

DURHAM



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# **STORMWATER UTILITY FEES PERFORMANCE AUDIT**

**APRIL 2013**

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AUDIT SERVICES DEPARTMENT

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**To:** Audit Services Oversight Committee  
**From:** Germaine Brewington, Director  
Audit Services Department  
**Date:** April 2, 2013  
**Re:** Stormwater Utility Fees  
Performance Audit (April 2013)

The Department of Audit Services completed the report on the Stormwater Utility Fees Performance Audit dated April 2013. The purpose of the audit was to determine if adequate controls exist at the Department of Public Works over the billing and collections of Stormwater utility fees.

This report presents the observations, results, and recommendations of the Stormwater Utility Fees Performance Audit dated April 2013. City management concurs with the recommendations made. Management's response to the recommendations is included with the attached report.

The Department of Audit Services appreciates the contribution of time and other resources from employees in the Departments of Public Works (Stormwater Division), Technology Solutions, and Finance in the completion of this audit.

## **TABLE OF CONTENTS**

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<b><u>BACKGROUND INFORMATION</u></b>	<b>5</b>
<b><u>EXECUTIVE SUMMARY</u></b>	<b>7</b>
<b><u>OBJECTIVES, SCOPE AND METHODOLOGY</u></b>	<b>8</b>
<b><u>AUDIT RESULTS</u></b>	<b>10</b>
<b><u>RECOMMENDATIONS</u></b>	<b>17</b>
<b><u>MANAGEMENT'S RESPONSE</u></b>	<b>18</b>

## BACKGROUND INFORMATION

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Adequate controls over the billing and collections of revenue are an indispensable component of any government's overall financial management program. This audit focuses on controls over billing and collections of Stormwater fees. The Department of Public Works – Stormwater Division administers the Stormwater utility fees.

The City reported revenue of approximately \$11,093,805 for Stormwater fees for fiscal year 2012 and approximately \$9,836,622 for fiscal year 2011. As of March 27, 2013, the City has generated revenue of approximately \$9,993,519.85 for fiscal year (FY) 2013.

### Billing process for Stormwater Fees:

The amount of impervious area on a property determines the Stormwater utility fees. The City charges a Stormwater utility fee of all owners of publicly or privately developed land within the City limits. Non-residential properties are billed based on the numbers of Equivalent Residential Units (ERU) of impervious area that are on the property. In Durham, an ERU is equal to 2,400 square feet and the charge for commercial properties is \$5.79/month per ERU.

Residential properties are assigned to one of the following tiers based on the amount of impervious area on the property:

- Tier 1: Properties with less than 2,000 square feet of impervious area are charged a yearly Stormwater utility rate of \$33.48;
- Tier 2: Properties with impervious areas between 2,000 square feet and 4,000 square feet are charged a yearly Stormwater utility rate of \$69.48; and
- Tier 3: Properties with more than 4,000 square feet of impervious area are charged a yearly Stormwater utility rate of \$139.08.

## BACKGROUND INFORMATION

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Residential customers are billed annually. Non-residential customers are generally billed monthly or bi-monthly. However, a non-residential bill can be changed to an annual cycle upon request.

The Durham, North Carolina Code of Ordinance, Chapter 70 - Utilities, Article VIII- Stormwater Utility governs the Stormwater service charges and credits.

Stormwater service charges are due within 21 days after a bill has been issued. Bills not paid within this time shall be charged interest at the rate of one percent per month.



## EXECUTIVE SUMMARY

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### **Purpose**

The purpose of the audit was to determine if adequate controls exist at the Department of Public Works over the billing and collections of Stormwater utility fees.

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**

Overall, the Stormwater Division of the Public Works Department has effective controls and management oversight over the billing and collections process for Stormwater utility fees. Some opportunities for improvement were identified. The Stormwater Division has an extensive process in place to ensure the accuracy of Stormwater utility fee billing. The extensive use of technology to ensure utility fee billing is accurate demonstrates a process efficacy that is worth commending. The staff were also forthcoming with information requested during the course of the audit. Audit staff noted a high level of customer service and professionalism from the Stormwater Division staff in particular during the audit.

## OBJECTIVES, SCOPE AND METHODOLOGY

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### Objectives

The objectives of the audit were to:

- Determine if adequate controls exist over the billing process for Stormwater utility fees; and
- Determine if adequate controls exist over the collections of delinquent Stormwater utility fees.

### Scope

The Scope of the audit included all current practices at the City over the billing and collection of delinquent Stormwater utility fees.

### Methodology

In order to achieve the objectives of the engagement, audit staff performed the following steps and procedures:

1. Obtained and reviewed policies/procedures as well as the City Ordinance pertaining to Stormwater utility fees;
2. Obtained Stormwater utility fee revenue balances per the general ledger for FY 2012 , FY 2011 and FY 2010;
3. Interviewed employees associated with the billing and collections processes;
4. Judgmentally selected a sample of Stormwater utility fees (including residential, commercial, and home owner association (HOA) accounts) and verified the following:
  - The calculation of the fees;
  - The accuracy of the rate being charged to the account based on the impervious area;
  - The accuracy of the late fee calculations for a sample of customer billings;

## OBJECTIVES, SCOPE AND METHODOLOGY

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5. Documented and verified the process in place to ensure that everyone who should have been billed for Stormwater fees was billed:
  - Obtained the monthly list created from the property sales report for FY 2013;
  - Judgmentally selected a sample and verified that changes to either impervious area or ownership were updated in MUNIS;
6. Documented and verified the process for ensuring that the impervious area was accurate:
  - Obtained the excel spreadsheet that compared the impervious area per GIS to MUNIS;
  - Obtained a list of all accounts that were updated based on satellite imagery in the annual update process;
  - Verified changes in MUNIS based on the annual update;
  - Verified the site visits performed;
7. Reviewed the performance measures documented in the Budget Book;
8. Documented the process of handling customer queries;
9. Identified adjustments and judgmentally selected a sample and verified the reasons for adjustments;
10. Documented and verified the return mail process including how the process translated into revenue received;
11. Compared total impervious area per GIS to total impervious area per the MUNIS billing system to determine reasonableness of the billing system;
12. Obtained and reviewed reports used by management to monitor progress;
13. Obtained and reviewed the detailed delinquent accounts list;
14. Judgmentally selected a sample of delinquent accounts and determined actions taken to collect them;
15. Analyzed delinquent accounts by type such as residential, commercial and HOA to determine if and where controls are lacking; and
16. Verified the hierarchy of the application of payments in MUNIS.

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

### ***Effective controls exist over the billing process for Stormwater utility fees at the Department of Public Works***

The Stormwater Division staff has a process in place to ensure: 1) the correct owner is billed; and 2) the accuracy of the impervious area is monitored and updated regularly. The process of billing is challenging in that the landscape of Durham is constantly changing, resulting in changes to the impervious area. The Stormwater Division staff need to keep abreast of these changes in order to ensure that the bills are accurate. They annually obtain impervious area for the City from satellite imagery and use this information to manually update the digitized impervious area in the Geographic Information System (GIS). The staff compare the GIS system generated impervious areas to the impervious area data reflected in MUNIS. The differences in the two databases are reviewed by the staff and appropriate changes are made to information in the MUNIS system, which drives the billing. Given the large number of accounts, the staff with this job duty prioritizes the review of the differences based on the significance of the differences.

Audit Services staff obtained and reviewed documentation for residential accounts to support the review performed by Stormwater Division staff. Audit Services sorted the list in descending order beginning with the largest differences. Thirty-one properties were judgmentally selected to ensure that the changes had been made in MUNIS to reflect the accurate impervious areas. No exceptions were noted.

Audit Services staff obtained and compared the total impervious area in the GIS system to the total impervious area in MUNIS as of March 20, 2013. The impervious area in MUNIS was approximately 26 million more square feet than that of the impervious area per the GIS system. Per Stormwater Division staff, several accounts in MUNIS are not billed even though they have an impervious area associated with them; and the impervious area report from MUNIS includes these accounts. These accounts are not billed because they are outside City limits. The Stormwater Division staff is in the process of updating these

## AUDIT RESULTS

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accounts to reflect a zero impervious area because they are outside the City limits. Audit Services staff verified eight accounts outside the City limits currently not being billed, which accounted for approximately 10 million of the 26 million square foot difference. In addition to comparing the total impervious area in GIS and MUNIS, Audit Services staff also judgmentally selected 31 non-residential accounts and 28 homeowner association accounts and compared the impervious areas for these accounts in GIS and MUNIS. A few exceptions were noted; however, the exceptions were not material.

The Stormwater Division staff performed site visits to verify the impervious area of a property. Site visits were performed: 1) at the request of citizens to verify their impervious areas; 2) to check the status of sites under construction; 3) to verify demolition; and 4) to verify large areas that frequently change, like Duke University. Audit staff verified documentation to support the completion of site visits. No exceptions were noted.

In addition to the impervious area, the ownership of property is constantly changing as well. Distribution of bills to the correct customers affects the billing and collection processes. The Stormwater Division staff receive property sales data from Durham County on a monthly basis. They review this information on a monthly basis and update the information in MUNIS if necessary. Audit Services staff obtained the monthly property sales lists from August-December 2012 and judgmentally selected a sample of 125 properties to verify that the information in MUNIS was properly updated. Appropriate changes were made in MUNIS for 117 of the 125 properties. For eight (approximately 6%) of the 125 properties, Stormwater Division staff had not updated the information in MUNIS.

The Stormwater Division staff also had a process to ensure that returned checks are reviewed and efforts are made to find the correct owner or mailing address. Audit staff reviewed the documentation to support this process. No exceptions were noted.

## AUDIT RESULTS

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### **Adequate controls exist over collection of Stormwater fees. Opportunities for improvement were identified.**

As of March 20, 2013, the Stormwater Division had collected 98% of all bills generated in FY 2012.

Amount **billed** in FY 2012 (July 1, 2011 to June 30, 2012)  
*\$ 11,219,920*

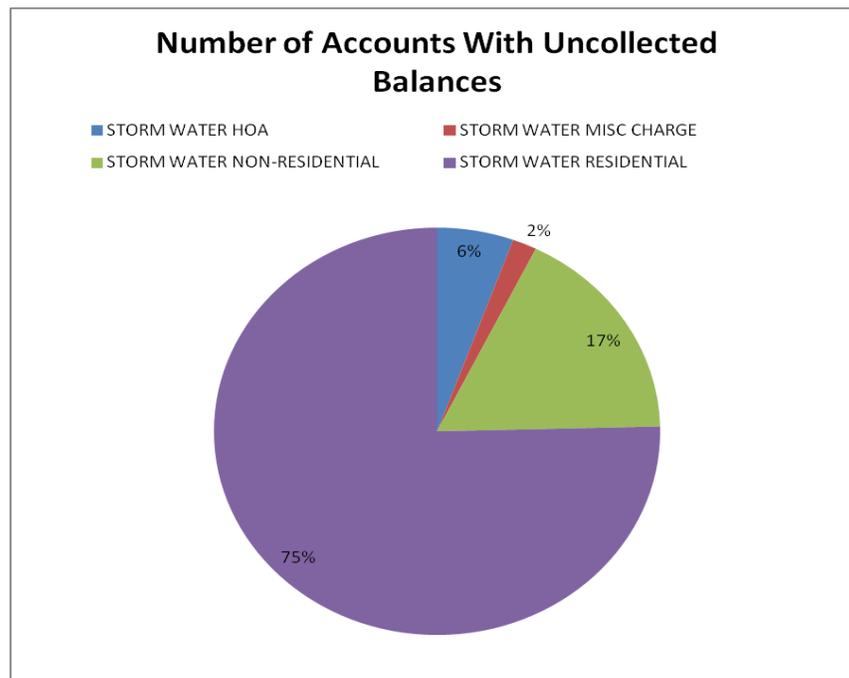
Amount **collected** through March 20, 2013  
*\$ 10,954,009*

The collections rate of 98% is excellent given the Stormwater Division staff at present are not applying any cutoff remedies to delinquent accounts. Durham City Ordinance 70-654(C) allows for termination of water/sewer services if the Stormwater charges are not paid and the property receives water and/or sewer services. Termination of services can occur even if the fees are not part of the water and sewer bill. The Ordinance applies even if there is an agreement stating that the owner is responsible for the Stormwater and the tenant is responsible for water/sewer service. Implementing the cut off remedy to delinquent accounts was discussed with the Stormwater Division GIS and Stormwater Senior Business Services Manager. Per the Manager, using this remedy for non-residential accounts would be appropriate; but it would not be appropriate for residential accounts. Non-residential customers' fees account for approximately 80% of the Stormwater fee revenues where as residential accounts only account for approximately 20% of the revenues. There are approximately 6,784 non-residential accounts compared to approximately 57,666 active residential accounts. The cost of administering the cutoff policy for the residential accounts would not, per the Manager, appreciably increase collections in his opinion.

## AUDIT RESULTS

The Stormwater Division staff monitored Stormwater utility fees and directed collection efforts. They reviewed a Heavy Hitter Delinquent Account list (defined as businesses that have balances exceeding \$500) and a Detailed Delinquent Report as a part of their oversight. Collection efforts routinely begin after an account has become 60 days delinquent. The customer is contacted and attempts are made to collect the full amount of the balance due or to obtain a payment agreement. Accounts exceeding 120 days are forwarded to the City contracted collection agency-- Professional Recovery Consultants, Incorporated for follow-up and additional collections efforts.

Audit Services staff performed a categorical analysis of the Accounts Receivables Aging Report to determine the number of accounts by account types that had uncollected balances. The graph below shows this data.



The residential accounts represented 75% of accounts that were unpaid.

## AUDIT RESULTS

The table below displays the aging accounts receivables balance by account type as of March 27, 2013.

	Current	1-30 Days Delinquent	31-60 Days Delinquent	61-90 Days Delinquent	>90 Days Delinquent	TOTAL
STORMWATER NON-RESIDENTIAL	128,381.94	15,019.09	24,186.65	32,988.11	375,049.02	575,624.81
STORMWATER RESIDENTIAL	161,615.06	12,351.28	11.59	1,668.87	579,480.00	755,126.80
STORMWATER HOA	1,867.46	265.4	0	575.22	46,283.95	48,992.03
STORMWATER MISC CHARGE	-740.70	-1,755.63	9,537.99	205.96	88,170.43	95,418.05
	<b>291,123.76</b>	<b>25,880.14</b>	<b>33,736.23</b>	<b>35,438.16</b>	<b>1,088,983.40</b>	<b>1,475,161.69</b>

Audit Services staff judgmentally selected a sample of 22 delinquent accounts totaling \$376,726 in delinquent fees and verified the collection actions taken by the Stormwater Division staff. No exceptions were noted.

Audit Services staff reviewed the aging list and found credit balances amounting to approximately \$74,132. Credit balances can cause the Accounts Receivable ledger balance to be understated. Per Stormwater Division staff, credit balances could be the result of: 1) overpayments from customers, 2) adjustments due to inaccurate impervious areas; or 3) balances with unknown reasons carried forward during the conversion to the MUNIS system. The Stormwater Division staff should continue to investigate the credit balances to determine if the balances are true credits, meaning, the City owes the customer.

In addition, when reviewing the aging report, Audit Services staff raised questions concerning a delinquent account in the amount

## AUDIT RESULTS

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of \$37,993 for the North Carolina Department of Transportation (NCDOT). The account currently is not being billed. In addition to the City's Ordinance, N.C.G.S. §160A-459 provides guidance for local governments on Stormwater control and obligations owed by federal or state entities. Per Stormwater Division staff, in August of 2011, staff in the City Manager's Office requested the NCDOT account be flagged with a "hold and do not bill" status. The account has received no payment, has not been billed to the customer, incurs no interest or late fees, and has not been sent to the collections company for proper collections action since it was placed on hold on August 4, 2011. The Stormwater Division staff have e-mails and verbal instructions from the City Manager's Office addressing why this account was singled out for this favorable exception.

**The extensive process of ensuring accuracy of the billing and collections of Stormwater fees as performed by Stormwater staff is not documented in any current policies or procedures.**

The Stormwater Division's policies, procedures and City ordinances do not address the revaluing or updating of either residential or non-residential properties relating to the amount of impervious area on each property. When impervious areas are redefined due to aerial photographs and satellite imagery, impervious areas on properties have to be revalued and the new fee established and billed to the customer. Written policies which describe this process, including the physical validation of the impervious area, would provide support for any changes in the billing amount for the impervious area.

### Conclusion

Overall, the Stormwater Division of the Public Works Department has effective controls over the billing and collections processes for Stormwater utility fees. The Stormwater Division has an extensive process in place to ensure the accuracy of their utility fee billing. The use of technology to enhance the likelihood that potential customers are identified and to ensure the billing is

## AUDIT RESULTS

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accurate is evidenced in increased revenues over the past five years. The staff was also forthcoming with information requested during the course of the audit. Audit staff noted a high level of customer service and professionalism during the audit from all departments involved, but particularly from the Stormwater Division staff. While there was effective management oversight over the billing and collection processes, opportunities for improvement were identified. Management began corrective action in some instances during fieldwork.

## RECOMMENDATIONS

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### **Recommendation 1**

The Department of Public Works staff should review the credit balances in the Stormwater accounts receivables accounts and take appropriate action.

### **Recommendation 2**

The Department of Public Works should explore the possibility of using the cutoff remedy to collect delinquent accounts, which was approved in the City of Durham Code of Ordinance, Chapter 70 - Utilities, Article VIII- Stormwater Utility. A determination should be made as to whether this is a viable option and if the remedy should apply to only specific account types (for instance only non-residential accounts) or all account types.

### **Recommendation 3**

The Department of Public Works should develop written procedures to capture the extensive process of ensuring the accuracy of the billing and collections of Stormwater utility fees as performed by Stormwater Division staff.

### **Recommendation 4**

The Department of Public Works should review N.C.G.S. §160A-459 in addition to the City's Ordinance for guidance on billing NCDOT for its outstanding receivable balance. Otherwise, the Department of Public Works should obtain a memo from the City Manager's Office instructing the Department of Public Works-- Stormwater-Billing Unit to handle NCDOT's outstanding receivable balance on an exception basis.



## MANAGEMENT'S RESPONSE



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Memo to: Germaine F. Brewington, Director of Audit Services  
Through: W. Bowman Ferguson, Deputy City Manager  
From: Marvin G. Williams, Director of Public Works

Cc: Paul Wiebke, Assistant Director of Public Works  
John J. Scott, Business Services Manager

Date: April 15, 2013  
Subject: Management's Response  
Stormwater Utility Fees Performance Audit (April 2013)

The following is the management's response to the Stormwater Utility Fees Performance Audit dated April 2013.

### **Recommendation 1:**

The Department of Public Works staff should review the credit balances in the Stormwater accounts receivables accounts and take appropriate action.

### **Management's Response**

We concur. DPW Management is in full agreement with the recommendation.

All credit balances have been pulled from the Stormwater Fee Aging Report and classified into two groups for review of legitimacy of credit balance. 1) Inactive accounts with negative balance and 2) active accounts with a negative balance. Appropriate actions to be taken after review of accounts will be to: debit off balances to Stormwater charges that are not legitimate; and to confer with the Finance Department for rules and regulations to adjust or move negative balances off legitimate credits of inactive accounts in order to clean the stormwater aging report to reflect only legitimate credit balances on active accounts.



## MANAGEMENT'S RESPONSE

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### **Recommendation 2:**

The Department of Public Works should explore the possibility of using the cutoff remedy to collect delinquent accounts, which was approved in the City of Durham Code of Ordinance, Chapter 70 -Utilities, Article VIII- Stormwater Utility. A determination should be made as to whether this is a viable option and if the remedy should apply to only specific account types (for instance only non-residential accounts) or all account types.

### **Management's Response**

We concur. DPW management is in full agreement with the recommendation.

The Stormwater Services Billing Unit will contact the Department of Water Management Utility Finance Manager to establish a protocol for support of the City of Durham Code of Ordinance, Chapter 70 -Utilities, Article VIII- Stormwater Utility for delinquent non-residential accounts.

### **Recommendation 3:**

The Department of Public Works should develop written procedures to capture the extensive process of ensuring the accuracy of the billing and collections of Stormwater utility fees as performed by Stormwater Division staff.

### **Management's Response**

We concur. DPW management is in full agreement with the recommendation.

The Stormwater Services Billing Unit (SWSBU) supervisors will add additional information to the SWSBU operations manual to include Geographic Information System (GIS) models schemas for GIS data (parcel, address point and account comparisons) for Fee program data management, details on the Satellite Imagery Extraction process and the Geographic Information System Impervious Area update. These updates will be in place in the manual after the MUNIS version upgrade in November 2013. Testing, review and implementation of the new MUNIS version will have to be finished before updates to the SWSBU operations manual can be completed; via the data and procedural changes that will need to be documented and the processing that will need to be updated to work in the new data and table structure environment. Completion of this action will be dependent on the completion of the MUNIS upgrade by Technology Solutions.

## MANAGEMENT'S RESPONSE

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### **Recommendation 4:**

The Department of Public Works should review N.C.G.S. §160A-459 in addition to the City's Ordinance for guidance on billing NCDOT for its outstanding receivable balance. Otherwise, the Department of Public Works should obtain a memo from the City Manager's Office instructing the Department of Public Works--Stormwater-Billing Unit to handle NCDOT's outstanding receivable balance on an exception basis.

### **Management's Response**

We concur. DPW management is in full agreement with the recommendation.

The Stormwater Services Billing Unit will implement any changes approved of for the handling of stormwater fee billing for the North Carolina Department of Transportation; after reviewing the City's legal ability to collect the stormwater fee from this state agency with the City Attorney's Office (CAO) and the City Manager's Office (CMO). This review with the CAO and CMO will be completed within 120 days.