GAMBARAN KUALITAS MIKROBIOLOGIS AIR PERPIPAAN DARI PERLINDUNGAN MATA AIR DI DUSUN SENTUL, KALIBAWANG, KULON PROGO

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ABSTRAK

Penyediaan air bersih untuk masyarakat sangat penting dalam meningkatkan kesehatan masyarakat dan lingkungan. Air bersih harus memenuhi persyaratan kualitas maupun kuantitas. Kualitas mikrobiologis air bersih ditandai dengan keberadaan bakteri *Coliform* dan *E. coli*. Penelitian ini dilakukan untuk mengetahui kualitas mikrobiologis air perpipaan di Dusun Sentul, Kalibawang, Kulon Progo. Penelitian ini merupakan penelitian deskriptif untuk memperoleh gambaran tentang kualitas mikrobiologi air perpipan yang berada di Dusun Sentul.

Hasil penelitian kualitas mikrobiologis untuk jumlah MPN *Coliform* air pada sumber perlindungan mata air >1600, bak distribusi 1600, dan tiga kran konsumen secara bertutut-turut 540, 920, 920 MPN/100 mL, sedangkan untuk jumlah MPN bakteri *E. coli* pada sumber PMA 280, bak distribusi 280, dan tiga kran konsumen 220, 280, dan 350 MPN/100 mL. Kualitas mikrobiologis air perpipaan di Dusun Sentul tidak memenuhi syarat kesehatan sesuai dengan Permenkes No. 32 Tahun 2017 karena angka MPN bakteri *Coliform* melebihi 50/100mL, dan untuk bakteri *E. coli* melebihi angka 0/100 mL. Faktor yang mempengaruhi kualitas mikrobiologis air perpipaan yaitu bak PMA dan bak distribusi tidak tertutup rapat, kebocoran pipa, tidak adanya pengolahan air.

Kata Kunci: Perlindungan Mata Air, air perpipaan, kualitas mikrobiologis air.

DESCRIPTION OF MICROBIOLOGICAL QUALITY OF WATER PIPES FROM WATER SPRING PROTECTION IN SENTUL VILLAGE, KALIBAWANG, KULON PROGO

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ABSTRACT

Clean Water supply is an important to improving public health and environmet for us. It should have some criteria such as quantity and quality. The microbiological quality are designated by the presence of Coliform and E. coli bacteria. This research was conducted to investigate the microbiological quality of plumbing in Sentul Village, Kalibawang, Kulon Progo. This research is a descriptive study to get a description of the quality of microbiology on plumbing in Sentul village.

The result of this research are quality of microbiological on water, for the number of MPN Coliform bacteria in water springprotection is >1600, in distibution box 1600, and three faucet consumer is 540, 920, and 920 MPN/100 mL. While, the number of MPN bacteria E. coli in water spring protection is 280, distribution box, and three faucet consumer 280, 220, 280, and 350 MPN/100 mL. The microbiological quality of plumbing in Sentul Village doesn't have criteria accoding the Permenkes No. 32 of 2017, because the MPN number of Coliform bacteria exceeds 50/100mL, and for E. coli bacteria it exceeds 0/100 mL. The factors that affect the quality of plumbing microbiology are, PMA and distribution box not tightly closed, leakage and there is no water processing.

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Keywords: *water spring protection, plumbing, water microbiological quality*