



# **PUBLIC WORKS DEPARTMENT STORMWATER PERFORMANCE AUDIT SEPTEMBER 2016**

## **CITY OF DURHAM**

AUDIT SERVICES DEPARTMENT

*Providing Independent, Objective Assurance  
and Investigative Services*

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**CITY OF DURHAM**

*Audit Services Department*

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**To:** Audit Services Oversight Committee  
**From:** Dr. Germaine Brewington, Director  
Audit Services Department  
**Date:** September 26, 2016  
**Re:** Stormwater Performance Audit

The Audit Services Department completed the report for the Stormwater Performance Audit dated September, 2016. The purpose of the audit was to determine if adequate controls existed at the Public Works Department over the:

- Billing and Collections of Stormwater Utility Fees;
- Stormwater Replacement Fund; and
- Stormwater Performance Guarantees/Construction Securities.

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

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

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## Purpose

The purpose of the audit was to determine if adequate controls existed at the Public Works Department over:

- Billing and Collections of Stormwater Utility Fees;
- Stormwater Replacement Fund; and
- Stormwater Construction Securities.

Audit Services staff conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we planned and performed the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on the 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 staff at the Public Works Department – Stormwater Division administered the Stormwater Utility Fees. The Durham, North Carolina Code of Ordinance, Chapter 70-Utilities, Article VIII- Stormwater Utility governs the stormwater service charges and credits. The process of billing stormwater fees was challenging due to the developing landscape of Durham which directly resulted in changes to the impervious areas. The Stormwater Division staff had adequate controls in place to ensure impervious areas are monitored and updated accurately. Adequate processes existed to ensure billing of Stormwater Utility Fees to the correct owner. An area to enhance revenue collections was identified by the audit. Loss of revenue occurred as a result of billing Stormwater Utility Fees annually versus monthly when new and existing residential properties were sold. In addition, the lack of retroactive or prorated billing also contributed to the loss of revenue. The Stormwater Division staff also had adequate controls to ensure collection of delinquent stormwater accounts.

The Public Works Department staff was responsible for collecting payments for the Stormwater Replacement Fund. The Public Works Department staff complied with The Durham, North Carolina Code of Ordinance, Chapter 70- Utilities, Article XI - Stormwater Facility Replacement Fund. The Public Works Department staff should strengthen controls to ensure that all persons required to contribute to the Stormwater Replacement Fund have complied. In addition, the draft written procedures pertaining to the Stormwater Replacement Fund should address processing of loan requests and funds.

The City's Public Works Department staff ensured Stormwater Construction Securities were received in accordance with established policies. Controls should be strengthened to ensure that construction securities are received from all developers that are required to submit them in accordance with established policy. In addition, written procedures should be established to address the receipt of Stormwater Construction Securities.

# Stormwater Background

## Billing and Collections of Stormwater Fees

Adequate controls over the billing and collections of revenue are an indispensable component of any government's overall financial management program. This audit focused on controls over billing and collections of stormwater fees. The staff at the Public Works Department – Stormwater Division administered the Stormwater Utility Fees. The Durham, North Carolina Code of Ordinance, Chapter 70 -Utilities, Article VIII-Stormwater Utility governs the stormwater service charges and credits.

The City reported revenues of approximately \$15,686,048 for stormwater fees for fiscal year 2016 and approximately \$15,133,583 for fiscal year 2015. As of September 2, 2016, the City generated revenues of approximately \$3,971,239 for fiscal year (FY) 2017. Fees are categorized by non-residential, residential and homeowners' associations. See Figure 1 below for a breakdown of stormwater fees by type. See Figure 2 for a summary of the stormwater utility accounts by type.

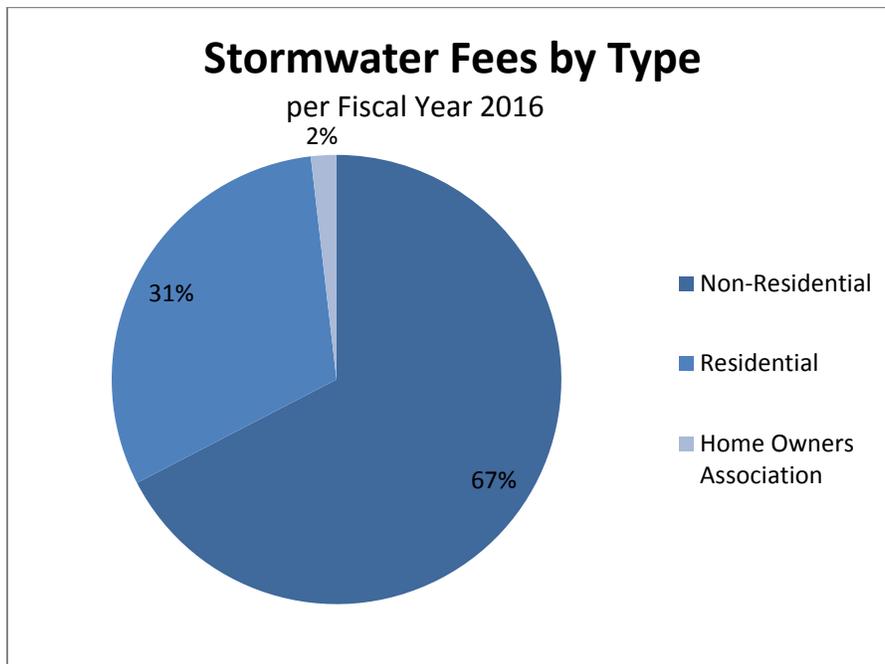


Figure 1: Stormwater Fees by Type for Fiscal Year 2016.

<b>Number of Stormwater Utility Services as of August 2016</b>	
Residential Services (HOA not included)	<b>60,334</b>
Home Owner's Association (Townhomes, Condos, etc.)	<b>7,775</b>
Non-residential	<b>6,336</b>
<b>Total Stormwater Utility Accounts</b>	<b>74,445</b>

*Figure 2: Stormwater Utility Services Summary as of August 2016.*

The City charged a Stormwater Utility Fee to all owners of publicly or privately developed land within the City limits. The amount of impervious area on a property determined the Stormwater Utility Fee. Non-residential properties were billed based on the numbers of Equivalent Residential Units (ERU) of impervious area on the property. In Durham, an ERU was equal to 2,400 square feet. The charge for non-residential properties was \$6.75/month per ERU.

Residential properties were 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 were charged a yearly stormwater utility rate of \$39.12;
- Tier 2: Properties with impervious areas between 2,000 square feet and 4,000 square feet were charged a yearly stormwater utility rate of \$81.00; and
- Tier 3: Properties with more than 4,000 square feet of impervious area were charged a yearly Stormwater utility rate of \$162.24.

Residential customers were billed annually. Residential customers may request to be billed monthly. Non-residential customers were billed monthly. Non-residential customers may request to be billed annually.

### **Stormwater Replacement Fund**

The City of Durham's Stormwater Replacement Fund ensured adequate funding is available for the long-term maintenance and replacement of Stormwater Control Measures (SCM). The Fund consists of a one-time payment by the developer in an amount equal to 25% of the construction cost(s) of the stormwater facility(ies). The Durham, North Carolina Code of Ordinance, Chapter 70- Utilities, Article XI- Stormwater Facility Replacement Fund governs the requirements for this Fund. The City received

payments of approximately \$1,782,978 for FY 2015 and approximately \$2,249,909 for FY 2016. The Stormwater Replacement Fund accumulated approximately \$10,052,549 as of June 30, 2016. To date, no loan requests have been processed from the Stormwater Fund.

### **Stormwater Construction Securities**

The Stormwater Division abided by the Durham, North Carolina Code of Ordinance, Chapter 70-Utilities, Article X, Sec.70-742 – Design, Construction, and Completion of SCMs and Stormwater Conveyances. Per the Ordinance, “the owner and/or developer(s) of any development for which SCMs and/or stormwater conveyances have been approved, shall be responsible for complying with the requirements set forth in this section of the Ordinance. If the owners or developers of a development have not completed the requirements they shall provide a performance guarantee in the type and amount as set forth in the City stormwater standards”. The Department’s standards stated that all permitted SCMs tied directly to non-residential projects were to be completed and an as-built certificate approved prior to issuance of a partial occupancy, conditional certificate of compliance, or certificate of compliance (CoC). If a CoC was requested and one or more of the permitted SCMs was incomplete, a partial occupancy or conditional CoC was issued upon the owner’s provision of an acceptable construction security Instrument. For projects that did not require a CoC or that did not require the issuance of utility permits, the construction security was required prior to the construction drawing approval.

For residential customers all stormwater control measures were to be completed, submitted and approved prior to the final plat submission through the City/County Planning Department. In lieu of this step the City of Durham allowed a construction security in the amount of 125% of the estimated construction costs for completion of the infrastructure.

## Audit Objectives

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This Audit Report's specific objectives were to:

- Determine if adequate controls existed over the billing process for Stormwater Utility Fees;
- Determine if adequate controls existed over the collections of delinquent Stormwater Utility Fees;
- Examine the process of securing stormwater performance guarantees/construction securities for stormwater facilities; and
- Review the adequacy of controls over the Stormwater Replacement Fund.

## Scope and Methodology

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The Scope of the audit included all current practices at the City over the billing of Stormwater Utility Fees, collection of delinquent Stormwater Utility Fees, retention and collection of Stormwater Replacement Funds and Stormwater Construction Securities.

The methodology used by Audit Services staff to achieve the audit objectives included:

1. Obtaining and reviewing policies/procedures as well as the City Ordinance pertaining to Stormwater Utility Fees, the Stormwater Replacement Fund and Stormwater Construction Securities;
2. Obtaining Stormwater Utility Fee revenue balances per the general ledger for FY 2017 , FY 2016 and FY 2015;
3. Interviewing employees associated with the billing and collections processes;
4. Judgmentally selecting a sample of Stormwater Utility Fees (including residential, non-residential, and home owner association (HOA) accounts) and verifying the following:
  - a. The calculation of the fees;
  - b. The accuracy of the rate being charged to the account based on the impervious area;
5. Reviewing and verifying the process of billing new developments;
6. Judgmentally selecting a sample and verifying that changes to either impervious area or ownership (per property sales data) were updated in the MUNIS system;

- 7.** Documenting and verifying the process for ensuring that the impervious area was accurate:
  - a.** Reviewing the excel spreadsheet that compared the impervious area per the Geographic Information System (GIS) to the MUNIS system;
  - b.** Reviewing a list of all accounts that were updated based on satellite imagery in the annual update process;
  - c.** Verifying changes in the MUNIS system based on the annual update;
  - d.** Verifying the site visits performed;
- 8.** Documenting the process of handling customer queries;
- 9.** Identifying adjustments, judgmentally selecting a sample, and verifying the reasons for adjustments;
- 10.** Documenting and verifying the return mail process including how the process translated into revenue received;
- 11.** Comparing total impervious area per GIS to total impervious area per the MUNIS billing system to determine reasonableness of the billing system;
- 12.** Obtaining and reviewing reports used by management to monitor progress;
- 13.** Obtaining and reviewing the detailed delinquent accounts list;
- 14.** Judgmentally selecting a sample of delinquent accounts and determining actions taken to collect them;
- 15.** Analyzing delinquent accounts by type such as stormwater only accounts and combined stormwater/water and sewer accounts;
- 16.** Obtaining a list of all final plat approvals processed per the Land Development Office System and selecting a sample to determine if construction securities were received for all residential customers;
- 17.** Judgmentally selecting a sample of construction securities received from the MUNIS System and determining if the amount retained was in accordance with policy;
- 18.** Selecting a sample of construction securities returned back to the developer from the MUNIS system and determining if adequate controls existed to process returns;
- 19.** Reviewing the adequacy of tracking of construction securities performed by the Public Works Department staff;
- 20.** Obtaining a list of all construction drawings approved by The Stormwater Division per the Land Development Office System and verifying that payments were received;

- 21.** Selecting a sample of stormwater replacement funds received per the MUNIS System, verifying the accuracy of the amount, and reviewing the Stormwater Facilities agreement;
- 22.** Verifying that interest earned on Stormwater Replacement Funds were retained in the Fund;
- 23.** Verifying that written procedures existed to process loan requests from the funds and verifying repayment terms were established;
- 24.** Reviewing the process of executing the Stormwater Facilities Agreements;  
and
- 25.** Reviewing controls to ensure all developments required to contribute to the Stormwater Replacement Fund have contributed.

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

### Stormwater Fees – Effective Controls

#### *Monitoring of Impervious Area*

Adequate controls existed to ensure the accurate monitoring and updating of impervious area.

The process of billing was challenging in that the landscape of Durham is constantly changing, resulting in changes to the impervious area. The Stormwater Division staff kept abreast of these changes in order to ensure that the bills were accurate. They annually obtained satellite imagery of impervious area for the City and used this information to manually update the digitized impervious area in the Geographic Information System (GIS). The staff compared the GIS system generated impervious areas to the impervious area data reflected in MUNIS. The differences in the two databases were reviewed by the staff and appropriate changes were made to the MUNIS system, which drove the billing. Given the large number of accounts, the staff with this job duty prioritized the review of the differences based on the significance of the differences.

Audit Services staff obtained and reviewed documentation to support the review performed by Stormwater Division staff. Audit Services staff sorted the list in descending order beginning with the largest differences. Twenty properties were judgmentally selected to ensure that the changes had been made in MUNIS to reflect the accurate impervious areas. Audit Services staff gleaned that adequate controls existed to ensure the accuracy of the impervious areas are monitored and updated regularly. No exceptions were noted.

The Stormwater Division staff also performed site visits to verify the amount of impervious area of a property, the type of impervious surface, active construction/demolition, etc. Site visits were performed: 1) at the request of citizens to verify their impervious areas; and 2) to verify impervious area if notified of changes.

Audit Services staff verified documentation to support the completion of site visits. No exceptions were noted.

#### *Billing of Stormwater Fees to Correct Owner*

Adequate processes existed to ensure the billing of Stormwater Utility Fees to the correct owner.

The ownership of property was constantly changing. Distribution of bills to the correct owners affected the billing and collection processes. The Stormwater Division staff received property sales data from Durham County every two weeks. They reviewed this information and updated the information in the MUNIS system as necessary.

Audit Services staff judgmentally selected a sample of 45 properties from the property sales data to verify that the information in the MUNIS system was properly updated. Appropriate changes were made in MUNIS for 43 of the 45 properties. For two (approximately 4%) of the 45 properties, Stormwater Division staff had not updated the information in MUNIS.

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

### ***Billing Stormwater Fees at Correct Rates***

Adequate controls existed to ensure Stormwater Utility Fees were billed at the correct rate to customers.

Audit Services staff judgmentally selected a sample of 50 accounts with Stormwater Utility Fee charges and verified whether the correct rate was being charged based on the impervious area. No exceptions were noted.

## **Stormwater Utility Fees – Areas for Enhancement**

Audit Services staff determined a loss of revenue occurred as a result of billing Stormwater Utility Fees annually versus monthly for sale of new and existing residential properties. In addition, lack of retroactive or prorated billing contributed to the loss of revenue.

### ***Billing of Stormwater Utility Fees for New Residential Properties***

New properties with impervious areas were identified for stormwater billing as a result of the following controls:

- Property sales data is reviewed;
- Changes to water & sewer utility accounts are reviewed; and/or
- Impervious area changes are identified as a result of annual satellite imagery.

Once a new property was identified, an account was established in the MUNIS system to bill the owner of the new property for stormwater charges. For residential properties the actual billing was not processed until the next billing cycle, resulting in loss of revenue to the City. For instance, if a new property was sold in December 2015, the bill was issued during the billing cycle of July 2016 to November 2016 for the upcoming year. Stormwater Utilities Fees were not billed for the period from the date of sale to the date of billing, resulting in a loss of revenue. The practice of billing residential customers annually and not billing retroactively or not prorating the bill contributed to this loss of revenue issue.

Non-residential properties were billed monthly and as a result new non-residential properties were billed immediately after identification of the impervious area. Loss of revenue was unlikely to occur given that fees were billed monthly after identification of the impervious area.

### ***Billing of Stormwater Utility Fees for sale of an Existing Residential Property***

There was a loss of revenue with the sale of an existing residential property if the stormwater fee on the sold property was delinquent at the time of sale. For instance, an owner of an existing property was billed on July 2015 for the FY 2016 Stormwater Utility Fee. If the fee subsequently became delinquent and this same existing property was sold in December 2015, the Stormwater Division staff did not pursue collections efforts for the delinquency by the old owner. In addition, the new owner would not be billed for Stormwater Utility Fees from the date of sale, resulting in lost revenue. The new owner would be issued a bill during the billing cycle of July 2016 for FY 2017.

## **Collection of Delinquent Stormwater Fees – Effective Controls**

Adequate controls existed to ensure the proper collection of delinquent Stormwater Utility Fees.

The Stormwater Division staff worked with the Finance Department Staff to monitor delinquent stormwater accounts and direct collection efforts. Collection efforts routinely began after an account became 60 days delinquent. The Stormwater Division staff reviewed the delinquent accounts report monthly and determined whether to forward accounts to a collection agency. The Finance Department Staff ensured that the accounts selected were sent to the collections agency.

Audit Services staff judgmentally selected a sample of 30 delinquent accounts and verified the collection actions. No exceptions were noted.

Audit Services staff performed a categorical analysis of the Accounts Receivable Aging Report to determine the number of accounts by account types that had uncollected balances.

Figure 3 below displays the delinquent accounts receivable balances by account type as of August 15, 2016. The data depicted that 94% of the delinquent accounts were stormwater only (residential and non-residential) accounts.

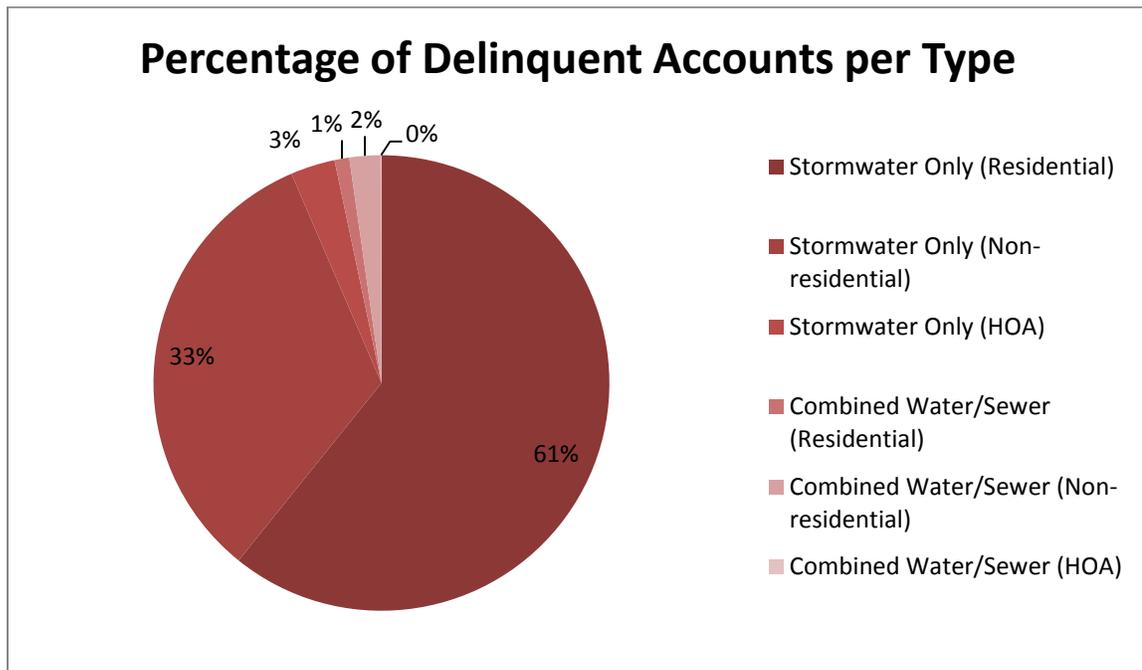


Figure 3: Percentage of Delinquent Accounts per Type

### Collection of Delinquent Stormwater Fees – Areas for Enhancement

No Areas of Enhancement were noted within the scope of this Audit Engagement.

### Stormwater Replacement Fund – Effective Controls

Based on the testing performed by Audit Services staff, the Public Works Department complied with The Durham, North Carolina Code of Ordinance, Chapter 70- Utilities, Article XI - Stormwater Facility Replacement Fund.

### ***Proper Accounting of Funds***

Adequate controls existed over accounting of the Stormwater Replacement Fund.

Audit Services staff verified that the Stormwater Replacement Funds were accounted for separately in the general ledger and interest earned on the funds was retained in the account as required by the Ordinance. According to the Ordinance, the City may pool all payments made pursuant to the facility agreements but shall otherwise keep the payments separated from other stormwater funds and non-stormwater funds.

### ***Stormwater Facility Agreements***

Adequate controls existed to ensure all projects that were required to contribute to the Stormwater Replacement Fund signed a Stormwater Facility Agreement.

Audit Services staff judgmentally selected a sample of 10 projects that made payments to the Stormwater Replacement Fund and verified the accuracy of the payment and the existence of a Stormwater Facility Agreement. No exceptions were noted.

### ***Database Tracking***

Adequate controls existed to ensure all projects were tracked accurately.

Audit Services staff verified that the Public Works Department tracked all relevant information pertaining to projects with SCMs in an Access database. The Public Works Department staff were able to resolve questions and retrieve information quickly using the centralized database.

### ***Payments to the Stormwater Replacement Fund***

Audit Services staff judgmentally selected a sample of 50 projects with construction drawings reviewed by the Stormwater Division staff. Audit Services staff verified that the selected projects made payments to the Stormwater Replacement Fund in accordance with the above mentioned Ordinance. No exceptions were noted. Even though the testing did not note any exceptions, the controls to ensure that all projects with completed construction drawings contributed to the Stormwater Replacement Fund could be strengthened as stated below.

## Stormwater Replacement Fund – Areas for Enhancement

### *Strengthen Controls over Receiving Payments*

Controls did not exist to ensure Stormwater Replacement Funds were received from all persons required to make payments to the Stormwater Replacement Fund. The practice was that the administrative analyst was notified by the engineering staff of projects required to make payment to the Stormwater Replacement Fund. In some instances however, the developer notified the administrative analyst. As a result of this practice, the risk existed that an oversight or error occurred and not all developers who should have contributed to the Stormwater Replacement Fund complied. Per the operating procedures, the process to obtain payment was initiated prior to the approval of the construction drawings. Therefore all projects with construction drawings approved by the Stormwater Division staff should have contributed to the Stormwater Replacement Fund unless a valid exception existed. The Land Development Office (LDO) system tracked all construction drawings approved by the Stormwater Division staff. Reconciling a report from the LDO system with payments to the Stormwater Replacement Fund should highlight any missed payments.

### *Revise Standard Operating Procedures*

The development and use of written procedures are an integral part of a successful quality control system. Written procedures provide employees with information to perform a job properly and facilitate consistency in the quality and integrity of the results. The drafted standard operating procedures (SOPs) pertaining to the Stormwater Replacement Fund were not comprehensive. Lack of written procedures increased the risk of errors. The draft standard operating procedures did not address the following areas:

#### **Processing of Loan Requests from the Stormwater Fund**

Per Sec. 70-752, “Any person who owns a stormwater facility that has paid into the Stormwater Replacement Fund and enters into a Stormwater Facility Agreement and covenant with the City may apply for a loan from the fund”. To date no request for loans had been received by the City. Per the Ordinance, the City may loan money from the fund in an amount and for a term and in accordance with other conditions as determined in the reasonable discretion of the City. The procedures should have addressed the process by which the Public Works Department Staff will grant loans and determine the amount and terms.

## **Refunding Stormwater Replacement Funds**

The procedures should also have documented the practice of refunding Stormwater Replacement Funds to the developer if the amount of the actual cost of constructing the SCM varied from the estimated cost.

## **Stormwater Construction Securities – Effective Controls**

The Public Works Department Staff is responsible for ensuring a Stormwater Construction Security is received in accordance with the Stormwater Building Permit and Certificate of Compliance Issuance Operating Policy and Letter to Industry 09-2015: New Interim Policy on Infrastructure Compliance.

### ***Construction Securities Retained***

Audit Services staff judgmentally selected a sample of 23 projects with final plat approvals reviewed by the Stormwater Division staff. Audit Services staff verified that construction securities were retained in accordance with the Ordinance for the selected projects. No exceptions were noted.

### ***Written Policy***

A written policy outlining the amount of construction security to be provided by the owner existed. Audit Services staff verified the accuracy of all construction securities received in FY 2016. One immaterial exception was noted.

### ***Release of Construction Security***

Per policy, any instruments specific to a particular SCM is released upon approval of the as-built certification for the SCM facility. Audit Services staff reviewed the release of security instruments processed. No exceptions were noted.

## **Stormwater Construction Securities – Areas for Enhancement**

### ***Strengthen Controls for Construction Securities***

Controls should be strengthened to ensure that construction securities are received from all persons that are required to submit them in accordance with established policy. Per policy, SCM infrastructure should either be completed or submitted and approved prior to the final subdivisions plats submission through the City/County Planning Department. In lieu of this completion of infrastructure the City will accept a construction security. The approvers of the final plat will consult with the administrative analyst to ensure that a construction security was received if applicable. The risk existed that an oversight or error may have occurred and not all persons who should have provided a construction security or guarantee payment complied. The Land Development Office system tracks all

final plat submissions through the City/County Planning Department that requires Stormwater Division staff approval. Projects with approved final plats should have submitted a construction security unless the SCM infrastructure was either completed or submitted and approved prior to final plat submission. Reconciliation of a report of all Final Plat approvals by the Stormwater Division staff from the LDO system with construction securities retained would help ensure compliance with established policies.

***Create Standard Operating Procedure***

The development and use of written procedures are an integral part of a successful quality control system. Written procedures provide employees with information to perform a job properly and facilitate consistency in the quality and integrity of the results. Standard operating procedures did not exist as it related to Stormwater Construction Securities. Lack of written processes increased the risk of errors.

## Conclusion

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The staff at the Public Works Department – Stormwater Division administered the Stormwater Utility Fees. The Durham, North Carolina Code of Ordinance, Chapter 70- Utilities, Article VIII- Stormwater Utility governs the stormwater service charges and credits. The process of billing stormwater fees was challenging due to the developing landscape of Durham which directly resulted in changes to the impervious areas. The Stormwater Division staff had adequate controls in place to ensure impervious areas are monitored and updated accurately. Adequate processes existed to ensure billing of Stormwater Utility Fees to the correct owner. An area to enhance revenue collections was identified by the audit. Loss of revenue occurred as a result of billing Stormwater Utility Fees annually versus monthly when the sale of new and existing residential properties occurred. In addition, the lack of retroactive or prorated billing also contributed to the loss of revenue. The Stormwater Division staff also had adequate controls to ensure collection of delinquent stormwater accounts.

The Public Works Department staff was responsible for collecting payments for the Stormwater Replacement Fund. The Public Works Department staff complied with The Durham, North Carolina Code of Ordinance, Chapter 70- Utilities, Article XI - Stormwater Facility Replacement Fund. The Public Works Department staff should strengthen controls to ensure that all persons required to contribute to the Stormwater Replacement Fund have complied. In addition, the draft written procedures pertaining to the Stormwater Replacement Fund should address processing of loan requests and funds.

The City's Public Works Department staff ensured Stormwater Construction Securities were received in accordance with established policies. Controls should be strengthened to ensure that construction securities are received from all developers that are required to submit them in accordance with established policy. In addition, written procedures should be established to address the receipt of Stormwater Construction Securities.

## Audit Recommendations

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### Recommendation 1

In order to avoid possible loss of revenue, the Public Works Department management should explore potential options [monthly billing, retroactive billing or prorated billing] to ensure:

- Billing of stormwater fees for new property sales occurs as of the date of sale.
- For existing property sales, the new owner should be billed from date of the sale if the stormwater fees are delinquent on the property being sold.

### Recommendation 2

The Public Works Department staff should strengthen controls to ensure that all persons that are required to contribute to the Stormwater Replacement Fund have contributed. Reconciling a report of approved construction drawings by Stormwater Division staff from the Land Development Office system, with payments or alternative security instruments received, should ensure required contributions to the Fund.

In addition, the written procedures pertaining to the Stormwater Replacement Fund should address the processing of loan requests and refunds.

### Recommendation 3

Controls should be strengthened to ensure that construction securities are received from all persons that are required to submit them in accordance with established policy. Reconciling a report of approved Final Plats by Stormwater Division staff from the Land Development Office system with construction securities received will help ensure the receipt of required Construction Securities.

In addition, the written procedures should address the receiving of stormwater construction securities.

# Management's Response to Recommendations

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CITY OF DURHAM | NORTH CAROLINA

**Date:** September 16, 2016

**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 J. Wiebke – Assistant Director of Public Works – SW & GIS

**Subject:** DPW Management Response – Stormwater Performance Audit

The following is the Department of Public Works (DPW) management's response to the Stormwater Performance Audit which looked at 1) Billing and Collections of Stormwater Utility Fees, 2) Stormwater Replacement Fund, and 3) Stormwater Performance Guarantees / Construction Securities.

## Recommendation #1:

**In order to avoid possible loss of revenue, the Public Works Department management should explore potential options [monthly billing, retroactive billing or prorated billing] to ensure:**

- **Billing of stormwater fees for new property sales occurs as of the date of sale.**
- **For existing property sales, the new owner should be billed from date of the sale if the stormwater fees are delinquent on the property being sold.**

DPW Management's Response:

- We partially concur. DPW management is in agreement with a portion of the recommendation.

DPW will begin a six month study into the cost benefit of retroactive and prorated billing of residential customers. DPW will provide the audit department with a report detailing our findings to explore further recommendations and actionable items. We already offer monthly billing as an option for all residential customers (currently 3,657 of 68,163 residential customers are billed monthly). One crucial item needed to perform cost benefit of this recommendation is outside the purview of DPW. DPW requests that a two year collections report be provided by the Finance Department detailing all submitted stormwater accounts for collections by the Finance Department to the outside collections company in regard to amounts submitted for collections to actual collected amounts by account type.

**Recommendation #2:**

**The Public Works Department staff should strengthen controls to ensure that all persons that are required to contribute to the Stormwater Replacement Fund have contributed. Reconciling a report of approved construction drawings by Stormwater staff from the Land Development Office system, with payments or alternative security instruments received, will help ensure required contributions to the Fund.**

**In addition, the draft written procedures pertaining to the Stormwater Replacement Fund should address: processing of loan requests and refunds.**

DPW Management's Response:

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

DPW will begin reconciling a report of approved construction drawings by Stormwater staff from the Land Development Office system, with payments or alternative security instruments received. DPW requests the query which was compiled by Technology Services for Audit Services to generate the report. This reconciliation will occur quarterly and this task will be accomplished by the Administrative Analyst within the Stormwater Development Review section of DPW. DPW knows of no instance in which payment was not collected, however we do recognize that this reconciliation will help further guarantee all required contributions to

the Fund were made, thus not solely relying on the project based system of ensuring payment is made prior to utility permits, final plats, or any certificate of occupancy, as appropriate.

DPW is currently at the beginning of a three-year endeavor to establish Standard Operating Procedures (SOPs) for all work tasks performed and these SOPs will be a major part of obtaining a voluntary Management Practices Accreditation from the American Public Works Association. SOPs are being completed in the following general order: most needed, most performed task, most easily created, etc. Developing an SOP pertaining to loans from the Stormwater Replacement Fund is one which will be created, but the current plan is to include this toward the end of our endeavor due to the fact that no loans have been requested nor do we have an immediate need for it. The proposed date to complete this task is by December 31, 2018. If a catastrophic event occurs which necessitates a loan request, we would move this SOP up in the order as it would become one of the most needed.

As for refunds from the Fund, partial refunds from the Stormwater Replacement Fund are only given when the actual construction costs incurred are less than 90% of the estimated construction costs and when requested by the developer. This scenario doesn't occur that frequently and an SOP for these refunds is planned to be developed during the latter half of DPW's overall SOP undertaking, prior to June 30, 2018.

### **Recommendation #3:**

**Controls should be strengthened to ensure that construction securities are received from all persons that are required to submit them in accordance with established policy. Reconciling a report of approved Final Plats by Stormwater Division staff from the Land Development Office system with construction securities received will help ensure the receipt of required Construction Securities.**

**In addition, written procedures should be established to address receiving of stormwater construction securities.**

DPW Management's Response:

- We partially concur. DPW management is in agreement with a portion of the recommendation.

Several variables exist which prevent DPW from simply reconciling a report of approved final plats from the Land Development Office system with construction securities received. First and foremost, construction securities are only required at the time of final plat approval for final subdivision plats. In this scenario, City/County Planning has implemented a safeguard to ensure compliance with Session Law 2015-187. This requires Stormwater staff to note in the comment section of the approval tab within the Land Development Office system one of three comments, these being: 1) 125% Surety Accepted, 2) Infrastructure Complete, or 3) Infrastructure Not Applicable. Staff does not make the comment without verifying, nor will Planning approve the final subdivision plat without verification from DPW.

For developments which incorporate SCMs (Stormwater Control Measures) and do not require final subdivision plats (typical of commercial development), the developer is not required to provide a construction security until any (partial, conditional, or final) certificate of compliance (CoC) is requested. Developments fitting in this category will need to record a final plat of the required easements associated with the SCM(s). This final easement plat can occur from early on in the process to right before completion / as-built of the SCM(s) and is solely at the developer's discretion. When these types of developments require a CoC, DPW Stormwater will not sign off on any CoC for the building permit in the Building Inspections viewer of the Land Development Office system for a development which has a SCM(s) prior to ensuring that either the SCM(s) have been completed or that an appropriate construction security has been provided. Stormwater is placed on the CoC sign off in the Land Development Office system by placing a CoC sign off condition on the parcel at site plan approval stage and by Building Inspections routinely adding us as part of this signoff. A weekly building permit query is run by the Administrative Analyst within the Stormwater Development Review section to know what is pending Stormwater sign off. Building permit CoC signoffs are not completed until DPW has verified that either an appropriate construction security has been received or the SCM(s) has been completed, as appropriate.

Another scenario in which we regulate, although much more infrequently than the two above, is when a developer is required to incorporate a SCM(s) and they are not subdividing the property, nor requiring utility permits or a CoC. Development of a new or expanded parking lot only is a good example of this. In this scenario a construction security is required prior to construction drawing approval. DPW staff will not sign off on construction drawings in the Land Development Office system or physically sign original construction drawings until the appropriate construction security has been received.

DPW knows of no instance in which a construction security was overlooked since the Stormwater Building Permit and Certificate of Compliance Issuance Operation Policy was implemented in April of 2012, however we do recognize that further controls could help further guarantee all required securities have been received, thus not solely relying on the individual project based system of assurance. However, due to the many variables associated with this, simply reconciling a report or reports will not provide the necessary comparisons. It is currently our belief that enhancing capabilities in our SCM Tool database can provide additional checks and assurances and that is a more worthwhile direction to explore. DPW will look into what enhancement(s) to our SCM Tool database would be beneficial and will incorporate any identified improvements within the next six to nine months.

As for written procedures needing to be established to address receipt of stormwater construction securities, DPW is currently at the beginning of a three-year endeavor to establish SOPs for all work tasks performed and these SOPs will be a major part of obtaining a voluntary Management Practices Accreditation from the American Public Works Association. SOPs are being completed in the following general order: most needed, most performed task, most easily created, etc. Developing an SOP for receiving stormwater construction securities is one which will be created, but the current plan is to include this in the second year of this undertaking. This SOP is scheduled to be completed by September 30, 2017.