



**Mecklenburg County  
Department of Internal Audit**

Land Use and Environmental Services Agency  
Storm Water Cost Recovery  
Report 1971

February 15, 2022

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**Internal Audit's Mission**

To support key stakeholders in cultivating an environment of accountability, transparency, and good governance.

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**Staff  
Acknowledgements**

Crystal Turner, CIA, CFE, Auditor-in-Charge

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**Obtaining Copies of  
Internal Audit Reports**

This report can be found in electronic format at  
<https://www.mecknc.gov/Audit/reports/Pages/default.aspx>



MECKLENBURG COUNTY  
Department of Internal Audit

**To:** Ebenezer Gujjarlapudi, Director  
Department of Land Use and Environmental Services Agency

**From:** Joanne Prakapas, Director  
Department of Internal Audit

**Date:** February 15, 2022

**Subject:** Land Use and Environmental Services Agency Storm Water Cost Recovery Consultation  
#1971

The Department of Internal Audit has completed its cost recovery consulting engagement in the Land Use and Environmental Services Agency Storm Water Cost Recovery Consultation. The engagement objectives included an assessment of the design and application of cost management practices regarding the Storm Water Services cost-recoverable hourly rate model, the land development fee model, and timekeeping. The agreed-upon consultation's scope was limited to a review of key system and process capabilities to support an accurate compilation of service costs and fee setting aligned with cost recovery objectives.

Internal Audit interviewed key personnel; reviewed and evaluated policies, procedures, and other documents; and analyzed and tested data compilations and related calculations.

This engagement was conducted in conformance with The Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing.

#### **OVERALL ASSESSMENT**

Overall, the cost recovery and fee models were adequately designed and operating effectively to measure applicable service costs and reflect those costs in related fees. However, opportunities were identified to strengthen management's oversight of cost identification, fee setting, and timekeeping practices.

## ENGAGEMENT SUMMARY

The table below summarizes the assessment results as further described in the Engagement Approach and Results sections in this report.

Assessment of Storm Water Services Cost Management Practices			
	Cost-Recoverable Hourly Rate Model	Land Development Fee Model	Timekeeping
<b>Policy   Guidance</b>			
Policies and procedures provided sufficient guidance	✗	✗	✗
<b>Costing Practices   Processes</b>			
Systems and processes provided reliable and relevant information on service costs	✓	✓	✗
Appropriate methods utilized to allocate indirect costs	✓		
<b>Fee Setting Practices</b>			
Fee setting framework considered full cost of services	✓	✓	
Fee setting aligned with cost recovery objectives		✓	
<b>Time Reporting</b>			
Staff time reported, reviewed, and approved			✗
<p>✓ No concerns noted            ✗ Opportunities for improvement identified</p>			

We appreciate the cooperation Land Use and Environmental Services Agency staff provided during this engagement. Please feel free to contact me at 980-314-2889 if you have any questions or concerns.

- c: County Manager
- Deputy County Managers
- County Attorney
- Deputy County Attorney
- Board of County Commissioners
- Audit Review Committee

## BACKGROUND

Mecklenburg County's Land Use and Environmental Services Agency (LUESA) is an umbrella organization providing services that contribute to the quality of life for county residents. LUESA's responsibilities range from enforcing building and zoning codes to managing water and air resources. Storm Water Services, a LUESA division, is responsible for managing, protecting, and improving local water and land resources through voluntary, regulatory, and educational efforts. Programs within Storm Water Services include Water Quality, Engineering and Mitigation, Permitting and Compliance (Land Development), and Storm Water Operations.



Storm Water Services performs watershed planning, as well as stream monitoring and maintenance. Additional services include, but are not limited to, plan review and construction inspection for erosion control, flood prevention, transportation access, and signage within the County. The program also provides through interlocal agreements land development services on behalf of five surrounding towns.

### Cost Recovery

Cost recovery refers to the amount of revenue from fees, charges, or other funding to recover the costs of providing some or all costs of a particular service or activity. If user fees or charges do not fully recover the total cost of providing a service, the amount of subsidy for the service must be financed from other sources.

As noted in the table below, revenues for the Storm Water Services' Land Development Program have not been consistently sufficient to cover costs.

<b>LUESA Land Development Revenue and Expense Trends</b>			
<b>Fiscal Year</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Revenues	\$ 1,528,536	\$ 2,158,484	\$ 2,428,724
Expenses	\$ 1,924,585	\$ 2,270,040	\$ 2,240,200
Revenue Net of Expenses	\$ (396,049)	\$ (111,556)	\$ 188,524

*Source Data: Advantage Financial System, unaudited*

In fiscal year 2019, LUESA management began development and implementation of a cost of service or cost recovery model designed to fully recover Land Development's cost of services, including a methodology for quantifying the full cost of services, as well as an approach for fee setting.

### Costs of Services

Measuring the cost of services is useful for a variety of purposes, including the setting of user fees and charges. A widely accepted principle for public sector fee setting is that where only the user of the service obtains the benefits from that service, fees and charges should be set a level that recovers the full cost of providing the service, unless there is an overriding policy or condition that favors subsidization.

Full cost represents the value of all the resources used or consumed in the provision of a service. In addition to costs directly associated with providing a service, full cost typically includes an allocation of appropriate indirect costs.

The National Advisory Council on State and Local Budgeting (NACSLB) acknowledges the importance of measuring the cost of government services in two of its recommended practices: developing a policy on cost recovery through fees and charges and assessing how a service could be alternatively provided more efficiently. The NACSLB acknowledges several factors that must be considered to ensure that cost data is used appropriately, and that cost is not the sole factor to determine how a government will provide services. Efficiency and effectiveness should also be essential components of service-delivery decisions.

### Fee Setting

Fees and charges are a significant source of revenue for some government services, and the level of fees determines the percentage of costs recovered. Some fees are established to recover 100% of the full cost of providing the services while other fees may recover less. The percentage of cost recovery is a policy decision. Cost recovery targets reflect management's judgements linked to a variety of factors, such as revenue and reserve requirements, market conditions, and service demands.

## ENGAGEMENT APPROACH

LUESA Storm Water Services' goal is to evolve a long-term cost recovery strategy, structure, and system that provides for fiscal health and sustainability and is responsive to the needs of the community.

Internal Audit interviewed key personnel and reviewed existing policies, guidelines, and practices to become familiar with relevant cost management activities. We also identified best practices for determining the full cost of services, such as direct and indirect cost identification and allocation.

### Analysis Components

Internal Audit's review of Storm Water Services' cost recovery model included three components of analysis as shown in the table below.

Engagement Analysis		
Service Costs	Fee Setting	Timekeeping
The service cost analysis reviewed management's compilation of service costs and fully burdened rates.	The fee setting analysis reviewed the application of service costs, fully burdened rates, and other key variables used in setting Land Development fees.	The timekeeping analysis reviewed applicable time tracking and reporting practices.

### Data Sources

Internal Audit's review included the following data sources:

- Mecklenburg County's Adopted budget for fiscal years 2019-2021
- Advantage financial reports
- List of filled positions for fiscal year 2019 and related salary wage rates, regular hours, paid benefits, and paid leave amounts
- Various correspondence with County staff supporting the adopted budget, service costs, time reporting, cost recovery objectives, et cetera
- Prevailing fee schedules for applicable services
- Annual workload data for applicable division/department personnel

## ENGAGEMENT RESULTS AND IMPROVEMENT OPPORTUNITIES

### County Manager's Overall Response

The County Manager concurs with all action plans and timeframes for implementation.

#### Service Cost Analysis

The service cost analysis reviewed the cost recovery model used to compile the full cost of services and fully burdened hourly rates. This included an assessment of whether:

- Policies and procedures provided adequate guidance for the full cost of services
- Appropriate cost allocation methods were utilized and applied
- Information used to derive the full cost of services was relevant and reliable

The full cost of service includes two primary types of costs: direct and indirect. Direct costs are specifically related to the service in question and include salaries, wages, and benefits for employees that work exclusively on the delivery of the service. They also include materials, supplies, and other associated operating costs such as utilities and rent, training, and travel. Direct costs may also include costs that are not fully funded in the current period, such as compensated absences, interest expense, depreciation or use allowance, and pensions.

Indirect costs support the provision of services in general and cannot be directly attributed to the service in question. Indirect costs include shared administrative expenses within the work unit and within one or more support functions outside the work unit, e.g., human resources, facilities, maintenance, and technology. These shared costs should be distributed by a systematic and rational allocation methodology.

As labor is the primary underlying factor in providing Land Development services, the full cost of service may be expressed as a fully burdened cost per labor hour<sup>1</sup> or the fully burdened rate. The fully burdened rate then serves as the basis for further quantifying the average full cost of providing individual services and activities. Deriving a fully burdened rate requires the full cost of services and the number of productive hours or staff time available to perform those services.

#### Procedures Performed

Internal Audit reviewed the cost recovery model to determine whether management included appropriate inputs based upon industry best practices and standards. We also recalculated the fully burdened rate for each employee based on actual salaries, benefits, and allocated departmental and division costs. In addition, we examined the expense data compiled, including both direct and indirect costs.

#### Results

Internal Audit determined that the cost recovery model was designed appropriately and considerate of appropriate inputs of direct and indirect costs. Further, indirect costs were systematically and consistently allocated to determine full costs, fully burdened rates were accurately calculated, and systems and processes could produce reliable and relevant cost information.

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<sup>1</sup> The fully burdened labor cost is the full hourly cost to employ a worker for the hours worked, including wages and the "burden" of the additional costs.

### Improvement Opportunities

While management's methodology and cost recovery model reflect how Storm Water Services defined cost recovery, including direct, indirect, and overhead costs, best practices indicate policies and procedures should be formally documented, communicated, and periodically reviewed. Policies and procedures guide staff and management in the execution of their duties. Lack of formally documented procedures may lead to inconsistent application of inputs, source documents, management expectations, and changes to the model over time.

Internal Audit recommends management formally develop policies and procedures for service costing that provides guidance to staff on:

- Cost recovery principles and the methodology for costing services, including management's rationale
- Cost allocation principles and the related processes to allocate costs
- Procedures for monitoring the efficiency and effectiveness of service costs, e.g., cost standards, cost analysis, benchmarking, etcetera

### Management's Response

Action Plan: Create a policy and procedures document for service costing that addresses the opportunities above.

Implementation Date: June 2022

### **Fee Setting Analysis**

The fee setting analysis reviewed the application of full costs, fully burdened rates, and other variables used in setting the amount of service fees, including an assessment of whether:

- Adequate policies and procedures guided fee setting
- The fee setting framework appropriately considered identified full costs when setting fees and charges

Fully burdened rates applied at the individual fee level estimate the average full cost of services. This application requires the development of staff time estimates for the services and activities provided to establish fees that align with management's cost recovery objectives and revenue requirements, particularly for projects that require services over several fiscal years.

### Procedures Performed

Internal Audit examined the use of fully burdened rates used to derive land development fees. We also recalculated the fees using management's fully burdened rates and staff time estimates.

### Results

Internal Audit determined the applied fee setting framework appropriately considered the full cost of services in determining land development fees.

### Improvement Opportunities

When developing a cost allocation or cost recovery process, Government Finance Officers Association guidance suggests that entities identify the structure that will be used to develop cost recovery plans. Best practices indicate policies, procedures, estimates, strategic plans, and models should be formally documented. Documenting management's estimates and decisions help increase business continuity and provides guidance for staff and management in the execution of their duties. Moreover, documenting management's estimates and decisions provides greater transparency and accountability for service costs and fee setting decisions.

Internal Audit recommends management formally develop policies and procedures for fee setting that provides guidance to staff on:

- Fee setting principles and the cost-to-service delivery relationship
- Fee setting methods, including factors to be considered in determining the desired level of cost recovery
- Procedures for monitoring the efficiency and effectiveness of cost recovery activities, e.g., service costs and fees and their alignment to cost recovery objectives

### Management's Response

Action Plan: Create a policy and procedures document for fee setting that addresses the opportunities above.

Implementation Date: June 2022

### **Timekeeping Analysis**

The timekeeping analysis reviewed applicable time tracking and reporting practices and included an assessment of whether:

- Policies and procedures adequately provided staff guidance for time tracking and reporting activities
- Staff time was submitted for review
- Staff time was reviewed and approved
- Staff time entered in LUESA's timekeeping system was relevant and reliable

Tracking staff time helps management develop better estimates when deriving the full cost of services.

### Procedures Performed

Internal Audit interviewed staff, supervisors, project managers, and Information Technology analysts to gain an understanding of timekeeping practices. We also reviewed a random sample of timesheets to determine whether they were appropriately submitted, reviewed, and approved.

### Results

Internal Audit determined that the timekeeping practices were adequately designed. However, timekeeping practices were not consistent with management's expectations for accurate, complete, and approved timesheets.

Internal Audit reviewed 272 timesheets from four pay periods, and 72 were not submitted and/or approved in accordance with written procedures. Specifically:

- Fifty-four of 272 or 20% of timesheets were not submitted to managers for review
- Eighteen or 7% of timesheets were not approved by managers

In addition, we also noted:

- Storm Water Operations did not have formally documented timekeeping procedures
- There was no evidence that timekeeping procedures for Permitting and Compliance, Engineering and Mitigation, and Water Quality, programs within the Storm Water Services Division, had been reviewed since 2017

#### Improvement Opportunities

LUESA's timekeeping system is the most significant source of information affecting estimates of staff time spent providing a service or an activity. Internal Audit recommends management reemphasize to staff and managers the importance of submitting and approving timesheets in accordance with management's expectations. In addition, management should formally develop timekeeping procedures for Storm Water Operations and train staff accordingly. Further, management should implement a formal process to ensure its policies and procedures are routinely reviewed, updated, and approved. Evidence of the approval should be documented.

#### Management's Response

Action Plan: Storm Water Operations has created timekeeping procedures and they have been included in TimePro. All STW [Storm Water] staff has received training to emphasize the importance of submitting and approving timesheets consistent with procedures. At the beginning of each fiscal year, each program in Storm Water will review the timekeeping procedures with staff.

Implementation Date: December 2021