

## **FACULTY OF ENGINEERING**

## DEPARTMENT OF MINING AND WATER RESOURCES

### **ENGINEERING**

## FINAL YEAR PROJECT

# ASSESSING AND REDESIGNING OF KYAMBOGO KINAWATAKA FLOOD CHANNEL CULVERTS (NAKAWA DIVISION)

 $\mathbf{BY}$ 

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## LIST OF ACRONYMS

NGO's Non-Governmental Organizations

GPS Global Positioning System

MWE Ministry of Water and Environment

NWSC National Water and Sewerage Co-operation

GoU Government of Uganda

KCCA Kampala Capital City Authority

NEMA National Environment Management Authority

# **DECLARATION**

I Patrick Mubyagula declare that the work presented here is out of my own research except where
due references are made especially from KDMP. It has not been partially or wholly submitted for
any academic award to any institution of higher learning for any award whatsoever.

SIGN.	 														

# APPROVAL

This is to certify that this research proposal has been carried out under my supervision and that it is ready for submission to the department.

SUPERVISOR: MR. MOHAMED BADAZA	
SIGN	

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### **CHAPTER ONE**

This chapter outlines the relevant information about the project: background, problem statement, and justification, objectives of the study, purpose of the study and the scope of the study

## 1.1 Background

A flood is an overflow of water that submerges land that is usually dry. In the urban areas, the type of flood is called Urban flooding is the accumulation of floodwaters that result when the inflow of storm water exceeds the capacity of a drainage system to infiltrate water into the soil or to carry it away.

Kampala is the capital and largest city of Uganda with a population of 1,208,544 (2002). It is located in the district of Kampala at 0°19′N 32°35′E, at 3,900 ft (1,189 m) above sea level. Kampala is popularly known as the city on many hills because it is extends over 10 hills. Temperatures in Kampala range from 15.15 to 29.3 (Celsius). And the Rainfall in Kampala varies from 204.0 to 669.0 (mm/month).

Flooding in the city is most in settlements that have been established in areas that were once wetlands or swamps. Flooding is linked to climate change, changing weather patterns plus, the lowland areas of Kampala, coupled with the poor-quality soils to absorb water; these make the city susceptible to flooding. (Dr. Bateganya). Additionally, the poor drainage system and poor disposable of urban waste in the city are major Causes. To mitigate this calamity, Kampala needs a good storm water management system, which should focus on preserving critical green spaces such as Centenary Park, protecting the wetlands from encroachment and fostering plans that aim to harvest rain water. (Dr Amin Tamale Kiggundu)

### **KCCA**

Since its establishment in 2011, Kampala Capital City Authority (KCCA) has upgraded a number of drainage channels to divert floods. However, the problem seems far from over. The problem is that the main drainages, which are at times overpowered by the heavy run-off waters. These main channels such as Nakivubo ought to be helped by the small drainages to ease the flow.

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