



MIAMIBEACH

BUDGET AND PERFORMANCE IMPROVEMENT
Internal Audit Division

INTERNAL AUDIT REPORT

TO: Kathie G. Brooks, Interim City Manager
FROM: James J. Sutter, Internal Auditor 
DATE: December 3, 2012
AUDIT: Stormwater Utility Review
PERIOD: October 01, 2008 through September 30, 2010

This report is the result of a scheduled audit to verify and review the applicable processes, internal controls and fee collection and calculation related to Stormwater Utility.

INTRODUCTION

The Public Works Department is responsible for the planning, constructing, operating and maintenance of the City's Stormwater Management System. The Stormwater Management system is the system designed and constructed or implemented to control discharges necessitated by rainfall events, incorporating methods to collect, convey, store, absorb, inhibit, treat, use or re-use water to prevent or reduce flooding, over-drainage, environmental degradation and water pollution or otherwise affect the quantity and quality of discharges from the system.

Section 403.0893 of the Florida Statutes authorizes the establishment of Stormwater utilities for construction, operation, and maintenance of Stormwater management systems to collect, convey, store, absorb, inhibit, treat, use or reuse water, prevent or reduce flooding, environmental degradation and water pollution.

On June 18, 1991, the Board of County Commissioners of Metropolitan Dade County adopted Ordinance 91-66, establishing a county-wide Stormwater utility. On September 2, 1992, the City of Miami Beach adopted Resolution No. 92-20579, which authorized the execution of an Inter-local Agreement with Metropolitan Dade County Stormwater Utility by and through the County's Department of Environmental Resources Management. The Inter-local Agreement established relationships and responsibilities for planning, control, operation, construction, maintenance, repair, and enhancement of Stormwater system located within the City limits.

On June of 1993, the City of Miami Beach, under the umbrella of the Metropolitan Dade County Stormwater Utility, commenced the billing and collection of Stormwater Utility fees. The City's consultant for the Comprehensive Stormwater Management Program, CH2M Hill, Inc., submitted a master plan report which included a five year plan for fiscal implementation of required Stormwater management improvements in parts of the City which had been identified as the highest priority areas.

In order to finance the proposed improvements, a Stormwater Utility Bond Issue was planned. However, Bond Counsel had determined that for the Bonds to be issued, ownership of the Stormwater management system needed to be clearly identified, therefore, the City of Miami Beach implemented a Stormwater Utility separate from the Metropolitan Dade County Stormwater Utility.

On October 17, 1995, The Board of the County Commissioners of Metropolitan Dade County adopted Ordinance 95-195, amending Section 24-61.2 of the Code allowing for exemption from

the provisions of the Metropolitan Dade County Stormwater Utility Ordinance for municipalities.

Then on March 20, 1996, the City Commission approved Resolution No. 96-21923 notifying Metropolitan Dade County that the City of Miami Beach desired to exercise its option to be exempted from the provisions of the County's Stormwater Utility Ordinance. Later, on June 18, 1996, the Board of County Commissioners adopted Resolution No. 640-96 approving the exception of the City of Miami Beach from the provisions of the County's Stormwater Utility Ordinance.

Lastly, on September 11, 1996, the City Commission approved Ordinance 96-3051 providing for the creation of a City-wide Stormwater Utility and establishment of a stormwater utility service charge in order to plan, construct, operate and maintain the Stormwater Management System, as required by the Florida Statutes.

Currently, a stormwater utility fee is assessed against each property within the City of Miami Beach. Each dwelling unit is assigned one Equivalent Residential Usage Unit (ERU). For properties which do not contain a dwelling unit (ex: non-residential developed properties), the ERU is calculated by dividing the impervious area on the property by 791 square feet. For purposes of calculating ERUs for mixed-use developed properties, the number of ERUs for each property shall be calculated by adding the number of ERUs for dwelling units on the property plus the number of ERUs attributable to that portion of the property not used for dwelling units. With respect to ERUs for non-residential developed property and that portion of the property in mixed use developed property not used for dwelling units, a stormwater account shall be established based upon each separate use. In the event more than one non-residential account is established with respect to such non-residential or mixed use properties, the ERUs shall reflect the ratio of square feet attributable to each use in relation to the total square feet attributable to that portion of the property not used for dwelling units.

The fee assessed against each account shall be determined by multiplying the most current stormwater utility service charge, as approved by the Mayor and City Commission under section 110-109 of the City Code (currently \$9.06), by the number of ERUs for each account. The amount of such fee shall be shown as a separate item on water bills or as shown on a stormwater utility bill if no water bill is issued. The assessed fee shall be paid by the owner, tenant or occupant in possession of the premises at the same time and in the same manner as is provided for the payment of water bills. However, in no event should charges assessed against each property be less than one (1) ERU, times the applicable stormwater utility service charge. The stormwater utility is the funding of the Stormwater Management System by assessing the cost of the program to the beneficiaries based on their relative contribution to its need.

OVERALL OPINION

The following areas were identified during this audit that negatively impact, although not significantly, the financial integrity and financing of planning, constructing, operating and maintaining the City's Stormwater Management System:

1. No process is in place to track changes in construction activity affecting ERU calculations and consequently, stormwater utility charges.

2. Calculations and documentation regarding the number of Equivalent Residential Usage Units (ERU's) assessed to individual properties are not readily available for review and assessment of accuracy.
3. No Ordinance implementation guide is currently in place to be consistently applied and followed by Public Works plan reviewers regarding the classification of property uses and calculation of ERUs.
4. No process is currently in place establishing a periodic review to ensure the accountability of all service addresses and properties in the City for which a stormwater account should be established.
5. No policies and procedures or processes have been clearly documented, implemented and consistently applied regarding the identification and calculation of fluctuations in ERU's as a result of construction activity.
6. Minor revisions to language included in Section 110-109 of the City code should be considered to better reflect current and more efficient requirements when setting up a stormwater account for mixed use property.

Additional details regarding these areas in need of corrective action can be found on the "Finding, Recommendations, and Responses" section on this report.

PURPOSE

The purpose of this audit is to ensure that proper controls are in place to maintain integrity, reliability and accuracy of revenues collected; verify that fees are billed in accordance to City Ordinances and timely; and review accountability and fund allocations to ensure compliance to provisions of applicable laws.

SCOPE

1. Review of internal controls, processes, and compliance to applicable City Ordinances.
2. Review results of Revenue Enhancement Specialist (RES) study and determine if corrective action has been implemented, as well as its effectiveness.
3. Review processes involved in the calculation and identification of new Equivalent Residential Usage Units (ERU) and ensure effectiveness and functionality.
4. Confirm that residential customers being billed by Finance are consistent with the property appraisal layer in the City's GIS system based on land use type and number of residential units or square footage
5. Determine if ERU calculations are correct and in compliance to current City Ordinances.
6. Verify effectiveness and efficiency of channels of communication among City Departments involved in the stormwater utility fee processes and operations.

FINDINGS, RECOMMENDATIONS, AND MANAGEMENT RESPONSES

1. Finding – *No process is in place to track changes in construction activity affecting ERU calculations and consequently, stormwater utility charges.*

Despite efforts from the Building Department and the Public Works Department to create a new composition in the system software (Permits' Plus) and a new stormwater calculation form, to be included with the building permit application package, no progress have been made to fully implement the process.

Although the software composition has been created since October, 2010, no data regarding number of units and/or changes in impervious area, as a result of construction activity, has been collected. Factors contributing are poor communication between the two departments, departmental restructuring, and not officially including the newly created form to the initial building permit application package, available to the public at the Building Department's lobby. Only a version of the form has been included to the permit application package that can be downloaded from the City's web site. Nevertheless, despite the expectations of the Public Works department regarding the collection of the required data by the Building Department, most personnel from the Building Department acknowledged to have no understanding regarding of the purpose and uses of the form and stated that data regarding the form would and should probably be collected and verified by the Public Works department, since they are the ones with the understanding and use of the form. No further preventive and/or detective action with respect to capturing changes and updating ERU calculations have been implemented.

Recommendation(s)

The Public Works Department should coordinate with the Building Department and finalize the implementation of a process that would ultimately assist in the tracking of construction activities that could affect ERU calculations and consequently stormwater utility charges. In addition a report should be generated from the Building Department's system software (Permits' Plus) that would allow Public Works to identify all permitted construction projects, whether considered addition, new construction, and/or alteration remodeling, that would ultimately impact the number of residential units, in the case of residential use property, and/or fluctuations in impervious area, in the case of non-residential or mixed use property.

Management's Response(s)

Public Works

Public Works has coordinated the implementation of the referenced process with Building and Finance. This should become automated with the adoption of Accela, the new Building Department software.

2. Finding - *Calculations and documentation regarding the number of ERU's assessed to individual properties are not readily available for review and verification of accuracy.*

Internal Audit obtained a list of new construction projects that showed a "FINAL" status, a "BUILD" type of permit for building, and sub-type "NCONST" for new construction, from the Building Department's Permits' Plus system, used to maintain record and documenting the permitting, completion and overall activity of construction projects in the City. The list included projects that were new construction and that were finalized within our audit period

(October 1, 2008 through September 30, 2010). Under this criterion, a list totaling twenty five (25) permits was generated. The purpose of obtaining the list was to sample a reasonable amount of new construction in the City to verify the accuracy of ERU calculations and corresponding support, schedules and calculations, as well as the effectiveness to capture, document and communicate to the Finance Department such changes affecting ERU calculations and therefore stormwater rates being charged.

Subsequently, an inquiry was made to the Public Works Department regarding whether any supporting documentation was maintained and updated upon completion of the new construction with respect to the verification and calculation of Current ERUs charged, as well as the calculation and/or confirmation of new ERUs to be charged after the completion of the new construction, whether or not impervious area and/or dwelling units were affected. As a result, it was learned that no supporting documents were readily available in order to verify the information, nor was this information being tracked and updated on any software systems currently used by either the Public Works Department or the Building Department. It was further mentioned that in order to verify the accuracy of ERUs currently charged one would have to refer to the plans and project files (which were likely sent to storage) to review and recalculate the applicable ERUs in a case by case basis. Consequently, Internal Audit was not presented with sufficient documentation to verify the reliability and accuracy of current ERUs charged, particularly on multifamily residential use, mixed use, and commercial properties. Only single families would be easily confirmed, since only one (1) ERU is assigned to single family residences without regard to total impervious area, considering that they are established as one dwelling unit by the Public Works Department.

Bearing in mind the fact that data regarding increases or decreases in the number of dwelling units in residential multi-family properties, as well as increases or decreases in impervious area on mix use and/or commercial properties are not consistently updated and tracked, recorded, or verified, there is a high probability that inaccuracies and/or outdated calculations exist that affect stormwater charges currently assessed overall. We further learned that reviews of specific ERU calculations and rates charged are verified upon complaint from the utility billing account holder in cases where fees may be higher than they should. In contrast, instances where charges are lower than they should are not effectively and timely identified and communicated to the Finance Department for changes and accurate billing.

Recommendation(s)

Information and data regarding construction activity that may have an impact in the number of ERUs calculated, and as a result, in the amount of services charges assessed should be collected, documented and maintained by the Public Works Department. Supporting documents should include calculations schedules and descriptions. Results from new calculations affecting the number of ERUs assigned to a property should be timely reported to the Finance Department after a Temporary Certificate of Occupancy (T.C.O.) or Certificate of Occupancy (C.O.) (whichever occurs first) is issued for immediate correction in the billing module. The Finance Department should assess if ERU calculation schedules could be uploaded and attached to the Stormwater Account on the Financial System for further reference. Interfacing the maintenance of this documentation with the Building Department's laser fiche system should be explored.

Management's Response(s)

Public Works

Subsequent to the audit period, Public Works developed a process to calculate and assess stormwater impact fees on new developments and redevelopments. Public Works has been calculating the revised ERU's by hand. With the implementation of Accela, the new Building Department software, the ERU calculation process will be automated.

Finance

The Finance Department will assess if ERU calculation can be loaded in the utility billing system so they can be used to calculate monthly bills.

3. Finding - *No Ordinance implementation guide is currently in place to be consistently applied and followed by Public Works plan reviewers regarding the classification of property uses and calculation of ERUs.*

Although Sections 110-107 and 110-109 of the City Code establishes criteria and definitions regarding aspects and requirements for the identification and calculation of ERUs for properties in the City, there are certain conditions and externalities in practice that have not been clearly addressed and are left for individual interpretation. As a result, different individuals may interpret the guidance and definitions differently, which would ultimately result in a different applicability of the requirements and therefore inconsistencies in the way ERUs are calculated. One particular area with openness for interpretation is the identification of mixed use property and/or components of a property (Ex: common areas).

To better explain; according to Section 110-107 of the City Code, Residential developed property "means *any parcel of land with impervious area that contains **only** dwellings or dwelling units*". It is further defined that "dwelling means *any building that is wholly or partly used or intended to be used for living, sleeping, cooking and eating*". At the same time, dwelling unit is defined as "a room or group of rooms, occupied or intended to be occupied as a separate living quarters by one family with independent cooking and sleeping facilities".

On the other hand, non-residential developed property means "any parcel of land with impervious area that does not contain **only** dwellings or dwelling units". Mixed use developed property is then defined as "any parcel of land with impervious area that contains dwellings or dwelling units and also serves nonresidential purposes.

Based on these definitions, common areas and/or detached structures, such as club houses, detached garages, among others, could be considered of non-residential use, and therefore, if within a residence or residential multi-family developed property, the overall property could be considered mixed use. The Public Works department personnel agreed that it could be subject to interpretation. However, currently, common elements and/or detached structures within a residence and/or residential multi-family building are not considered for the calculation of ERUs as a nonresidential use and therefore their corresponding impervious area is not considered in the calculation otherwise required if considered a mix use within the property.

Recommendation(s)

The Public Works Department should consider creating an Ordinance Implementation guide that would better assist incumbent employees regarding the applicability and identification of property usage for the purpose of calculating stormwater utility fees. Such guide could include real life examples in order to reduce the potential for different interpretations and

assessment of the property use by different individuals and/or employees.

Management's Response(s)

Public Works

Public Works does not believe that it has the authority to charge additional fees for non-residential portions of a residential property. Public Works categorizes developments as either residential (1 ERU per residence), commercial (ERU's based on square footage of impervious area), or mixed use (which is a combination of residential and commercial).

However, Public Works will explore revising the rate structure to more equitably assess the impacts of private impacts to the City stormwater system.

4. Finding - *No process is currently in place establishing a periodic review to ensure the accountability of all service addresses and properties in the City for which a Stormwater Account should be established.*

No process is currently in place and documented to require a periodic review of accounts and service addresses in the City in order to ensure that a stormwater account is set up for every parcel and corresponding service address(s) within the City Limits, including, but not limited to surface lots and empty lots for which a minimum charge of one (1) ERU times the applicable service charge should be assessed, in accordance with Section 110-109 of the City Code.

Recommendation(s)

The Public Works Department and the Finance Department should consider the implementation of a periodic and systematic verification process to ensure the accountability of each and all lots/parcels of land and service addresses within the City limits. This process could include an exception analysis of differences observed from a comparison between a listing of all service addresses with stormwater accounts generated from City's Financial System (EDEN), a listing off all parcels and corresponding service addresses and folio numbers from the City's GIS system, and a listing or comparison to County Property Appraiser Office records. Any exceptions could be investigated and corrected accordingly. This process could be done once a year, in order to serve as a cleanup tool to the City's account listing. It would contribute to eliminate duplicate accounts to a single location, erroneous account to address matching, as well as an update, should any new service address be created as a result of demolitions and construction activity. The process would also help as a secondary control to improve and/or maintain the reliability and accuracy of data in the City's GIS system.

Management's Response(s)

Public Works

Public Works believes that the Building permits process captures changes in land use and illegal construction is investigated by Code Compliance. However, Public Works will investigate vacant lots on an annual basis to supplement the efforts of Code Compliance.

Internal Audit Observation:

While any periodic investigation of empty lots is important, the comparison of actual City databases will yield better results of any discrepancies between actual service addresses and billings to be further investigated for correction.

Finance

The Finance Department concurs with the recommendation and will work with Public Works to develop an annual process to verify the accuracy of the stormwater units billed.

5. Finding - *No policies and procedures or processes have been clearly documented, implemented and consistently applied regarding the identification and calculation of fluctuations in ERU's as a result of construction activity.*

While a department flowchart exists for the operational process, there are no written policies and procedures regarding the detection, calculation, documentation, and collection requirements of new ERUs resulting from construction activity within the City limits. Not having proper and up to date policies and procedures documented and distributed to all incumbent employees and departments involved in the stormwater utility billing process has contributed to miscommunication and uncertainty with regards to the responsibilities of each department and corresponding employees at the different stages of the process.

Recommendation(s)

The Public Works Department should develop, document and implement policies and procedures, in collaboration with the Building and Finance Departments, to be consistently applied by all incumbent departments and corresponding employees. This should contribute to better awareness and expectations regarding each employee and departmental rolls in the Utility Billing process.

Management's Response(s)

Public Works

Public Works will work with Finance and Building to implement the procedures described in steps outlined in departmental operational flowcharts.

Finance

Finance concurs with the recommendation and will work with Public Works and Building to implement their procedures.

6. Finding - *Minor revisions to language included in Section 110-109 of the City code should be considered to better reflect current and more efficient requirements when setting up a Stormwater account for mixed use property.*

Language stipulated on Section 110-109(a) and 110-109(b) requires the set up of a stormwater account for each use of a mixed use property. This would require that multiple accounts would have to be setup for one individual service address. However, other than the methodology used in calculating the number of ERUs, there is no difference in charging the applicable service charges to a mixed use property. All ERUs from residential and non-residential uses are added and multiplied by the applicable utility service charge as reflected in appendix A of the City Code. Consequently, multiple unnecessary accounts could be set up overpopulating the City's financial system. Most recently, the Finance Department has opened one stormwater account for service address, which is a more efficient method than the one described in the City Code. However, support and distinction when calculating total ERUs to be assessed to mixed use properties should be documented and maintained for accuracy verification whenever necessary.

Recommendation(s)

The Public Works Department in collaboration with the Finance Department should consider amending Section 110-109 of the City Code to remove language requiring the set up of a

stormwater account for each use of mixed use property. Instead it should require the documentation of supporting schedules and forms regarding ERU calculations for each use and the overall number of ERUs to be applied to each property.

Management's Response(s)

Public Works

Public Works will draft a Commission item or attach language to a Commission item to request an amendment to the City Code, as recommended.

Internal Audit Observation:

This item was discussed further with the City's Attorney's office, and while not significant, a separate code change does not have to be made immediately, but can wait to be included with other City Code changes.

EXIT CONFERENCE

An exit meeting was held to discuss the audit report and to solicit management responses noted above. Attendees were Fred Beckmann, Public Works Director; Jay Fink, Public Works Assistant Director; Richard Saltrick, Assistant City Engineer; Keith Wilder, Senior Management Analyst; Demar Woodson, Right of Way Manager; Georgina Echert, Finance Assistant Director; Manuel Marquez, Revenue Manager; James Sutter, Internal Auditor and Fidel Miranda, Auditor. Management responses were received shortly thereafter. All were in agreement with the contents of this report.

Audit performed by Fidel Miranda, Auditor

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cc: Jorge Gomez, Assistant City Manager
Fred Beckmann, Public Works Director
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