

## **ABSTRACT**

**Hardiananda Nur Reza, 2024, "ANALYSIS OF THE NEED AND AVAILABILITY OF CLEAN WATER FOR THE NGANJUK PDAM NGETOS UNIT"**

The need for clean water supply and service from time to time is increasing, which is sometimes not balanced by service capabilities. This increase in demand is caused by an increase in the number of population, or things related to the improvement of the socio-economic condition of residents accompanied by an increase in the number of water needs per capita, therefore in accordance with the increase in water demand that occurs first, it is predicted whether the water potential in Ngetos District can meet the needs of the surrounding community.

The data or information used is data from PDAM Nganjuk Regency. This study uses a quantitative descriptive method. The data needed includes data on the population of Ngetos District, types of customers, and available water discharge of PDAM Ngetos Unit.

From the results of the analysis, it was found that the existing condition of the Ngetos service in 2023 can only meet the community's water needs for 12 hours/day. The need for clean water in the Ngetos service unit in 2033 refers to the prediction of an increase in the population of 47.84 liters/second, while the amount of water production in Ngetos is 13 liters/second, so that the amount of water production cannot meet the needs of clean water for the residents of Ngetos District in the next 10 years, so the addition of other water sources is needed. The reservoir capacity needed to meet water needs in Ngetos District is 992 m<sup>3</sup> while the available reservoir is 243 m<sup>3</sup>, so an additional reservoir capacity of 749 m<sup>3</sup> is needed.

**Keywords:** Existing conditions, Water needs, reservoir capacity