

HIGHER TECHNICAL INSTITUTE

DIPLOMA PROJECT

WASTEWATER  
TREATMENT AND REUSE

C/261

BY

PANAYIOTES G. LIASIDES

JUNE 2002

**HIGHER TECHNICAL INSTITUTE  
CIVIL ENGINEERING DEPARTMENT**

**DIPLOMA PROJECT**

**WASTEWATER TREATMENT  
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**C/961**

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HIGHER TECHNICAL INSTITUTE	PROJECT NO. <u>3323</u>
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**HIGHER TECHNICAL INSTITUTE  
NICOSIA – CYPRUS**

**CIVIL ENGINEERING COURSE**

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# **WASTEWATER TREATMENT AND REUSE**

**By**

**LIASIDES G. PANAYIOTES**

Project report  
Submitted to  
The Department of Civil Engineering  
Of the Higher Technical Institute  
Nicosia – Cyprus  
In partial fulfilment of the requirements  
For the diploma of

**TECHNICAL ENGINEER**

In

**CIVIL ENGINEERING**

Project supervisor: Dr. N. Kathijotes  
Lecturer at C.E.D at HTI

External assessor:  
Type of project: Individual

**JUNE 2002**



**HIGHER TECHNICAL INSTITUTE**  
**NICOSIA – CYPRUS**

**CIVIL ENGINEERING DEPARTMENT**

Academic year 2001/2002  
Diploma project Number: C/961

Title: Wastewater Treatment and Reuse

Objectives:

- 1) To present literature resulting from international studies far as wastewater reuse.
- 2) To design a small plant whose effluent will be available for reuse.
- 3) To suggest wastewater reuse possibilities and analyse its effects on soils and plants.
- 4) To comment on the results.

Terms and conditions

- 1) Types of tests will be discussed by project supervisor.

Student: Panayiotos G. Liasides  
Supervisor: Dr. N. Kathijotes  
External Assessor:

## TABLE OF CONTENTS

### INTRODUCTION

### CHAPTER 1

#### WASTEWATER CHARACTERISTICS

##### **1.1 Wastewater Characteristics**

##### **1.2.1 Physical Characteristics**

1.2.1.1 Suspended Solids

1.2.1.2 Turbidity

1.2.1.3 Colour

1.2.1.4 Taste and Odour

1.2.1.5 Temperature

##### **1.2.2 Chemical Characteristics**

1.2.2.1 T.D.S

1.2.2.2 Alkalinity

1.2.2.3 Hardness

1.2.2.4 Fluoride

1.2.2.5 Metals

1.2.2.6 Organics

1.2.2.7 Nutrients

##### **1.2.3 Biological Characteristics**

1.2.3.1 Pathogens

1.2.3.2 Pathogen indicators

## **CHAPTER 2**

### **WASTEWATER TREATMENT**

#### **2.1 Wastewater treatment system**

#### **2.2 Primary Treatment**

##### **2.2.1 Screening**

##### **2.2.2 Comminuting**

##### **2.2.3 Grit removal**

##### **2.2.4 Flow measurement**

##### **2.2.5 Primary sedimentation**

#### **2.3 Secondary Treatment**

##### **2.3.1 Suspended culture systems**

##### **2.3.2 Activated sludge**

##### **2.3.3 Ponds and lagoons**

##### **2.3.4 Attached culture systems**

##### **2.3.5 Secondary clarification**

##### **2.3.6 Disinfection of effluents**

##### **2.3.7 Sludge thickening**

##### **2.3.8 Sludge digestion**

##### **2.3.9 Sludge disposal**

#### **2.4 Advanced wastewater treatment**

##### **2.4.1 Nutrient removal**

## **CHAPTER 3**

### **WASTEWATER REUSE**

#### **3.1 Introduction**

#### **3.2 Land Application Process**

##### **3.2.1 Overland Flow**

##### **3.2.2 Irrigation**

##### **3.2.3 High Rate Irrigation**

##### **3.2.4 Infiltration-Percolation**

## **CHAPTER 4**

### **BACKUP INFORMATION**

- 4.1 Raw wastewater quality data
- 4.2 Conclusions on wastewater quality
- 4.3 Threshold concentrations of metals

## **CHAPTER 5**

### **LOCATION OF PLANT & ENVIRONMENTAL IMPACT**

- 5.1 Location of plant environmental impact
- 5.2 Suggestion for a treatment plant
- 5.3 Impacts on the environment for proposed treatment alternative

## **CHAPTER 6**

### **FLOWS & DESIGN OF WASTEWATER TREATMENT PLANT**

- 6.1 Design philosophy
- 6.2 Design flows
- 6.3 Design loads
- 6.4 Standards for reuse of wastewater in irrigation
- 6.5 Suggested discharge standards for design by ministry of agriculture
- 6.6 Proposed process
- 6.7 **Primary treatment**
  - 6.7.1 Screening
  - 6.7.2 Primary clarifier
- 6.8 **Secondary treatment**
  - 6.8.1 Design Loads



- 6.8.1 Design Loads
- 6.8.2 Aeration (activated sludge reactor)
- 6.8.3 Secondary clarifier design
- 6.9 **Tertiary treatment**
- 6.9.1 Polishing filters
- 6.9.2 Chlorination/Irrigation tank
- 6.10 Proposed flow diagram
- 6.11 Plant Sizing

## **CONCLUSIONS**

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## INTRODUCTION

Wastewater reuse is a branch of environmental engineer which deals with the use of this water to cover the demands of agriculture mainly so as the water of the dams or from boreholes to be used only for drinking purposes.

Having the fact that 97% of the earth's water supply is contained in oceans and 2% is frozen this leaves us with only 1% of consumable water.

So, on a sunny island like Cyprus it is easy to see that there is very limited water supply. The water resources in Cyprus are very limited and due to the demand from increasing of population and tourism and due to the fact that rainfall is very poor in Cyprus and generally the Mediterranean area new sources of saving and producing water have to be found like wastewater treatment and reuse.

However this is not a very easy thing to do because precautions have to be taken to ensure that reuse of this water will not affect the health of people and animals or the productivity of crops.