

**CENTRE OF STUDIES FOR BUILDING SURVEYING  
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING  
UNIVERSITI TEKNOLOGI MARA**

**WATER EFFICIENCY FOR LANDSAPING AND IRRIGATION**

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**Academic Project submitted in partial fulfillment of the requirements  
For the degree of  
Bachelor of Building Surveying (Hons)  
Centre of Studies for Building Surveying  
Faculty of Architecture, Planning & Surveying**


**June 2015**

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**“I hereby declare that this academic project is the result of my own  
research  
except for the quotation and summary which have been acknowledged”**

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**Date : July 10<sup>th</sup>, 2015**

## **ACKNOWLEDGEMENT**

Alhamdulillah, for the blessing and opportunity bestowed upon completing my final project. First of all, I would like to express my appreciation and millions thanks to my supervisor, Sr Mahayudin Mahmood for his continuous guidance and courage in helping me preparing this dissertation as well as completing this final project, BSB 658. His guidance and advices throughout the whole process of writing this dissertation are much appreciated.

Deeply grateful to my beloved parents and my family for the encouragement and motivation during this completion of dissertation. Their support, advice and financial helps are very helpful.

Extended million thanks and appreciation to many individuals who had provided many information of water efficiency during my visit to Collection Data Center. First, Mr. Kamarudzaman Bin Ahmad as Assistant of Landscape Architect of Jabatan Lanskap of MPK, Mr. Ishairol Ismail as Golf Course Superintendent of Royal Pahang Golf Club, Mr. Sh Mohd Aswad Sheikh Mohd Yusof as Assistant Engineer for Stadium Darul Makmur, Mr. Irwan Ismadi Masout as Chief of Landscape Department of UiTM and Mr. Adi Adam Bin Lokeman Loke as Assistant Director of City Development of PPJ. All information provided are very useful in processing finding and analysis of this dissertation.

Not to forget, my sincere appreciation to all my friend and everyone who involve during process of completing this dissertation in assisting and supporting by share many ideas and contribute relevant information.

Finally, I would like to wish thousand of thanks to all who have in one year or other, directly or indirectly, they deserve my greatest gratitude. All the experience I gained during this completing is very valuable. Thank you very much.

## ABSTRACT

This study is focus on water efficiency for landscaping and irrigation. Nowadays in Malaysia, there are numerous water problems especially for landscaping and irrigation. The today's common watering practices, up to 50% of the water applied to lawns and a garden is not absorbed by the plants. It is lost through evaporation, runoff, or being pushed beyond the root zone because it is applied too quickly or in excess of the plants' needs. The goal of efficient irrigation is to reduce these losses by applying only as much water as is needed to keep the plants healthy, whether have a water efficiency or a conventional landscape and Irrigating with consideration to soil type, the condition of plants, the season, and weather conditions rather than on a fixed schedule significantly improves watering efficiency and results in healthier plants. To fix this problem, efficient water consumption must be practiced. Though there is not much happening to educate the wider public, group as water wiser and the soil and water conservation society are working to promote water conservation tactics. There are various direct methods of preventing waste of water. The suitable and most effective method will be discussed.

This dissertation have included five chapters where discusses overall of the prevention method used, and problems identification. The research data will gather from Jabatan Lanskap of Majlis Perbandaran Kuantan (MPK), Jabatan Taman dan Rekreasi of Majlis Bandaraya Shah Alam (JTR.MBSA), Landscape & Park Department of Perbadanan Putrajaya (DPD.PPJ), Jabatan Lanskap of Majlis Perbandaran Ampang Jaya (JL.MPAJ), Royal Pahang Golf Club (RPGC), Stadium Darul Makmur (SDM), and Lanscape Department of Bahagian Lanskap Pejabat Pengurusan Fasiliti (PPF) UiTM Shah Alam. The analysis and finding will be gathers through interview session with the landscape architect and related individuals. On the whole, the conclusion and recommendations will be provides to support this dissertation.

**Keywords:** water, efficiency, landscaping method, irrigation method

## CHAPTER ONE

### INTRODUCTION

#### 1.1. Introduction

Recently there has been much waste water in world especially in Malaysia. Water poses the main sources to human life and livelihood in every parts of the world. Accordingly to the research shows that water waste overall came from outside which is from landscaping and irrigation activity. Malaysia just recognize this problem and came out with several alternative to settle it down. Malaysia just started looking forward finding and research new alternative for landscaping and irrigation to control wastewater management. The best water efficiency for landscaping and irrigation can give best method to reduce cost. As a result, good water efficiency can become profitability and too valuable to landscaping and irrigation. Many countries including Malaysia are lacking of clean water and experiencing water shortage. Improve water efficiency is an important component of prudent water management for regions of growing water demand. Water efficiency can balance demand growth that would otherwise occur in expanding urban regions, and this moderated demand can reduce the need to develop or acquire new supplies.

According to Green Building Index (GBI) there are several factors must be considered in 5 categories which is rainwater harvesting, water recycling, landscaping and irrigation, water fittings, metering and leak detection. As the ancients and natives would attest, water conservation theory has been around since the beginning of time. Most societies that deal with a limited resource learn to use it wisely. The concept of integrating conservation into water planning has been promulgated in the U.S. for more than 60 years. In the 1950's, for example, the Water Resources Policy Commission published *A Water Policy for the American People* that read: ([www.waterinfo.org](http://www.waterinfo.org))

*"We can no longer be wasteful and careless in our attitude towards our water resources. Not only in the West, where the crucial value of water has long been recognized, but in every part of the country, we must manage and conserve water if we are to make the best use of it for future development"* (Wolff, & Gleick, 2003, p. 16)