Fakultas Kehutanan UGM

<sup>2</sup> Staff Pengajar Departemen Konservasi Sumber Daya Hutan, Fakultas Kehutanan UGM

## POTENTIAL OF SPRINGS AND THEIR UTILIZATION BY COMMUNITIES IN THE BLUE LAGOON TOURISM AREA, NGEMPLAK, SLEMAN, YOGYAKARTA

Aina Nur Fitri<sup>1</sup>, Ambar Kusumandari<sup>2</sup>

### ABSTRACT

The Blue Lagoon is a bathing-based natural tourist attraction located in Dalem Hamlet, Widodomartani Village, Ngemplak District, Sleman Regency. Blue Lagoon was founded in 2014 and is managed independently by community groups. The opening of this area has an impact on people who no longer use the water sources at the Blue Lagoon. However, people returned to using springs as an alternative when the wells dried up due to the long dry season. Apart from that, there is an increase in water demand due to the presence of visitors to the Blue Lagoon. This research was conducted to analyze water discharge from the springs, to determine the water needs of the community and visitors, to analyze the potential of springs in the Blue Lagoon, and find out management strategies that can be implemented in the Blue Lagoon.

Water availability discharge is obtained using volumetric method and the area velocity method. Data on community and visitors water needs was obtained using structured interviews. The Water Use Index (WUI) is calculated by comparing water demand and availability. Prediction of spring potential is known based on water balance calculations. Management strategies are obtained from SWOT (Strength, Weakness, Opportunity, and Threat) analysis.

This research resulted that three spring points were used by the community and visitors to the Blue Lagoon, namely Sendang Lanang, Sendang Wadon, and the new spring point. The total water discharge from the three springs is 1.459.106,951 liters/day, the total water demand of 362 residents and 118 visitors is 35.638,71 liters/day. The WUI calculations show a very low class with a value of 0,027. The 5 years prediction is that the water balance will still experience a surplus until 2028.

**Key words:** *Water Availability, Domestic Water Needs, Prediction of Spring Potential*

---

<sup>1</sup> Student of Departement of Forest Resources Conservation, Faculty of Forestry UGM

<sup>2</sup> Lecturer of Departement of Forest Resources Conservation, Faculty of Forestry UGM