

**Customer Credits/Adjustments Follow-Up  
Performance Audit**

**May 2011**

**DURHAM**



**1 8 6 9**  
CITY OF MEDICINE

**101 City Hall Plaza  
Durham, NC 27701  
(919) 560-4213**

**Director of Audit Services**  
Germaine Brewington, MBA, CPA

**Audit Manager**  
Sonal Patel, CPA, CIA

**Senior Auditor**  
Eric E. Walker, CFE

**Auditor**  
Ora G. Horton, CGAP



CITY OF DURHAM

Memorandum

**To:** Thomas Bonfield, City Manager  
**From:** Germaine F. Brewington, Director, Audit Services Department  
**Date:** May 6, 2011  
**Re:** **Transmittal of Customer Credits/Adjustments Follow Up Performance Audit (May 2011)**

The Audit Services Department completed the report on the Customer Credits/Adjustments Follow Up Performance Audit dated May 2011. The purpose of the audit was to verify if the Department of Water Management implemented the recommendations proposed in the Customer Credits/Adjustments Performance Audit dated February 2010.

This report presents the observations, results, and recommendations of the Customer Credits/Adjustments Follow Up Performance Audit. City management concurs with the recommendation made. Management's response to the recommendation is included with the attached report.

The Audit Services Department appreciates the contribution of time and other resources from employees of the Department of Water Management in the completion of this audit.

## **TABLE OF CONTENTS**

---

<b>BACKGROUND INFORMATION</b>	<b>4</b>
-------------------------------	----------

---

<b>EXECUTIVE SUMMARY</b>	<b>5</b>
--------------------------	----------

---

<b>OBJECTIVES, SCOPE AND METHODOLOGY</b>	<b>6</b>
--	----------

---

<b>AUDIT RESULTS</b>	<b>7</b>
----------------------	----------

---

<b>RECOMMENDATION</b>	<b>9</b>
-----------------------	----------

---

<b>MANAGEMENT'S RESPONSE</b>	<b>10</b>
------------------------------	-----------

---

## **BACKGROUND INFORMATION**

---

The City of Durham's Department of Water Management is responsible for providing an adequate supply of safe drinking water and protecting the environment through effective wastewater treatment and other programs. The Customer Billing Services (CBS) Division is in charge of the billing functions related to providing water and sewer services. The MUNIS Utility Billing module, implemented in late January 2009 to replace the legacy mainframe billing system, was the last of the major modules to be implemented in MUNIS. There are 84,000 meters in the City's system; approximately 4,000 are large meters read on a monthly basis. The remaining 80,000 meters are less than 1 ½ inches and are read on a bi-monthly basis. The CBS Division maintains a customer database of over 80,000 accounts, processing over 44,000 bills per month. Customers are billed for water and sewer consumption, service charges, deposits, penalties for disconnect/reconnect and late fees. Ordinance No. 7773, § 1, 3-20-1989 gives management the authority to adjust atypical water and sewer bills.

Credit adjustments is a process used to modify water and sewer bills for: 1) plumbing or repairing problems experienced by customers, or 2) meter-reading errors, coding errors, and billing rate errors that are caused by factors internal to the organization.

The Department of Audit Services performed a Customer Credits/Adjustments Performance Audit in February 2010. The purpose of the audit was to verify if the Water Management Department had adequate controls over credits and adjustments to the water and sewer bills. The audit concluded that, the Department of Water Management did not have adequate controls over credits and adjustments to water and sewer bills. In addition, the guidelines for water and sewer billing adjustments did not adequately define proper protocol to follow when addressing some credit adjustments.

### **Purpose**

The purpose of the audit was to verify if the Department of Water Management implemented the recommendations proposed in the Customer Credits/Adjustments Performance Audit dated February 2010.

We conducted this performance audit in accordance with generally accepted governmental auditing standards. Those standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

### **Results in Brief**

The Customer Credits/Adjustments Performance Audit dated February 2010 proposed three recommendations to management. The Department of Water Management has implemented all of the recommendations.

## OBJECTIVES, SCOPE AND METHODOLOGY

---

### Objectives

The objective of the audit was to verify if:

- The Department of Water Management implemented the proposed recommendations.

### Scope

The scope of the audit included examining the Department of Water Management's current controls as they relate to the proposed recommendations of the Customer Credits/Adjustments Audit dated February 2010.

### Methodology

In order to accomplish the objectives of this audit, audit staff performed the following steps:

- Obtained and reviewed revised policies and procedures;
- Interviewed personnel to determine if controls existed to monitor the utility bill credit adjustment process;
- Obtained a list of all water bill credits and adjustments for the period of July 2010 to December 2010;
- Reviewed reports and held interviews with responsible personnel to verify that monitoring was performed; and
- Obtained and reviewed protocols regarding meter and register change outs.

During the audit, the staff also maintained an awareness to the potential existence of fraud.

For the period of July 2010 to December 2010, credits and adjustments totaled approximately \$ 5,943,714. Credits and adjustments have decreased significantly when compared to total adjustments/credits for the period of July 2009 to December 2009, which totaled approximately \$18,885,915.

The recommendations in the Customer Credits/Adjustments Audit dated February 2010 and the accompanying status of each recommendation follow.

### **Recommendation 1**

The Department of Water Management should revise the guidelines for water and sewer billing adjustments to include standard documentation retention requirements, and approval requirements needed to support the adjustments.

The guidelines should also include detailed descriptions of various types of adjustments in order to facilitate the analysis process.

*Status: Implemented*

*The Department of Water Management has revised the water & sewer billing adjustments guidelines to include standard documentation retention requirements, and included detailed descriptions of various types of adjustments in order to facilitate the analysis process.*

### **Recommendation 2**

The Department of Water Management should develop controls over the credit adjustment process. The controls should include:

- Approval for all credits and adjustments over a specified dollar threshold;
- Review of credits and adjustments by customer and customer service representatives on a frequent basis (daily or weekly); and
- Analysis of causes for credit adjustments.

*Status: Implemented*

*The Customer Billing Services Division (CBS), with assistance from the Technology Solutions Department, has developed several reports to aide in the monitoring process. These reports include Adjustment Summary by Reason Code, Adjustment Summary by Clerk, Adjustments Exceeding \$500 by Clerk, and the Credit Adjustments Report. The Customer Billing Services Manager reviews these reports to identify unusual adjustment trends, patterns and unauthorized credits. In addition, the CBS Manager conducts periodic reviews to verify that back-up documentation exists for large dollar amount adjustments and that authorized personnel made the appropriate adjustments.*

**Recommendation 3**

The Department of Water Management should establish a process to reduce adjustments required because of errors internal to the organization.

*Status: Implemented*

*The Adjustment Summary by Reason Code report helps CBS staff identify adjustments required because of errors internal to the organization. The Division has developed reports and protocols regarding meter and register change-outs in collaboration with the Water and Sewer Maintenance Division. The CBS Manager receives a daily report on meter/register change-outs. The CBS staff expects to decrease the number of adjustments that are required due to reading errors as a result of implementing the meter and register change-out protocols. The CBS Division is also in the process of revising data in MUNIS, to decrease adjustments required due to billing rate errors. MUNIS does not differentiate between multi-family structures (duplexes, apartments) and single-family dwellings causing inaccurate tier rate billing for multi-family units. Continued review of reports and customer notification will assist in reduction of billing errors. In addition, the Department of Water Management is currently in the process of implementing the Automated Meter Reading (AMR) system. This system is expected to enhance meter reading accuracy, billing accuracy and staff efficiency therefore having a major impact on reducing credit/adjustments.*

**Recommendation 1**

The Customer Billing Services Division of the Department of Water Management should continue to monitor credits and adjustments.

## MANAGEMENT'S RESPONSE

---

**To:** Germaine F. Brewington, Director, Audit Services  
**From:** Donald F. Greeley, Director, Water Management  
**Date:** May 17, 2011  
**RE:** Management's Response  
Customer Credits/Adjustments Follow-up Performance Audit – May 2011

The following is the management's response to the Customer Credits/Adjustments Follow-up Performance Audit dated May 2011.

### **Recommendation 1:**

The Customer Billing and Services Division of the Department of Water Management should continue to monitor credits and adjustments.

### **Management's Response:**

We concur. Management is in full agreement with the recommendation. In addition to implementing all of the measures adopted per the Customer Credit/Adjustments Performance Audit dated February 2010, staff continues to explore opportunities for improvement. The department has filled the position of Utility Finance Manager (start date May 23, 2011) which will have supervision of the Customer Billing Services Division and other finance related responsibilities. This position will provide an additional level of review and oversight of the current measures in place. We also believe this position will help develop and implement additional procedures and streamline existing processes, insuring that comprehensive controls are in place at all times, decreasing the errors and improving billing accuracy. This will become even more important as we move to full implementation of Automated Meter Reading technology and monthly billing.