

Stormwater Report

Green Cove Springs 2026 SMU Review & Update



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PN# 25-0000729
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Prepared For: City of Green Cove Springs

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N|V|5

Executive Summary

This 2026 update to the City of Green Cove Springs Stormwater Management Utility (SMU) program provides a comprehensive review of the system's history, current conditions, financial needs, and the recommended fee structure necessary to sustain stormwater services over the next decade. The report documents the evolution of the SMU since its establishment in 2013, updates GIS and impervious-area data within the expanded city limits and reassesses the Equivalent Stormwater Unit (ESU) structure and mitigation credit methodologies consistent with the 2025 Florida Stormwater Association (FSA) Manual.

Since the initial 2012 Preliminary Engineering Report, the City has expanded its stormwater system, annexed new properties, and implemented major stormwater capital projects, while regulatory obligations under the NPDES MS4 program and Basin Management Action Plans have intensified. The current stormwater system provides citywide benefits including flood protection, water quality compliance, improved property values, and enhanced public safety.

The SMU continues to operate under a hybrid rate structure consisting of a base fee and a user fee based on impervious area-driven ESUs. The ESU standard remains 3,000 square feet of impervious area, based on statistically derived averages for single-family homes. Annual ESU counts were updated through the 2025 tax roll, identifying 6,411 total ESUs across all property classes when Reynolds is included the total increases to 11,161 ESU. After accounting for mitigation credits, effective billable ESUs are estimated at approximately 5,000.

A review of the City's 10-year Stormwater Capital Improvement Program (CIP), debt service, and ongoing operations shows that annual SMU expenditures average approximately \$2.1 million, with some years reaching \$3.4 million due to capital construction variability. The 2027 projected funding needs totaling \$1.967 million. Current SMU revenues, however, fall short by more than \$102,000 per year, necessitating adjustments to the rate structure.

To close this revenue gap and ensure the financial sustainability of the stormwater system, the report recommends increasing the base rate from \$84 to \$97.25 per parcel per year and raising the user fee from \$300 to \$309 per ESU per year. These changes will align revenues with the City's long-term operational, maintenance, and capital program requirements while maintaining consistency with state guidelines for fair and reasonable cost apportionment.

History

NV5 issued a Preliminary Engineering Report (PER) on August 22, 2012 to satisfy the initial data collection and analysis to be used in the development of a Stormwater Master Plan to be prepared for the City of Green Cove Springs. The PER was created in accordance with the Florida Stormwater Association (FSA) manual entitled "Establishing a Stormwater Utility in Florida." The PER compiled data, delineated regional planning units, established required Levels of Service, reviewed and addressed numerous historic drainage issues, and recommended capital projects. An initial capital project budget was established in 2012 dollars with the City Public Works left to develop a 5-year capital improvement plan. It was understood the capital project needs would far outpace GCS ability to collect fees.

On January 8, 2013, the Council passed Ordinance O-18-2012 thereby creating the GCS Stormwater Management Utility (SMU). The GCS SMU was originally set up as a base rate system and collected on GCS utility bills for all tax parcels in the city limits.

In October 2015, the Council voted to move the base rate charge to the Tax Bills. In a workshop on August 4, 2016, GCS Council directed staff to develop a simple system to identify the user portion of the fee as well as a user rate structure and include a mitigation and exemption criteria.

In a memo to the Council on June 25, 2018, NV5 presented the initial recommendations for the parameters of a user fee, and a range of possible fees was presented to the Council. The recommendation was in accordance with the FSA manual entitled “Establishing a Stormwater Utility in Florida” dated 2013. On September 18, 2018, at a regular meeting of the Council the memo was presented, and staff were directed to collect the necessary data on the Commercial properties. A subsequent meeting was held with the City Council on November 19, 2019, in which NV5 presented data and options with a decision matrix on fees per ESU for the City Council to determine the final fee structure.

After that recommendation, NV5 issued a final report to the City on January 28, 2020. That report included the GIS analysis as well as other comments and feedback from City staff and Council from the prior meetings.

On February 18, 2020, the City Council approved Ordinance O-01-2020, which implemented the user portion of the SMU and allowed for mitigation credit. On July 7, 2020, the City Council adopted R-10-2020 that adopted a mitigation credit policy. At the direction of the City Council, the North Service Area was excluded from the user portion of the fee.

Since that time the city has approved numerous developments, annexed properties into the city limits and constructed several stormwater capital projects.

Objective

The objective of this 2026 report update was to document prior work and accomplish the following:

- Update the GIS Maps and Drainage Basins based on current City Limits;
- Re-evaluate the ESUs based upon the revised City limits;
- Document the latest SMU Costs and CIP through 2036;
- Review and Confirm methodologies based on the FSA SMU Manual Updated in 2025; and
- Re-evaluate Mitigation Credit Policies.

Methodology

Since 2012, NV5 and GCS staff have conducted numerous tasks to accomplish the project objectives:

- Extensive Data collection of existing assets, operations, and capital projects within the City;
- Interviewed staff and Council members;
- Identified all services and costs within the stormwater department of the City Public Works Department;
- Created a five-year capital project list with funding estimates;
- Compared the five-year plan with projected revenues to develop a five-year funding plan;
- Analyzed current and future regulatory requirements;
- Developed a Preliminary Engineering report that documents watersheds and drainage needs
- Analyzed GIS data to establish actual impervious areas for all commercial properties;
- Legal review by Nabors, Giblin and Nickerson, P.A.

Service Description & Cost Calculations

SMU Program & Services Offered

On January 8, 2013, GCS City Council passed an ordinance O-18-2012 that established the GCS Stormwater Management Utility (SMU). The SMU was established with a phased approach. After an initial Preliminary Engineering Report and Master Plan, GCS adopted an ordinance that created the utility and provided the mechanism for GCS to collect a SMU base fee and a user fee. The city started collecting a \$3.00 base rate charge in January of 2013. The base fee was raised to \$3.50 per customer effective January 2016 and was charged to all parcels located within GCS municipal boundary. The 2016 estimated break even base charge was estimated at the \$9.00 dollar range per customer per month or \$108 dollars per year.

The base charge is a benefit to all citizens of GCS as it is used to cover costs associated with the city wide NPDES MS4 permit, City wide Stormwater GIS system, billing, and operations. All the municipal boundaries of the city of GCS are hydrologically connected in some fashion to the St Johns River.

In October of 2015, the GCS Council voted to move the billing of the SMU fee to the Clay County Property Tax bill. Based on this vote the TRIM notices (Notice of Proposed Property Taxes) that GCS property owners received in August 2016 included the assessment for the GCS SMU and the final fees were on the bills sent in November 2016.

On February 18, 2020, the City Council approved Ordinance O-01-2020, that implemented the user portion of the SMU at \$125 per ESU and allowed for a mitigation credit. It's worth noting that staff recommendation was \$250 per ESU and the Council motion lowered the fee to the adopted \$125 per ESU. On July 7, 2020, the City Council adopted R-10-2020 that adopted a mitigation credit policy.

From 2020 until 2022, the base fee was \$42 dollars with \$125 dollars per ESU user fee. From 2023 until 2024, the base rate was modified to \$72 dollars, and the user fee was modified to \$300 dollars per ESU. As of FY 2025 the base rate is \$84 dollars per year, and the user portion of the fee remained at \$300 dollars per ESU per year.

SMU Capital Program Enhanced Levels of Service

To fund the capital, the project must either (1) be a large citywide project that will provide benefit to all properties, or (2) be assessed less than City wide to properties with in the area the project will benefit, or (3) consist of multiple smaller projects throughout the city such that each property receives approximately the same amount of benefit. GCS desires to fund the stormwater capital improvement program along with the City-wide stormwater system "other" needs which may include items such as driveway culverts, pipe or inlet replacement, outfall structures, stormwater pipes and ditches, headwalls and mitered end section replacements through a user fee. No proposed change to the base fee methodology is proposed.

The 10-year Stormwater CIP is included below and totals nearly \$10 million with a grant its 8.15M which can be converted to roughly \$729,000 in annual debt service by bonding it at 20 years at 6%. The City's current SMU debt service is roughly \$850,000 per year inclusive of vehicle and Vac Truck debt service. In addition, based on historical spending provided by the city, the "other" needs total \$420,000 per year. This includes regular maintenance of the City's SMU assets. Thus, the total expenditure on the SMU

system is estimated at \$2.1 million on average per year, with some years higher and lower based on actual capital outlay variations in any given year per the 2036 CIP.

Project Name	Design Cost	Project cost	Total Project Costs	Schedule year
Oakridge Avenue Basin	\$ 300,000.00	\$ 1,700,000.00	\$ 2,000,000.00	FY27/28
Oakridge Avenue Basin		\$ 1,300,000.00	\$ 1,300,000.00	FY 28/29
Spring Park Flume Removal/Ferris St	\$ 35,000.00	\$ 200,000.00	\$ 235,000.00	Fy 29/30
Hill Street Replacement		\$ 250,000.00	\$ 250,000.00	Fy 29/30
Elmore St Headwall	\$ 30,000.00	\$ 300,000.00	\$ 330,000.00	FY 29/30
Esplanade Ave	\$ 65,000.00	\$ 850,000.00	\$ 915,000.00	FY 30/31
Property Purchases		\$75,000	\$ 75,000.00	FY 30/31
Vermont between Walnut & Bonaventure	\$ 90,000.00	\$ 1,000,000.00	\$ 1,090,000.00	FY 31/32
South Vermont	\$ 100,000.00	\$ 1,200,000.00	\$ 1,300,000.00	Fy 32/33
Gum St headwall	\$ 20,000.00	\$ 70,000.00	\$ 90,000.00	FY 33/34
Elmore St Headwall	\$ 20,000.00	\$ 300,000.00	\$ 320,000.00	FY 33/34
Lewis Dr headwall	\$ 20,000.00	\$ 300,000.00	\$ 320,000.00	FY 33/34
2035-2036 TBD Projects	\$ 150,000.00	\$ 1,500,000.00	\$ 1,650,000.00	FY 35/36
Totals	\$ 680,000.00	\$ 9,045,000.00	\$ 9,725,000.00	

* CDBG Grant 1.275 M for Oakridge Basin will reduce overall loan amount to \$8,150,000.

Proposed Apportionment Methodology

The City has implemented a stormwater utility fee that will be collected as a non-ad valorem assessment in accordance with Section 197.3632, Florida Statutes. As such the stormwater utility fee should meet the Florida case law requirements for a valid special assessment.

These requirements are:

1. The service and capital projects provided must confer a special benefit to the property being assessed; and
2. The costs assessed must be fairly and reasonably apportioned among the properties that receive the special benefit.

To this end, NV5 has reviewed the costs provided by the city, developed a fair and reasonable apportionment methodology for such assessable costs, and determined assessment rates and parcel classifications that are accurate, fair and reasonable.

Special Benefit

The Stormwater Management Services furnished by the City possess a logical relationship to the use and enjoyment of all property within the City and provide environmental, economic, and community advantages such as:

- City wide compliance with the city NPDES MS4;
- City wide compliance with TMDL for the Lower St Johns River BMAP;
- Stabilization of or the increase of property values;
- Increased safety and better access to property;
- Improved city wide aesthetics;
- Rendering properties more adaptable to a reasonably foreseeable new and higher use;

- Availability and use of stormwater facilities and improvements by properties to properly and safely detain, retain, convey and treat stormwater discharged from such property;
- Alleviation of the burdens caused by stormwater runoff and accumulation attendant with the use of property; and/or
- Fostering the enhancement of environmentally responsible use and enjoyment of the natural resources within the city.

Cost Apportionment

The concept of cost apportionment addresses two fundamental questions as to who pays and for what services. The latter question is geographic as well as programmatic in nature.

In the 2012 PER it was identified that the entire City limits are hydrologically connected to the St Johns River. In addition, three watersheds were identified going south to north as the “South City Planning Unit”, “Central City Planning Unit” and the “North City Planning Unit”. The southernmost unit is largely made up of Reynolds holdings and the Rookery Subdivision, and the North City Planning Unit is made up of a large residential development known as Magnolia Point PD.

GIS maps have been updated to include the expansion to the city limits with the planning Units updated to match the City’s new boundaries. GIS maps can be found in Appendix A of this memo.

GCS through the adoption of the SMU established a base fee with user fee model. The base fee is charged to all customers to administer the SMU including personnel and equipment overhead of the SMU. The user portion of the fee is that which is attributable the capital improvements, capital debt service and other physical improvements to the SMU systems, such as, renewal and replacement maintenance.

Parcel Apportionment Assumptions

The following assumptions support the findings that the recommended parcel apportionment is a fair, reasonable and equitable method of funding the costs attributed to properties by fairly and reasonably allocating the cost of stormwater services to properties based on the stormwater burden expected to be generated by the physical characteristics and use of the property.

- The amount of runoff generated and sent to the stormwater system represents the properties proportionate share of the burden of creating and maintaining the stormwater system. The amount of runoff from a parcel is determined by the amount of impervious area contained on a parcel and its total land area, thus the more impervious area, the more runoff and thus the more the cost of treatment and the more charge to the parcel;
- Property Valuation has nothing to do with the amount of stormwater generated;
- Apportioning the assessed costs of a single-family unit as an Equivalent Stormwater Unit (ESU) avoids inefficiency and unnecessary costs and administration and is a fair and reasonable method of parcel apportionment based on statistical data;
- The impervious coverage for a single-family lot derives a reasonable proxy for the impervious area expected on a single-family parcel. The mean impervious area was determined to be 3,000 s.f. based on a statistically significant sampling of 200 single family homes during a study in 2019.

Parcel Apportionment Methodology

Apportionment is all about determining how each customer's share can be determined. GCS has elected to assess the SMU fee for non-government entities on the tax bills and therefore each tax parcel will be assessed based upon their contribution to the system. Government entities will be collected via their utility bill. A standard billing unit must be established that can apply to all parcels of property. Rate classes were established by GCS to simplify the rate structure.

A user rate structure should be simple but fairly estimate the stormwater impacts by any customer. Stormwater runoff to a city system/road is the most often used variable to determine usage, however parcels within the city often are users of the city SMU without a direct connection. For example, indirect connections of stormwater often impact flooding, water quality and city systems downstream. In addition, the city has mandates from state and federal agencies to manage the environmental impacts of stormwater within their municipal boundaries irrespective of who generates the stormwater. Developed and even improved parcels that are vacant can and often do contribute to the system. Developed parcels often have modern stormwater treatment facilities that treat and then discharge stormwater to roads, ditches, creeks or rivers. In all cases they are designed to bypass larger storm events to the system to avoid localized flooding and damage.

The aspects of runoff that should be a concern are quantity, rate and the quality of stormwater runoff. For simplification and equity all parcels within a standard billing unit or rate structure are treated the same with an exception usually noted for users with significant deviations from the standard. For example, an industrial user with a higher-than-normal water quality impact would be assessed to determine its additional impact and assigned additional billing units.

A standard billing unit was established to serve as a common index to compare runoff generated by properties. What this unit is called varies widely among communities, however for GCS, the decision was for the unit to be called an Equivalent Stormwater Unit or "ESU".

Standard Billing Unit

The determination of the standard billing unit was selected by the Council from the five choices presented to the Council in 2019, which were per 1,000 SF of Impervious Area, Average Impervious Area for a SF Residence, Average Impervious Area for All Residences, Effective Impervious Area for SF Residence, and Effective Impervious Area for All Residences. NV5's recommendation and the selected method was the average impervious area for a single-family residence. To determine the mean average impervious area for a single-family residence, in 2019, NV5 obtained the Clay County Tax appraiser data set, used aerials and GIS data to interpret impervious areas and took 200 random samples of single-family homes located in the city limits constituting a statistically significant sample. This included adding the building and hardscaped areas to obtain total impervious areas. The mathematical mean of the sample was 3000 SF of impervious area.

An Equivalent Stormwater Unit (ESU) was therefore set at 3,000 SF of impervious area.

Rate Calculation

General Rate Class is simply calculated by dividing the amount of impervious area located within a tax parcel or combination of parcels by the impervious area of the established ESU. In the case of GCS, it would be $\text{Impervious Area} / 3,000 \text{ SF}$. For instance, the CVS has 48,824 SF of impervious area and when divided by 3,000 SF per ESU the total ESU for CVS would be 17.

Rate Classes

Single Family and Duplex- (1 ESU per dwelling unit) regardless of size or impervious areas all single-family homes will have a Rate Class of 1 ESU.

Condominium Residential and Nonresidential condominiums shall be assessed based on the total impervious area allocated to each condo unit. The number of ESUs attributable to each residential condominium property is determined by dividing the actual effective impervious area of the entire condominium complex by the ESU value and dividing the result by the total number of residential condominium properties in the complex. The number of ESUs attributable to each non-residential condominium property will be determined by dividing the effective impervious area of the condominium complex by the ESU value and assigning the result to each non-residential condominium property based on the relative building area for each non-residential condominium property.

Multi-Family (General Rate) traditional multi-family owned by a single entity shall be treated as a General class and the number of ESU shall be calculated as described above in the rate calculation section.

Commercial (General Rate) all commercial property shall be treated as a General Class, and the number of ESU shall be located as described above in the rate calculation section.

Government, Churches & Schools (General Rate) these uses shall be treated as General Class and the number of ESU shall be calculated as described above in the rate calculation section.

Residential Subdivision Parcels with Common Elements Residential Subdivision Parcels are Single-family properties that also have subdivision common elements associated with them. The number of ESUs attributable to each residential subdivision parcel is determined by assigning one ESU as noted above for Single-Family properties, plus a prorated share of the ESUs determined for the associated Common Elements, which is calculated by dividing the actual effective impervious area of Common Element by the ESU value and dividing the result by the total number of residential subdivision parcels in the subdivision.

Exemptions

Properties with bona fide farm operations on land classified as Agriculture by the Clay Property Appraiser under 193.461, F.S. with certain permits in place (see 163.3162(3)(c), FS) will qualify for an exemption.

Unimproved land with no impervious area shall be considered exempt from any user portion of the SMU fee.

Mitigation Credit

Credits are only allowed for properties for which a man-made structural stormwater system has been designed, installed and has a suitable long-term operation and maintenance entity within the actual parcel limits or as part of a unified plan (master planned community). Single family homes in a platted subdivision are not eligible as the stormwater basin serving them is not on the site of the home and thus stormwater generated from the home must traverse public ROW and stormwater facilities on its way to its receiving stormwater basin. Mitigation credits for an entire master planned community/subdivision may be considered if the subdivision meets all the pre-requisites for a credit and has an HOA that owns and operates all the stormwater facilities within an entire master planned development.

Unimproved land that is developed shall comply with the SJRWMD & City of GCS criteria for stormwater treatment and rate and volume control for the required duration storm events per SJRWMD and City standards in effect at the time of the approval.

Mitigation Credit Option 1

Pre-Requisites

- a. Located in the City/SMU Watershed
- b. Site has on-site drainage features that treat stormwater and are privately maintained.
- c. Site maintains an active SJRWMD or FDEP Permit
- d. Site Discharges to a City Maintained Facility

Development that meets both discharge rate and volume attenuation for all required storms to at or below pre-developed rates may apply for a credit of 95% of the user portion of the fee. If only rate is met with pre-developed rates, then the eligible credit is 50% of the user portion of the fee. If volume is met an additional 45% credit can be obtained for a total credit of 95% of the user portion of the fee. The 95% was determined to be the cap since manmade facilities do not operate at 100% efficiency and thus the sites still contribute constituents such as Nitrogen and Phosphorous to the SJRWMD Basin. These are constituents for which the City has responsibility to regulate per the NPDES permit to meet the required obligations under for the entire City limits.

Mitigation Credit Option 2

Pre-Requisites

- a. Located in the City/SMU Watershed
- b. Site has on-site drainage features that treat stormwater and are privately maintained.
- c. All internal infrastructure is privately maintained by the landowner or a bona fide HOA.
- d. Site maintains an active SJRWMD or FDEP Permit
- e. Site Discharges offsite to a non-city owned facility and illustrates that the discharge reaches the St Johns River without accessing a city owned facility.

Development that meets both discharge rate and volume attenuation for all required storms to at or below pre-developed rates may apply for a credit of 95% of the user portion of the fee. If only rate is met with pre-developed rates, then the eligible credit is 90% of the user portion of the fee. If volume is met an additional 5% credit can be obtained for a total credit of 95% of the user portion of the fee. The 90% rate is to recognize the fact that the city is not receiving direct discharge, however, it is still responsible for flooding and regulating under the NPDES permit for the generation of constituents on all sites within the city limits. The 95% was determined to be the cap since manmade facilities do not operate at 100% efficiency and thus the sites still contribute constituents such as Nitrogen and Phosphorous to the SJRWMD Basin. These are constituents for which the City has responsibility to regulate per the NPDES permit to meet the required obligations under for the entire City limits.

Re-Development Mitigation Credit

Re-development of land that had prior development and complies with the SJRWMD & City of GCS criteria and provide stormwater treatment that meets BOTH rate and volume attenuation to the

condition prior to re-development shall be eligible for a credit of 50% of the user portion of the fee. To gain 95% credit the applicant may choose to treat the property as unimproved land as noted above. This limited credit recognizes that re-development often takes advantage of the existing impervious areas that were built before modern stormwater regulations and thus it allows higher rates and volumes to be discharges offsite thus taxing the stormwater system.

Mitigation Credit Application

To qualify for a mitigation credit, the user shall submit to the City of GCS a detailed stormwater management plan that illustrates compliance with SJRWMD & City of GCS criteria and outlines the pre and post conditions, pre and post runoff rates and volumes for the critical duration 100-year event as well as the Mean Annual and applicable SJRWMD 25-year storm event. Each application for mitigation credit shall be on a form as provided by GCS, completed by the applicant and signed and sealed by a registered Professional Engineer in the State of Florida. A copy of the Form is included in Appendix B. Provided no changes to a site have occurred and the stormwater system is being properly maintained then the mitigation credit once approved would be permanent.

Fee per ESU

As of FY 2025 the base rate is \$84 dollars per year, and the user portion of the fee is \$300 per ESU per year. For FY 2026 the stormwater Fund approved budget is \$3.432 million with \$2.316 M in capital expenses and \$0.847 million in debt service.

The results of the GIS Analysis reveal the following approximate number of ESUs as of the 2025 Tax Roll.

Type	Total ESU
CHURCH	94
COMMERCIAL	1,334
Commercial-Reynolds	4750
GOVERNMENT	496
MULTI-FAMILY	200
SCHOOL	319
SINGLE-FAMILY	3919
CONDO	49
Total	11,161

As noted above, the 10-year CIP is currently +/- \$10 million (8.15 M after a grant) with a current annual debt service of roughly \$850,000 (+/- \$715K Long term Bond debt plus balance in vehicle/equipment debt) and future debt service of \$ 729,600 annual. In addition, based on historical spending provided by the city, the “other” needs with a reserve total +/- \$ 521,600 per year. This includes regular maintenance of the City’s SMU assets. Thus, the total expenditure on the SMU system is estimated at \$2.1 million on average per year, with some years higher and lower based on actual capital outlay variations in any given year (2026 Budget is \$3.42 million).

2027 Projected Needs	
Base Operating Expenses plus 3%	\$ 416,414.58
5% Reserve	\$ 100,000.00
Current Debt Service	\$ 715,000.00
Proposed Debt Service	\$ 729,600.00
Totals	\$ 1,966,164.58

Note- Current Debt service is less debt service on vehicles, proposed debt is 8.150 M for 20 years at 6%.

Using the above 2025 ESU counts and historical data on mitigation credits it's estimated that of the 11,161 current ESU the actual collected ESU will be closer to 5,000. Mitigation credits include a reduction in ESU due to property owners meeting the criteria for mitigation that includes on site treatment of stormwater.

The current base rates generate a shortfall of nearly \$57,500 resulting in a need to raise the base rate from \$84 to \$97.25 and a short fall of nearly \$45,000 in user fees such that the user rate needs to be raised from \$300 to \$309.

It's recommended that the Commission adopt new rates for 2027 of \$97.25 per year as the base rate charge and \$309 per year per ESU for the user portion of the fee. It's also recommended that the fees be raised annually by 3% to account for inflation.

Appendix A

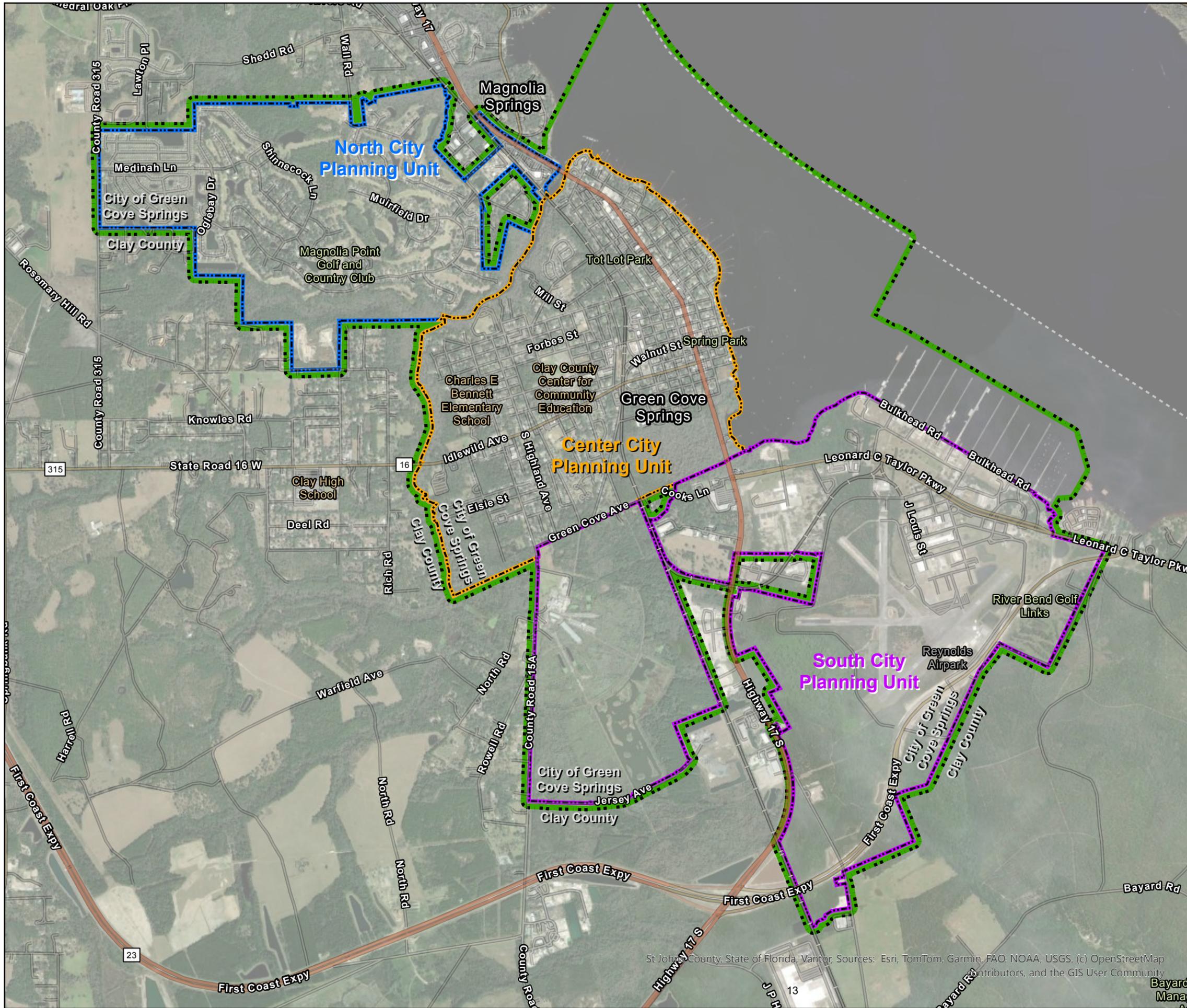
GIS MAPS



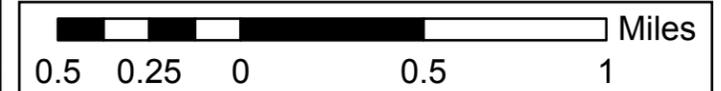
Stormwater Management Utility (SMU) Planning Units

Legend

-  City of Green Cove Springs
-  North City Planning Unit
-  Center City Planning Unit
-  South City Planning Unit



Projected Coordinate System: NAD 1983 HARN StatePlane Florida East FIPS 0901 (US Feet)
 Geographic Coordinate System: GCS North American 1983 HARN



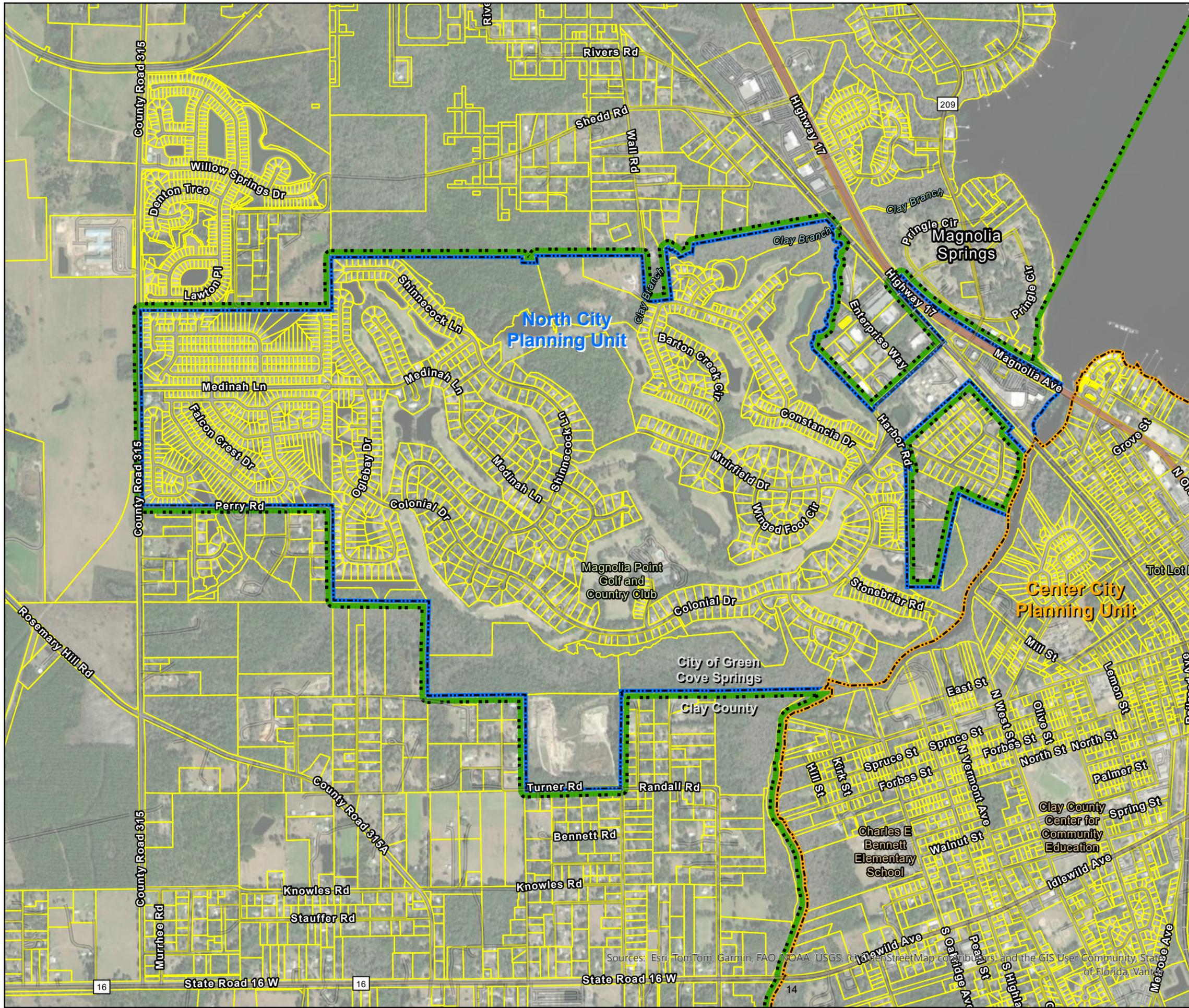
St John's County, State of Florida, Vantor, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community



Stormwater Management Utility (SMU) Planning Units

Legend

- Clay County Tax Parcels
- City of Green Cove Springs
- SMU Planning Units**
 - North City Planning Unit
 - Center City Planning Unit



Projected Coordinate System: NAD 1983 HARN StatePlane Florida East FIPS 0901 (US Feet)
Geographic Coordinate System: GCS North American 1983 HARN



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Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, State of Florida, Van

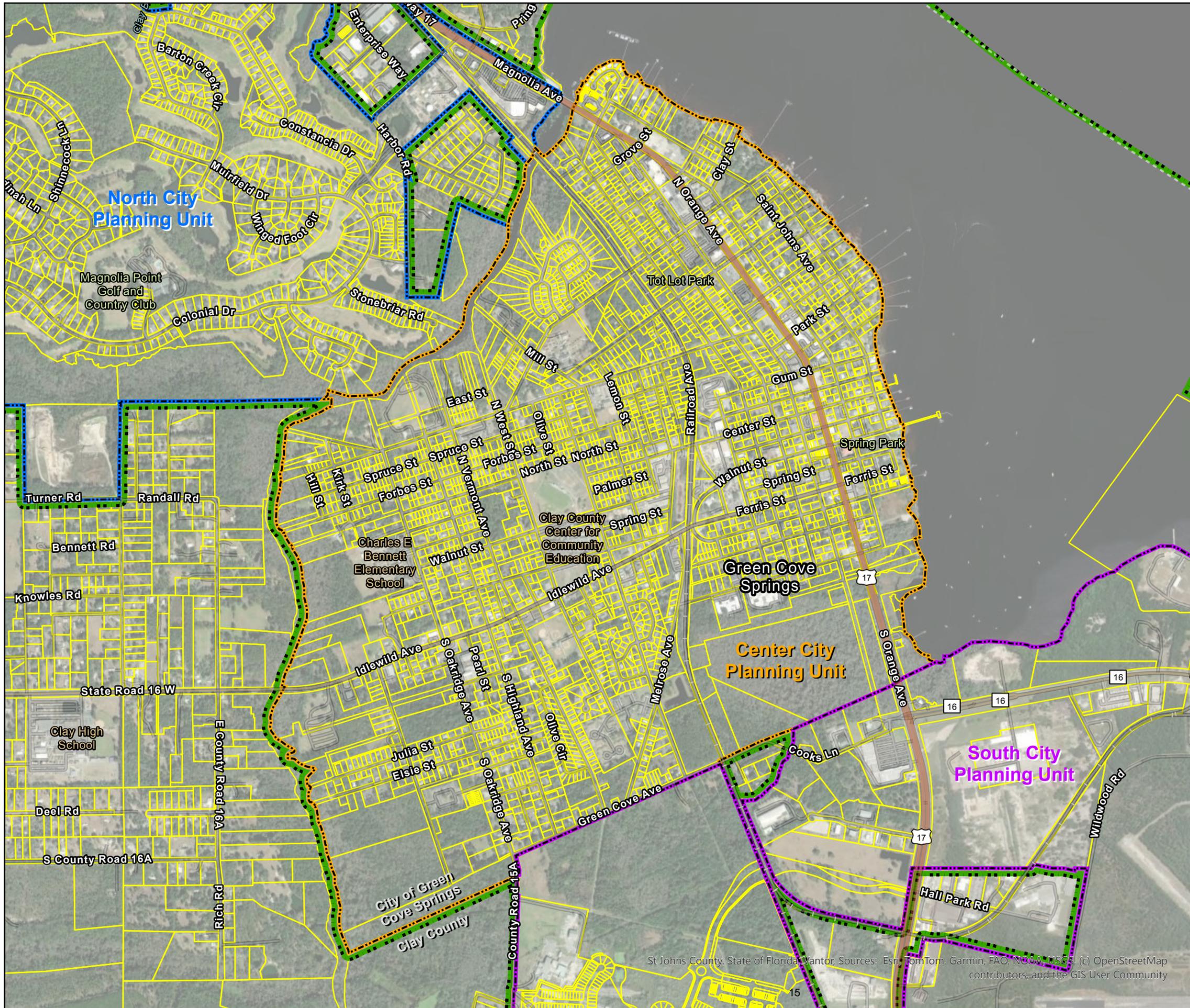




Stormwater Management Utility (SMU) Planning Units

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- Clay County Tax Parcels
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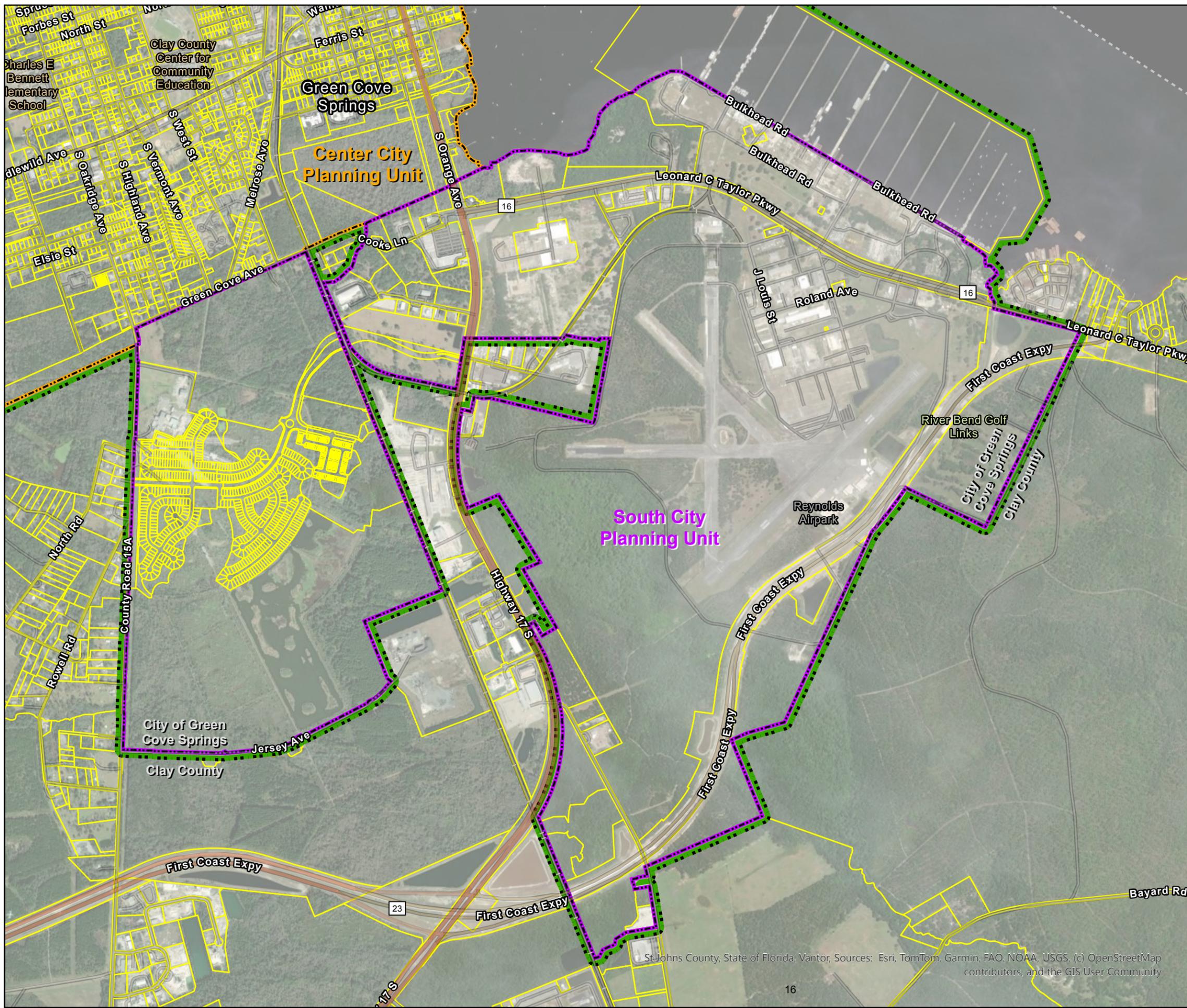
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Stormwater Management Utility (SMU) Planning Units

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- City of Green Cove Springs SMU Planning Units
- Center City Planning Unit
- South City Planning Unit



Projected Coordinate System: NAD 1983 HARN StatePlane Florida East FIPS 0901 (US Feet)
Geographic Coordinate System: GCS North American 1983 HARN



Date: April 21, 2015 Prepared by: Employee ### File: L:\2014\14-0532\Planning\GIS\GCS GIS Package

St Johns County, State of Florida, Vantor, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

Appendix B

CALCULATIONS

GCS SMU Cost Analysis Model

2026- 2036 SMU CIP

Project Name	Design Cost	Project cost	Total Project Costs	Schedule year
Oakridge Avenue Basin*	\$ -	\$ 1,700,000.00	\$ 1,700,000.00	FY27/28
Oakridge Avenue Basin*		\$ 1,300,000.00	\$ 1,300,000.00	FY 28/29
Spring Park Flume Removal/Ferris St	\$ 35,000.00	\$ 200,000.00	\$ 235,000.00	Fy 29/30
Hill Street Replacement		\$ 250,000.00	\$ 250,000.00	Fy 29/30
Elmore St Headwall	\$ 30,000.00	\$ 300,000.00	\$ 330,000.00	FY 29/30
Esplanade Ave	\$ 65,000.00	\$ 850,000.00	\$ 915,000.00	FY 30/31
Property Purchases		\$75,000	\$ 75,000.00	FY 30/31
Vermont between Walnut & Bonaventure	\$ 90,000.00	\$ 1,000,000.00	\$ 1,090,000.00	FY 31/32
South Vermont	\$ 100,000.00	\$ 1,200,000.00	\$ 1,300,000.00	Fy 32/33
Gum St headwall	\$ 20,000.00	\$ 70,000.00	\$ 90,000.00	FY 33/34
Elmore St Headwall	\$ 20,000.00	\$ 300,000.00	\$ 320,000.00	FY 33/34
Lewis Dr headwall	\$ 20,000.00	\$ 300,000.00	\$ 320,000.00	FY 33/34
2035-2036 TBD Projects	\$ 150,000.00	\$ 1,500,000.00	\$ 1,650,000.00	FY 35/36
Totals	\$ 380,000.00	\$ 9,045,000.00	\$ 9,425,000.00	

* CDBG Grant 1.275 M will reduce overall loan amount to \$8,150,000

Base Rate Analysis	2023 Actual	2024 Actual	2025 Projected	2026 Budget
Total Personnel Expenses	\$ 156,842.00	\$ 128,336.00	\$ 126,909.00	\$ 136,863.00
Total Operating Expenses (with out dep.)	\$ 167,345.00	\$ 118,955.00	\$ 129,827.00	\$ 132,067.00
Vehicle/Equip. Debt	\$ 135,000.00	\$ 135,000.00	\$ 135,000.00	\$ 135,000.00
Totals	\$ 459,187.00	\$ 382,291.00	\$ 391,736.00	\$ 403,930.00
Average 4 Year Outlay- Base Rate	\$ 409,286.00			
Estiamted Likely Base Units	4334			
Annual Cost per Base Unit	\$ 94.44	Current Rate is 84 dollars/year		

Proposed 2025 Tax Roll with no mitigation

Type	Total ESU
CHURCH	94
COMMERCIAL	1,334
Commerical - Reynolds	4,750
GOVERNMENT	496
MULTI-FAMILY	200
SCHOOL	319
SINGLE-FAMILY	3,919
CONDO	49
Total	11,161

2027 Projected Needs	
Base Operating Expenses	\$ 421,564.58
5 % R&R Reserve	\$ 100,000.00
Current Debt Service	\$ 715,000.00
Proposed Debt Service	\$ 729,600.00
Totals	\$ 1,966,164.58

includes 3% Inflation.
Debt less Vehicles
8.150 M 6% over 20 Years

Fee Analysis	ESU	"Current" Rates	Generates for 2026	Min. Needs	Shortfall	Fee Deficiet	Full Funded Fee	Reccomendation
Base Unit Rates	4,334	\$ 84.00	\$ 364,056.00	\$ 421,564.58	\$ 57,508.58	\$ 13.27	\$ 97.27	Raise to Fully Fund.
Using the above 2025 ESU counts and historical data on mitigation credits it's estimated that of the 11,161 current ESU the actual collected ESU will be approximaetly..	5,000	\$ 300.00	\$ 1,500,000.00	\$ 1,544,600.00	\$ 44,600.00	\$ 8.92	\$ 308.92	Raise per ESU fee by 9 per ESU
Totals		\$ 384.00	\$ 1,864,056.00	\$ 1,966,164.58	\$ 102,108.58	\$ 22.19	\$ 406.19	

Appendix C
MITIGATION
CREDIT FORM



City of Green Cove Springs

321 Walnut Street
Green Cove Springs, FL 32043

Phone: (904) 297-7012
Fax: (904) 284-8609

Green Cove Springs SMU User Fee Mitigation Credit Form

Tax Parcel No _____

Owner Name _____

Address _____

Engineer Name _____

Address _____

Attach the following to the form:

- Report or calculations of Pre versus Post rates and volumes for all required design storms
- Paving, Grading, and Drainage Plan illustrating the stormwater facilities
- Operations and Maintenance Plan

Credit Request: New Development Redevelopment*

* Note max credit for Redevelopment is 50%, unless the analysis assumes pre-developed rates and volumes are “pre-developed” and not existing.

Mitigation Credit Option 1

Pre-Requisites

- a. Located in the City/SMU Watershed
- b. Site has on-site drainage features that treat stormwater and are privately maintained.
- c. Site maintains an active SJRWMD or FDEP Permit
- d. Site Discharges to a City Maintained Facility

50% - Post rate at or below the existing rate or existing volume for New Development

95% - Post rate and volume at or below the existing rates & volumes for New Development

Mitigation Credit Option 2

Pre-Requisites

- a. Located in the City/SMU Watershed
- b. Site has on-site drainage features that treat stormwater and are privately maintained.
- c. All internal infrastructure is privately maintained by the landowner or a bona fide HOA.
- d. Site maintains an active SJRWMD or FDEP Permit
- e. Site Discharges offsite to a non-city owned facility and illustrates that the discharge reaches the St Johns River without accessing a city owned facility.

90% - Post rate at or below the existing rate or existing volume for New Development

95% - Post rate and volume at or below the existing rates & volumes for New Development

Owner Certification

I hereby certify that I am the owner of the above referenced tax parcel and by requesting mitigation credit to the City SMU user fee, agree to properly operate and maintain the stormwater management systems on the subject tax parcel in perpetuity as a condition of receiving this mitigation credit.

Witness Signature

Owner Signature

Typed Name & Date:

Typed Name & Date:

Engineering Certification

I hereby certify that the stormwater management systems located at the tax parcel listed above qualify for the mitigation credit percentage noted above, meet City and SJRWMD requirements and are capable of being properly operated and maintained by the owner consistent with the provided operation and maintenance plan.

Engineer's Signature

-Seal-

Typed name, Date and PE #