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*ASSESSMENT OF WATER SUPPLY SYSTEM  
OF TRECE MARTIRES CITY, CAVITE*

*Thesis*

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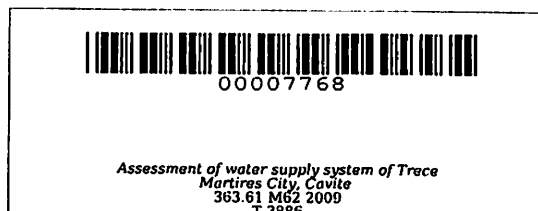
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**ASSESSMENT OF WATER SUPPLY SYSTEM  
OF TRECE MARTIRES CITY, CAVITE**

**Undergraduate Thesis  
Submitted to the Faculty of the  
College of Engineering and Information Technology  
Cavite State University  
Indang, Cavite**

**In partial fulfillment  
of the requirements for the degree of  
Bachelor of Science in Agricultural Engineering**



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**APRIL, 2009**



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**COLLEGE OF ENGINEERING AND INFORMATION TECHNOLOGY**  
**Department of Agricultural and Food Engineering**

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Title: **ASSESSMENT OF WATER SUPPLY SYSTEM  
OF TRECE MARTIRES CITY, CAVITE**

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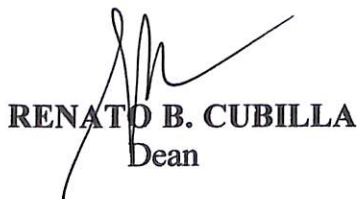
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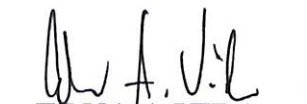
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## **ABSTRACT**

**MILLO, ELEUTERIO R. Assessment of Water Supply System of Trece Martires City, Cavite. Undergraduate Thesis. Bachelor of Science in Agricultural Engineering, Cavite State University, Indang, Cavite. October 2008. Adviser. Dr. Leyma L. Cero**

The study was conducted at Trece Martires City, Cavite from December 2007 to January 2008. Specifically, it aimed to: assess the functional elements of the water supply system; determine the present water demand; project the water demand in the next five years; and assess the quality of water supplied in the area.

The result of the study showed that there are four functional elements existing in the water supply system of Trece Martires City, Cavite. These are the source, storage, treatment and distribution.

The source of water supply system is groundwater. The system has 18 pumping stations with either telescopic or straight casing well design. One pumping station uses turbine pump and the rest use submersible pumps. Networking is the distribution system being used by TMCWD in supplying the water to their consumers.

The city has a total population of 90, 177 during the study. Only 61,740 persons (68.46% of the population) or equivalent to 10,120 households are served by the TMCWD with an average usage of water of 150 liters per day per person during the study. A total of 320 commercial establishments are connected to the water supply system of TMCWD with an average usage of water of 20,000 liters per day.

The projected water demand for Year 2012 in Trece Martires City was 24,658,800 liters discharge for domestic use and 4,931,760 liters for commercial establishments.

Water sample obtained from different sources passed the Philippine National Standards for Drinking Water (PNSDW) in terms of turbidity, pH, and *E. coli*.

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# **ASSESSMENT OF THE WATER SUPPLY SYSTEM OF TRECE MARTIRES CITY, CAVITE**

**Eleuterio R. Millo**

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An undergraduate thesis presented to the faculty of the Department of Agricultural and Food Engineering, College of Engineering and Information Technology, Cavite State University, Indang, Cavite, in partial fulfillment of the requirements for the degree of Bachelor of Science in Agricultural Engineering with contribution No. BSAE-2008-2009-003. Prepared under the supervision of Dr. Leyma L. Cero.

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## **INTRODUCTION**

All of us are concerned in the supply of water. Some sources of water supply like wells, springs, and brooks are not enough to fulfill the daily demand of people for water, and the inhabitants make it possible to use this source in building aqueducts to bring water to different places. Now, water flows through pipes by pumps under moderate pressures, therefore, it is made economically possible for all of us to benefit from this system.

Through this system, competition for limited water supplies is minimized among individual users. Even large users like the agricultural and industrial sector also face a great challenge in the future. Because of the growth of population, the demand for water supply will continue to increase.