



Florida Stormwater Association 2018 Conference

Fort Lauderdale's
Rate Study Analysis
for Increasing Levels
of Service

December 7, 2018





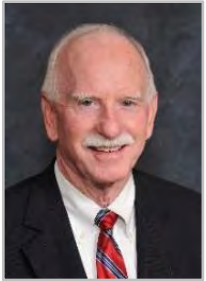
Agenda

1. Introduction to Presentation Team
2. Background
3. Challenges
4. Approach
5. Discussion



Presentation Team

Project Team



Mike Burton

**Stantec - Vice President,
Financial Services**

Years of Experience: 30+

Kyle Stevens

**Stantec - Senior
Consultant**

Years of Experience: 5+



Marie Pierce

**City of Fort Lauderdale
Stormwater Operations Manager**

Years of Experience: 12+

Background

Background

- Stormwater Utilities have been around for a number of years
- Most municipalities apportion stormwater costs to parcels based upon land-use and pre vs post development runoff
- This presentation presents an alternative trip generation cost apportionment method ▲



Background

- The majority of the City of Fort Lauderdale's stormwater infrastructure is undersized and/or has exceeded its operational life and is in need of repair or replacement
 - The estimated cost to upgrade the stormwater system is in excess of \$200 million over the next five years
- The City's stormwater program is designed to mitigate flooding within the public right-of-ways in order to maintain access to/from all properties
 - Therefore, a cost apportionment method based in part on trip generation rates will provide a more equitable fee-benefit relationship to the residents ▲



Background

- There is significant high rise commercial and residential development in Fort Lauderdale,
 - Therefore, the trip generation approach presents an opportunity to more fairly capture fees from these high rise buildings because...
- Due to the high population density and small footprint of high rise buildings...
 - The current fee schedule does not accurately reflect the benefits to the inhabitants of these high rise buildings from the municipal stormwater infrastructure designed to reduce flooding in the roadway network. ▲



Challenges

High Rise Residential vs Low Rise Residential

Single Family



SF Home is One Dwelling Unit

Large Runoff Area per Dwelling Unit Compared to High Rise MF

Rate per Dwelling Unit (DU)
= \$13.85/Mo/DU

High Rise Multi-Family



Large Number of MF Dwelling Units

Small Runoff Area Relative to Number of MF Dwelling Units Compared to SF Home

Effective Cost per Dwelling Unit (DU)
332 unit high rise = \$0.83/Mo/DU ▲

High Rise Commercial vs Low Rise Commercial

Low Rise Commercial



Rate per Sq. Ft.
= \$.004/Mo/Sq. Ft.

Commercial Sq. Ft.

Large Runoff Area
Relative to
Number of
Commercial Sq.
Ft. Compared to
High Rise
Commercial

High Rise Commercial



Commercial Sq. Ft.

Small Runoff Area
Relative to Number
of Commercial Sq.
Ft. Compared to
Low Rise
Commercial

Effective Cost per Sq. Ft. 100,000
Sq. Ft. Bldg = \$.001/Mo/Sq.Ft. ▲

Challenges

The proposed fee schedule will be based on a combination of area/runoff ratio and trip generation by property class and presents the following challenges

- Area/runoff data
 - Current data is insufficient and dated and needs updating
 - **Must map runoff data to parcels on the utility billing system**
- Trip generation data
 - Must have reliable source of trip generation data for property classes, which is the Institute of Transportation Engineers (ITE) trip generation manual
 - **Must map trip generation data to parcels that are billed on the utility billing system**



Approach

Approach – Current Methodology

- Using GIS data to validate current area and runoff data and map to parcels on the utility billing system






Approach – Trip Generation

- We are using the Institute of Transportation Engineers (ITE) trip generation manual to derive trip generation rates by property classes.
- Net trips include pass-by rates for applicable properties, such as drive through banks, drive through restaurants, etc. ▲

Approach – Trip Generation

- Single Family Home 9 net trips (Per Unit)
- Multifamily Unit 4 net trips (Per Unit)
- Supermarkets 107 net trips (Per 1,000 SQFT)
- Restaurants 315 net trips (Per 1,000 SQFT)

Time Line

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- Billing account reconciliation
 - Billing system modifications
 - Bond issuance Preparation
 - Public Outreach Meetings
 - Implementation Oct. 1, 2019



Discussion