

Water Quality Analysis: Relationship Between Public Perception and Community Behavior.

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- **Abstract:** The Kahayan River is a significant river with a length of about 600 kilometers. The river ran through two districts and one city, Palangkaraya, the provincial capital of Central Kalimantan. The Kahayan River is extremely beneficial to the residents in the area. Given that this river is one of the primary supplies of water for Palangkaraya residents, and that many people in the surrounding area rely on river water for their daily requirements. Based on the results of laboratory tests for a variety of water quality parameters. Starting from Upstream Bawan, Bawan village, Upstream Rungan, Rungan Kahayan intersection, Kahayan River (estuary outer drainage Pahandut Sebarang) and Kahayan River (estuary outer drainage Pahandut Sebarang), the research samples consisted of 6 places and 3 sampling regions (estuary drainage Kameloh river). The presence of turbidity and gas in the Durham tube indicates that the water is polluted. The E-Coli parameter has the greatest value of 257 jml/100ml and the lowest value of 14.18 jml/100ml, according to the laboratory analysis. The high E-Coli value on the Bawan riverbank may be due to the community's habit of washing, bathing, and using latrines or toilets on the riverbanks. The Tumbang Rungan river had the highest COD parameter value of 58.18mg/L, while the Bawan river segment had the lowest value of 25.4mg/L. The high COD in the central area is primarily due to the presence of settlements and community activities such as illicit mining, which causes the river water to become extremely polluted and littered. Meanwhile, according to the GSCA measurement analysis, the value of the relationship between community views and river water use, as well as the relationship between community behavior and water quality and river water management, has a weak positive value.
- **Keywords:** River, Water Quality, Community Behavior