

ABSTRACT

RESEARCH OF RAIN WATER QUALITY AND POTENTIAL FOR DRINKING WATER IN BANDAR LAMPUNG THROUGH WATER QUALITY INDEX METHOD

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Lampung Province is one of the provinces in Indonesia with rainfall intensity is high enough. The large potential rainwater, of course, can be used as a source of life and day-to-day needs, such as for drinking and other needs. The potential use of rainwater for domestic water is good enough for humans and the environment. Utilization of rainwater as domestic water can overcome the shortage of water in the dry season, and flooded during the rainy season.

Research and data collection were conducted in the city of Bandar Lampung. Rainwater samples taken randomly in one place in the city of Bandar Lampung, in the Village of Gunung Terang, District Langkapura.

Calculated result of Water Quality Index for rain water that has been filtered Pure It was 82.3, indicating class II, which means that rain water can be made potable and drinking water supplies. The number of samples taken of the 100 respondents to the questionnaire, consisting of 50 students and 50 traders. The results of the questionnaire showed that 36 people or 72% for a group of students, and 21 or 52% for the group of traders were willing to replace drinking water with rain water that has been filtered with Pure It. From the simulation results of the rainwater carrying capacity in the provision of water for drinking water, it is known that the precipitation that falls when stored in a bin with a volume of 1 m³ can guarantee the availability of drinking water throughout the year for a small family, while the reservoir with a volume of 0.5 m³ not meet because water vacancy occurs in the end of year 2.

Keywords: Precipitation, Water Quality Index, drinking water