



City of Fort Lauderdale, Florida

FY 2021 Stormwater Fee Study – Final Report

May 25, 2020





May 25, 2020

Mr. Chris Lagerbloom
City Manager
City of Fort Lauderdale
100 N Andrews Ave
Fort Lauderdale, FL 33301

Re: FY 2021 Stormwater Fee
Study – Final Report

Dear Mr. Lagerbloom,

Stantec Consulting is pleased to present this Final Report of the FY 2021 Stormwater Fee Study (Study) that we performed for the City of Fort Lauderdale, Florida (City). We appreciate the fine assistance provided by you and all of the members of the City Staff who participated in the Study.

We appreciate the opportunity to be of service to the City and look forward to the possibility of doing so again in the near future.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Stevens".

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Enclosure

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1. INTRODUCTION

Stantec Consulting Services Inc. (Stantec) has conducted a Stormwater Fee Study (Study) for the Stormwater Utility (Utility) of the City of Fort Lauderdale (City). This report presents the approach, methodology, source data, and assumptions, as well as the findings and recommendations of the Study.

1.1 BACKGROUND

The City of Fort Lauderdale established a Stormwater Utility in 1992 to provide for the collection, storage, treatment, and conveyance of stormwater within the City limits. The Public Works Department's Stormwater Operations Section of the City is responsible for maintaining and improving the City's stormwater system infrastructure, which consists of 183.5 miles of stormwater pipe, 1,151 manholes, 1,038 outfalls, 6 drainage wells, and 8,848 catch basins. The stormwater system is a critical piece of infrastructure that serves to protect property and the City's transportation network from flooding, while reducing the impacts of urban runoff on the natural environment. The City has established an enterprise fund for the Utility to account for the financial transactions relating to the management of the stormwater in the City.

While the City evaluates the level of its stormwater user fees annually as part of its budget process, this comprehensive Study goes beyond the normal annual review to include a ten-year revenue sufficiency analysis, full cost of service allocation, fee structure analysis, billing method review, and fee benchmarking.

The Utility is funded through user fees paid by active utility accounts in the City limits. For most properties receiving monthly municipal utility bills for services such as water, sewer, and garbage, the stormwater utility fee is included on the monthly utility bill. For properties that do not receive monthly municipal utility bills for other services, the stormwater utility fee is often sent to the property owner as determined from the property appraiser tax rolls on an annual basis.

This Study originally commenced in 2016 and this report represents the accumulation of effort and analysis that has occurred over the five-year period resulting in the recommendations contained herein. In addition, the results outlined in this report have been shared with the City Commission, Infrastructure Task Force, Budget Advisory Board, and Council of Civic Associations. The Infrastructure Task Force, Budget Advisory Board, and Council of Civic Associations have all voted in favor of the recommendations developed during the Study that are reflected in this report. The City Commission has provided guidance to proceed with implementation activities for the recommendation herein and is expected to formally consider the recommendation for approval and adoption within the year.

1.2 SCOPE OF SERVICES

The purpose of this Study was to develop a sustainable financial plan and modernize the fee structure for the Utility to satisfy the projected cost of providing the desired level of service, ensure an equitable allocation of system costs to different parcel types, and utilize the most appropriate billing method to collect user fees

from parcels in the City's service area. As such, the scope of services for the Study to accomplish these objectives are as follows:

Financial Sustainability Analysis – Develop a ten-year financial plan for the Utility to ensure that stormwater fees will provide sufficient revenues to cover all operations, maintenance, debt service, and capital costs, while maintaining sufficient levels of reserve funds throughout the projection period.

Stormwater Fee Structure Design – Review the options for structuring stormwater fees and develop specific fees by customer class that advance the inherent equity of the City's stormwater fees, enhance transparency, and increase administrative efficiency. Develop a master account file to summarize the stormwater fee for each parcel to be billed.

Stormwater Collection Method – Review and determine the appropriate billing method for the City's stormwater fee (i.e. continuing to bill on the monthly water and sewer utility bill or converting to collecting the stormwater fee as a non-ad valorem assessment on the property tax bill).

2. FINANCIAL SUSTAINABILITY ANALYSIS

2.1 DESCRIPTION

This section presents the development of annual system revenue requirements and the corresponding plan of annual revenue adjustments for the Utility as identified during the Financial Sustainability Analysis (FSA). The following sub-sections of the report present a description of the source data, assumptions, and resulting multi-year financial plan, while Appendix A includes detailed supporting schedules for the financial management plan identified herein for the Utility.

During the FSA, Stantec reviewed several alternative multi-year financial management plans and corresponding stormwater annual revenue adjustment plans through interactive work sessions with City staff. During these work sessions, Stantec examined the impact of various inputs and assumptions upon key financial indicators summarizing the results of the forecasting model under assumed conditions. In this way, local information and management input was incorporated as Stantec developed the recommended financial management plan for the Utility. The result is a financial plan that considers the City's current and best assumptions and data to satisfy the Utility's revenue requirements over a multi-year period while meeting key financial performance objectives and minimizing fee adjustments to the extent possible.

In order to initialize the FSA, Stantec obtained the City's historical and budgeted financial information regarding the Utility's operation, as well as information pertaining to working capital balances and future cost requirements. Stantec worked with the City to incorporate the Utility's multi-year capital improvement program (CIP) into the analysis, including projects identified in the City's 2009 Stormwater Master Plan. Stantec discussed with City staff other assumptions and policies that would affect the performance of the Utility, such as planned developments, capital funding sources, debt coverage ratios, reserve fund levels, earnings on invested funds, escalation rates for operating costs, and other factors.

This information was entered into Stantec's Financial Analysis and Management System (FAMS) interactive modeling system. FAMS produced a ten-year projection of the sufficiency of the revenue provided by stormwater fees to meet current and projected financial requirements. Based upon these projections, Stantec then determined both the level of revenue and revenue adjustments necessary in each year of the projection period to satisfy the Utility's annual financial requirements.

FAMS utilizes all projected available funds in each year of the projection period (after payment of operations and maintenance expenses, and debt service) to pay for capital projects. The model incorporates the rules of cash application as defined and applied by City staff, and it produces a detailed summary of the funding sources to be used for each project in the CIP. To the extent that current revenues and unrestricted reserves are not adequate to fund all capital projects in any year of the projection period, the model identifies a borrowing requirement to fund those projects or portions thereof that are determined to be eligible for borrowing. In this way, the FAMS model is used to develop a borrowing program that includes the required borrowing amount by year and the resultant debt service requirements for each year in the projection period.

2.2 SOURCE DATA

The following sections describe the various source data and assumptions used to determine the Utility's revenue requirements during the course of the Study.

2.2.1 Beginning Fund Balance

City staff provided audited Fiscal Year (FY) 2018 financial information used to establish the beginning FY 2019 balances for the revenue (operating fund) of the Utility. The detailed balances (as of September 30, 2018) that serve as the FY 2019 beginning fund balances are presented on Schedule 2 of Appendix A.

2.2.2 Revenues

The revenue projections utilized in the Study reflect an evaluation of multiple years of historical results, FY 2018 audited actual results, the FY 2019 Amended Budget, and the FY 2020 Adopted Budget. Budgeted revenues for the Utility consist of stormwater user fee revenues, other operating revenues from miscellaneous service charges, and interest income. FY 2019 projected stormwater user fee revenues are based upon the City's current fee structure, the projected number of billing units for residential properties, non-residential properties, and the assumed number of acres of undisturbed properties. Revenue projections for the remainder of the forecast represent FY 2019 projected revenues adjusted for assumed property development and annual fee increases. Interest earnings in FY 2019 and FY 2020 were set equal to the budgeted numbers provided by City staff, whereas future forecasted interest earnings were calculated annually based upon projected average fund balances and assumed annual interest earnings rates. A summary of projected cash inflows is presented on Schedule 3 of Appendix A.

2.2.3 Operating Expenditures

The Utility's operating expenditures include all personnel service costs, operation and maintenance (O&M) expenses, calculated debt service requirements, and minor capital outlay requirements. All revenue requirements in FY 2019 and FY 2020 reflect the FY 2019 amended budget and FY 2020 adopted budget, respectively. All operating expenses and inter-fund transfers were projected each year thereafter based upon the FY 2020 adopted budget, assumed future cost escalation factors, and information staff provided relative to future minor capital outlays. It is important to note that in each year of the forecast, with the exception of FY 2020 budget year, spending execution rates of 95% were assumed for all fixed operating expenses, while execution rates of 100% were assumed in all years for all personal service costs and budgeted/projected minor capital outlays. In addition to the budgeted expenses, allowances were made for anticipated expenses such as master plan capital, O&M, and ongoing asset management expenses. Projected operating expenditures and cash outflows (excluding the cash funding of capital) are presented on Schedule 4 of Appendix A.

2.2.4 Community Investment Plan

A 10-year community investment plan (CIP) was developed during this Study through interactive work sessions with staff and primarily based on the current adopted CIP for the Utility. The CIP identified in the Study is presented in project level detail for the two main categories of projects: ongoing renewal and reinvestment projects and large generational investments. The first category of projects is related to the normal ongoing renewal and reinvestment in the system which is paid out of annual cash flow. FY 2019 capital expenditures for these projects were based on encumbered project balances for FY 2019. The proposed CIP was utilized for FY 2020 – FY 2024. From FY 2025 – FY 2029, a 5-year moving average was used to estimate the Utility's unspecified ongoing capital requirements.

The second category of capital projects is larger generational investments that were identified in the City's 2009 Stormwater Master Plan and are to be funded primarily through the issuance of municipal revenue bonds. Revenue bonds are appropriate for these types of capital investments as they are long-lived assets that are expected to provide intergenerational benefits to customers. The locations of these projects, designated as Phase Two stormwater improvement projects, are included in the detailed list below and are expected to be funded in FY 2020 and FY 2021 in the amount of \$200M in total. In addition to Phase Two, an additional \$200M of master plan project funding has been identified for FY 2026.

- Edgewood
- River Oak
- Dorsey Riverbend
- Durrs Area
- Progresso
- Victoria Park
- Southeast Isles

More information related to the debt-funding of capital projects is discussed in Sections 2.3.5 of this report. A detailed list of the specific projects and costs by year is included on Schedule 6 of Appendix A.

2.3 ASSUMPTIONS

2.3.1 Cost Escalation

Annual cost escalation factors for the various types of operating expenses were developed based upon discussions with staff, a review of historical trends, and Stantec's industry experience. These factors are applied in each year of the projection period beginning in FY 2021. The specific escalation factors assumed for the various categories of expenses can be found on Schedule 5 of Appendix A.

2.3.2 Interest Earnings

The Study reflects assumed interest earning rates on invested funds of 1.75% in FY 2021 and 2.00% in FY 2022 and each year thereafter. Projected interest earnings are included on Schedule 3 of Appendix A.

2.3.3 Customer Growth

Customer growth projections were developed in consultation with staff based upon historical trends and future expectations. Customer growth in FY 2021 through FY 2029 was projected assuming an average increase of 189 units annually in the residential category, an average increase of 9 units annually in the commercial category, and an average decrease of 19 units annually in the unimproved land category. Schedule 1 of Appendix A presents detailed annual stormwater system customer growth rates.

2.3.4 Minimum Reserve Policy

Reserves are funds set aside for a specific cash flow requirement, financial need, project, task, or unforeseen system requirements. These balances are maintained in order to meet short-term cash flow requirements and minimize the risk associated with meeting the financial obligations and continued operational and capital needs under adverse conditions. The level of reserves maintained is an important component and consideration in developing a multi-year financial management plan.

Many utilities, rating agencies, and the investment community place a significant emphasis on having sufficient reserves available for potentially adverse economic conditions. The rationale related to the maintenance of adequate reserves is twofold. First, it helps to ensure that adequate funds will be available to meet financial obligations during unusual periods (i.e. when revenues are unusually low and/or expenditures are unusually high). Second, it provides funds that can be used for emergency repairs or replacements to the system that can occur as a result of natural disasters or unanticipated system failures.

The financial management plan presented in this report assumes that the City will maintain a minimum revenue fund balance or unrestricted cash reserve balance equal to 1.5 months of annual O&M expenses for the Utility in FY 2019. However, in an effort to build stronger reserve levels consistent with those of other utilities in the industry, and to present compelling fiscal strength to secure favorable credit ratings when borrowing money, it is recommended that the minimum reserve policy for the Utility be raised to 3.0 months of annual O&M expenses by FY 2021. Consequently, the financial management plan presented herein assumes that the City will maintain a minimum reserve of 3.0 months in FY 2021 and each year thereafter.

2.3.5 Future Borrowing & Capital Funding

As the 10-year CIP for the Utility was developed, sources of funding for individual projects were identified. Approximately \$443 million in capital funding was determined to be provided through revenue bonds, with the remainder of projects designated to be paid out of annual revenue and available fund balances. The projects identified for revenue bond funding are Phase Two components of the City's 2009 Stormwater Master Plan (Master Plan).

Given the immediacy of the need associated with the Phase Two Master Plan capital projects, the City has elected to utilize an interim source of financing for approximately \$70M of the identified \$200M in projects. In doing so, construction can commence on an accelerated timeline and the benefits of the improvements can be realized sooner. Long-term permanent financing for the Phase One projects will take the form of a municipal revenue bond with a targeted issuance date of early FY 2021 for the full amount of \$200M.

The new long-term debt required during the projection period is assumed to be issued for a 30-year term, with a 2.00% cost of issuance, and annual cost of borrowing equal to 4.00% in all years of the projection period. The debt is assumed to be paid in the form of level annual debt service consisting of interest and principal. Additionally, any new debt issuance has been assumed to require a debt service reserve equal to one year's worth of debt service. It is important to note that the Utility has not previously financed capital projects. Thus, the City's actual future financing and funding decisions will reflect then-current market conditions, rating agency guidance, and broader City-wide financing objectives. The projections used in this Study reflect reasonable expectations of overall conditions and are appropriate for planning purposes.

A complete schedule of assumed CIP funding can be found on Schedule 9 of Appendix A and projected future senior lien borrowing can be found on Schedule 11 of Appendix A.

2.3.6 Debt Service Coverage

The Utility currently has no outstanding debt as of FY 2019; however, a minimum senior-lien debt service coverage ratio of 1.25 (with a target of 1.50), was utilized in the Study for projected future debt issuances. The debt service coverage ratio signifies that net income must be at least 1.25 times annual debt service.

The ratio of net income to annual debt service requirement (referred to as a debt service coverage ratio hereafter) described above was developed through discussions with City staff and the City's financial advisor and represents the minimum requirement of bondholders. As a policy decision, utilities frequently opt to measure revenue sufficiency and set fees based upon a higher debt service coverage ratio in order to ensure compliance with rate covenants in the event that future projections of revenue and expenses do not occur as predicted (due to unanticipated capital requirements or substantial operating cost increases, natural disasters, etc.). The financial management plan presented herein results in projected total debt service coverage greater than or equal to 1.50 in each year of the forecast.

2.4 RESULTS

Based upon the source data and assumptions presented herein, it is anticipated that the Utility will require revenue adjustments throughout the projection period in order to provide sufficient revenues to fund the ongoing operation and maintenance costs, capital improvement projects, renewal & replacement costs, new debt service, and the reserve requirements of the Utility.

Most notably the Utility is expected to see a large increase in expenditures in FY 2021, due to the issuance of a revenue bond to fund the Phase Two Master Plan projects. As such, the plan of revenue adjustments has been sized to reflect the annual repayment of principal and interest as well as coverage on the debt.

The recommended financial management plan and corresponding plan of rate adjustments is based upon the source data and assumptions as described in this report. Appendix A includes several detailed schedules presenting key aspects of the ten-year financial management plan, while the required rate revenue adjustment plan for the immediate five-year planning period is presented in Table 2-1:

Table 2.1 Stormwater Revenue Adjustment Plan

Fiscal Year	FY 2020¹	FY 2021²	FY 2022	FY 2023	FY 2024
Effective Date	10/1/2019	10/1/2020	10/1/2021	10/1/2022	10/1/2023
Annual Adjustment	16.67%	54.00%	3.00%	3.00%	3.00%

It is important to note that the projections of future conditions underlying this analysis are not intended to be predictions. Applicable to many utility systems, there are multiple factors beyond the City's control, such as i) severe weather, ii) regulatory changes, iii) national, regional, and local economic conditions, iv) the rate of growth in developed properties, v) operating and capital cost inflation, and vi) changes in the timing and composition of the Utility's CIP, that may have material impacts on the future financial condition of the Utility. Furthermore, the projections in this Study rely upon data and guidance provided by the City during the development of the Study, and while the information utilized in this Study is believed to be reliable, detailed independent reviews or auditing of the data were not conducted.

As a result, there will usually be differences between forecasted and actual results because events and circumstances frequently do not occur as expected, and those differences may be material. While Stantec has no responsibility to update this report for events and circumstances occurring after the date of this report, future management actions should be based upon and adjusted to reflect future results as they occur. These comments are provided to emphasize the importance of active management informed by the actual future results of Utility operations by the City. While the planning effort supported by this Study will serve to guide and inform the City in balancing future revenue and spending decisions, it is only through observation of future results, and the update of this analysis, that the City will be able to determine the actions required to ensure its financial and operational objectives are met over time.

Appendix A includes detailed schedules presenting all components of the financial management plan developed for the Utility.

¹ Reflects adopted increase for FY 2020, percentage equals a \$2 change in residential rate

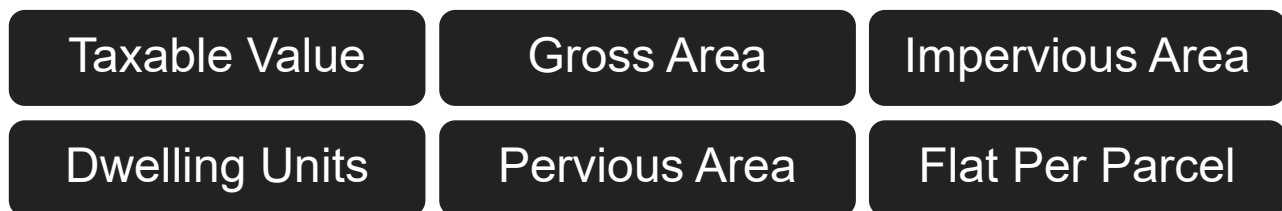
² FY 2021 amount will be recovered through the new fee structure presented in Section 3 of this report.

3. STORMWATER FEE DESIGN

3.1 CURRENT STORMWATER BILLING BASIS

The use of a stormwater system in a highly urbanized area, such as the City of Fort Lauderdale, is both ubiquitous and not directly measurable. In contrast, within the City's water utility, a water meter provides a highly precise basis for determining a customer's usage of the water system. Within a stormwater utility, no such meter or exact measurement of usage currently exists, thus communities rely on bases that serve as a proxy for parcel benefit related to the provision of stormwater services. The collection of dedicated stormwater revenues from property owners is accomplished through the use of different billing bases in communities all over the country. The billing basis is essentially the methodology used to measure the stormwater benefit each parcel receives and is intended to fairly apportion the stormwater utility's revenue requirement among benefitting parcels. The process of choosing a stormwater billing basis methodology is driven by several key factors, including primarily the availability of data in the community and level of complexity. For example, while it would require limited information to bill each parcel owner in the City the same flat fee, this approach would certainly not recognize the different stormwater contribution potential from parcels and benefit conferred to the diverse set of parcels in the City's service area. There are a number of different approaches that have been utilized around the country to address stormwater cost apportionment; a list of the most common billing bases is included in Figure 3.1.

Figure 3.1 Common Stormwater Billing Basis



The City currently charges stormwater to parcels within the City using two of the of the most common billing bases described above: gross area and dwelling units. In addition to these directly measured units, the City's current stormwater fees were originally developed using a method known as net effective impervious area (NEIA). This method applies an intensity of development factor to the aggregate gross area of parcels by Department of Revenue (DOR) land use in the community to determine the net effective impervious area being served. The result is then used to distribute costs to three customer classifications based on the relative effective impervious area of each class. The City's three customer classifications are as follows:

Category I means any lot or parcel developed exclusively for residential purposes limited to, single-family homes, manufactured homes, multifamily, apartment buildings, and condominiums designed to accommodate three (3) or fewer dwelling units. For billing coding purposes, Category I parcels are referred to as STMS.

Category II means any developed lot or parcel not in Category I or Category III, as defined herein. For billing coding purposes, Category II parcels are referred to as STMC.

Category III means property which is undeveloped or not significantly altered from its natural state by the addition of improvements such as buildings, structures, impervious surfaces, changes of grade, or landscaping. This includes properties such as vacant parcels, parks, airports, golf courses and well fields. For purposes of this article, a property shall be considered developed upon issuance of a certificate of occupancy, or upon completion of construction or final inspection if no such certificate is issued. For billing coding purposes, Category III parcels are referred to as STMU.

The conversion of natural land to developed land with the addition of impervious area results in increased stormwater runoff. Most communities with stormwater utilities use impervious area, or some variation of impervious area, as the basis for the stormwater fees. Impervious area impedes the natural infiltration of stormwater into the ground and results in higher stormwater runoff during precipitation events that must be managed by the City's stormwater system.

Numerous engineering and hydrologic studies have demonstrated that impervious area is the single most important factor contributing to the quantity and quality of stormwater runoff from a property. As a result, impervious area has been demonstrated to be a highly defensible, widely used, and easily understood component of stormwater rates across the country.

The City's current stormwater fee is based on a calculation of effective impervious area on a parcel considering impervious as well as pervious area. This Study reviewed the various industry standard bases for recovery of stormwater costs and provides a recommended methodology that best fits the functions within the Utility as well the needs of the community by increasing transparency, administrative efficiency, and property owner understanding.

3.2 RECOMMENDED STORMWATER BILLING BASIS

In developing a recommended billing basis for any community, one of the primary goals is to connect the community's stormwater service delivery model to the billing basis in order to create a strong nexus between the parcels being charged a fee for services and the stormwater benefits conveyed.

Based on detailed discussions with City staff, the City has a unique stormwater service delivery model strongly influenced by the City's underlying physical environment, mainly its coastal proximity and low ground elevation in relation to sea level. Normally when discussing stormwater services, it is assumed that

the source of the stormwater being managed is precipitation, but in the City of Fort Lauderdale, the ocean waters also play a prominent role. In fact, the City's stormwater system is often inundated by the presence of King Tides, which involve the highest tides of the year that backflow into the stormwater system through outfalls. These events result in the stormwater system being compromised when impacted by King Tides as the hydrologic capacity of the system is diminished. In the most extreme cases, the ocean water can infiltrate the stormwater system and spill onto the roadway surface, resulting in an impairment to the use of the road and consequently ingress or egress to property, even on sunny days.

In addition, most developed parcels in the City have been constructed above the crown of the road by a significant margin, mainly driven by building codes. This means that in most cases, when developed parcels generate stormwater during precipitation events, the stormwater is discharged into the roadway network to be collected and managed.

The confluence of both ocean/tidal and property-based stormwater contributions in the City's roadway network makes this component of the stormwater system critically important to the City's stormwater management. This is evidenced by the City's stormwater capital investments and operational activities, which contain a significant concentration in managing stormwater on the roadway network and keeping ocean/tidal forces at bay, in an effort to maintain passable roads.

The uniqueness of the City's stormwater system provides a significant opportunity from a fee making perspective to ensure there is a rational alignment between the parcels benefiting from stormwater services in the City and the stormwater fee that those parcels pay. The identification of the roadway network as a key component of the stormwater system where parcel-based stormwater contributions, ocean tidal forces, and the City's stormwater management activities converge, makes a compelling case that any modifications to the City's current stormwater fee structure should take this relationship into account.

Based on Stantec's project team's experience, trip generation rates were identified as a potential billing basis that would create a strong nexus between the benefit received by parcels and the fee levied against parcels in the City. Trip generation rates are studied and published by the Institute of Transportation Engineers (ITE) and provide detailed estimates of roadway usage by current Department of Revenue (DOR) land use types. Leveraged in fee setting, these estimates provide an ability to define the relative benefit of free and passable roads by DOR land use type, and by extension, the benefit of the City's stormwater services that work to limit the impairment of the City's roadways from stormwater and tidal forces. The following figure provides an example of the trip generation rates of 3 diverse DOR land uses commonly found within the City's service area.

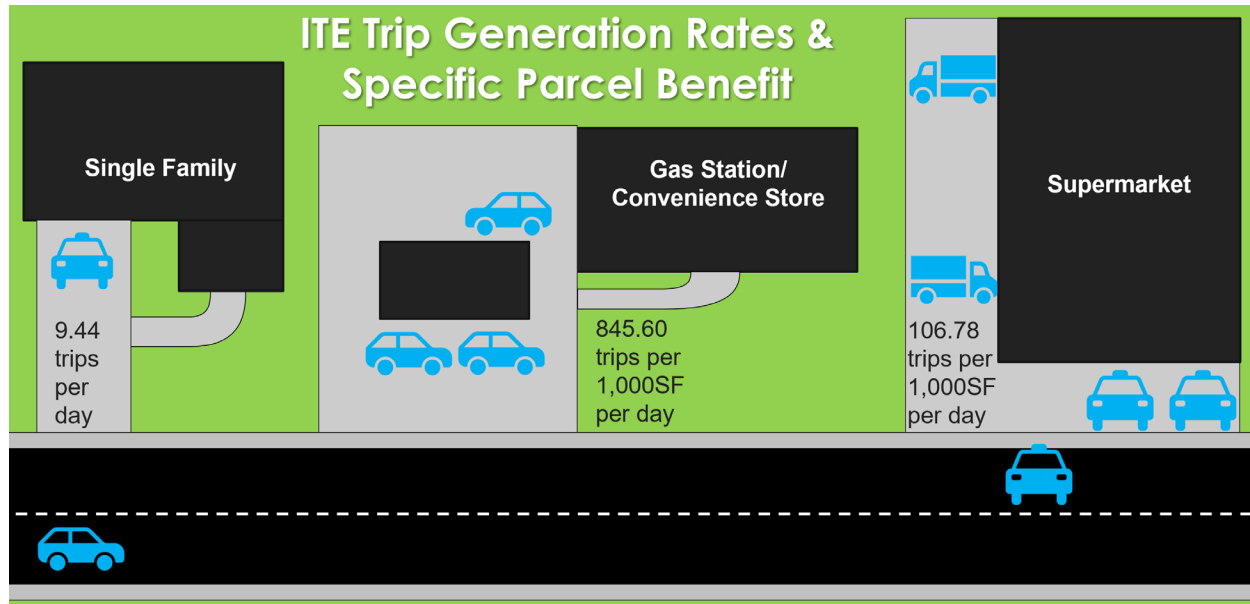
Figure 3.2 Trip Generation Rate Example

Figure 3.2 illuminates several themes in how diverse parcel land uses benefit from free and passable roads within the City. As shown in the comparison, it is often the case that commercial parcels more intensely generate trips due to the economic activity that takes place on the parcel, leading to greater realized benefit of clear and passable roads than a parcel of similar size that happens to be a single-family home. Additionally, trip generation rates are measured in one of two units; the building square footage or the number of trip demand units (e.g. dwelling units).

These measurements consider the entirety of a parcel's development, including vertical extent, which stands in significant contrast to traditional measures of potential stormwater benefit measurements such as impervious area. For example, the impervious area of two parcels can be identical as measured overhead, but one parcel may contain a one-story building with 15 residential dwelling units while the second parcel was developed in a more vertical fashion and may contain 300 residential dwelling units. Traditional measurements of stormwater would conclude that these two parcels benefit the same from stormwater services based on their measured impervious area. Considering the significant and meaningful stormwater activities that the City engages in on the public roadway network to maintain a free and passable roadway network, it is evident that these two parcels benefit differently. The example parcel with more dwelling units generates more trips and derives more benefit in total than the parcel with a lower use of the roadway network. Trip generation rates, by virtue of their application, take into account the entirety of a parcel's activity, including this vertical benefit component.

Based on the key observations uncovered in the course of the study relating to the City's provision of stormwater services stemming from runoff on developed parcels and the City's efforts in combating the impairment of the system from ocean/tidal forces, there are unique benefits to stormwater service in the City of Fort Lauderdale. Given these dynamics it would be reasonable that the stormwater fee basis be structured in such a way as to ensure that the cost of providing service in the community is directed to

parcels in proportion to their benefit of the system. As such, Stantec recommends that the City consider the following bifurcated fee basis for use in assessing stormwater fees:

1. Net Effective Impervious Area (Current Fee Basis)
 - a. Rationale: The City's current fee basis is effective in proportioning cost to parcels based on their development characteristics and the benefit received by addressing the quantity of stormwater runoff generated by properties in the City.
2. Trip Generations Rates
 - a. Rationale: Given the City's significant stormwater activities aimed at maintaining and preventing impairment by precipitation driven stormwater events or ocean/tidal forces as well as performing water quality activities in or adjacent to roadways, trip generation rates provide a clear and defensible mechanism by which the City can assess stormwater fees in proportion to the benefit received by use of the roadway network.

The recommended approach of using two billing bases recognizes the primary benefits that stormwater services provide in the community to developed parcels. Although the incorporation of two billing bases is more complex, the approach arguably makes significant advances in providing an equitable and reasonable allocation of stormwater costs to benefitting parcels within the City.

3.3 MEASUREMENT OF BILLING BASIS

In order to successfully implement a stormwater billing basis, the appropriate attributes of each parcel that will be assessed must be measured accurately. This section of the report details the efforts undertaken to create an up-to-date billing database, that allows for the determination of each parcel's billing units and the total billing units of the Utility.

Current Stormwater Billing Data

The City currently bills stormwater fees on a monthly basis by utilizing the existing billing infrastructure that supports the City's water and wastewater services. Each utility billing account is assigned a stormwater customer class designation and includes a billing unit representative of the gross sq. ft. of the parcel(s) being billed under the account. An initial analysis of the current billing data indicated that the billing units would benefit from an update with the most recent Broward County Property Appraiser (PA) data to ensure that the gross sq. ft. being billed for each parcel is accurate. In addition, the City's service area is highly urbanized and has considerably complex water infrastructure (e.g. in many cases one water meter is serving multiple parcels). This presents a challenge from a stormwater billing perspective, as multiple parcels must be aggregated to one utility account in order to be billed correctly. In many cities this represents an ongoing challenge that requires significant dedicated resources and effort in order to ensure that connections are maintained and updated in alignment with the underlying property data. It is unclear as to the last time the City systematically validated all the parcels to account linkages. Furthermore, it should be expected that the underlying parcel data also changes frequently as development, redevelopment, parcel splits, and parcel reconfigurations take place.

Based on the initial analysis, which indicated that gains in accuracy could be made by updating the billing data, it was decided that as part of this Study the existing billing units would be updated using the most current and available PA data as of August, 2019. The PA data was utilized as the main data source for the analysis conducted herein, which likely will result in different measured units for certain parcels within the City as compared to the current billing data.

Billing Roll Creation

Stantec's project team developed an updated parcel database to calculate the recommended stormwater fee structure based on net effective impervious area and trip generation rates. The database was constructed using a geographical informational software environment (GIS) and the most up-to-date PA data. The City consists of over 82,000 parcels, including condo or cooperative parcels that are stacked upon each other in towers/stacks that were considered as part of the analysis. Table 3.1 includes a summation of the property roll by DOR land use type that was relied on to determine the net effective impervious area and trip generation. The updated parcel data reveals that the City is diverse from a land use perspective, notably with over 35,000 single-family homes and 27,000 condos.

Table 3.1 Updated Parcel Database Summary

DORUSEDDETAILS	Count	Building Area (sq.ft.)	Parcel Area (sq.ft.)
00 - Residential - Vacant Residential	1,605	-	14,534,821
01 - Residential - Single Family	35,658	71,134,102	294,027,433
02 - Residential - Mobile Homes	15	12,370	48,552
03 - Residential - Multi-family-10 units or more	372	18,727,579	17,935,622
04 - Residential - Condominium	27,584	35,811,008	60,219
05 - Residential - Cooperatives	3,988	3,665,011	-
07 - Residential - Miscellaneous residential (migr	12	4,988	216,473
08 - Residential - Multi-family – less than 10 units	4,700	11,356,146	36,705,445
09 - Residential - Undefined – reserved for use by	134	285,774	-
10 - Commercial - Vacant Commercial	380	-	6,702,386
11 - Commercial - Stores, 1-story	683	5,710,518	15,443,367
12 - Commercial - Mixed use – store and office or	507	2,283,552	3,040,163
13 - Commercial - Department Stores	8	1,301,654	1,454,302
14 - Commercial - Supermarkets	9	348,439	852,129
15 - Commercial - Regional Shopping Centers	2	2,079,191	1,647,091
16 - Commercial - Community Shopping Centers	29	1,266,547	4,602,011
17 - Commercial - Office buildings, non-professor	432	2,467,432	8,923,850
18 - Commercial - Office buildings, non-professor	464	18,650,210	17,006,762
19 - Commercial - Professional services building	357	2,365,865	2,932,451
20 - Commercial - Airports (private or commercia	196	1,094,756	28,903,675
21 - Commercial - Restaurants, cafeteria	122	575,524	2,128,504
22 - Commercial - Drive-in restaurants	64	179,884	1,765,805
23 - Commercial - Financial institutions (banks, sa	39	170,774	1,360,267
26 - Commercial - Service Stations	59	193,075	1,667,626
27 - Commercial - Auto sales, repair and storage,	182	2,356,396	6,775,045
28 - Commercial - Parking lots (commercial or pa	802	3,567,976	18,706,235
29 - Commercial - Wholesale outlets, produce ho	1	45,000	88,602
32 - Commercial - Enclosed theatres, enclosed au	4	114,852	203,265
33 - Commercial - Nightclubs, cocktail lounges, ba	44	287,812	1,117,636
35 - Commercial - Tourist attractions, permanent	1	8,635	103,882
38 - Commercial - Golf courses, driving ranges	6	47,286	8,191,652
39 - Commercial - Hotels, motels	1,265	11,139,429	10,353,047
40 - Industrial - Vacant Industrial	79	-	1,587,978
41 - Industrial - Light manufacturing, small equipn	77	1,950,783	8,786,409
44 - Industrial - Packing plants, fruit & vegetable p	1	28,629	50,827
48 - Industrial - Warehousing, distribution termin	1,362	18,462,614	43,342,753
49 - Industrial - Open storage, new & used bldg su	84	31,369	1,638,757
52 - Agricultural - Cropland soil capability Class II	3	-	32,250
67 - Agricultural - Poultry, bees, tropical fish, rabb	2	-	651,407
69 - Agricultural - Ornamentals, miscellaneous agri	9	7,398	104,349
70 - Institutional - Vacant Institutional	60	-	1,013,462
71 - Institutional - Churches	199	3,187,924	15,104,925
72 - Institutional - Private Schools and Colleges	63	2,418,147	6,374,659
73 - Institutional - Privately owned hospitals	17	3,138,252	3,090,132
74 - Institutional - Homes for the aged	27	600,755	1,230,453
75 - Institutional - Orphanages, other non profit o	3	50,549	95,898
76 - Institutional - Mortuaries, cemeteries, crema	13	40,019	4,262,763
77 - Institutional - Clubs, lodges, union halls	29	214,764	881,583
78 - Institutional - Sanitariums, convalescent and i	20	329,298	561,123
79 - Institutional - Cultural organizations, facilities	2	77,233	59,788
80 - Government - Undefined-Reserved for future	235	-	7,313,297
82 - Government - Forest, parks recreational area	91	246,675	25,292,773
83 - Government - Public county schools – include	-	-	-
85 - Government - Hospitals	1	46,531	138,082
86 - Government - Counties (other than public sch	3	437,565	499,555
87 - Government - State other than military, fore	4	240,273	1,961,431
88 - Government - Federal other than military, foi	1	8,419	185,657
89 - Government - Municipal other than parks, re	48	1,027,866	7,772,531
91 - Miscellaneous - Utility, gas & electricity, telep	34	403,133	2,576,323
94 - Miscellaneous - Right-of-way, streets, roads, i	-	-	-
95 - Miscellaneous - Rivers and lakes, submerged	-	-	-
96 - Miscellaneous - Sewage disposal, solid waste,	2	-	1,936,205
98 - Centrally Assessed - Centrally assessed	3	44,909	510,807
Total	82,196	230,244,890	644,554,493

Measurement of Net Effective Impervious Area Billing Basis

The billing roll presented in the proceeding section was built upon to include net impervious area multipliers. The multipliers, specific to each DOR land use type, allows for the gross area of diverse DOR land uses to be aggregated and the amount of effective impervious area to be estimated. The multipliers were sourced from the City's 2009 Stormwater Master Plan. In addition, parcels have been grouped according to the City's current customer classifications including Category I (STMS), Category II (STMC) and Category III (STMU). The following table presents the net effective impervious area calculated by customer category.

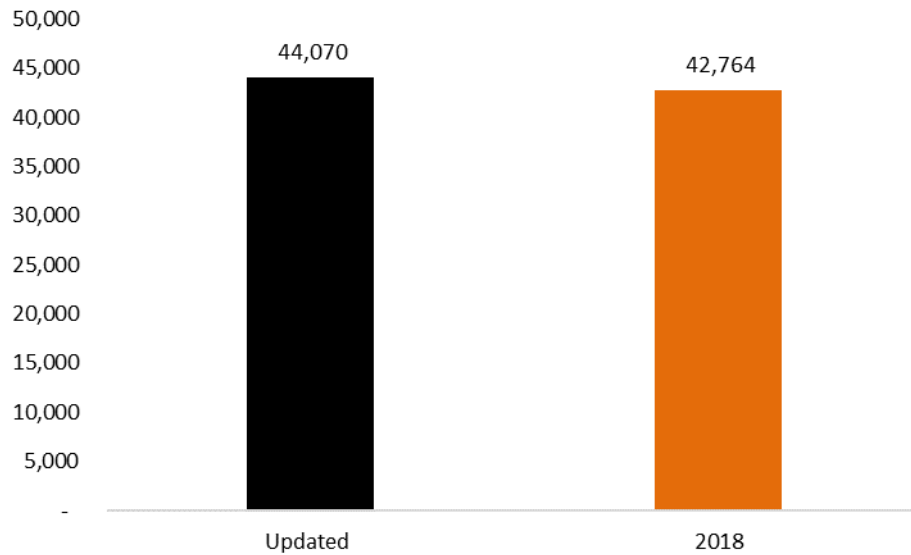
Table 3.2 Updated Net Effective Impervious Area

DORUSEDDETAILS	NEIF	STMS	STMS SUM	STMC	STMC SUM	STMU	STMU SUM	STMS SUM	STMC SUM	STMU SUM
00 - Residential - Vacant Residential	0.10	-	2,677,151	149	1,577,080	1,136	10,250,982	267,715	157,708	1,025,098
01 - Residential - Single Family	0.28	36,645	294,016,331	1	11,102	-	-	82,324,573	3,109	-
02 - Residential - Mobile Homes	0.62	15	48,552	-	-	-	-	30,102	-	-
03 - Residential - Multi-family-10 units or more	0.62	-	-	372	17,935,622	-	-	-	11,120,086	-
04 - Residential - Condominium	0.62	29	112,680	27,555	27,224,726	-	-	69,862	16,879,330	-
05 - Residential - Cooperatives	0.62	-	-	3,988	4,841,115	-	-	-	3,001,491	-
07 - Residential - Miscellaneous residential (migra	0.62	-	5,349	11	211,639	-	-	3,316	131,216	-
08 - Residential - Multi-family - less than 10 units	0.62	7,377	24,130,042	1,405	12,583,040	-	-	14,960,626	7,801,485	-
09 - Residential - Undefined - reserved for use by	0.28	-	-	134	209,631	-	-	-	58,697	-
10 - Commercial - Vacant Commercial	0.10	-	-	117	3,219,182	263	3,483,204	-	321,918	348,320
11 - Commercial - Stores, 1-story	0.75	-	-	683	15,481,520	-	-	-	11,611,140	-
12 - Commercial - Mixed use - store and office or	0.75	-	-	507	3,245,275	-	-	-	2,433,957	-
13 - Commercial - Department Stores	0.75	-	-	8	1,454,302	-	-	-	1,090,726	-
14 - Commercial - Supermarkets	0.75	-	-	9	852,129	-	-	-	639,096	-
15 - Commercial - Regional Shopping Centers	0.75	-	-	2	1,647,091	-	-	-	1,235,318	-
16 - Commercial - Community Shopping Centers	0.75	-	-	29	4,631,618	-	-	-	3,473,714	-
17 - Commercial - Office buildings, non-professor	0.75	-	-	432	9,040,178	-	-	-	6,780,133	-
18 - Commercial - Office buildings, non-professor	0.75	-	-	464	18,186,659	-	-	-	13,639,994	-
19 - Commercial - Professional services building	0.75	-	-	357	3,338,576	-	-	-	2,503,932	-
20 - Commercial - Airports (private or commercia	0.10	-	-	192	6,703,245	4	22,322,151	-	670,325	2,232,215
21 - Commercial - Restaurants, cafeteria	0.75	-	-	122	2,132,967	-	-	-	1,599,725	-
22 - Commercial - Drive-in restaurants	0.75	-	-	64	1,765,805	-	-	-	1,324,354	-
23 - Commercial - Financial institutions (banks, sa	0.75	-	-	39	1,360,267	-	-	-	1,020,200	-
26 - Commercial - Service Stations	0.75	-	-	59	1,667,626	-	-	-	1,250,720	-
27 - Commercial - Auto sales, repair and storage,	0.75	-	-	182	6,775,045	-	-	-	5,081,284	-
28 - Commercial - Parking lots (commercial or pat	0.75	-	-	802	18,833,276	-	-	-	14,124,957	-
29 - Commercial - Wholesale outlets, produce hoi	0.75	-	-	1	88,602	-	-	-	66,452	-
32 - Commercial - Enclosed theatres, enclosed au	0.75	-	-	4	203,265	-	-	-	152,448	-
33 - Commercial - Nightclubs, cocktail lounges, ba	0.75	-	-	44	1,117,636	-	-	-	838,227	-
35 - Commercial - Tourist attractions, permanent	0.75	-	-	1	103,882	-	-	-	77,912	-
38 - Commercial - Golf courses, driving ranges	0.10	-	-	-	-	6	8,191,652	-	-	819,165
39 - Commercial - Hotels, motels	0.75	-	-	1,265	10,976,516	-	-	-	8,232,387	-
40 - Industrial - Vacant Industrial	0.10	-	-	50	434,573	29	1,153,405	-	43,457	115,341
41 - Industrial - Light manufacturing, small equipn	0.10	-	-	77	8,786,409	-	-	-	878,641	-
44 - Industrial - Packing plants, fruit & vegetable p	0.10	-	-	1	50,827	-	-	-	5,083	-
48 - Industrial - Warehousing, distribution termin	0.10	-	-	1,362	44,759,311	-	-	-	4,475,931	-
49 - Industrial - Open storage, new & used bldg su	0.10	-	-	84	1,638,757	-	-	-	163,876	-
52 - Agricultural - Cropland soil capability Class II	0.10	-	-	2	13,500	1	18,750	-	1,350	1,875
67 - Agricultural - Poultry, bees, tropical fish, rabb	0.10	-	-	-	-	2	651,407	-	-	65,141
69 - Agricultural - Ornamentals, miscellaneous agr	0.10	4	56,844	-	-	4	47,506	5,684	-	4,751
70 - Institutional - Vacant Institutional	0.10	-	-	9	327,277	51	686,186	-	32,728	68,619
71 - Institutional - Churches	0.75	-	-	199	15,104,925	-	-	-	11,328,693	-
72 - Institutional - Private Schools and Colleges	0.75	-	-	63	6,374,659	-	-	-	4,780,994	-
73 - Institutional - Privately owned hospitals	0.75	-	-	17	3,090,132	-	-	-	2,317,599	-
74 - Institutional - Homes for the aged	0.75	-	-	27	1,230,453	-	-	-	922,840	-
75 - Institutional - Orphanages, other non profit o	0.75	-	-	3	95,898	-	-	-	71,923	-
76 - Institutional - Mortuaries, cemeteries, crema	0.75	-	-	4	80,631	9	4,182,132	-	60,473	3,136,599
77 - Institutional - Clubs, lodges, union halls	0.75	-	-	29	881,583	-	-	-	661,188	-
78 - Institutional - Sanitariums, convalescent and	0.75	-	-	20	561,123	-	-	-	420,842	-
79 - Institutional - Cultural organizations, facilities	0.75	-	-	2	59,788	-	-	-	44,841	-
80 - Government - Undefined-Reserved for future	0.10	-	-	9	281,632	226	7,031,665	-	28,163	703,166
82 - Government - Forest, parks recreational area	0.10	-	-	-	-	91	25,292,773	-	-	2,529,277
83 - Government - Public county schools - include	0.75	-	-	-	-	-	-	-	-	-
85 - Government - Hospitals	0.75	-	-	1	138,082	-	-	-	103,561	-
86 - Government - Counties (other than public sch	0.10	-	-	3	499,555	-	-	-	49,956	-
87 - Government - State other than military, fores	0.10	-	-	4	1,961,431	-	-	-	196,143	-
88 - Government - Federal other than military, for	0.10	-	-	1	185,657	-	-	-	18,566	-
89 - Government - Municipal other than parks, re	0.10	-	-	46	7,859,198	2	1,541	-	785,920	154
91 - Miscellaneous - Utility, gas & electricity, telep	0.10	-	-	34	2,576,323	-	-	-	257,632	-
94 - Miscellaneous - Right-of-way, streets, roads, i	0.10	-	-	-	-	-	-	-	-	-
95 - Miscellaneous - Rivers and lakes, submerged	0.10	-	-	-	-	-	-	-	-	-
96 - Miscellaneous - Sewage disposal, solid waste,	0.10	-	-	-	-	2	1,936,205	-	-	193,621
98 - Centrally Assessed - Centrally assessed	0.75	-	-	3	510,807	-	-	-	383,105	-
Total		44,070	321,046,949	41,048	274,921,145	1,826	85,249,558	97,661,879	145,355,544	11,243,342

Once the net effective impervious area calculation was completed, all parcels were summarized in terms of the customer class billing designations (STMS, STMC, and STMU). STMS parcels are currently billed

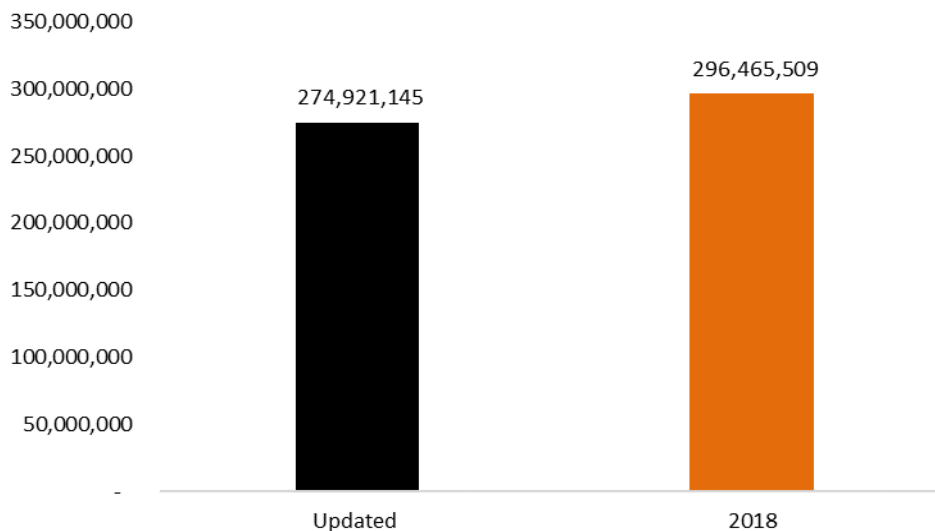
based on dwelling units on each parcel, while STMC and STMU parcels are billed on the amount of gross area of the parcel. The following figures show the updated billing units based on the parcel analysis presented herein against the City’s current billed units (2018). It should be noted that differences between the current billed units and updated figures are to be expected, as a significant amount of time has elapsed since the last full parcel by parcel update of the stormwater billing units.

Figure 3.2 Single-Family (STMS) Dwelling Units Comparison



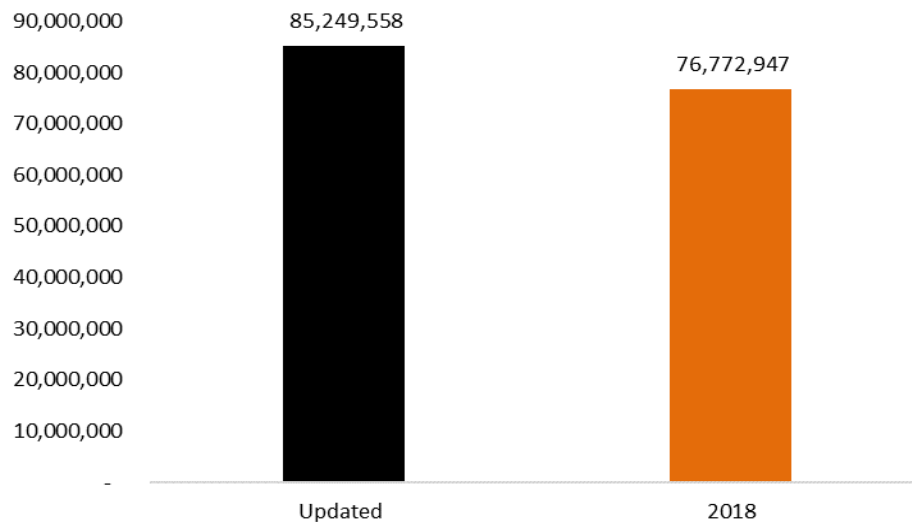
In updating the single-family customer classification, it was revealed that there were 3.1% or 1,306 more dwelling units recorded in the Property Appraisers database than were being billed as of FY 2018.

Figure 3.3 Developed Parcels (STMC) Sq. Ft. of Gross Area Comparison



In updating the STMC customer class, the billable sq. ft. was shown to decrease from 2018 billing levels. This is in large part a result of parcels being placed into customer classes based on the strict definition outlined in the City's current stormwater ordinance as part of this analysis. The updated classifications resulted in several large parcels that are currently being billed as STMC being included in the undeveloped STMU categorization. In total, the customer class's billing units contracted by 7.3% or 21.5 million sq. ft.

Figure 3.4 Undeveloped Parcels (STMU) Sq. Ft. of Gross Area Comparison



With regards to the undeveloped classification of parcels (STMU), the updated database shows that billing units have increased over the 2018 billing data. This was largely driven by the recategorization of multiple parcels from the STMC category to the STMU category for billing purposes, leading to an overall 11% or 8.5 million increase in billable STMU sq. ft.

Measurement of Trip Generation Billing Basis

In addition to the use of net effective impervious area, it has also been recommended that the City, as part of a bifurcated stormwater fee, utilize trip generation rates. Trip generation rates will allow the City to determine the benefit a parcel receives from clear and passable roads, a key benefit of effective stormwater services in the community. No existing measurement of trip generation rates exist for the City. As such, Stantec worked to create a database that contained every parcel in the City and then calculated the parcel's trip generation rates based on the detailed information contained in the Trip Generation Manual 10th Edition from the Institute of Transportation Engineers (ITE). The manual is widely considered the industry standard in estimating trip generation rates for specific parcels and is based on a wealth of observation data collected on individual parcels over a number of years.

For each DOR land use category or code, a trip generation rate was assigned based on the ITE trip manual, and a trip generation driver was determined (most commonly it is the sq. ft. of the building on the parcel or

the number of dwelling units on the parcel). Multiplying the trip generation rate by the trip generation driver yields the estimated number of trips generated for a parcel.

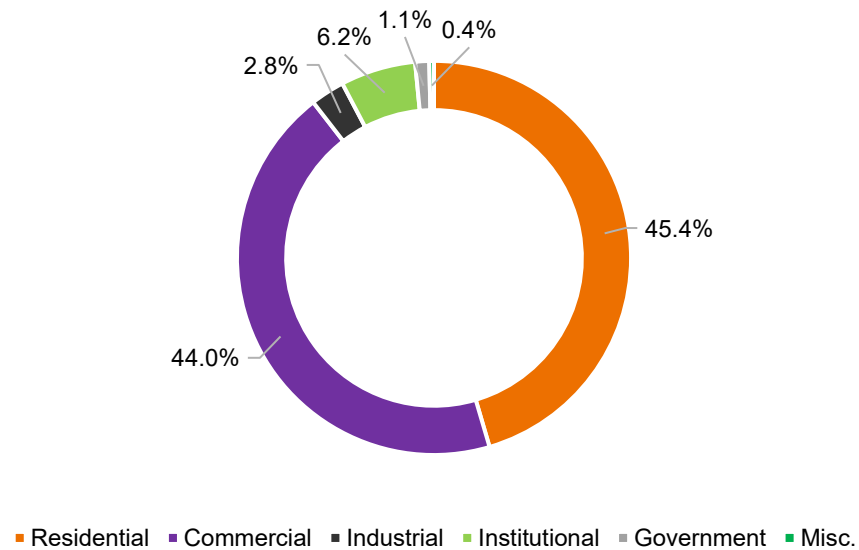
In addition to the core trip generation calculation applicable to all parcels, reasonable adjustments were made in certain cases and are outlined in Table 3.3. These adjustments were made to calibrate the trip generation data to the community-specific parcel data.

- Vacant land was given a trip generation rate of zero as this land use has no ongoing use of the roadway network and the ITE manual has no trip generation rate outlined for vacant land.
- Certain types of land use inclusive of mixed use, department stores and supermarkets have pass by rates applied to their trip generation rates. For example, supermarkets are often an intermediate trip destination, which ITE accounts for in its overall documentation of land uses that have a high proportion of intermediate trip stops. As such, supermarkets are only assigned 34% of the calculated trips to ensure that they are only charged for the estimated number of terminal trips to the parcel.

Table 3.3 Calculation of Trips

DORUSEDDETAILS	Billed Units	Billed SQFT	Trip Gen Type	Trip Generation	Trip Gen (Pass By)	Trip Gen (Effective)	Trips Units	Trips SQFT	Total Trips
00 - Residential - Vacant Residential			Units				-	-	-
01 - Residential - Single Family	36,650		Units	9.44	100%	9.44	345,976	-	345,976
02 - Residential - Mobile Homes	15		Units	5.00	100%	5.00	75	-	75
03 - Residential - Multi-family-10 units or more	15,902		Units	5.44	100%	5.44	86,507	-	86,507
04 - Residential - Condominium	28,048		Units	4.45	100%	4.45	124,814	-	124,814
05 - Residential - Cooperatives	3,988		Units	4.45	100%	4.45	17,747	-	17,747
07 - Residential - Miscellaneous residential (migrant camp, boarding homes, et							-	-	-
08 - Residential - Multi-family – less than 10 units	14,424		Units	7.32	100%	7.32	105,584	-	105,584
09 - Residential - Undefined – reserved for use by department of revenue only							-	-	-
10 - Commercial - Vacant Commercial							-	-	-
11 - Commercial - Stores, 1-story		5,710,518	SQFT	9.74	100%	9.74	-	55,620	55,620
12 - Commercial - Mixed use – store and office or store and residential or resk		2,283,552	SQFT	9.74	36%	3.51	-	8,007	8,007
13 - Commercial - Department Stores		1,301,654	SQFT	22.88	34%	7.78	-	10,126	10,126
14 - Commercial - Supermarkets		348,439	SQFT	106.78	34%	36.31	-	12,650	12,650
15 - Commercial - Regional Shopping Centers		2,079,191	SQFT	37.75	100%	37.75	-	78,489	78,489
16 - Commercial - Community Shopping Centers		1,266,547	SQFT	37.75	100%	37.75	-	47,812	47,812
17 - Commercial - Office buildings, non-professional services, one story		2,467,432	SQFT	9.74	100%	9.74	-	24,033	24,033
18 - Commercial - Office buildings, non-professional services buildings, multi-s		18,650,210	SQFT	9.74	100%	9.74	-	181,653	181,653
19 - Commercial - Professional services building		2,365,865	SQFT	9.74	100%	9.74	-	23,044	23,044
20 - Commercial - Airports (private or commercial), bus terminals, marine terr		1,094,756	SQFT	24.30	100%	24.30	-	26,598	26,598
21 - Commercial - Restaurants, cafeteria		575,524	SQFT	16.97	50%	8.49	-	4,883	4,883
22 - Commercial - Drive-in restaurants		179,884	SQFT	470.95	100%	470.95	-	84,716	84,716
23 - Commercial - Financial institutions (banks, savings & loan companies, moi		170,774	SQFT	100.03	100%	100.03	-	17,083	17,083
26 - Commercial - Service Stations		193,075	SQFT	2.25	100%	2.25	-	434	434
27 - Commercial - Auto sales, repair and storage, auto-service shops, body an		2,356,396	SQFT	16.28	100%	16.28	-	38,362	38,362
28 - Commercial - Parking lots (commercial or patron), mobile home parks							-	-	-
29 - Commercial - Wholesale outlets, produce houses, manufacturing outlets		45,000	SQFT	0.55	100%	0.55	-	25	25
32 - Commercial - Enclosed theatres, enclosed auditoriums		114,852	SQFT	78.09	100%	78.09	-	8,969	8,969
33 - Commercial - Nightclubs, cocktail lounges, bars, yacht clubs, social clubs, i		287,812	SQFT	78.09	100%	78.09	-	22,475	22,475
35 - Commercial - Tourist attractions, permanent exhibits, other entertainmer		8,635	SQFT	3.58	100%	3.58	-	31	31
38 - Commercial - Golf courses, driving ranges		47,286	SQFT	30.38	100%	30.38	-	1,437	1,437
39 - Commercial - Hotels, motels	12,525		Units	1.06	100%	1.06	13,277	-	13,277
40 - Industrial - Vacant Industrial							-	-	-
41 - Industrial - Light manufacturing, small equipment manufacturing plants, si		1,950,783	SQFT	4.96	100%	4.96	-	9,676	9,676
44 - Industrial - Packing plants, fruit & vegetable packing plants, meat packing		28,629	SQFT	4.96	100%	4.96	-	142	142
48 - Industrial - Warehousing, distribution terminals, trucking terminals, van &		18,462,614	SQFT	1.74	100%	1.74	-	32,125	32,125
49 - Industrial - Open storage, new & used bldg supplies, junk yards, auto wrec		31,369	SQFT	1.74	100%	1.74	-	55	55
52 - Agricultural - Cropland soil capability Class II							-	-	-
67 - Agricultural - Poultry, bees, tropical fish, rabbits, etc.							-	-	-
69 - Agricultural - Ornamentals, miscellaneous agricultural							-	-	-
70 - Institutional - Vacant Institutional							-	-	-
71 - Institutional - Churches		3,187,924	SQFT	6.95	100%	6.95	-	22,156	22,156
72 - Institutional - Private Schools and Colleges		2,418,147	SQFT	11.59	100%	11.59	-	28,026	28,026
73 - Institutional - Privately owned hospitals		3,138,252	SQFT	10.72	100%	10.72	-	33,642	33,642
74 - Institutional - Homes for the aged		600,755	SQFT	6.64	100%	6.64	-	3,989	3,989
75 - Institutional - Orphanages, other non profit or charitable services		50,549	SQFT	6.64	100%	6.64	-	336	336
76 - Institutional - Mortuaries, cemeteries, crematoriums		4,262,763	SQFT	0.00	100%	0.00	-	1	1
77 - Institutional - Clubs, lodges, union halls		214,764	SQFT	6.95	100%	6.95	-	1,493	1,493
78 - Institutional - Sanitariums, convalescent and rest homes		329,298	SQFT	6.64	100%	6.64	-	2,187	2,187
79 - Institutional - Cultural organizations, facilities		77,233	SQFT	6.64	100%	6.64	-	513	513
80 - Government - Undefined-Reserved for future use							-	-	-
82 - Government - Forest, parks recreational areas		25,292,773	SQFT	0.00	100%	0.00	-	0	0
83 - Government - Public county schools – includes all property of board of pu		-	SQFT	20.17	100%	20.17	-	-	-
85 - Government - Hospitals		46,531	SQFT	10.72	100%	10.72	-	499	499
86 - Government - Counties (other than public schools, colleges, hospitals) incl		437,565	SQFT	9.74	100%	9.74	-	4,262	4,262
87 - Government - State other than military, forests, parks, recreational areas		240,273	SQFT	9.74	100%	9.74	-	2,340	2,340
88 - Government - Federal other than military, forests, parks, recreational are		8,419	SQFT	9.74	100%	9.74	-	82	82
89 - Government - Municipal other than parks, recreational areas, colleges, hc		1,027,866	SQFT	9.74	100%	9.74	-	10,011	10,011
91 - Miscellaneous - Utility, gas & electricity, telephone & telegraph, locally as		403,133	SQFT	13.24	100%	13.24	-	5,337	5,337
94 - Miscellaneous - Right-of-way, streets, roads, irrigation channel, ditch, etc.							-	-	-
95 - Miscellaneous - Rivers and lakes, submerged lands							-	-	-
96 - Miscellaneous - Sewage disposal, solid waste, borrow pits, drainage resen							-	-	-
98 - Centrally Assessed - Centrally assessed		44,909	SQFT	9.74	100%	9.74	-	437	437
							693,978	803,756	1,497,735

After applying the trip generation rates to the trip demand factors by land use category, it was possible to calculate the estimated total number of trips contained within the City’s boundaries within a day at peak trip times, which is 1,497,735 trips. Importantly, the distribution of trip generation within the City is a more meaningful metric that assists in understanding who benefits from using the roadway networks when they are clear and passable. Figure 3.4 displays the relative contribution of trips generated by the five major land use categories. Notably, residential and commercial land uses are representative of 89% of all trips and are roughly split in half in terms their respective contributions.

Figure 3.4 Distribution of Trips

3.4 COST OF SERVICE

The preceding sections of this Study detailed the derivation of billing units from both the conventional and currently used net effective impervious area basis as well as the new billing basis which uses trip generation rates. Whenever a bifurcated fee basis is used, it fundamentally requires an allocation process to occur, which defines how much revenue will be recovered from each fee basis. The most appropriate method to determine these allocations is within a detailed cost allocation analysis that carefully considers the Utility's functions and then allocates revenue requirements to the fee structure in alignment with those functions.

Stormwater services in the City are provided through two primary service functions, water quantity and water quality. The water quantity function is concerned with flood management and ensuring that the stormwater system can collect, transport, and deposit stormwater into receiving bodies efficiently. In addition to managing quantity, the Utility works to reduce the pollutant loading of the waters transported through its systems to local water bodies. Such activities are commonly referred to as quality related. From a fee making perspective, the compartmentalization of cost into these two key service delivery mechanisms provides an ideal separation that can be leveraged to develop the basis for the fee structure.

In the City's case, the current annual operational and capital costs of the Utility are not clearly separated between quantity and quality in the standard operating budget detail. As such, a cost of service analysis was used in order to provide a current snapshot of stormwater activities and assign the current budget allocations to quantity and/or quality activities.

The cost of service analysis was initiated by first choosing a test year for analysis. A test year is simply a representative fiscal year used to examine system expenditures and split costs into the quality and quantity components. Given the planned capital expenditures for the Utility in the near future, FY 2021 was chosen

as the test year for analysis. A custom financial model was then populated using the FY 2021 revenue requirements in line item detail as forecasted in the FSA. Next, an interactive work session was conducted with City staff in order to gain operational insights and further support the cost allocation decisions. Stormwater staff provided valuable insights resulting in the allocation of quality and quantity budget portions, the results of which are shown in Table 3.4.

Table 3.4 Cost Allocation Summary

Description	FY 21 Test Year Cost	Quality Portion	Quantity Portion
Stormwater Repair	\$2,337,883	\$0	\$2,337,883
Stormwater General Expenditures	2,128,705	834,164	1,294,541
Stormwater Insurance	241,465	94,622	146,843
Stormwater Watershed Asset Mgmt.	2,129,116	1,515,036	614,080
Swale Cutback	929,196	573,445	355,751
Storm Drain Maintenance	3,587,834	1,435,133	2,152,701
Debt Service	12,789,668	712,337	12,077,331
Bond Coverage Expense ³	924,390	51,485	872,905
Cash Funded Capital	4,297,025	674,334	3,622,691
Transfer to Special Obligation Bonds	226,715	88,842	137,873
Total	\$29,591,997	\$5,979,398	\$23,612,599
<i>% Allocation</i>		20.21%	79.79%

The results of the cost of service analysis, illuminate that in FY 2021, approximately 20% of expenditures were related to water quality activities, while 80% of expenditures were associated with the quantity of stormwater. These results provide a basis for cost apportionment between the stormwater billing basis, as described in the fee design section (Section 3.5) of this report.

3.5 STORMWATER FEE DESIGN

This section of the report examines the mechanics of creating a bifurcated stormwater fee and calculates the level of fees for FY 2021. The revenue requirement of the Utility as identified in Section 2 serves as the target level of revenue generation, while the billing units measured for the net effective impervious area and trip generation rate will serve to distribute the revenue requirement to individual parcels consistent with the cost of service analysis results presented in Section 3.4.

³ Bond coverage expense for FY 2021 represents the additional revenue requirement of the Utility to meet its target senior debt service coverage ratio of 1.50, per discussions with City Staff.

Revenue Requirement

The operational revenue requirement is simply the amount of money that the Utility needs in FY 2021 to cover its expected operating and capital costs. For the purposes of calculating fees, assumptions related to additional costs of collecting the revenue requirement have been added to arrive at the total fee revenue requirement as shown in Table 3.4, assuming the City avails itself of using the non-ad valorem method of collection. Section 5 of this report details the collection methods available to the City, contrasts the benefits, and concludes by recommending the non-ad valorem method of collection. Additional cost assumptions related to collecting the total revenue requirement includes the pre-payment discount, which is assumed at 3% of the operational revenue requirement and accounts for the fact that most fee payers will pay their tax bills early, receiving a discount. Additionally, a standard tax collector fee of 2% of the operational revenue requirement was added to account for the cost of administering the fee through the non-ad valorem method. Finally, 1% of the operational revenue requirement has been added to account for non-payment issues that may arise. The summation of the four components of the stormwater fee revenue requirement yields a total revenue requirement of approximately \$31.4 million for FY 2021.

Table 3.5 Fee Revenue Requirement

Fee Revenue Components	FY 2021 Amount
Operational Revenue Requirement	\$29,591,997
Pre-Payment Discount	887,760
Tax Collector Fee	591,840
Non-Collection Contingency	295,920
Total Fee Revenue Requirement	\$31,367,517

The next step in the analysis was to attach the stormwater billing bases to the total fee revenue requirement using the findings from the cost of service analysis performed on the Stormwater Utility for test year FY 2021. This analysis illuminated the fact that the Utility spends approximately 20% of its budget activities on stormwater quality and 80% on stormwater quantity.

Net effective impervious area is by its nature a measurement concerned with identifying the stormwater generation of a parcel. As such, it is recommended that stormwater quantity related costs be attached to the net effective impervious area portion of the stormwater fee basis. Doing so recognizes the strong relationship between the cost the Utility incurs in managing runoff from parcels generating the runoff.

The remaining 20% of the Utility's total fee revenue requirement are associated with water quality activities. Much of the City's stormwater quality impairment comes from debris accumulated in the roadways and consequently many of the City's quality activities take place adjacent to the roadway network. In addition, the Utility funds street sweeping, a critical water quality service that is performed in the roadway. As such,

it is recommended that stormwater quality related costs be attached to the trip generation portion of the stormwater fee basis. Doing so recognizes the relationship that exists between the cost the Utility incurs in managing water quality in and adjacent to roadways with the use of those roadways.

Table 3.6 Revenue Requirement

Fee Revenue Components	FY 2021 Amount	Proportion
Total Fee Revenue Requirement	\$31,367,517	100%
Net Effective Impervious Area	25,094,014	80%
Trip Generation	\$6,273,503	20%

Calculation of Net Effective Impervious Fees

With a revenue target established for the net effective impervious area portion of the stormwater fee, the annual fees for FY 2021 can be calculated to capture the correct amount of revenue based on the amount of billable net impervious area in the service area. The first step is to further allocate the revenue requirement between the stormwater fee customer classifications. The customer classes include single-family homes with 3 dwelling units or less (STMS), all other developed parcels (STMC), and undeveloped parcels (STMU). The measurement of net effective impervious area for each customer class is used to proportionately distribute the net effective impervious area component of the revenue requirement. This process is shown in Table 3.7. Upon distributing this portion of the revenue requirement to each customer class, fees are then calculated using defined billing units for each class. Single-family (STMS) homes are billed by dwelling units, whereas developed and undeveloped land are billed per acre of gross parcel area.

Table 3.7 FY 2021 Net Effective Impervious Area Revenue Distribution

Customer Class	NEI (Acres)	Proportion ⁴	Revenue Requirement
Single-Family (STMS)	2,242	38.4%	\$9,638,642
Developed Parcels (STMC)	3,337	57.2%	14,345,721
Undeveloped Parcels	258	4.4%	1,109,651
Total	5,837	100%	\$25,094,014

⁴ Rounded, actual calculations use exact sq. ft. and proportions.

Table 3.8 FY 2021 Net Effective Impervious Area Fee Calculation

Customer Class	Revenue Requirement	Billing Unit (Gross Acres)	Billing Unit (Dwelling Unit)	FY 2021 Annual Fee ⁵
Single-Family (STMS)	\$9,638,642		44,070	\$218.71/Dwelling Unit
Developed Parcels (STMC)	\$14,345,721	6,311		\$2,273.01/Per Acre
Undeveloped Parcels (STMS)	\$1,109,651	1,957		\$567.00/Per Acre

Calculation of Trip Generation Fees

For the second component of the bifurcated fee structure, a similar process to the net effective impervious area fee calculation is required. The identified portion of the revenue requirement of approximately \$6.3 million for trip generation-based rates is divided by the total number of trips in the service area to determine the annual fee per trip that would be applied to the number of calculated trips for each parcel.

Table 3.9 FY 2021 Trip Generation Fee Calculation

	Revenue Requirement	Billing Unit (Trips)	FY 2021 Annual Fee ⁶
Trip Generation Fee	\$6,273,503	1,497,735	\$4.19/Per Trip

Bifurcated Fee Structure Construction

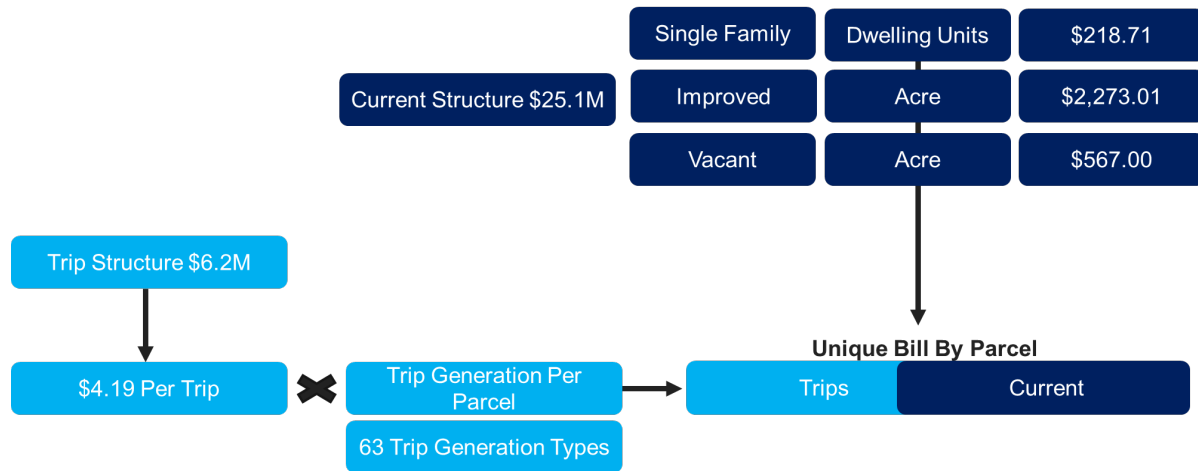
Now that both the net impervious area fee and trip generation fee have been calculated, they can be harmonized into a cohesive framework for assessing stormwater fees within the City of Fort Lauderdale. Figure 3.6 demonstrates the fee decision tree that results in a specific parcel's stormwater fee based on the parcel development characteristics and the calculated fee levels. With regards to the net effective impervious area portion of the fee, a parcel is placed into one of three customer categories, which exist currently in the City, and then charged according to the relevant billing unit and fee per billing unit. The trip generation fee is determined by calculating the trip generation potential of the parcel according to DOR land use and the magnitude of trip drivers on the parcel (sq. ft., dwelling units, etc.) multiplied by the fee

⁵ Calculation shown with rounded figures, while the fees use exact parameters.

⁶ Calculation shown with rounded figures, while the fees use exact parameters.

per trip generated. The resulting summation of the net effective impervious fee and the trip generation-based fee results in a parcel-specific annual stormwater fee.

Figure 3.6 Bifurcated Fee Structure



Special Parcel Considerations

There are parcels located within the City that require special considerations when it comes to stormwater billing. These specific categories of parcels are defined and outlined below.

- **Exempt** – These parcels were not included in the apportionment of the stormwater revenue requirement and were not included on the assessment roll. The basis for the categories of parcels included in the exempt property class include the following:
 - Public roads and rights-of-way: These properties serve as key components of the stormwater system.
 - Certain educational establishments have been determined to have sovereign immunity with regards to stormwater fees per legal precedent.
 - Bona-fide agricultural operations: Florida statute exempts these properties from stormwater charges

The properties included in the exempt property class are customarily considered exempt from a stormwater assessment by most communities across the country for similar reasons listed above.

- **Excluded** – Parcels with governmental ownership (these parcels were included in the allocation of the stormwater revenue requirement but were excluded from the assessment roll as they do not receive a tax bill). The total assessment amount for these parcels was calculated and is presented in this study. The City should evaluate its options with regards to revenue recovery goals for these parcels and determine a policy for this property class.

4. PARCEL BILL CHANGES

Understanding the customer impacts associated with the changes and modifications described herein will be critical to successful implementation. The modifications presented in the preceding sections will impact customer bills in several ways. First, the measured billing units for the net effective impervious area portion of the stormwater fee were updated to reflect the most currently available property appraiser data. For a large portion of the parcels in the City, this will result in a lower or higher number of billed units than had been applied before, as a significant amount of time had elapsed since the last full update of the billing units from the property appraiser data in the City’s billing system. Secondly, the addition of the trip generation fee structure will result in the recognition of vertical development and high trip generating parcels within the City in the form of a higher fee than has previously been billed. Finally, and most consequential for the service area as a whole is the need for more revenue in FY 2021 as defined in the Financial Sustainability Analysis, indicating the need for a 54% increase in revenues as compared to FY 2020 levels.

The following explanatory bill impacts have been generated in order to provide illustrative examples of how customers will be impacted. Importantly, given the recommended change from the current utility billing to the non-ad valorem method of collection analyzed in the next section, it is difficult to get an apples to apples comparison of bill impacts for every single parcel as would be desired due to the change in ultimate recipient of the stormwater fee and aggregation of parcels/accounts. In order to assist in understanding the full breadth of customer impacts, fee distributions have also been included for the major parcel land uses and display 99% of all stormwater fees calculated for FY 2021. These fee distributions illuminate the clustering of fees and most common fees assessed to parcels in the service area.

Figure 4.1 Single-Family Stormwater Fee Change

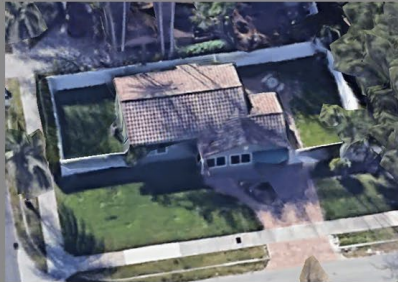
Single Family Home (1 Dwelling Unit)	Annual	Monthly
 <p>Current:</p>	\$168.00	\$14.00
Calculated:	\$258.26	\$21.52
Change:	\$90.26	\$7.52

Figure 4.2 Condo Stormwater Fee Change

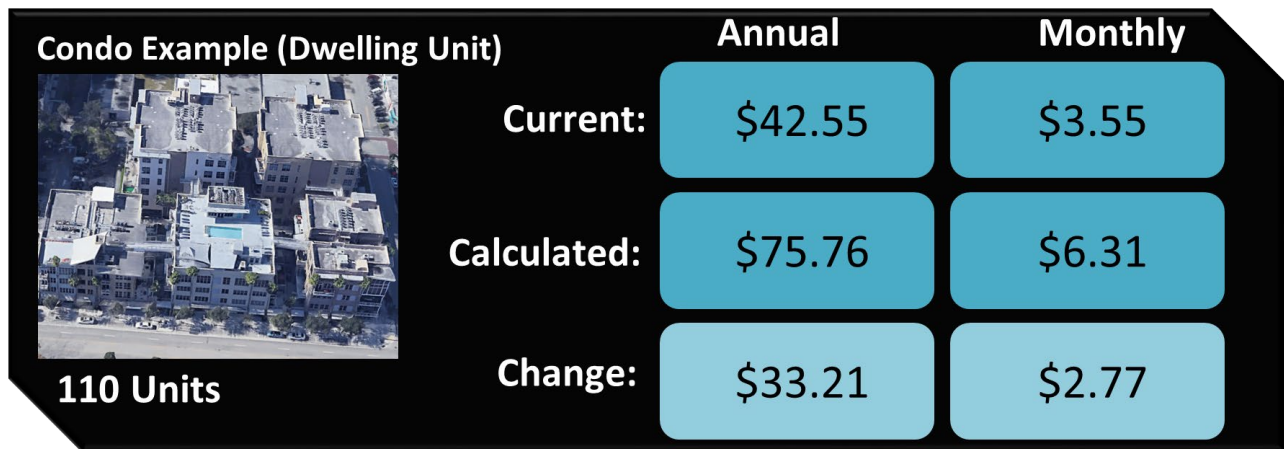


Figure 4.3 Institutional Stormwater Fee Change

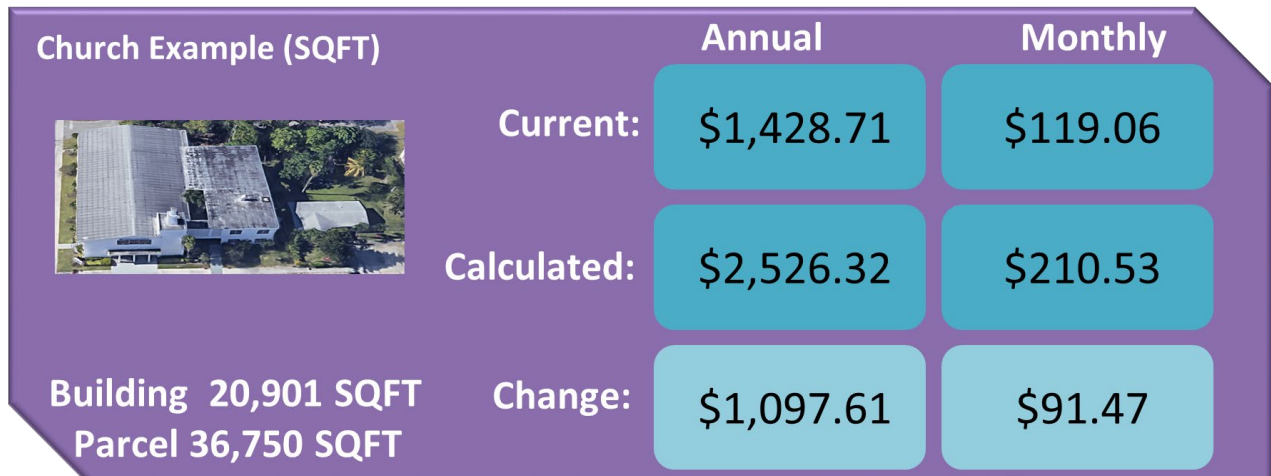
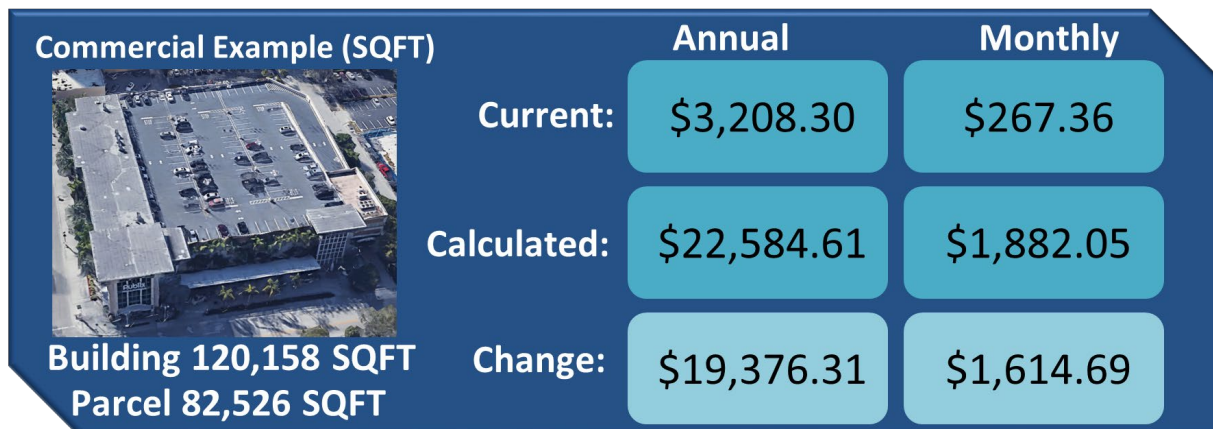


Figure 4.4 Commercial Stormwater Fee Change

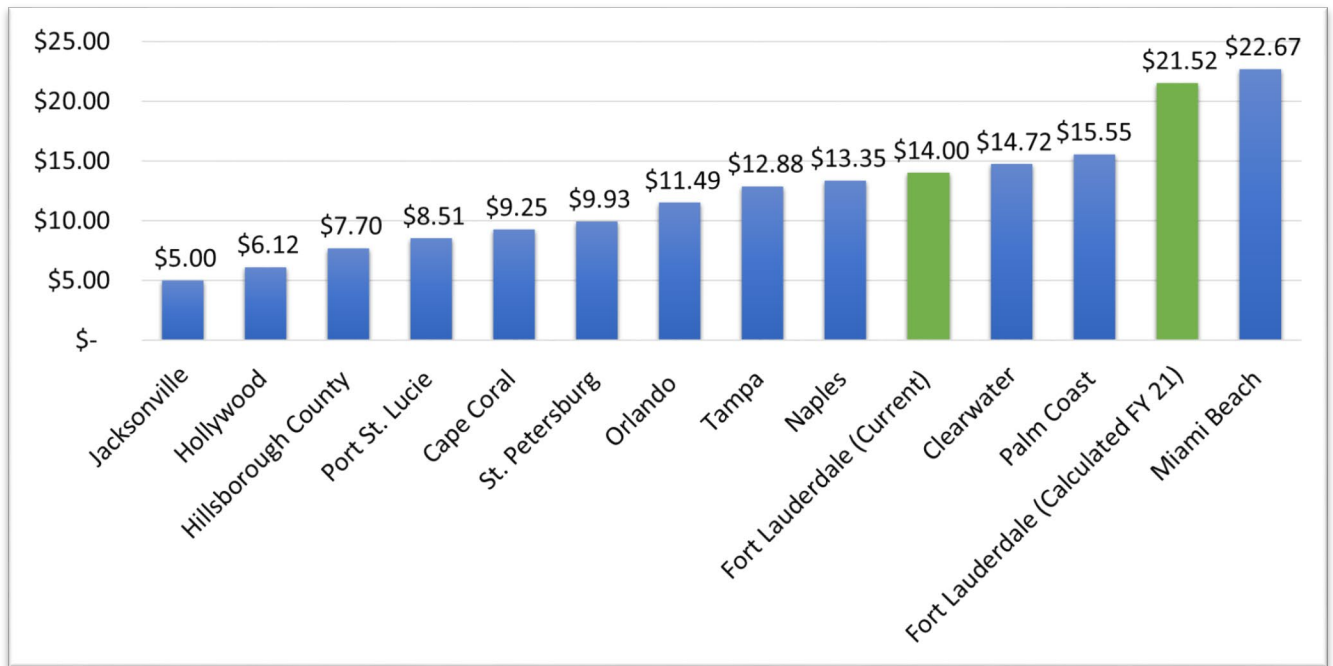


4.1 MUNICIPAL STORMWATER FEE COMPARISON

There are currently approximately 180 communities in Florida with stormwater utilities. To provide insight into how stormwater assessment/utility fees from comparable and local communities align with the fees calculated in this study, a local benchmarking comparison was developed. Figure 4.5 presents a comparison of the annual stormwater assessments/fees for local utilities as of November 2019.

Observationally, coastal municipalities that have similar challenges as the City of Fort Lauderdale tend to have higher fees and cluster to the right side of the survey. From an industry perspective, Stantec has noted a significant amount of upward pressure on stormwater fees that will likely result in the continued upward movements of other peer communities over time, much like what the City is experiencing now.

Figure 4.5 Monthly Single-Family Stormwater Fee Benchmarking Comparison



5. STORMWATER COLLECTION

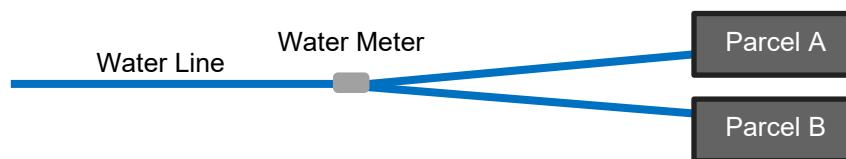
5.1 STORMWATER COLLECTION METHODOLOGY EVALUATION

Stormwater revenues are collected from the customers and ultimate beneficiaries of a stormwater system through two standard methods: monthly utility bills or annual non-ad valorem property assessments. The City currently uses the utility billing method and has expressed concerns with regards to managing the required database needed to administer this method. Stantec reviewed the two methods and has developed the following findings and recommendations.

Utility Billing Method

This form of billing primarily relies on the existing utility billing infrastructure for water and sewer service in order to bill for stormwater service. For rural and/or communities with a simple flat fee for stormwater, this method can be appropriate and easy to administer with the level of the fee adjusted by the City in a relatively short timeframe. However, the City of Fort Lauderdale is a dense urban service area, which makes utility billing method less than optimal for the collection of stormwater fee revenue for numerous reasons. Utilizing the utility billing method requires that utility billing accounts are mapped to the underlying parcels being served by account. While simple in the case of one utility account to one parcel, there are often cases in which one utility account services multiple parcels. This dynamic is shown simplistically in Figure 5.1 below, in which one utility account and meter is serving two billable stormwater parcels. In practice, there are often very complex utility account to parcel relationships that can change over time. Without a significant amount of administrative resources, the accuracy of the relationship between utility accounts and parcels is often hard to maintain. As parcels are developed or existing parcels are split, the connection between utility accounts and parcels is altered and must be updated to maintain an accurate database. For these reasons, we recommend that the City no longer use the utility account as a means for billing and collecting stormwater fees.

Figure 5.1 Utility Billing Account to Parcel Example



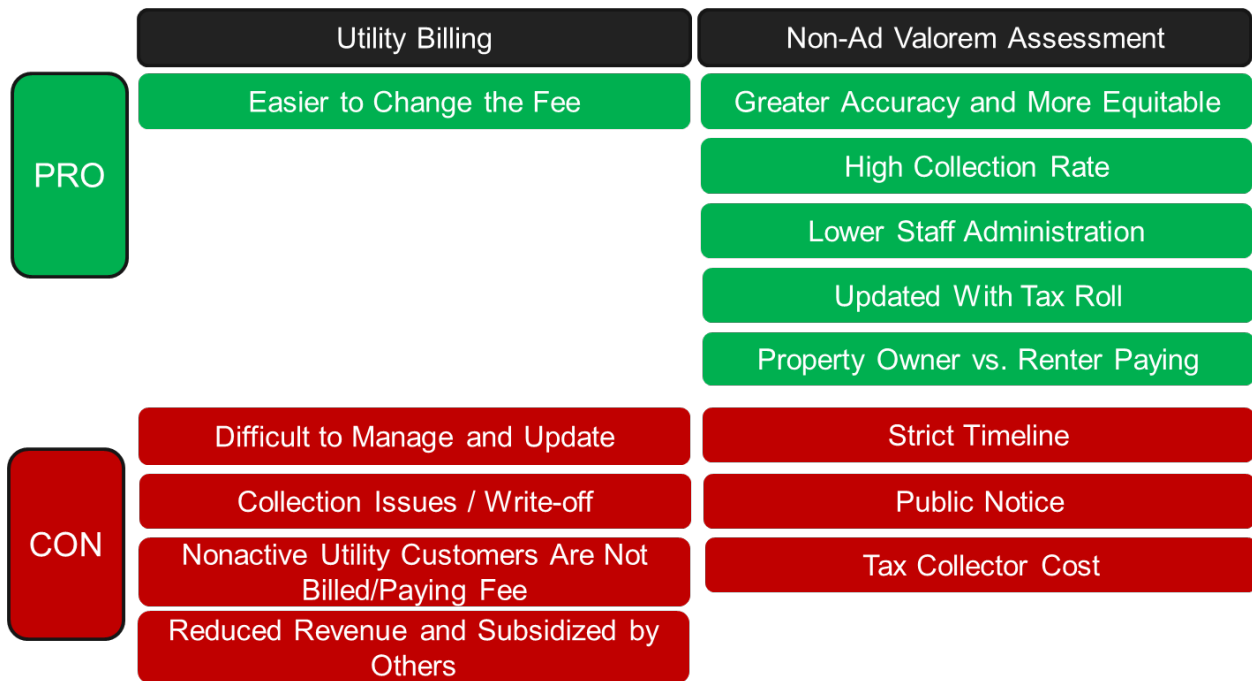
Non-Ad Valorem Assessment Method

Alternatively, the stormwater revenue requirements can be assessed to property owners directly through a non-ad valorem assessment (FS 197.3632) on the annual property tax bill. In doing so, this method eliminates the need to create utility billing account matches and additionally results in high revenue remittance rates, solving the primary deficiencies that arise in the City of Fort Lauderdale when using the utility billing method. For these reasons, it is recommended that the City switch billing methods to the non-

ad valorem process. While this approach is recommended, there are a few issues that should be recognized. The primary drawbacks to this method arise in the form of strict timelines for the submission of the assessment roll to the tax collector and the cost incurred in collection fees from the tax collector.

The full list of the pros and cons for the two methods considered in the Study are shown in Figure 5.2.

Figure 5.2 Billing Collection Method Comparison



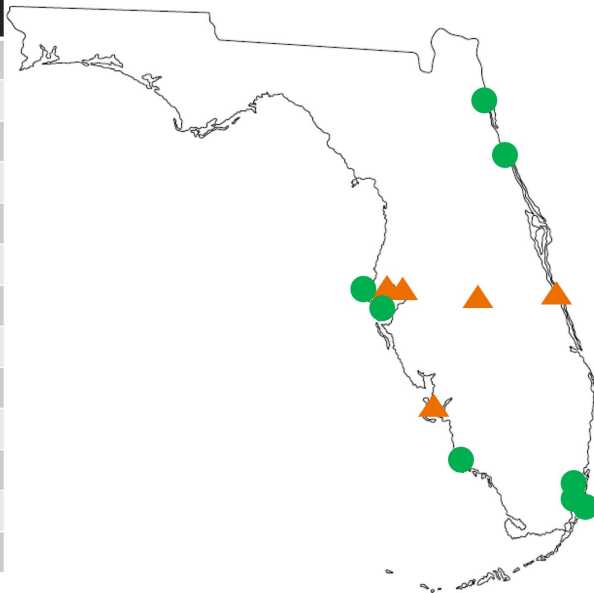
Based upon interaction with the City’s Commission, the City has accepted the recommendation to implement a non-ad valorem stormwater assessment and has directed that this Study develop such an assessment program for implementation in FY 2021. As such, the development of stormwater assessment fees and the final assessment roll reflect this assumption. The assessment roll should be updated each year with the most current parcel listing for the service area.

5.2 STORMWATER COLLECTION PEER COMPARISON

As part of the analysis, a local benchmarking comparison was developed to compare the stormwater revenue collection methodology employed by other local communities. Table 5.1 provides a summary comparison between local communities that utilize a non-ad valorem assessment collection methodology and those that charge a fee for stormwater services on the utility bill. Through Stantec’s state and national experience, a movement from changing the collection method from the utility bill to an annual assessment has been observed and is expected to continue as communities realize the benefits of an annual assessment.

Table 5.1 Stormwater Revenue Collection Methodology Comparison

Utility	Assessment ▲	Utility Bill ●
Fort Lauderdale		X
Tampa	X	
St. Petersburg		X
Miami Beach		X
Palm Coast		X
City of Jacksonville		X
Hollywood		X
Cape Coral	X	
Hillsborough County	X	
Port St. Lucie	X	
Orlando	X	
Clearwater		X
Naples		X



5.3 FINDING OF BENEFIT

Per Florida Statute 170.201 Non-ad valorem assessments in the State of Florida must meet a two-pronged test. The first prong of the test is that the service being assessed must provide a special benefit to the properties being assessed. The second prong of the test is that the assessments must be fairly and reasonably apportioned to the parcels being assessed and the benefits to the parcels must equal to or exceed the assessment.

5.3.1 Special Benefit – The First Requirement

Stormwater management efforts are fundamentally concerned with the systematic management of stormwater runoff in the community, which are primarily driven through the quantity and quality of stormwater delivered to the municipal system. Properties within the City receive a special benefit from the stormwater services provided through annual operation, maintenance, and repairs of the Utility.

The City of Fort Lauderdale’s stormwater system serves the property base of the community by receiving runoff from developed parcels and the roadway network during storm events, performing water quality activities, and conveying the stormwater to receiving bodies. This critical function provides for the protection of property during adverse storm events that can cause flooding and maintains clear and passable roads so that parcels are both accessible and usable. All of this results in enhanced property and rental value, marketability, and integrity of the property.

Therefore, the first requirement is met because each property burdened by the assessment will receive a special benefit from the stormwater service provided by the City that exceeds the cost of the assessment.

5.3.2 Fair and Reasonable Apportionment – The Second Requirement

In considering the assessment methodology, the second requirement is that the costs must be fairly and reasonably apportioned among the properties that receive the special benefit so that no property is paying more than the benefit received. The stormwater assessment for a property is based on the estimated stormwater generated on the parcel through the net impervious area basis and benefit of clear and passable roads as result of the specific characteristics of the property (i.e. impervious surface and DOR land use), and therefore, the second requirement is met because the assessment is fairly and reasonably apportioned through a detailed methodology to parcels receiving benefit from the stormwater system. Section 3 of this report summarizes the apportionment methodology used to create the assessment and describes the billing basis of the assessment program.

6. STUDY RECOMMENDATIONS

Stantec has completed detailed analyses for the City of Fort Lauderdale regarding revenue sufficiency, cost of service, stormwater fee structure modifications, and fee collection method. The preceding sections provide the details of the analysis that was performed for each component of this study. Based upon the analysis presented herein, Stantec offers the following recommendations:

FINANCIAL SUSTAINABILITY ANALYSIS

- The City should consider adjustments to the level of stormwater fee revenues in the future such that fees can sufficiently provide for the long-term sustainability of the Utility. Based on the needs of the Utility as identified herein, an adjustment of 54% on the stormwater user fee revenues commencing in FY 2021 and 3% annual increases continuing thereafter will provide the needed revenues levels to support the Utility for the next 5 years.

STORMWATER FEE MODIFICATIONS

- The City should consider the use of a bifurcated stormwater fee that would charge parcels based on their net effective impervious area and trip generation potential, the combination of which will assign the annual cost of stormwater services based on the benefits received, namely the protection of property from flooding and clear & passable roads allowing ingress and egress to property.
- Based on a detailed cost allocation of stormwater expenses, the City should consider recovering 80% of the annual revenue requirements of the Utility on net impervious area basis and the remaining 20% on the trip generation basis. Doing so aligns the allocations of cost consistent with the functions of the Utility and benefit derived by properties therefrom.

STORMWATER FEE COLLECTION METHODOLOGY

- The City currently bills stormwater fees on a monthly utility bill with water and sewer services. After a careful review of the City's current practices, Stantec has recommended that the City utilize the non-ad valorem special assessment method to collect stormwater fees. Doing so will allow the City to recognize significant benefits, including removing the administrative complexity of matching parcels and utility accounts, greater transparency and higher collection rates.

IMPLEMENTATION CONSIDERATIONS

- This report provides the framework and methodology for adjusting the City's stormwater user fees to provide for the continued sustainability of stormwater operations. The recommendations herein are expected to be considered by the City's Commission and upon approval would go into effect in November of 2020. The fee calculations provided herein will apply (if approved) to the property appraisals for the FY 2021 certified roll. This may result in slightly more or less revenue than anticipated as the property base characteristics can change from one year to the next, although changes are expected to be minor in comparison to the entire property base.

Disclaimer

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Additionally, the purpose of this document is to summarize Stantec’s analysis and findings related to this project, and it is not intended to address all aspects that may surround the subject area. Therefore, this document may have limitations, assumptions, or reliances on data that are not readily apparent on the face of it. Moreover, the reader should understand that Stantec was called on to provide judgments on a variety of critical factors which are incapable of precise measurement. As such, the use of this document and its findings by the City should only occur after consultation with Stantec, and any use of this document and findings by any other person is done so entirely at their own risk.

APPENDIX A: FINANCIAL SUSTAINABILITY ANALYSIS SUPPORTING SCHEDULES

Schedule 1 - Assumptions

Schedule 2 - Beginning Balances

Schedule 3 - Cash In

Schedule 4 - Cash Out

Schedule 5 - Cost Escalation Factors

Schedule 6 - Capital Improvement Program

Schedule 7 - FAMS Control Panel

Schedule 8 - Forecast of Net Revenues and Debt Service Coverage

Schedule 9 - Capital Projects Funding Summary

Schedule 10 - Detailed Funding

Schedule 11 - Senior Lien Borrowing Projection

Assumptions

Schedule 1

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Rate Increase Adoption Date	10/1/2018	10/1/2019	10/1/2020	10/1/2021	10/1/2022	10/1/2023	10/1/2024	10/1/2025	10/1/2026	10/1/2027	10/1/2028
Annual Growth (1)											
Residential Lots/Parcels											
Ending # of ERCs	42,769	40,687	40,876	41,065	41,254	41,443	41,632	41,821	42,010	42,199	42,389
ERC Growth	N/A	(2,082)	189	189	189	189	189	189	189	189	190
% Change in ERCs	N/A	-4.87%	0.46%	0.46%	0.46%	0.46%	0.46%	0.45%	0.45%	0.45%	0.45%
Commercial Lots/Parcels											
Ending # of ERCs	7,081	6,736	6,745	6,754	6,763	6,772	6,781	6,790	6,799	6,808	6,818
ERC Growth	N/A	(345)	9	9	9	9	9	9	9	9	10
% Change in ERCs	N/A	-4.87%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.15%
Unimproved Land											
Ending # of ERCs	1,737	1,652	1,633	1,614	1,595	1,576	1,557	1,538	1,519	1,500	1,481
ERC Growth	N/A	(85)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
% Change in ERCs	N/A	-4.87%	-1.18%	-1.16%	-1.18%	-1.19%	-1.21%	-1.22%	-1.24%	-1.25%	-1.27%
Capital Spending											
Annual Capital Budget (Future Year Dollars)	\$ 3,927,221	\$ 72,516,311	\$ 137,906,597	\$ 4,292,810	\$ 4,132,584	\$ 4,529,329	\$ 4,233,378	\$ 243,170,839	\$ 4,491,191	\$ 4,625,927	\$ 4,764,704
Annual Percent Executed	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Average Annual Interest Earnings Rate											
On Fund Balances	1.93%	1.30%	1.75%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Operating Budget Reserve											
Target (Number of Months of Reserve)	1.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Operating Budget Execution Percentage											
Personal Services	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Operations and Maintenance	95%	100%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Capital Outlay	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

(1) Change in ERC in FY 2020 are reflective of a baselining to budget

FY 2019 Beginning Balances as of 10/1/2018

Schedule 2

	Revenue Fund	
Current Unrestricted Assets		
Cash and Cash Equivalents	\$	12,054,927
Receivables:		2,031,427
Due from Other Governments		36,109
Total Assets	\$	14,122,463
Current Liabilities		
Accounts and Contracts Payable	\$	(296,163)
Unearned Revenues		(569,604)
Other Accrued Liabilities		(32,853)
CALCULATED FUND BALANCE (ASSETS - LIABILITIES)	\$	13,223,843
Plus/(Less): Unencumbered Balances on Projects		(5,184,018)
Plus/(Less): Encumbered Balances on Projects		(1,420,607)
Plus/(Less): Operating Encumbrances		(1,444,432)
NET UNRESTRICTED FUND BALANCE	\$	5,174,786
Available Fund Balance	\$	5,174,786

Projection of Cash Inflows

Schedule 3

	FY 2019	FY 2020 ¹	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
1 Rate Revenue Growth Assumptions											
2 Residential Lots/Parcels											
3 % Change in Revenue	N/A	-4.87%	0.46%	0.46%	0.46%	0.46%	0.46%	0.45%	0.45%	0.45%	0.45%
4 Commercial Lots/Parcels											
5 % Change in Revenue	N/A	-4.87%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.15%
6 Unimproved Land											
7 % Change in Revenue	N/A	-4.87%	-1.18%	-1.16%	-1.18%	-1.19%	-1.21%	-1.22%	-1.24%	-1.25%	-1.27%
8 Assumed Rate Revenue Increases											
9 Assumed Residential Lots/Parcels Rate Increase	N/A	16.67%	54.00%	3.00%	3.00%	3.00%	3.00%	65.00%	3.00%	3.00%	3.00%
10 Assumed Commercial Lots/Parcels Rate Increase	N/A	16.67%	54.00%	3.00%	3.00%	3.00%	3.00%	65.00%	3.00%	3.00%	3.00%
11 Assumed Unimproved Land Rate Increase	N/A	16.67%	54.00%	3.00%	3.00%	3.00%	3.00%	65.00%	3.00%	3.00%	3.00%
12 Stormwater Rate Revenue											
13 Residential Lots/Parcels Revenue	\$ 6,174,208	\$ 6,852,701	\$ 10,602,181	\$ 10,970,739	\$ 11,351,868	\$ 11,745,992	\$ 12,153,546	\$ 20,144,389	\$ 20,842,489	\$ 21,564,346	\$ 22,311,282
14 Commercial Lots/Parcels Revenue	10,304,399	11,436,765	17,636,150	18,189,472	18,760,122	19,348,640	19,955,585	32,970,417	34,004,542	35,071,041	36,176,232
15 Unimproved Land Revenue	801,392	889,459	1,353,666	1,378,053	1,402,686	1,427,556	1,452,656	2,367,633	2,408,536	2,449,762	2,491,293
16 Total Stormwater Rate Revenue	\$ 17,280,000	\$ 19,178,924	\$ 29,591,997	\$ 30,538,265	\$ 31,514,676	\$ 32,522,188	\$ 33,561,787	\$ 55,482,439	\$ 57,255,567	\$ 59,085,149	\$ 60,978,808
17 Other Operating Revenue											
18 WRITE OFF RECOVERIES	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000
19 P/W/OTHER-INTERFUND SVC CHG	30,000	-	-	-	-	-	-	-	-	-	-
20 P/W/OTHER-INTERFUND SVC CHG	50,000	-	-	-	-	-	-	-	-	-	-
21 P/W/OTHER-INTERFUND SVC CHG	20,000	-	-	-	-	-	-	-	-	-	-
22 OTHER INCOME (PENALTY CHARGES)	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000
23 ENGINEERING-INTERFUND SVC CHG	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
24 Total Other Operating Revenue	\$ 360,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000
25 Interest Income											
26 Unrestricted	\$ 142,648	\$ 130,913	\$ 237,870	\$ 353,368	\$ 385,492	\$ 407,311	\$ 434,949	\$ 576,490	\$ 788,693	\$ 972,711	\$ 1,173,844
27 Restricted	-	27,853	149,469	255,793	255,793	255,793	255,793	405,554	555,314	555,314	555,314
28 Total Interest Income	\$ 142,648	\$ 158,766	\$ 387,340	\$ 609,161	\$ 641,285	\$ 663,104	\$ 690,742	\$ 982,044	\$ 1,344,006	\$ 1,528,024	\$ 1,729,158
29 Total Cash Inflows	\$ 17,782,648	\$ 19,597,690	\$ 30,239,337	\$ 31,407,426	\$ 32,415,962	\$ 33,445,292	\$ 34,512,529	\$ 56,724,482	\$ 58,859,573	\$ 60,873,173	\$ 62,967,965

¹ Negative growth in FY 2020 of -4.87% represents a calibration of calculated revenues to the City's budgeted revenues. The assumed rate increase of 16.67% represents the City's proposed adjustment to rates for FY 2020 (\$12.00 to \$14.00 a month per single family residential).

Projection of Cash Outflows

Schedule 4

Index	Subobject	Expense Line Item	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
188		Expense Execution Factors											
189		Personal Services	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
190		Operations & Maintenance	95%	100%	95%	95%	95%	95%	95%	95%	95%	95%	95%
191		Capital Outlay	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
192		Total Expenses at Execution											
193		Personal Services	\$ 3,182,679	\$ 3,724,297	\$ 3,924,732	\$ 4,136,139	\$ 4,359,121	\$ 4,594,314	\$ 4,842,388	\$ 5,104,049	\$ 5,380,045	\$ 5,671,161	\$ 5,978,229
194		Operations & Maintenance	5,605,329	6,606,896	6,767,797	7,501,337	8,235,185	8,977,067	9,722,354	10,471,200	11,223,763	11,980,214	12,740,702
195		Capital Outlay	421,342	1,073,719	661,670	387,638	1,533,375	1,285,617	976,863	980,857	984,891	988,965	993,080
196		Total Expenses at Execution	\$ 9,209,350	\$ 11,404,912	\$ 11,354,199	\$ 12,025,114	\$ 14,127,682	\$ 14,856,997	\$ 15,541,605	\$ 16,556,107	\$ 17,588,698	\$ 18,640,341	\$ 19,712,011
197		Transfers Out											
198		TR TO SPECIAL OBLIGATION BONDS	\$ 198,176	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715
199		Total Transfers Out	\$ 198,176	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715	\$ 226,715
200		Debt Service											
201		New Debt Service	\$ -	\$ 2,969,084	\$ 10,169,851	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 23,148,299	\$ 27,765,685	\$ 27,765,685	\$ 27,765,685
202		Total Debt Service	\$ -	\$ 2,969,084	\$ 10,169,851	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 23,148,299	\$ 27,765,685	\$ 27,765,685	\$ 27,765,685
203		Total Cash Outflows¹	\$ 9,407,526	\$ 14,600,711	\$ 21,750,764	\$ 25,041,497	\$ 27,144,065	\$ 27,873,380	\$ 28,557,988	\$ 39,931,121	\$ 45,581,098	\$ 46,632,741	\$ 47,704,411

¹ Does not include projects paid for with cash (refer to schedules 8 and 10).

Cost Escalation Factors

Schedule 5

Subsubject	Expense Line Item Description	Inflation Factor	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
1101	PERMANENT SALARIES	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
1199	OTHER REG SALARIES	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
1201	LONGEVITY PAY	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
1304	ASSIGNMENT PAY	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
1310	SHIFT DIFFERENTIAL	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
1313	STANDBY PAY	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
1401	CAR ALLOWANCES	No Escalation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1407	EXPENSE ALLOWANCES	No Escalation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1413	CELLPHONE ALLOWANCE	No Escalation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1501	OVERTIME 1.5X PAY	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
1801	CORE ADJUSTMENTS	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
2119	WELLNESS INCENTIVES	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
2119	WELLNESS INCENTIVES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
2204	PENSION - GENERAL EMP	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
2204	PENSION - GENERAL EMP	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
2299	PENSION - DEF CONT	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
2301	SOC SEC/MEDICARE	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
2402	LIFE INSURANCE	2.5%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
2404	HEALTH INSURANCE	Salaries - General	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
2410	WORKERS' COMP	2.5%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
3101	ACCT & AUDITING	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3198	BACKFLOW PROGRAM	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3199	OTHER PROF SERV	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3201	AD/MARKETING	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3228	DISPOSAL (TIP) FEES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3255	SOLID WASTE COLLECTIONS	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3299	OTHER SERVICES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3301	HEAVY EQUIP RENT	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3310	OTHER EQUIP RENT	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3319	OFFICE SPACE RENT	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3404	COMPONENTS/PARTS	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3407	EQUIP REP & MAINT	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3428	BLDG REP & MAINT	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3434	IMP REP MATERIALS	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3437	IMP REP & MAINT	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3601	ELECTRICITY	2.0%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
3628	TELEPHONE/CABLE TV	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3634	WATER/SEW/STORM	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3801	GASOLINE	EIA Fuels	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%
3804	DIESEL FUEL	EIA Fuels	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%
3807	OIL & LUBRICANTS	EIA Fuels	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%
3913	HORTICULTURAL SUP	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3925	OFFICE EQUIP < \$5000	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3928	OFFICE SUPPLIES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3940	SAFETY SHOES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3946	TOOLS/EQUIP < \$5000	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3949	UNIFORMS	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3999	OTHER SUPPLIES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4101	CERTIFICATION TRAIN	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4104	CONFERENCES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4113	MEMBERSHIPS/DUES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4116	SCHOOLS	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

Cost Escalation Factors

Schedule 5

4119	TRAINING & TRAVEL	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4213	RETIREE HEALTH BENE	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4304	INDIRECT ADMIN SERV	Admin Services	1.76%	1.49%	1.12%	1.78%	1.79%	1.79%	1.80%	1.80%	1.80%
4308	OVERHEAD-FLEET	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4343	SERVCHG-INFO SYS	Composite O&M	3.50%	8.84%	8.22%	7.76%	7.32%	6.94%	6.60%	6.31%	6.05%
4370	SERVCHG-TREASURY	Composite O&M	3.50%	8.84%	8.22%	7.76%	7.32%	6.94%	6.60%	6.31%	6.05%
4373	SERVCHG-FLEET O&M	Composite O&M	3.50%	8.84%	8.22%	7.76%	7.32%	6.94%	6.60%	6.31%	6.05%
4401	AUTO LIABILITY	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4404	FIDELITY BONDS	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4407	EMP PROCEEDINGS	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4410	GENERAL LIABILITY	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4416	OTHER INS CHARGES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4428	PROP/FIRE INSURANCE	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4431	PUB OFFICIALS LIAB	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
6416	VEHICLES	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
	Capital Project O&M	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
	Operating Enhancement	Default Operating	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
	<i>Weighted Average Increase in O&M Expenses</i> ¹		3.50%	8.84%	8.22%	7.76%	7.32%	6.94%	6.60%	6.31%	6.05%

¹ The Weighted Average Increase in O&M Expenses is reflective of the cost escalation factors presented on this schedule and the cost execution factors on Schedule 1.

Capital Improvement Program


Schedule 6

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
1 Stormwater Fund (470)											
2 1416 SE 11 COURT STORMWATER IMPROVEMENTS	\$ 656,035	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3 UTILITIES ASSET MANAGEMENT SYSTEM	579,431	40,000	40,000	40,000	203,400	40,000	-	-	-	-	-
4 DRAINAGE CANAL DREDGING	569,014	-	712,935	-	-	-	-	-	-	-	-
5 HECTOR PARK STORMWATER IMPROVEMENTS	843,474	-	-	-	-	-	-	-	-	-	-
6 800-850 SW 21 TERR STORMWATER IMPROVEMENT	-	383,398	-	-	-	-	-	-	-	-	-
7 CITYWIDE STORMWATER ANALYSIS	-	50,000	50,000	50,000	50,000	-	-	-	-	-	-
8 DRAINAGE CANAL SURVEYING AND ASSESSMENT	14,016	14,016	-	-	-	-	-	-	-	-	-
9 STORMSTATION 1 FIXED EMERG GENERATORS	-	385,250	-	-	-	-	-	-	-	-	-
10 STORMSTATION 2 FIXED EMERG GENERATORS	-	297,500	-	-	-	-	-	-	-	-	-
11 BAYVIEW DR. FROM SUNRISE BLVD.TO OAKLAND PARK BLV	-	191,510	692,020	233,771	-	-	-	-	-	-	-
12 1716 SE 7TH STREET STORMWATER IMPROVEMENTS	-	1,100,000	-	-	-	-	-	-	-	-	-
13 1544 ARGYLE DRIVE STORMWATER IMPROVEMENTS	-	-	125,424	255,969	-	-	-	-	-	-	-
14 32-101 S. GORDON ROAD STORMWATER IMPROVEMENTS	-	382,653	-	-	-	-	-	-	-	-	-
15 3032 NE 20 COURT STORMWATER IMPROVEMENTS	-	-	178,639	-	-	-	-	-	-	-	-
16 1801 NE 45TH STREET STORMWATER IMPROVEMENTS	-	-	52,206	107,818	-	-	-	-	-	-	-
17 PLANT A STORMWATER TREATMENT FACILITY UPGRADES	-	1,211,984	-	242,992	-	-	-	-	-	-	-
18 DOWNTOWN TIDAL VALVES - #11-19	-	-	-	397,934	-	-	-	-	-	-	-
19 DOWNTOWN TIDAL VALVES - #43-54	-	-	-	385,225	-	-	-	-	-	-	-
20 DOWNTOWN TIDAL VALVES - #1-10	-	-	379,000	-	-	-	-	-	-	-	-
21 DOWNTOWN TIDAL VALVES - #30-42	-	-	-	358,362	-	-	-	-	-	-	-
22 DOWNTOWN TIDAL VALVES - #20-29	-	-	-	325,466	-	-	-	-	-	-	-
23 DOWNTOWN RIVERWALK DISTRICT TIDAL VALVES - HIMMARSHEE STREET	-	-	-	198,848	-	-	-	-	-	-	-
24 NE 16TH STREET STORMWATER IMPROVEMENTS	-	-	109,676	-	-	-	-	-	-	-	-
25 MELROSE MANORS NEIGHBORHOOD IMPROVEMENTS	-	-	-	-	1,380,000	-	-	-	-	-	-
26 SAILBOAT BEND STORMWATER IMPROVEMENTS	-	-	-	-	236,250	750,750	-	-	-	-	-
27 RIVERLAND ROAD STORMWATER IMPROVEMENTS	-	-	-	-	210,000	693,000	-	-	-	-	-
28 TARPON RIVER STORMWATER IMPROVEMENTS	-	-	-	-	-	1,200,000	-	-	-	-	-
29 NE 7TH STREET AND NE 2ND AVE STORMWATER IMPROVEMENTS	-	-	-	350,000	-	-	-	-	-	-	-
30 NE 11TH CT AND SEMINOLE DR STORMWATER IMPROVEMENTS	-	-	-	-	375,000	-	-	-	-	-	-
31 NW 21ST AVENUE PIPE REHABILITATION	-	-	-	1,100,000	-	-	-	-	-	-	-
32 NE 4TH STREET DRAINAGE IMPROVEMENTS	-	-	-	-	850,000	-	-	-	-	-	-
33 HOLLY HEIGHTS DR STORMWATER IMPROVEMENTS	-	-	-	-	157,000	300,000	-	-	-	-	-
34 SE 1 & 2 STREETS, WEST OF US1 STORMWATER IMPROVEMENTS	-	-	-	-	147,000	400,000	-	-	-	-	-
35 NE 32 AVENUE AND NE 30TH STREET	-	-	-	-	173,250	640,500	-	-	-	-	-
36 CITY-WIDE CANAL DREDGING PLAN - CYCLE 1	155,557	-	-	-	-	-	-	-	-	-	-
37 CITYWIDE STORMWATER MODEL	50,000	-	-	-	-	-	-	-	-	-	-
38 800-850 SW 21ST TERRACE STORMWATER IMPROVEMENTS	562,317	-	-	-	-	-	-	-	-	-	-
39 4848 NE 23RD AVENUE STORMWATER IMPROVEMENTS	374,877	-	-	-	-	-	-	-	-	-	-
40 STORMSTATION 1 FIXED EMERGENCY GENERATORS	70,000	-	-	-	-	-	-	-	-	-	-
41 STORMSTATION 2 FIXED EMERGENCY GENERATORS	52,500	-	-	-	-	-	-	-	-	-	-
42 Proposed Stormwater Revenue Bond Fund (471)											
43 DURRS AREA STORMWATER IMPROVEMENTS	\$ -	\$ -	\$ 20,890,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44 SOUTHEAST ISLES TIDAL AND STRMWTR IMPR	-	-	43,980,000	-	-	-	-	-	-	-	-
45 RIVER OAK STORMWATER ANALYSIS	-	37,975,000	-	-	-	-	-	-	-	-	-
46 EDGEWOOD STORMWATER IMPROVEMENTS	-	30,475,000	-	-	-	-	-	-	-	-	-
47 PROGRESSO STORMWATER IMPROVEMENTS	-	-	26,990,000	-	-	-	-	-	-	-	-
48 DORSEY RIVERBEND STORMWATER IMPROVEMENTS	-	-	20,890,000	-	-	-	-	-	-	-	-
49 VICTORIA PARK TIDAL & STRMWTR IMPROVMENT	-	-	18,800,000	-	-	-	-	-	-	-	-
50 Future Stormwater Phase 2 Bond	-	-	-	-	-	-	-	200,000,000	-	-	-
51 Unspecified Future Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,651,749	\$ 3,651,749	\$ 3,651,749	\$ 3,651,749	\$ 3,651,749
52 Total CIP Budget (in current dollars)	\$ 3,927,221	\$ 72,516,311	\$ 133,889,900	\$ 4,046,385	\$ 3,781,900	\$ 4,024,250	\$ 3,651,749	\$ 203,651,749	\$ 3,651,749	\$ 3,651,749	\$ 3,651,749
53 Cumulative Projected Cost Escalation ¹	0.0%	0.0%	3.0%	6.1%	9.3%	12.6%	15.9%	19.4%	23.0%	26.7%	30.5%
54 Resulting CIP Funding Level	\$ 3,927,221	\$ 72,516,311	\$ 137,906,597	\$ 4,292,810	\$ 4,132,584	\$ 4,529,329	\$ 4,233,378	\$ 243,170,839	\$ 4,491,191	\$ 4,625,927	\$ 4,764,704
55 Annual CIP Execution Percentage	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
56 Final CIP Funding Level	\$ 3,927,221	\$ 72,516,311	\$ 137,906,597	\$ 4,292,810	\$ 4,132,584	\$ 4,529,329	\$ 4,233,378	\$ 243,170,839	\$ 4,491,191	\$ 4,625,927	\$ 4,764,704

¹ CIP Escalation factors are consistent with the Engineering News Record Construction Cost Index.

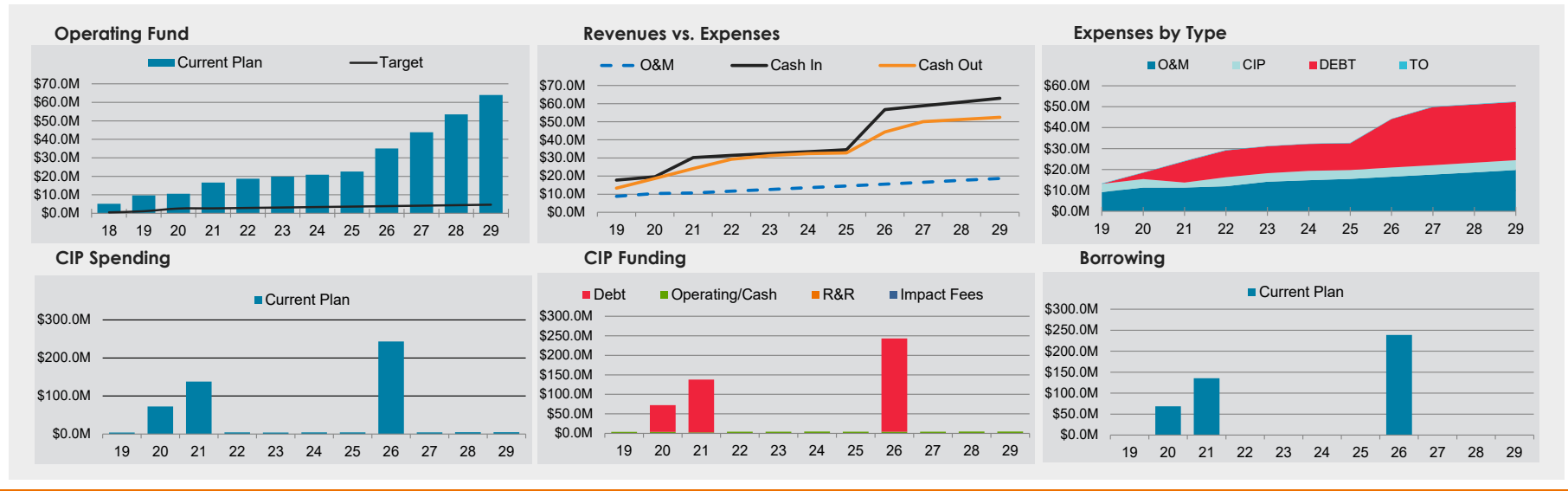
FAMS-XL

FT. LAUDERDALE STORMWATER



CALC SAVE CTRL LAST OVR

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2023	FY 2029
Stormwater Revenue Plan	0.00%	16.67%	54.00%	3.00%	3.00%	3.00%	3.00%	65.00%	3.00%	3.00%	3.00%	90.61%	264.61%
Commercial Lots/Parcels Rate Plan	0.00%	16.67%	54.00%	3.00%	3.00%	3.00%	3.00%	65.00%	3.00%	3.00%	3.00%	90.61%	264.61%
Unimproved Land Rate Plan	0.00%	16.67%	54.00%	3.00%	3.00%	3.00%	3.00%	65.00%	3.00%	3.00%	3.00%		
Senior-Lien DSC	0.00	3.12	1.92	1.55	1.55	1.55	1.56	1.78	1.52	1.56	1.59	Scenario Manager	



Pro Forma

Schedule 8

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
1 Operating Revenue											
2 Stormwater Rate Revenue	\$ 17,280,000	\$ 17,280,000	\$ 19,178,924	\$ 29,591,997	\$ 30,538,265	\$ 31,514,676	\$ 32,522,188	\$ 33,561,787	\$ 55,482,439	\$ 57,255,567	\$ 59,085,149
3 Change in Revenue From Growth	-	(841,392)	36,658	56,804	58,508	60,263	62,071	63,934	105,490	108,655	117,577
4 Subtotal	\$ 17,280,000	\$ 16,438,608	\$ 19,215,582	\$ 29,648,801	\$ 30,596,773	\$ 31,574,940	\$ 32,584,259	\$ 33,625,721	\$ 55,587,929	\$ 57,364,222	\$ 59,202,726
5 <i>Weighted Average Rate Increase</i>	0.00%	16.67%	54.00%	3.00%	3.00%	3.00%	3.00%	65.00%	3.00%	3.00%	3.00%
6 Additional Rate Revenue From Rate Increase	-	2,740,316	10,376,414	889,464	917,903	947,248	977,528	21,856,718	1,667,638	1,720,927	1,776,082
7 Total Rate Revenue	\$ 17,280,000	\$ 19,178,924	\$ 29,591,997	\$ 30,538,265	\$ 31,514,676	\$ 32,522,188	\$ 33,561,787	\$ 55,482,439	\$ 57,255,567	\$ 59,085,149	\$ 60,978,808
8 Plus: Other Operating Revenue	360,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000
9 Equals: Total Operating Revenue	\$ 17,640,000	\$ 19,438,924	\$ 29,851,997	\$ 30,798,265	\$ 31,774,676	\$ 32,782,188	\$ 33,821,787	\$ 55,742,439	\$ 57,515,567	\$ 59,345,149	\$ 61,238,808
10 Less: Operating Expenses											
11 Personal Services	\$ (3,182,679)	\$ (3,724,297)	\$ (3,924,732)	\$ (4,136,139)	\$ (4,359,121)	\$ (4,594,314)	\$ (4,842,388)	\$ (5,104,049)	\$ (5,380,045)	\$ (5,671,161)	\$ (5,978,229)
12 Operations & Maintenance Costs	(5,605,329)	(6,606,896)	(6,767,797)	(7,501,337)	(8,235,185)	(8,977,067)	(9,722,354)	(10,471,200)	(11,223,763)	(11,980,214)	(12,740,702)
13 Equals: Net Operating Income	\$ 8,851,992	\$ 9,107,731	\$ 19,159,468	\$ 19,160,789	\$ 19,180,370	\$ 19,210,807	\$ 19,257,045	\$ 40,167,190	\$ 40,911,760	\$ 41,693,773	\$ 42,519,877
14 Plus: Non-Operating Income/(Expense)											
15 Interest Income	\$ 142,648	\$ 158,766	\$ 387,340	\$ 609,161	\$ 641,285	\$ 663,104	\$ 690,742	\$ 982,044	\$ 1,344,006	\$ 1,528,024	\$ 1,729,158
16 Equals: Net Income	\$ 8,994,640	\$ 9,266,497	\$ 19,546,808	\$ 19,769,950	\$ 19,821,655	\$ 19,873,912	\$ 19,947,787	\$ 41,149,233	\$ 42,255,766	\$ 43,221,797	\$ 44,249,035
17 Senior Lien Debt Service Coverage Test											
18 Net Income Available for Senior-Lien Debt Service	\$ 8,994,640	\$ 9,266,497	\$ 19,546,808	\$ 19,769,950	\$ 19,821,655	\$ 19,873,912	\$ 19,947,787	\$ 41,149,233	\$ 42,255,766	\$ 43,221,797	\$ 44,249,035
19 Existing Senior-Lien Debt	-	-	-	-	-	-	-	-	-	-	-
20 Cumulative New Senior Lien Debt Service (calculated)	-	2,969,084	10,169,851	12,789,667	12,789,667	12,789,667	12,789,667	23,148,299	27,765,685	27,765,685	27,765,685
21 Total Annual Senior-Lien Debt Service	Req. \$ -	\$ 2,969,084	\$ 10,169,851	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 23,148,299	\$ 27,765,685	\$ 27,765,685	\$ 27,765,685
22 <i>Calculated Senior-Lien Debt Service Coverage</i>	1.50	3.12	1.92	1.55	1.55	1.55	1.56	1.78	1.52	1.56	1.59
29 Cash Flow Test											
30 Net Income Available For Debt Service	\$ 8,994,640	\$ 9,266,497	\$ 19,546,808	\$ 19,769,950	\$ 19,821,655	\$ 19,873,912	\$ 19,947,787	\$ 41,149,233	\$ 42,255,766	\$ 43,221,797	\$ 44,249,035
31 Less: Non-Operating Expenditures											
32 Net Interfund Transfers (In - Out)	(198,176)	(226,715)	(226,715)	(226,715)	(226,715)	(226,715)	(226,715)	(226,715)	(226,715)	(226,715)	(226,715)
33 Net Debt Service Payment	-	(2,969,084)	(10,169,851)	(12,789,667)	(12,789,667)	(12,789,667)	(12,789,667)	(23,148,299)	(27,765,685)	(27,765,685)	(27,765,685)
34 Capital Outlay	(421,342)	(1,073,719)	(661,670)	(387,638)	(1,533,375)	(1,285,617)	(976,863)	(980,857)	(984,891)	(988,965)	(993,080)
35 Net Cash Flow	\$ 8,375,122	\$ 4,996,979	\$ 8,488,572	\$ 6,365,930	\$ 5,271,897	\$ 5,571,913	\$ 5,954,541	\$ 16,793,362	\$ 13,278,475	\$ 14,240,432	\$ 15,263,555
36 Unrestricted Reserve Fund Test											
37 Balance At Beginning Of Fiscal Year	\$ 5,174,786	\$ 9,622,687	\$ 10,553,355	\$ 16,631,830	\$ 18,704,950	\$ 19,844,263	\$ 20,886,847	\$ 22,608,010	\$ 35,040,992	\$ 43,828,277	\$ 53,442,782
38 Cash Flow Surplus/(Deficit)	8,375,122	4,996,979	8,488,572	6,365,930	5,271,897	5,571,913	5,954,541	16,793,362	13,278,475	14,240,432	15,263,555
39 Projects Paid With Non Specified Funds	(3,927,221)	(4,066,311)	(2,410,097)	(4,292,810)	(4,132,584)	(4,529,329)	(4,233,378)	(4,360,380)	(4,491,191)	(4,625,927)	(4,764,704)
40 Balance At End Of Fiscal Year	\$ 9,622,687	\$ 10,553,355	\$ 16,631,830	\$ 18,704,950	\$ 19,844,263	\$ 20,886,847	\$ 22,608,010	\$ 35,040,992	\$ 43,828,277	\$ 53,442,782	\$ 63,941,633
41 Minimum Working Capital Reserve Target	1,098,501	2,582,798	2,673,132	2,909,369	3,148,577	3,392,845	3,641,186	3,893,812	4,150,952	4,412,844	4,679,733
42 Excess/(Deficiency) Of Working Capital To Target	\$ 8,524,186	\$ 7,970,557	\$ 13,958,698	\$ 15,795,581	\$ 16,695,686	\$ 17,494,002	\$ 18,966,824	\$ 31,147,180	\$ 39,677,325	\$ 49,029,938	\$ 59,261,900

Capital Project Funding Summary

Schedule 9

Final Capital Projects Funding Sources	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenue Fund	\$ 3,927,221	\$ 4,066,311	\$ 2,410,097	\$ 4,292,810	\$ 4,132,584	\$ 4,529,329	\$ 4,233,378	\$ 4,360,380	\$ 4,491,191	\$ 4,625,927	\$ 4,764,704
Senior-Lien Debt Proceeds	-	68,450,000	135,496,500	-	-	-	-	238,810,459	-	-	-
Total Projects Paid	\$ 3,927,221	\$ 72,516,311	\$ 137,906,597	\$ 4,292,810	\$ 4,132,584	\$ 4,529,329	\$ 4,233,378	\$ 243,170,839	\$ 4,491,191	\$ 4,625,927	\$ 4,764,704

Funding Summary by Fund

Schedule 10

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenue Fund											
Balance At Beginning Of Fiscal Year	\$ 5,174,786	\$ 9,622,687	\$ 10,553,355	\$ 16,631,830	\$ 18,704,950	\$ 19,844,263	\$ 20,886,847	\$ 22,608,010	\$ 35,040,992	\$ 43,828,277	\$ 53,442,782
Net Cash Flow	8,375,122	4,996,979	8,488,572	6,365,930	5,271,897	5,571,913	5,954,541	16,793,362	13,278,475	14,240,432	15,263,555
Less: Cash-Funded Capital Projects	-	-	-	-	-	-	-	-	-	-	-
Less: Payment Of Debt Service	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 13,549,908	\$ 14,619,666	\$ 19,041,927	\$ 22,997,760	\$ 23,976,847	\$ 25,416,176	\$ 26,841,388	\$ 39,401,372	\$ 48,319,467	\$ 58,068,709	\$ 68,706,337
Less: Restricted Funds	(1,098,501)	(2,582,798)	(2,673,132)	(2,909,369)	(3,148,577)	(3,392,845)	(3,641,186)	(3,893,812)	(4,150,952)	(4,412,844)	(4,679,733)
Total Amount Available For Projects	12,451,407	12,036,868	16,368,795	20,088,391	20,828,271	22,023,331	23,200,202	35,507,559	44,168,516	53,655,865	64,026,604
Amount Paid For Projects	(3,927,221)	(4,066,311)	(2,410,097)	(4,292,810)	(4,132,584)	(4,529,329)	(4,233,378)	(4,360,380)	(4,491,191)	(4,625,927)	(4,764,704)
Subtotal	\$ 8,524,186	\$ 7,970,557	\$ 13,958,698	\$ 15,795,581	\$ 16,695,686	\$ 17,494,002	\$ 18,966,824	\$ 31,147,180	\$ 39,677,325	\$ 49,029,938	\$ 59,261,900
Add Back: Restricted Funds	1,098,501	2,582,798	2,673,132	2,909,369	3,148,577	3,392,845	3,641,186	3,893,812	4,150,952	4,412,844	4,679,733
Plus: Interest Earnings	142,648	130,913	237,870	353,368	385,492	407,311	434,949	576,490	788,693	972,711	1,173,844
Less: Interest Allocated To Cash Flow	(142,648)	(130,913)	(237,870)	(353,368)	(385,492)	(407,311)	(434,949)	(576,490)	(788,693)	(972,711)	(1,173,844)
Balance At End Of Fiscal Year	\$ 9,622,687	\$ 10,553,355	\$ 16,631,830	\$ 18,704,950	\$ 19,844,263	\$ 20,886,847	\$ 22,608,010	\$ 35,040,992	\$ 43,828,277	\$ 53,442,782	\$ 63,941,633
Restricted Reserves											
Balance At Beginning Of Fiscal Year	\$ -	\$ -	\$ 4,292,561	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 27,765,685	\$ 27,765,685	\$ 27,765,685
Additional Funds:	-	-	-	-	-	-	-	-	-	-	-
Debt Service Reserve On New Debt	\$0	\$4,292,561	\$8,497,107	\$0	\$0	\$0	\$0	\$14,976,017	\$0	\$0	\$0
Other Additional Funds	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ -	\$ 4,292,561	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 27,765,685	\$ 27,765,685	\$ 27,765,685	\$ 27,765,685
Plus: Interest Earnings	-	27,853	149,469	255,793	255,793	255,793	255,793	405,554	555,314	555,314	555,314
Less: Interest Allocated To Cash Flow	-	(27,853)	(149,469)	(255,793)	(255,793)	(255,793)	(255,793)	(405,554)	(555,314)	(555,314)	(555,314)
Balance At End Of Fiscal Year	\$ -	\$ 4,292,561	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 27,765,685	\$ 27,765,685	\$ 27,765,685	\$ 27,765,685

Senior Lien Borrowing Projections

Schedule 11

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Term (Years)	30	30	30	30	30	30	30	30	30	30	30
Interest Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Sources of Funds											
Par Amount	\$ -	\$ 74,227,103	\$ 146,932,252	\$ -	\$ -	\$ -	\$ -	\$ 258,965,793	\$ -	\$ -	\$ -
Uses of Funds											
Proceeds	\$ -	\$ 68,450,000	\$ 135,496,500	\$ -	\$ -	\$ -	\$ -	\$ 238,810,459	\$ -	\$ -	\$ -
Cost of Issuance	-	1,484,542	2,938,645	-	-	-	-	5,179,316	-	-	-
Debt Service Reserve	-	4,292,561	8,497,107	-	-	-	-	14,976,017	-	-	-
Total Uses	\$ -	\$ 74,227,103	\$ 146,932,252	\$ -	\$ -	\$ -	\$ -	\$ 258,965,793	\$ -	\$ -	\$ -
1 Year Interest	-	2,969,084	5,877,290	-	-	-	-	10,358,632	-	-	-
Annual Debt Service	\$ -	\$ 4,292,561	\$ 8,497,107	\$ -	\$ -	\$ -	\$ -	\$ 14,976,017	\$ -	\$ -	\$ -
Total Debt Service	-	128,776,822	254,913,201	-	-	-	-	449,280,524	-	-	-
Cumulative New Annual Senior Lien Debt Service¹	\$ -	\$ 2,969,084	\$ 10,169,851	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 12,789,667	\$ 23,148,299	\$ 27,765,685	\$ 27,765,685	\$ 27,765,685

¹Reflects interest-only payment due in year of issuance.

APPENDIX B: COST OF SERVICE ANALYSIS SUPPORTING SCHEDULES

Schedule 1 - Stormwater System Functional Allocation

Schedule 2 - Revenue Bond Issuance Allocation

Schedule 3 - Capital Improvement Projects Allocation

Stormwater System Functional Allocation

Schedule 1

Expense Type	Index	Division	Division Description	Sub Object	Expense Description	Test Year FY 2021	Allocation Basis/Factor	Quality	Quantity	Total % Allocation	Percent Allocation		
											20.21%	79.79%	
											Quality \$ Allocation	Quantity \$ Allocation	
129	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	3407	Equip Rep & Maint	5,757	Management Estimate	40.00%	60.00%	100.00%	2,303	3,454
130	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	3801	Gasoline	2,257	Management Estimate	40.00%	60.00%	100.00%	903	1,354
131	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	3804	Diesel Fuel	26,997	Management Estimate	40.00%	60.00%	100.00%	10,799	16,198
132	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	3198	Backflow Program	139	Management Estimate	40.00%	60.00%	100.00%	56	83
133	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	3601	Electricity	51,036	Management Estimate	40.00%	60.00%	100.00%	20,415	30,622
134	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	3634	Water/Sew/Storm	1,950	Management Estimate	40.00%	60.00%	100.00%	780	1,170
135	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	3628	Telephone/Cable Tv	6,429	Management Estimate	40.00%	60.00%	100.00%	2,571	3,857
136	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	4308	Overhead-Fleet	17,254	Management Estimate	40.00%	60.00%	100.00%	6,901	10,352
137	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	4373	Servchg-Fleet O&M	49,674	Management Estimate	40.00%	60.00%	100.00%	19,869	29,804
138	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	4213	Retiree Health Bene	2,303	Management Estimate	40.00%	60.00%	100.00%	921	1,382
139	CO	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	6416	Vehicles	256,612	Management Estimate	40.00%	60.00%	100.00%	102,645	153,967
140	CO	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	6499	Other Equipment	383,800	Management Estimate	40.00%	60.00%	100.00%	153,520	230,280
141	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	3428	Bldg Rep & Maint	4,798	Management Estimate	40.00%	60.00%	100.00%	1,919	2,879
142	PS	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	1801	Core Adjustments	221,356	Management Estimate	40.00%	60.00%	100.00%	88,542	132,814
143	PS	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	2402	Life Insurance	615	Management Estimate	40.00%	60.00%	100.00%	246	369
144	OMF	PBS660511	PBS66	DISTRIBUTION AND COLLECTION	4119	Training & Travel	6,908	Management Estimate	40.00%	60.00%	100.00%	2,763	4,145
145	OMF					Operating Enhancement	380,000	Management Estimate	40.00%	60.00%	100.00%	152,000	228,000
146	OMF					Bond Coverage Expense	924,390	Bond Projects	5.57%	94.43%	100.00%	51,485	872,905
Transfers, Debt Service, & Cash Funded Capital													
147						Tr To Special Obligation Bonds	\$ 226,715	Indirect Allocation	39.19%	60.81%	100.00%	\$ 88,842	\$ 137,873
148						Cumulative New Debt Service	12,789,667	Bond Projects	5.57%	94.43%	100.00%	712,337	12,077,331
149						Cash Funded Capital	4,297,025	CIP/Infrastructure	15.69%	84.31%	100.00%	674,334	3,622,691
150	Total Revenue Requirements					\$ 29,591,997						\$ 5,979,398	\$ 23,612,599

Revenue Bond Issuance Allocation

Schedule 2

Project Description	Project Amount	Allocation Basis/Factor	Quality	Quantity	Quality % Allocation	Quantity % Allocation
Durrs Area Stormwater Improvements	\$ 20,890,000	Management Estimate	5.00%	95.00%	\$ 1,044,500	\$ 19,845,500
Southeast Isles Tidal And Strmwtr Impr	43,980,000	Management Estimate	5.00%	95.00%	2,199,000	41,781,000
River Oak Stormwater Analysis	37,975,000	Management Estimate	8.00%	92.00%	3,038,000	34,937,000
Edgewood Stormwater Improvements	30,475,000	Management Estimate	5.00%	95.00%	1,523,750	28,951,250
Progresso Stormwater Improvements	26,990,000	Management Estimate	5.00%	95.00%	1,349,500	25,640,500
Dorsey Riverbend Stormwater Improvements	20,890,000	Management Estimate	5.00%	95.00%	1,044,500	19,845,500
Victoria Park Tidal & Strmwtr Improvement	18,800,000	Management Estimate	5.00%	95.00%	940,000	17,860,000
Total Projects	\$ 200,000,000				\$ 11,139,250	\$ 188,860,750
					5.57%	94.43%

Capital Improvement Projects Allocation

Schedule 3

Project Description	Project Amount	Cash Funded Capital	Allocation Basis/Factor	Quality	Quantity	Quality % Allocation	Quantity % Allocation
Utilities Asset Management System	\$ 40,000	\$ 40,000	Management Estimate	5.00%	95.00%	\$ 2,000	\$ 38,000
800-850 Sw 21 Terr Stormwater Improvment	383,398	383,398	Management Estimate	5.00%	95.00%	19,170	364,228
Citywide Stormwater Analysis	50,000	50,000	Management Estimate	5.00%	95.00%	2,500	47,500
Drainage Canal Surveying And Assessment	14,016	14,016	Management Estimate	5.00%	95.00%	701	13,315
Stormstation 1 Fixed Emerg Generators	395,250	395,250	Management Estimate	5.00%	95.00%	19,763	375,488
Stormstation 2 Fixed Emerg Generators	297,500	297,500	Management Estimate	5.00%	95.00%	14,875	282,625
1716 Se 7Th Street Stormwater Improvements	1,100,000	1,100,000	Management Estimate	5.00%	95.00%	55,000	1,045,000
32-101 S. Gordon Road Stormwater Improvements	382,653	382,653	Management Estimate	5.00%	95.00%	19,133	363,520
Plant A Stormwater Treatment Facility Upgrades	1,211,984	1,211,984	Indirect Allocation	39.19%	60.81%	474,934	737,050
Total CIP	\$ 3,874,801	\$ 3,874,801				\$ 608,074 15.69%	\$ 3,266,727 84.31%