

MAKERERE UNIVERSITY

COLLEGE OF COMPUTING AND INFORMATION SCIENCES
SCHOOL OF COMPUTING AND INFORMATICS TECHNOLOGY

A REPORT ON
FIELD ATTACHMENT/INTERNSHIP AT
NATIONAL WATER & SEWERAGE CORPORATION
(June-August,2018)

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16/U/3020/PS

Field attachment Report submitted to the School of Computing and Informatics
Technology or College of Computing and Information Sciences.

In Partial fulfilment of the requirements for the degree of Computer Science
of Makerere University Kampala.

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Field Supervisor Stamp & Date:_____

Academic Supervisor Date:_____

Approval of the Internship Report

I, hereby declare that the Internship Report is submitted to the partial fulfilment of the internship program during the last two months. Any part of this report has not been reported or copied from any report of the University and others.

Approved by:

Field Supervisor

.....
Signature

Academic Supervisor

.....
Signature

Acknowledgment

The special thanks goes to my helpful supervisor **(name)**, (post at organization). The supervision and support that he gave truly helped in the progression and smoothness of the internship program. The co-operation is much indeed appreciated. I would also like to thank **National Water & Sewerage Corporation** for allowing me to do my internship from their great Organization.

Dinton.A.H

ABSTRACT

This report is about to explain what I learned during my internship period with National Water & Sewerage Corporation, IT department, Kampala Branch. As the main purpose of internship is to learn by working in practical environment and to apply the knowledge acquired during the studies in a real world scenario in order to tackle problems using the knowledge and skills learned during the academic process.

This report is divided into four sections. Section one will discuss about the background of NWSC. In Section two we will get the different activities I carried out during the Internship period. Section three the overall Internship Experience. The last section is conclusion and recommendations of the previous sections.

The most important in an Internship program is that the student should spend their time in a true manner and with the spirit to learn practical orientation of theoretical study framework. This report is about my Internship that i have undergone at NWSC, IT department, Kampala Branch from June-August 2018.

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List of Acronyms

NWSC	National Water & Sewerage Corporation
IT	Information Technology
MD	Managing Director

Main Report

A Introduction

[1]

A.1 Background of NWSC

National Water and Sewerage Corporation (NWSC) is a public utility company 100 percent owned by the Government of Uganda. The Corporation was established in 1972 under Decree No: 34. At its inception in 1972, the Corporation operated in three (3) major towns of Kampala, Jinja and Entebbe. These laws were revised in 1995 by the NWSC Statute and later on the statute was incorporated in the Laws of Uganda as CAP 317 (Laws of Uganda 2000). The primary aim of this was to revise the objectives, powers and structure of NWSC to enable the corporation operate and provide water & sewerage services in areas entrusted to it on a sound commercial and viable basis.

A.1.1 Vision

"To be the leading customer Service Oriented utility in the world."

A.1.2 Mission

"To sustainably and equitably provide cost effective quality water and sewerage services to the delight of all stakeholders while conserving the environment."

A.1.3 Objectives

To provide water and sewerage services in urban areas under its Jurisdiction.

A.1.4 Core Values

Professionalism

Reliability

Integrity

Innovation

Team work

Excellence

Result Oriented

A.1.5 Operations/Services of NWSC

Water Quality

NWSC ensures that the water supplied up to the customer's meter is of a very high standard. Customers are requested to maintain the water quality within their premises. Internal plumbing systems, water heating systems and water storage facilities, such as overhead tanks at homes, can compromise the quality of drinking water, if not well maintained.

Water & Sewerage Services

NWSC ensures that the water provided meets all regulatory standards they adhere to and distribute it equitably.

Extension of Water & Sewerage Services

NWSC endeavours to serve the populations of the areas in which they operate with clean, reliable and safe water.

They make mains extensions of water services to areas meet the demand.

They also provide Sewage collection, treatment and disposal services in accordance with the required environmental standards.

Service Connections

NWSC connects all applicants who meet their standard requirements in the areas where their services exist.

Meter Reading

They read all meters every 30 days. Where this is not possible, a reasonable estimate is determined using previous consumption trends of the last three consecutive readings.

Billing and Bill Distribution

They maintain a 30 days billing cycle for all customers. The water and sewerage billing is based on the consumption as recorded from the meter. Where a meter is not read, an estimate based on the three correct previous readings is used. The invoice is produced and delivered on the day of meter reading where we have adopted the on spot billing system and where bills are printed in the office, the bill is delivered by the fifth month.

Collection of Payments

Payments can be done by using the e-water payment system using mobile money and through the banks.

Network Maintenance

NWSC carries out daily monitoring of their distribution network and deal with all identified leaks and bursts within 24 hours.

Sewerage Treatment

NWSC provides sewerage collection, treatment and disposal services in accordance with the required environmental standards.

Sewerage Disposal

The Corporation only disposes off treated effluent that meets regulatory and other stakeholder requirements and in so doing, they ensure safety their customers, workers and the integrity of the receiving environment.

A.2 Structure of NWSC

A.2.1 Organizational structure

NWSC has to thrive to emplace management system that is democratic, honest, inspiring, transparent, and highly participatory. The corporation's top management includes the Managing Director, Deputy MD Technical Services, Deputy MD Finance & Corporate Strategy, Corporation Secretary, Director Engineer-

ing Services, Director Business & Scientific Services, Director Commercial & Customer Services, Director Internal Audit, Director Planning & Capital Development, General Manager Kampala Water, Director Revenue, Finance & Accounts.

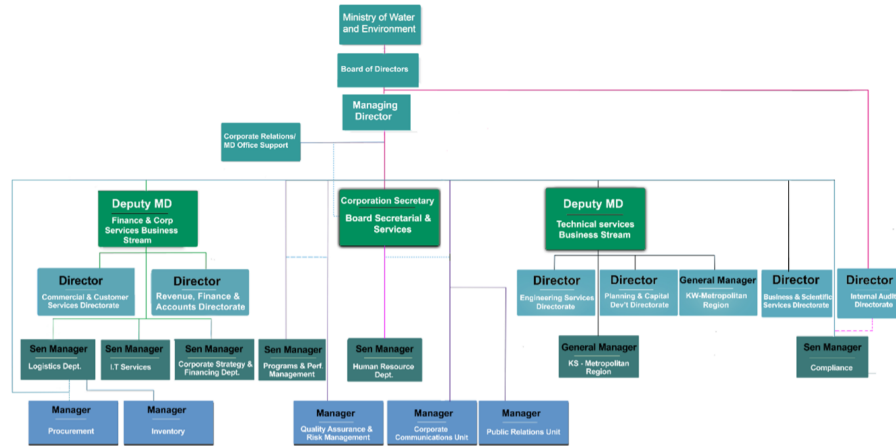


Figure 1: Organizational Structure and Work flow of NWSC

A.2.2 IT Structure

This consists of the Senior Manager, Manager Systems Administrator, Manager Application Developer, Manager Infrastructure.

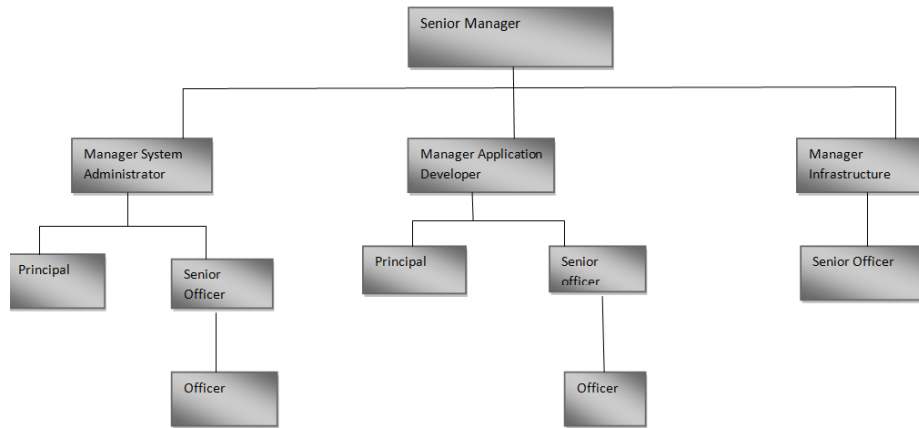


Figure 2: I.T Structure of NWSC

A.3 Main Activities of NWSC and ongoing IT projects

B Field Attachment Activities

C The Overall Internship Experience

D Conclusion and Recommendations

D.1 Conclusion

D.2 Recommendations

E References

F Appendix

References

- [1] "About nwsc." (Date last accessed 7-June-2018).