



THE ROLE OF DRILLED WELLS IN MEETING WATER NEEDS CLEAN PUBLIC WARD CLIFF TANAH PUTEH, WEST PRABUMULIH DISTRICT, PRABUMULIH CITY

Julius Prawiro¹, Andi Farhanuddin², Siti Nurhaliza³, Deli Lamp Rezeki⁴, Siti Rohaya⁵

¹ Universitas Islam Negeri Raden Fatah Palembang, Indonesia

² Universitas Islam Negeri Raden Fatah Palembang, Indonesia

³ Universitas Islam Negeri Raden Fatah Palembang, Indonesia

⁴ Universitas Islam Negeri Raden Fatah Palembang, Indonesia

⁵ Universitas Islam Negeri Raden Fatah Palembang, Indonesia

E-mail: jaiiprawiro24@gmail.com, andifarhann@gmail.com, sitinurhaliza070505@gmail.com, pelitarizkid@gmail.com, sitirohayafshuinf@gmail.com

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Abstract :

Clean water is a basic need that must be met to support the daily activities of communities, including in Tebing Tanah Puteh Village, West Prabumulih District. However, the fulfillment of clean water needs in this area still relies heavily on drilled wells as an alternative source, while research on the management, quality, and sustainability of this water source remains limited, particularly regarding its socio-environmental impact once operational. This raises the question of how drilled wells function in meeting residents' clean water needs and what factors must be considered to maintain the quality and continuity of the water source. This study aims to understand the role of drilled wells in meeting the clean water needs of residents in Tebing Tanah Puteh Village, West Prabumulih District. This study uses a qualitative approach with a literature study method, examining existing sources such as relevant articles and scientific journals, which are then analyzed descriptively to summarize findings systematically. The results show that drilled wells play a significant role in helping communities meet daily needs such as bathing, washing, cooking, and hygiene. However, their use must be accompanied by proper facility maintenance, routine water quality monitoring, and environmental cleanliness around the well to ensure the water source remains safe, sustainable, and usable on a continuous basis for the community.

Keyword: Well drill, water clean, public, water land.

INTRODUCTION

Water is a strategic natural resource that has a fundamental role in maintaining the sustainability of human life, especially in supporting domestic needs, public health, sanitation, and other activities. social And economy on area settlement. Development Global urbanization, population growth, and residential expansion are causing increasing pressure on clean water supply systems, making water resource management a key issue on the sustainable development agenda. Availability network distribution water piping Which Not yet evenly In various regions, people still depend on groundwater as an alternative source to meet their daily needs. Utilizing groundwater through the construction of drilled wells is one of the technological approaches to water



supply that is widely implemented because it can provide a water source in an efficient manner. independent on region with limitations infrastructure service water Clean. Groundwater doesn't have the same damaging potential as surface water, but its destructive power can arise if the groundwater's condition and environment are disturbed, whether by groundwater extraction exceeding its carrying capacity, pollution, or natural activities. The increasing demand for water has driven stronger economic and social values.

Main problem in current literature lies in The limitations of the evaluation approach are still partial, while the construction of drilled wells in residential areas is a complex phenomenon involving interactions between natural systems and human activities. On the other hand, research on the construction of drilled wells in community areas still has limitations in measuring the socio-economic impacts that arise after the facility is operational. The imbalance between the need for clean water supply and water resource conservation is a scientific gap that requires further study, particularly on area housing area subsidy Which own characteristics different population density and infrastructure capacity compared to general residential areas (Concerned et al., 2015).

In Tebing Tanah Puteh Subdistrict, West Prabumulih District, clean water is a need important public in operate activity daily. Water is used for bathing, washing, cooking, cleaning the house, and meeting sanitation needs (Concerned et al., 2015).

Wrong One source water Which utilized public is well drill. The existence of a well drill help inhabitant get water For need House ladder more easily and routinely (Ministry of Public Works and Public Housing, 2012). The use of drilled wells can also reduce people's dependence on other water sources. However, water quality still needs to be considered, as environmental cleanliness and the condition of the well can affect the quality of the water used.

METHOD STUDY

This research uses a qualitative method with a type of study that relies on library sources, commonly referred to as library research or literature study (Sugiyono, 2020). This approach was selected because the research aims to describe and interpret a phenomenon based on existing written sources, rather than through direct field observation or primary data collection (Creswell & Creswell, 2018).

Data used in this study were obtained from various written sources, including scientific journal articles, books, government regulations, and other official documents relevant to the research topic. The use of documents and written materials as the primary data source is consistent with document-based qualitative study designs, which emphasize the analysis and interpretation of textual material within its context (Abdussamad, 2014, p. 93).

The data collection process was carried out through a systematic search and selection of literature relevant to the research problem, followed by a review of each source's content to identify information pertinent to the research objectives. Sources were selected based on their relevance, credibility, and recency, giving

priority to sources published within the last ten years to ensure the currency of the information used.

Once collected, the data were processed through a series of stages, namely data reduction, data presentation, and conclusion drawing, in accordance with the general procedure of qualitative data analysis (Moleong, 2021). Data reduction was carried out by selecting and summarizing information relevant to the research focus, while data presentation was carried out descriptively to provide a clear and systematic overview of the research findings. Data analysis in this study was conducted using the qualitative descriptive method to describe and summarize the research results in an orderly and structured manner, so that patterns, relationships, and meanings emerging from the reviewed literature can be understood comprehensively (Sugiyono, 2020).

RESULTS AND DISCUSSION

Well drill own role important in support fulfillment need clean water for the community in the sub-district Cliff White Land, Subdistrict West Prabumulih. Availability well drill gives convenience for the community in Obtaining water for various domestic needs, such as bathing, washing, cleaning, and daily sanitation needs. In the context of meeting basic needs, the availability of easily accessible water sources is a crucial factor in supporting the smooth running of household activities.

Utilization well drill Also become alternative important when source water other has not been able to optimally meet the community's needs. In the Prabumulih area, clean water is still largely obtained through dug wells and artesian wells, so the existence of a well drill has high relevance as a source local water for residential communities (Ministry of Public Works and Public Housing, 2012). Thus, drilled wells not only function as source water, but Also as means supporters in maintaining the continuity of people's daily activities.

However, the use of drilled wells requires careful attention to water quality and the sanitation of the surrounding environment. Groundwater quality can be affected by environmental factors, geological conditions, and human activity in the surrounding area, so water resource management must be carried out carefully. Water used for hygiene and sanitation purposes also needs to meet health requirements to ensure it is safe for public use (Ministry of Health of the Republic of Indonesia, 2010).

In addition to water quality, the maintenance of drilled wells also requires attention. Components such as pumps, distribution lines, and water reservoirs must be regularly maintained to ensure optimal well function over the long term. Proper maintenance will help prevent technical failures and maintain continuity of water service for the community (NAWASIS, n.d.).

Wise use of well water is also a crucial part of efforts to sustain water resources. Communities are expected to use water as needed and maintain the cleanliness of the well's surroundings to minimize the risk of pollution. If changes in water quality, such as turbidity, odor, or discoloration, are observed, further testing is necessary for ongoing water quality monitoring (Harijayanti

et al., 2026).

Based on description the, can concluded that well drill own significant benefits in helping communities meet their daily clean water needs. However, for these benefits to continue to be felt, proper management, routine facility maintenance, and public awareness are required. in guard cleanliness And quality environment around source water (Abidin et al., 2024).

CONCLUSION

Based on the discussion, it can be concluded that the construction and use of drilled wells plays a crucial role in meeting the clean water needs of residents in Tebing Tanah Putih Village, West Prabumulih District. Drilled wells help residents obtain water for daily needs, such as bathing, washing, cooking, cleaning, and sanitation.

Borehole wells are also an alternative water source for communities when piped water or other sources are insufficient to meet their needs. Because water sources are readily available, people's daily lives can run more smoothly, and they can meet their basic water needs more independently.

However, the use of drilled wells must be accompanied by good management to ensure water quality. And sustainability water still awake. Condition cleanliness environment, conditions around the well, and residents' activities can affect the quality of groundwater. Because That, important do inspection quality water in a way regular so that the water used still meets health standards.

In addition, it is necessary to carry out regular maintenance on the well drilling equipment, such as pumps, water distribution channels and storage tanks, so that these facilities are still walk with Good And can used continously. People must also use water wisely and protect the environment around water sources. so that reduce risk pollution And use water land Which excessive. So that drilled wells can be an important answer in meeting the needs water clean inhabitant in Ward Cliff Land White. Availability benefits of well drill Can endure long depends on method its management Which well, routine equipment maintenance, monitoring of the quality of the water produced, and public awareness to maintain the cleanliness and sustainability of water and the environment around the drilled well.

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