

Irrigation System for a Farming Facility

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Abstract: *This endeavor aims to introduce a reinforced concrete rectangular water tank and a corresponding distribution system at the Provincial Integrated Agricultural Demonstration Farm and Training Center, situated in Barangay Ipil, Surigao City. The objective of this study is to address the challenges faced by workers in cultivating crops due to the inadequacies of the farm's existing water infrastructure. By leveraging engineering principles, established guidelines, and computer software tools, the design of an efficient water system will be meticulously executed to ensure a reliable water supply for crop cultivation. The research has thoroughly identified the crops currently cultivated on the farm, along with their respective areas. An assessment of the water source has been conducted to mitigate potential contamination risks to the crops. Rigorous water analysis has been performed, confirming that the proposed tank design is fully capable of meeting the water requirements of the crops. The design of both the water tank and distribution system, guided by comprehensive analysis, has been tailored to ensure operational efficiency and system stability. Consequently, it can be confidently concluded that once implemented, the project's designed infrastructure will effectively fulfill its intended purpose.*

Keywords: Irrigation, System, Farming, Facilities

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