

**PROPOSED POTABLE WATER SUPPLY SYSTEM OF CENTRAL PHILIPPINE
UNIVERSITY IN JARO, ILOILO CITY**

by

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A Project Study

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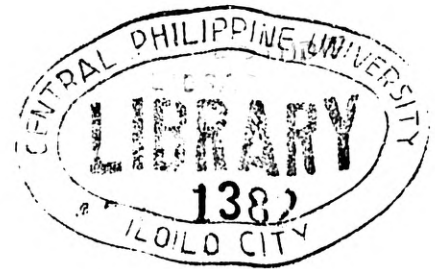
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ABSTRACT

Water is essential to both living and non-living things. There are a lot of water resources especially in the Philippines but accessibility and potability is always a problem.

Water can be used for different reasons such as domestic, commercial, agricultural and industrial purposes. Domestic uses of water include water used for washing, laundry, watering the plants and most especially for drinking. Water is said to be potable if it is fit for drinking, although this can also be used for other purposes.

The proposed potable water supply system in Central Philippine University (CPU) is expected to meet the daily water consumption of the students and residents inside the campus. This is an answer to the problems regarding the existing potable water supply. Once implemented, it is envisioned that it would be beneficial to the university personnel, students and residents.

A questionnaire survey was conducted to determine problems and the consumption rate of students, faculty, staff and residents of Central Philippine University of potable water. The identified sources of drinking water were bottled water, and buying from Automated Tubig Machine (ATM). Still other persons don't drink water inside the campus since they don't know the source or at times there is no water coming out from the fountains

The project includes the detailed design for the proposed construction and operation of new potable water supply system. It includes the design of an elevated reinforced concrete water tank, cistern tank and the distribution pipe network and the pump to be used. The source would be the Metro Iloilo Water District (MIWD) water

line. A water bacteriological test result was acquired from the office of the University's Building supervisor. These water samples tested by the Water Analysis Laboratory of the Chemical Engineering Department showed that the water from MIWD is potable while the deep-well is unfit for drinking.

Two identical elevated water tanks with a height of 8.5 meters and a dimension of 3.5 x 3.5 x 3.5 meters was designed to supply the proposed project area for a period of 25 years. A cistern tank is also designed to provide temporary storage. A three and a half horsepower centrifugal pump will convey water from the cistern tank to the elevated tank. Thus, all potable water will come from the elevated tank. A pipe layout is also provided in this study to show the distribution lines.

The management and operation for the pumping of water from the cistern tank to the elevated tank is being entrusted to the staffs of Central Philippine University. The volume of the elevated water tank is 42 cubic meters based on the average day demand of 80.625 cubic meters per day (CPD). The system will only supply the project area on the schedule of 4 a.m. and 3 p.m. of 3 hours daily. In the future, if further improvement will be made to the system especially on increasing the capacity of water tank, the system can serve 24 hours daily. The estimated total cost of the project is Three Million One Hundred Forty-Four Thousand Six Hundred Sixty-One Pesos and Eighty Centavos (Php 3,154,661.80). The total duration of the project is 105 days.

The realization of this study will be beneficial to all individuals inside the Central Philippine University (CPU).