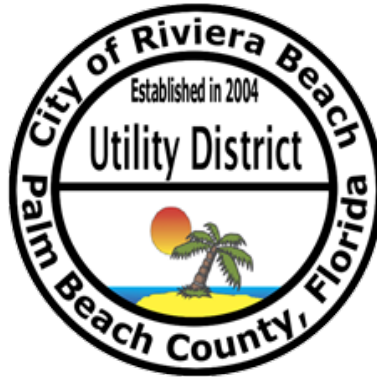


# **CITY OF RIVIERA BEACH, FLORIDA**



# **CAPITAL IMPROVEMENT CHARGE EVALUATION**

**DRAFT**

**OCTOBER 30, 2018**



**Public Resources Management Group, Inc.**

*Utility, Rate, Financial and Management Consultants*



**Public Resources Management Group, Inc.**

*Utility, Rate, Financial, and Management Consultants*

**DRAFT**

October 30, 2018

The Honorable Chairman and  
Members of the Board of Directors  
City of Riviera Beach Utility Special District  
600 West Blue Heron Boulevard  
Riviera Beach, FL 33404

**Subject: Fiscal Year 2018 Capital Improvement Charge (Impact Fee) Evaluation**

Ladies and Gentlemen:

Public Resources Management Group, Inc. ("PRMG") has completed our review of the water and wastewater capital improvement charges (impact fees) for the City of Riviera Beach Utility Special District's (the "District") water and wastewater utility enterprise fund or system (the "System") and has summarized the results of our analyses, assumptions, and conclusions in this report, which is submitted for your consideration. The purpose of our analysis was to review the existing System capital improvement charges and make recommendations as to the level of charges that should reasonably be in effect consistent with: i) the utility assets installed by the District; ii) the capital expenditure requirements identified in the District's multi-year capital improvement program ("CIP") for the System; iii) industry guidelines and Florida Statutes; and iv) District management objectives.

The existing water capital improvement charge have not been reviewed or adjusted by the District in at least five (5) years. Based on our review, PRMG is recommending that the water system impact fee be increased from \$1,376 to \$2,110 or \$734 per Equivalent Dwelling Unit ("EDU"). For the wastewater system, we are recommending an increase in the capital improvement charge from \$1,116 to \$1,830 or \$714 per EDU. The combined water and wastewater fees with the proposed rate adjustments would be \$3,940, an increase of \$1,448 or 58% when compared with the existing combined fees of \$2,492. Overall, we consider this to be reasonable recognizing i) the total gross investment in utility infrastructure is greater than \$77,500,000; and ii) the overall cost of utility plant construction has increased when one considers that the change in the Construction Cost Index as published by the *Engineering News Record* has increased by over 147% over the last thirty (30) years (thus, the amount of investment necessary to provide service to the District and the net cost to install new investment is increasing). The proposed capital improvement charges, based on the analyses and assumptions as documented in this report, are summarized on Tables 3 and 5 at the end of this Report.

The proposed capital improvement charges were based on the recovery: i) of capital-related costs that have been incurred for utility plant that has been placed into service and financed by the District, which are estimated to have available capacity to serve new development; as well as ii) certain capital costs anticipated to be incurred by the District during the next five years that are

Honorable Chairman and Members of the  
Board of Directors  
City of Riviera Beach Utility Special District  
October 30, 2018  
Page 2

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considered necessary to serve new development. Based on the information provided by the District and the assumptions and considerations outlined in this report, which should be read in its entirety, PRMG considers the proposed capital improvement charges to be cost-based, reasonable, and based on local costs in accordance with the provisions of Florida Statutes, 163.31801 (referred to as the "Florida Impact Fee Act").

We appreciate the opportunity to be of service to the District and would like to thank the District staff for their assistance and cooperation during the course of this study.

Very truly yours,

**Public Resources Management Group, Inc.**

Robert J. Ori  
President

RJO/dlc  
Attachments

**CITY OF RIVIERA BEACH UTILITY SPECIAL DISTRICT  
CAPITAL IMPROVEMENT CHARGE EVALUATION**

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**CITY OF RIVIERA BEACH UTILITY SPECIAL DISTRICT  
CAPITAL IMPROVEMENT CHARGE EVALUATION**

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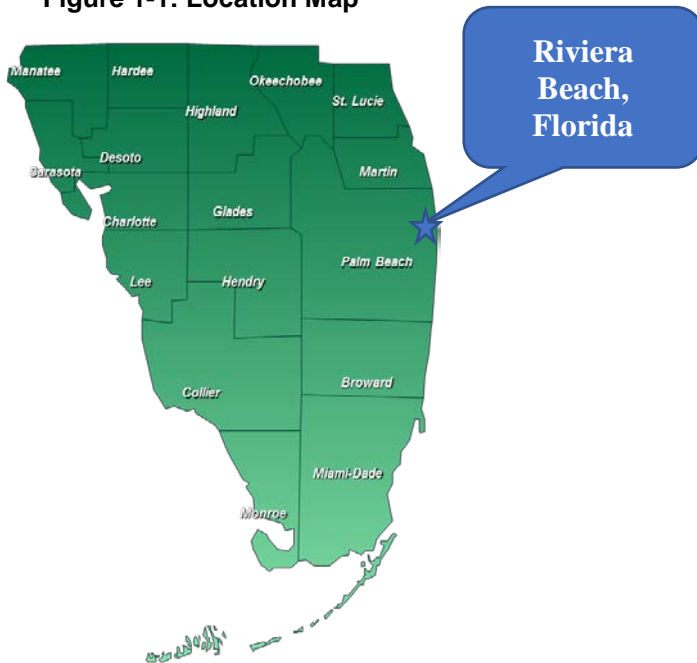
**CITY OF RIVIERA BEACH UTILITY SPECIAL DISTRICT**  
**CAPITAL IMPROVEMENT CHARGE EVALUATION**

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**INTRODUCTION**

The City of Riviera Beach Utility Special District (the "District") is responsible for producing and distributing safe drinking water and providing sewage collection and disposal throughout its service area. The District owns, operates, and maintains water and wastewater facilities that serve the corporate limits of the City of Riviera Beach, the Town of Palm Beach Shores, Port of Palm Beach, a portion of the City of West Palm Beach, and unincorporated Palm Beach County in the Gramercy Park area. Additionally, a force main from the Town of Mangonia Park conveys sewage into the District's force main network.

**Figure 1-1: Location Map**

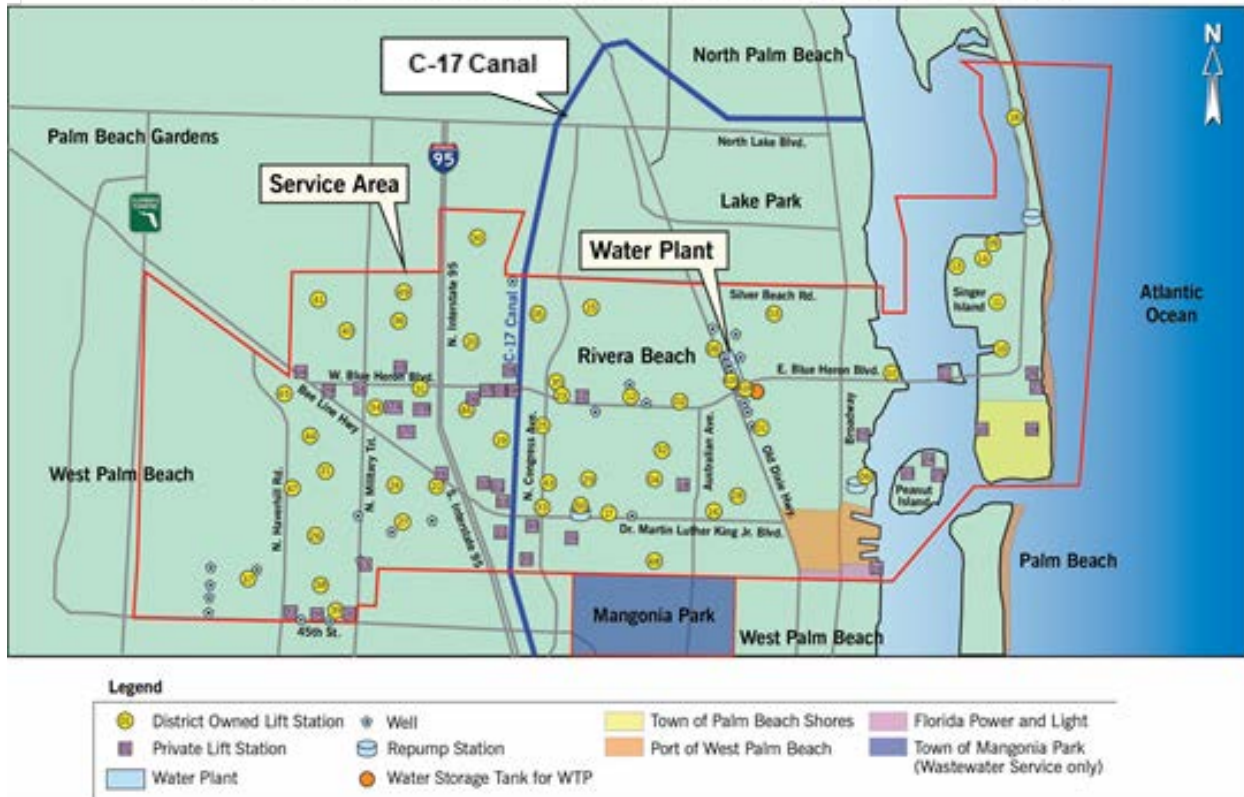


Riviera Beach is located on the southeastern coast of Florida; Figure 1-1 illustrates the location of Riviera Beach.

The District's service area is approximately 11 square miles. Figure 1-2 illustrates the water and wastewater service area on the following page.

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Figure 1-2: Service Area for Water and Wastewater Systems



The District's water facilities include: raw water supply wells; a single water treatment plant ("WTP"); the distribution system; and storage and re-pumping facilities. The District currently supplies drinking water to a population of approximately 42,000. The District also owns, operates, and maintains wastewater facilities in generally the same service area as the water distribution system. The District's wastewater facilities include: gravity sewer collection system; manholes; wastewater pumping stations, and wastewater transmission piping. The District's wastewater is conveyed to the East Central Regional Wastewater Reclamation Facility ("ECRWF") for treatment.

The Port of Palm Beach ("Port") is supplied with potable water by the District. The Port is located in the southeast corner of the District service area. Water is supplied to the Port through six water master meter stations. The water master meters include check valves that allow the water to enter the Port's water piping system and not flow back out into the District system. The Port owns the water distribution system piping downstream of the District's water meters.

The scope of services to be performed by PRMG included the following:

1. Perform a review of the District's existing level of service to be applied to an equivalent residential dwelling unit ("EDU");

2. Identify and evaluate the constructed and purchased water and wastewater plant capacity and estimate the available capacity to serve new development within the District's water and wastewater utility service area;
3. Evaluate the current constructed cost of the water and wastewater utility infrastructure and allocate the costs among the functional categories of asset purpose (e.g., treatment) to identify the installed cost of infrastructure to be included in the derivation of the average cost to provide water and wastewater capacity;
4. Evaluate the five-year (near-term) capital improvement program to identify anticipated changes in the installed cost of facilities as well as anticipated new capital facilities to the System such that there is a match to fee application to assets providing service or capacity;
5. Prepare an impact fee comparison with other neighboring jurisdictions to evaluate fee levels to be charged to applicants requesting capacity;
6. Based on the analysis, identify recommended capital improvement charges for the water and wastewater systems;

## **PURPOSE OF WATER AND WASTEWATER FEES**

The purpose of capital improvement charges or impact fees is to recover the pro rata share of allocated capital costs that are considered as growth-related from new customers connecting to the System or from existing customers that are requesting an increase in the reserved water and/or wastewater capacity associated with increased development on their property. To the extent that new population growth and associated development impose identifiable added capital costs to municipal services, capital funding practices to include the assignment of such costs to those residents or system users responsible for those costs rather than to the existing population base is reasonable and provides for the property match of initial capital investment to reserve capacity. Generally, this practice has been labeled as "growth paying its own way" without existing user cost burdens. The application of capital improvement charges or impact fees to finance capital infrastructure allocated to such new capacity requests is very common in Florida and the country and has been used as a source of contributed capital by the District on behalf of the System for many years.

The initial precedent for impact fees in Florida was set in the Florida Supreme Court decision, *Contractors and Builders Association of Pinellas Authority v. The Authority of Dunedin, Florida*. In this case, the Court's ruling found that an equitable cost recovery mechanism, such as impact fees, could be levied for a specific purpose by a Florida municipality as a capital charge for services. On June 14, 2006, additional impact fee legislation became effective as Chapter 2006-218, Laws of Florida, and was later incorporated in Section 163.31801 of the Florida Statutes. The impact fee legislation, which has been designated as the "Florida Impact Fee Act," recognized that impact fees are an important source of revenue for a local government to use in funding the infrastructure necessitated by new growth. The act further states that an impact fee adopted by ordinance of a county or municipality, or by resolution of a special district, must at minimum:



- Require that the calculation of the impact fee be based on the most recent and localized data;
- Provide for accounting and reporting of impact fee collections and expenditures in a separate accounting fund;
- Limit administrative charges for the collection of impact fees to actual costs;
- Require that notice be provided no less than 90 days before the effective date of an ordinance or resolution imposing a new or amended impact fee. However, a county or municipality is not required to wait 90 days to decrease, suspend, or eliminate an impact fee; and
- Annually require an affidavit from the entity imposing the fee addressed to the Auditor General that the utility has complied with this statute.

On May 21, 2009, Florida House Bill 227 became law, and this legislation added the following language to the Florida Impact Fee Act:

*"In any action challenging an impact fee, the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee meets the requirements of state legal precedent or this section. The court may not use a deferential standard."*

Based on Section 163.31801 of the Florida Statutes and existing Florida case law, certain conditions are required to develop a valid impact fee. Generally, it is our understanding that these conditions involve the following issues:

1. The impact fee must meet the "dual rational nexus" test. First, impact fees are valid when a reasonable impact or rationale exists between the anticipated need for the capital facilities and the growth in population. Second, impact fees are valid when a reasonable association, or rational nexus, exists between the expenditure of the impact fee proceeds and the benefits accruing to the growth from the use of the proceeds.
2. The system of fees and charges should be set up so that there is not an intentional windfall to existing users.
3. The impact fee should only cover the capital cost of construction and related costs thereto (engineering, legal, financing, administrative, etc.) for capital expansions or other system-related capital requirements that have been or are anticipated to be constructed, which are required or available to serve growth. Therefore, expenses due to rehabilitation or replacement of a facility that has been constructed (e.g., replacement of a capital asset) or an increase in the level of service should be borne by all users of the facility (i.e., existing and future users) to the extent that capacity in such facilities is available to serve the needs of new development.
4. The District should adopt a capital improvement charge (impact fee) resolution or ordinance that explicitly restricts the use of impact fees collected. Therefore, impact fee revenue should be set aside in a separate account, and separate accounting must be made for those funds to ensure that they are used only for the lawful purposes described above.

Based on the criteria above, the proposed capital improvement charges, which are set forth in subsequent sections herein: i) include only the estimated allocated capital cost of facilities necessary to provide capacity to serve anticipated new development; ii) do not reflect costs associated with renewal and replacement of any existing capital assets (except for any portion of upgrades allocable to growth, such as "upsizing" or "looping" of certain transmission lines or for assets that have capacity allocated to serve new development); and iii) do not include any costs of operation and maintenance of any facilities.

As can be seen above, the courts, recent legislation, and industry practices have addressed three areas associated with the development of the impact fee. These areas include: i) the "fair share" concept dealing with payment of the fee by the affected property owners; ii) the "rational nexus" concept, which focuses on the expenditure or purpose of the fee; and iii) the consideration of credits, which recognize appropriate fee offsets.

The fair share concept addresses that the fee can only be used for capital expenditures that are attributable to new growth. The fee cannot be used to finance level of service deficiencies or the replacement of existing facilities required to provide services to the existing System users. Typical industry practices also allow for establishing different fees for different classes of customers and the ability for the payment of a reduced impact fee if applicants can demonstrate that their development will have smaller impact (or capital requirement) than assumed in the fee determination. Additionally, the fair share concept recognizes that the cost of facilities used by both existing customers and new growth must be apportioned between the two user groups such that the user groups are treated equally and one group does not subsidize the other.

The rational nexus concept requires that there be a reasonable relationship between the need for capital facilities and the benefits to be received by new growth for which the fee will be expended. The District's existing infrastructure and the overall operations and management of the System is considered to be System-wide since the System is considered as a consolidated interconnected system from a service standpoint (service is provided by primary plant facilities to all users with the ability to adjust capacity utilization and flows as may be necessary and as practical) and is managed operated, financed and accounted for on a consolidated basis, which eliminates the justification for utility zones. As such, the proposed impact fees were determined on a System-wide basis. The second nexus condition recognizes that the property must receive a benefit from the public services for which the fee is being applied. With respect to the water and wastewater charge, these facilities are used by and are constructed on behalf of all the property within the District's service area and benefit both residential and commercial customers. As such, all new growth requesting capacity from the System (either water and/or wastewater) are subject to the application of the impact fees.

Credit or fee offsets recognize that if an agency has received property in the form of cost-free capital or there is specific revenue (taxes) that will be used for the capital expenditures for which the impact fee was designed to recover necessitated by new growth, a credit should be applied to the impact fee. Examples of cost-free capital include grants, contributions by developers, infrastructure funded from external sources (assessments), and other sources that provide funds toward the capital expenditures for which the impact fee was designed to recover. These credits

allow for the recovery of costs to serve new development through impact fees, net of such cost-free capital.

The evaluation of the proposed water and wastewater capital improvement charges proposed to be charged by the District as identified in this study to new development requiring water and/or wastewater System capacity recognized the above-referenced issues.

**EXISTING WATER AND WASTEWATER CAPITAL IMPROVEMENT CHARGES**

The current capital improvement charges for an Equivalent Residential Unit ("ERU"), which is defined by the District's code of ordinances (Section 20-73) as the allocated capacity to an individual user, who uses an average of 7,340 U.S. gallons of water per month, and discharges not in excess of an average of 7,340 U.S. gallons of sewage per month into the District's wastewater system are summarized below:

	<u>Existing Rate per EDU [*]</u>
Water System Impact Fee	\$1,376.00
Wastewater System Impact Fee	<u>1,116.00</u>
Combined	<u>\$2,492.00</u>

[\*] Reflects fee for standard individually-metered residential unit (generally served through a 3/4-inch meter service and is considered to equate to 1 EDU).

**DEVELOPMENT OF CAPITAL IMPROVEMENT CHARGES**

There are two significant components addressed in the design of the capital improvement charges (impact fees). These two components include: i) the total available system capacity to serve new development, expressed on a gallons per day basis (which is consistent with the capacity available at the water treatment facility and the District's capacity entitlement at the East Central Regional Wastewater Reclamation Facility); and ii) the level or amount of capital costs to be recovered from a new applicant requesting service as depicted in Figure 1 below:

**(Remainder of page intentionally left blank)**

**FIGURE 1**  
**Impact Fee Determination Methodology**



All of these components are necessary to determine the amount of the capital improvement charge expressed to be charged to new applicants requesting service on an equivalent residential dwelling unit or "EDU" basis, which is more fully discussed later in this report.

With respect to the development of the capital costs to be recognized in the fee determination, there are three methods generally used, which include: i) the Standards Method; ii) the Buy-in Method; and iii) the Improvements Method. The Standards Method would base the capital cost on a theoretical cost of the improvements for incremental development (e.g., the standard cost for water plant expressed on a \$/gallon basis). This method generally would not recognize the existing installed infrastructure that has capacity to serve new development and may also not recognize the current capital plan identified to provide service or complete the master planning of the system facilities. The Buy-in (or historical) Method recognizes the installed original cost of the utility infrastructure in the determination of the capital costs to provide service. This method is applicable to mature or developed utility systems that have constructed the majority of its infrastructure. This method generally would only reflect the constructed capacity and not recognize any anticipated changes in service area infrastructure. The Improvements Method would be based on future capital costs and new capacity determined over a projected period of time; it would not account for unused constructed capacity that may be available to serve new development. This fee is similar to the standards method in that it is based on a future cost (however, it is specific to the utility as opposed to a standard). This method may result in a disparity of the amount of growth to be served by the new facilities.

For the purposes of this study, a blending of the Buy-in Method and Improvements Method was recognized for the following reasons:

1. Since the Florida Impact Fee Act requires that the impact fee be based on localized costs, basing the fee on the installed costs of the assets in service would strongly promote this requirement since the costs are known.

2. The District's System, is at a mature position in terms of capacity constructed and overall service area development. The existing constructed and secured capacity (through investments in a joint venture [ECRWRFF]) currently has available capacity to serve growth.
3. The District has identified expansion-related and System upgrade projects in the near-term, which will increase the available capacity and the overall installed cost of providing service. The near-term capital improvements were considered in the fee to recognize the estimated installed cost of capacity coincident with the time frame that the fee is to be charged to new development. Only the five-year capital plan was considered since infrastructure needs can change over time due to, among other things, increased or changes in regulations, levels of service and development patterns, changes in or availability of water supply resources, and other factors.
4. The Buy-in Method and Improvements Method were consolidated to identify the blended average cost, which places more emphasis on the Buy-in Method and will promote the "system concept" as it relates to service availability for new development since it does not only consider the capital improvement expenditures, which, in many instances, is higher than the original cost of the utility infrastructure that has been constructed and placed into service.

The following is a discussion of these impact fee components:

#### **LEVEL OF SERVICE REQUIREMENT**

Pursuant to Section 163.3164, Florida Statutes, the "level of service" means an indicator of the extent or degree of service provided by, or proposed to be provided by, a facility based on and related to the operational characteristics of the facility and shall indicate the capacity per unit of demand for each public facility. Essentially, the level of service standards is established in order to ensure that adequate capacity will be provided for future development and for purposes of issuing development orders or permits, pursuant to Section 163.3202(2)(g) of the Florida Statutes. As further stated in the Statutes, each local government shall establish a LOS standard for each public facility located within the boundary for which such local government has authority to issue development orders or permits. Such LOS standards are set for each individual facility or facility type or class and not on a system-wide basis. With respect to the determination of the water and wastewater capital improvement charges, the LOS as adopted by the District on a system-wide basis since all of the water production and wastewater treatment facilities are interconnected from an individual service concept and serve as a single water and wastewater system. This is also consistent with the fee application of other local governments throughout the State of Florida.

For water and wastewater service, the level of service that is commonly used in the industry is the amount of capacity (service) allocable to an ERU expressed as the amount of usage (gallons) allocated on an average daily basis. This allocation of capacity would generally represent the amount of daily dependable capacity allocable to an ERU, whether or not such capacity is actually used (commonly referred to as "readiness to serve"). The District currently charges a capital improvement charge based on the number of equivalent residential units that an applicant may be requesting relative to the property being developed. Pursuant to the District's Code of Ordinance Section 20-73 (Capital Improvement Charges), the following definition of a dwelling unit applies:

*"An equivalent residential unit (ERU) is defined as an individual residential user who uses an average of 7,340 U.S. gallons of water per month. The city will determine the number of ERUs for each user. Each residence shall be considered one ERU."*

Based on the provisions of Section 20-73, an ERU is representative of the average capacity required to service a typical individually-metered or single-family residential account. This class of users represents the largest number of customers served by a public utility such as the District and generally represents the lowest (and most common) level of usage requirements for a specifically metered account. Based on a review of the recent usage trends of the District's customers, PRMG is of the opinion that the existing LOS is indicative of the average monthly usage of existing District's customers and is reasonable.

**CAPITAL INVESTMENT**

In the evaluation of the capital improvement charges, the development of the estimated facility or infrastructure costs associated with the identified facility capacity is a primary component in the fee development. As previously mentioned, the determination of the facility or infrastructure costs was based on a blend of the Buy-in Method and the Improvements Method to identify the estimated localized cost of the infrastructure necessary to meet the near-term future capacity needs associated with new development during the next five to possibly ten years. The following is a discussion of the existing utility plant and new capital facility evaluation associated with the development of the impact fee for the water and wastewater utility systems.

**Existing Plant-in-Service and Capacity Rights**

In the determination of the capital improvement charge associated with the servicing of future customers, any constructed or contractual capacity in the existing treatment and transmission utility systems that is available to serve such growth was considered. Since this capacity was constructed and is available to serve the near-term incremental growth of the System, it is appropriate to recognize the capacity availability and the corresponding cost of such facilities. To evaluate the availability of the existing utility plant-in-service to meet or provide for near-term future capacity needs, it was necessary to functionalize the existing utility plant by specific function or purpose (treatment, transmission, etc.). The "functionalization" of the existing utility plant is necessary to: i) identify those assets that should be considered or included in the determination of the capital improvement charges; and ii) match existing plant type to the capital improvements to meet future service needs.

The functional cost categories are based on the purpose of the assets and the service that such assets served. The following is a summary of the functional cost categories for the utility plant-in-service identified in this report.

<b>Functional Plant Categories</b>	
<b>Water Service</b>	<b>Wastewater Service</b>
Supply and Treatment	Treatment and Disposal
Transmission and Storage	Transmission and Master Lift Stations
Distribution, Fire Hydrants, and Meters	Collection (Includes Local Lift Stations, Manholes, and Laterals)

It was necessary to functionalize the utility plant into these cost categories so that System infrastructure costs can be identified such that the fee could be developed. System improvement costs relate to those costs incurred to provide capacity for the total System and are needed to serve new growth and development. The capital infrastructure that is not generally included in the determination of the fee would include site improvements and facilities that are planned and designed to provide service for a particular development project or specific property and that are necessary for the use and convenience of the occupants or users of the project; the costs would also not include any routine and periodic maintenance expenditures, personnel training, and other operating costs. Therefore, the costs of on-site facilities that serve a specific development or customer are not considered as a "System" cost that is proportionately allocable to all users; these expenditures would include on-site (fronting the premise) water distribution and wastewater collection lines, meters and services, local lift stations, sewer laterals, and fire hydrants, which are usually: i) donated by a developer as part of the District's utility extension or development process (a contribution of the plant); and ii) funded from the customer directly (e.g., by a "front-foot" charge where the on-site lines were initially financed by the utility and then paid by the customer or an installation charge to recover the cost of a new service line and/or the potable water meter). Such utility plant should not be a capital cost included in the capital improvement charge calculation. Additionally, assets or utility plant with short service lives that are replaced on a recurring or frequent basis should also not be included since these assets are considered to essentially be attributable to the existing customers of the System. An example of this utility plant would be assets commonly referred to as "general plant" and would include vehicles, equipment, furniture, and other related assets.

The District provided PRMG with reported utility plant asset information as of September 30, 2017 (the most recently completed fiscal year at the time of this analysis, which audited financial statements were readily available) that served as the basis of the functionalization of the existing utility plant-in-service. Table 1 at the end of this report provides a summary of the functionalization analysis of the existing utility plant-in-service for the System. The functionalized existing utility plant-in-service as shown in Table 1 represents the original installed cost of such assets (gross book value) when placed into service and represents all assets in service as of September 30, 2017 that were reported by the District and detailed in the utility asset records. This information represents the most current and localized information available relative to the plant-in-service to serve the existing and near-term future customer base of each utility system. The assets represent "installed costs" and have not been restated to account for any fair market value adjustments that would reflect current costs (would essentially assume that the assets were replaced with identical materials under similar construction conditions). In total, the District has \$72,392,282 in assets associated with gross plant investment, excluding assets deemed "excluded assets" as discussed in more detail below.

In the identification of the capital costs associated with constructed infrastructure to be considered in the development of the impact fee, certain assets were not considered, which included the following asset categories:

- Water distribution assets that were assumed to be specific to providing service directly to the customer premise (referred to as an "on-site" improvement) and which would generally i) be contributed to the District by a developer; or ii) recovered in a separate fee such as a meter

installation charge. With respect to the determination of the water conveyance system considered as a non-recognized asset and based on discussions with the District, it was assumed that all water pipe with a diameter size of 10 inches or less would not be reflected as an expenditure that is allocable to generally providing service to all customers. It was further assumed that all water distribution (transmission) mains with a pipe diameter size of 12 inches or greater would be considered as a primary conveyance asset and would be included in the fee determination. In addition to the water distribution facilities, utility plant that would fall into this functional asset category would include meters, hydrants, and services to the customer property.

- Wastewater collection assets were assumed to be specific to providing service directly to the customer premise (referred to as an "on-site" improvement) and which would generally i) be contributed to the District by a developer; or ii) recovered in a separate fee such as a sewer tap charge. With respect to the determination of the wastewater collection system considered as a non-recognized asset and based on discussions with the District, it was assumed that all wastewater force mains with a diameter size of 8 inches or less and low-pressure sewers, vacuum sewers, and gravity sewers with a diameter size of 12 inches or less would not be reflected as an expenditure that is allocable to generally providing service to all customers. It was further assumed that all sewer interceptors, which is a component of the sewer network that directs flow to the wastewater treatment plants and force mains with a pipe diameter size of 10 inches or greater and gravity sewer mains with a pipe diameter of 14 inches or greater would be considered as a primary conveyance asset and would be included in the fee determination. In addition to the wastewater collection facilities, utility plant that would fall into this functional asset category would include local lift stations, manholes, and laterals to the customer property.
- The District has also recognized a significant investment in what is referred to as General Plant, which consists of equipment, vehicles, furniture, and other assets that have generally short service lives, which are replaced frequently. Because of the nature of this capital investment and the frequency of asset turnover, these expenditures were assumed to benefit only the existing customers being served and were not included in the capital improvement charge fee determination analysis.
- The District receives all of its wastewater treatment requirements from the ECRWRF. The operation of the ECRWRF is governed by the ECR Board whose members include the City of West Palm Beach, the City of Lake Worth, the Town of Palm Beach, Palm Beach County, and the District (the "Entities"). The mission of the ECR Board is to operate and maintain the wastewater treatment and disposal facility in a cost-effective, reliable, and safe manner, which meets all Federal, State, and local permits and regulations. The District currently receives all of its wastewater treatment capacity and needs from the ECRWRF pursuant to an Interlocal Agreement Establishing Duties and Responsibilities among the Entities for the Operation of the East Central Regional Wastewater Treatment Facilities dated September 9, 1992 (the "Interlocal Agreement"). Currently the ECRWRF has a permitted treatment capacity of 70.0 million gallons per day ("MGD"); the District's capacity entitlement in the facility is currently 8.0 MGD, which equates to 11.4286% of the total wastewater treatment capacity. In order to allow for the recovery of the significant investment, the pro rata share



of the District's ownership of the ECRWRF has been included and it based on the total plant-in-service of the ECRWRF, which has been estimated as follows:

<b>Calculation of Estimated Investment in ECRWRF</b>	
<b>Gross Assets of ECRWRF:</b>	
Land	\$1,205,455
Property and Plant	175,400,202
Work-in-Progress	89,140,554
Investment in SWA Biosolids Processing Capacity	<u>10,643,394</u>
<b>Total Gross Assets of ECRWRF</b>	<b>\$276,389,605</b>
<b>Adjustments:</b>	
Add: 2014 ECRWRF Bonds – Unspent Proceeds and Work-in-Progress (Fund 473)	40,168,185
Add: 2016 ECRWRF Bonds – Unspent Proceeds (Fund 477)	11,031,754
Add: 2018 ECRWRF Bonds – Unspent Proceeds (Fund 47B)	41,500,000
Add: Additional RR Spending for Next 5 Years	40,886,734
Less: Land	(1,205,455)
Less: Estimated Retirements	(90,107,819)
Less: Estimated Grant Funding for AWT Facility	<u>(10,641,119)</u>
<b>Total Adjustments</b>	<b><u>\$31,632,280</u></b>
<b>Total Estimated Gross Assets of ECRWRF</b>	<b>\$308,021,885</b>
<b>City's Wastewater Treatment Capacity Entitlement (8 MGD) – Percent</b>	<b><u>11.4286%</u></b>
<b>Estimated City's Gross Investment in ECRWRF</b>	<b><u><u>\$35,202,589</u></u></b>

### **Additional Capital Investment (Capital Improvement Plan)**

As with any utility, the System is continually in the process of updating and expanding the water and wastewater plant facilities to serve increasing demand, capacity requirements, and new regulatory requirements and improve and upgrade existing infrastructure, which will provide service to new development. To develop a capital improvement charge that links to the installed cost to provide service, the cost of the System's capital improvements that are anticipated to meet the near-term future needs have been considered in the proposed capital improvement charge. The District has prepared a Five-Year Capital Improvement Plan (the "CIP"), which outlines a number of capital improvements to both the water and wastewater systems as shown on Table 1 at the end of this report for the water and wastewater systems, respectively. These capital improvements are for; i) improvements to and new facility expansions to meet anticipated service area demands; ii) upgrades to existing assets that may provide a benefit both current and future users of the System (e.g., upgrade facilities); and iii) replacement and improvements to assets or conducting capital programs that only benefit current users of the System.

With respect to the Water System, the District has identified approximately \$66.6 million in capital expenditures to be constructed or initiated through Fiscal Year 2023. With respect to the Wastewater System, the District has identified approximately \$26 million in capital expenditures to be constructed or initiated through Fiscal Year 2023.

The functionalization of the Water System assets and near-term capital improvements is shown on Table 3 at the end of this report. As can be seen on Table 3 and as summarized below,

approximately 81.9% of the installed Water System assets were identified as being either treatment plant or transmission-related, which represent a "System" cost that was recognized in the development of the proposed capital improvement charge.

**Functionalized Water System Assets and Near-Term Capital Improvements [\*]**

	Total System	Supply and Treatment	Transmission	Distribution [2]
Reported Water Plant-in-Service	\$110,603,882	\$73,010,460	\$17,576,354	\$19,997,583
Percent of Water Plant-in-Service	100.00%	66.02%	15.89%	18.09%

[\*] Amounts shown summarized on Table 3 and are based on information as provided by the District; amounts shown do not include in construction-work-in-progress.

A similar analysis was performed for the Wastewater System to determine the existing assets and near-term capital expenditures to be recognized in the fee determination. With respect to the Wastewater System, the District has identified approximately \$89.8 million in existing assets, capital investments (ECRWF wastewater treatment capacity entitlements), and capital expenditures to be constructed or initiated through Fiscal Year 2023. The functionalization of the wastewater system assets is shown on Table 5 at the end of this report. As can be seen on Table 5 and as summarized below, approximately 67.7% of the installed wastewater system assets and near-term capital improvements are also considered to be either treatment and disposal plant or transmission-related, which represent a "System" cost that was recognized in the development of the proposed capital improvement charge.

**Functionalized Wastewater System Assets, Near-Term Capital Improvements, and Capital Investments (Capacity Entitlement) [\*]**

	Total System	Treatment/ Disposal	Transmission	Collection
Reported Wastewater Plant-in-Service	\$89,816,567	\$35,485,791	\$25,304,604	\$29,026,173
Percent of Wastewater Plant-in-Service	100.00%	39.51%	28.17%	32.32%

[\*] Amounts shown summarized on Table 5 at end of this report and are based on information provided by the District; amounts shown do not include in construction-work-in-progress.

**Facility Capacity**

Another important component in the development of the capital improvement charges deals with the amount of capacity that links to the capital investment such that a unit cost (i.e., \$ per gallon) can be estimated. In the development of the capacity for the Water the amount were based on the design capacity of the water treatment facility expressed on an average daily flow. To determine the amount of existing water supply / treatment and wastewater treatment / disposal plant assets that may be available to meet future growth, an analysis of the estimated amount of unused capacity in such facilities was performed. Table 3 at the end of this report provides an estimate of the unused capacity and the allocated water supply and treatment plant costs available to meet future needs. This estimate for water capacity and the allocation of existing plant to future growth was based on: i) the design capacity of the water treatment facility; ii) the recognition of adjustments to present the facility capacity on a maximum month average daily demand / flow basis to be consistent with the assumed level of service requirements (dependable daily capacity);

and iii) actual use of such facilities as experienced by the System service area for the five Fiscal Year period ended 2017. For the wastewater system the available capacity was based on the capacity entitlement owned by the District at the ECRWRF of 8 million gallons per day expressed on an average daily flow basis.

As shown on Table 3 at the end of this report and as summarized below, the dependable capacity for the Water System expressed on an average daily flow basis was estimated at 12,141,119 gallons per day.

<b>Summary of Reliable Water System Capacity [*]</b>	
	<u>Amount</u>
Total Estimated Design Capacity – Gallons Per Day	17,500,000
Existing Peak Day Flow as Percent of Average Daily Flow – Fiscal Year 2017	143.77%
 Reliable System Capacity – Gallons Per Day	 <u><u>12,172,263</u></u>

[\*] Amounts shown derived from Table 3 at the end of this report.

**DESIGN OF CAPITAL IMPROVEMENT CHARGES**

Tables 3 and 5 at the end of this report provide the basis for the determination of the proposed capital improvement charges for the Water and Wastewater Systems, respectively. The derivation of the capital improvement charges was based on the cost and capacity components as presented earlier in this report. In the development of the proposed capital improvement charges, several assumptions were utilized or incorporated. The major assumptions utilized in the design of the calculated capital improvement charges included:

1. In the development of the proposed fees, the "System Buy-in" approach was recognized using the original cost method, adjusted for near-term improvements and capacity expansions to match the estimated installed cost of infrastructure to the future fee recovery period. This method allocates the estimated proportionate share of capacity at cost (value) of the existing assets – the applicant requesting capacity pays (buys) for its share of the infrastructure constructed to serve System growth. It should be noted that this method does not impart or transfer ownership to the customer but is generally considered to provide access to capacity in the amount purchased at a status equal to that of the existing customers of the System. The proposed capital improvement charges reflects the proportionate share of the existing plant considered as a primary or "System" cost that would be allocated to all users and is available to serve new development to reflect the estimated "buy-in" infrastructure value for the respective Water and Wastewater Systems.

The approach was based on the identification and allocation of the installed cost of the gross plant investment (expressed on an original cost basis – that is when the asset was originally placed into service) that is available (in-service) to serve new growth. Under this approach, the applicant paying the capital improvement charge is essentially reimbursing the System for only the applicant's proportionate share of the constructed facilities that are currently in-service as of September 30, 2017 and estimated to be constructed in the next five (5) years that are available to meet the requests for System capacity from new development. This method also recognizes that as improvements are made to the water system, the available

capacity to meet the future demands of the new development that would be served from the current constructed gross plant investment is being maintained and therefore the most recent installed cost of the gross plant investment is considered as being reasonable for the determination of the capital improvement charge.

2. The level of service for a water and wastewater Equivalent Residential Unit ("ERU") was assumed to be 241 gallons per day ("gpd") expressed on an average daily flow basis consistent with the monthly amount of 7,340 gallons as adopted by the District. Such amounts were adjusted to account for unbilled / non-revenue water in order to equate the level of service that would be required at the water treatment plant level (e.g., District must produce approximately 275 gallons in order to deliver 241 gallons of finished water delivered to the Water System since this links to the capacity costs constructed to provide service; it does not represent the potable water use at the customer premise). For the Wastewater System, the level of service for a wastewater ERU was assumed to be 241 consistent with the amounts adopted by the District. The recognized levels of service represent no change to the current service requirements, which were considered by PRMG to be reasonable.
  
3. Because: i) the utility system is operated as an enterprise fund; ii) all financial resources received by the District stay within the fund for the benefit of such system; iii) the costs reflected in the fee are at original cost and not adjusted for any fair market value to reflect current cost conditions; iv) there is no interest-expense carry in the impact fee associated with the financing of the capital investment to serve new development; and v) there are no other revenues received by the System from new development for the capital costs / utility plant reflected in the capital improvement charges (e.g., ad valorem taxes on the property) or from the General Fund for new primary system construction, no credit for the future payment of debt service allocable to the properties has been recognized. All capital improvement charge funds remain in the System and the long-term capital financing costs for infrastructure constructed and available to serve new growth are mitigated by using the capital improvement charges for ongoing expansion-related capital project financing or for the direct payment of the annual expansion-related debt service payments.

Based on the analysis of the primary System assets and the corresponding estimated capacity of such System, the following impact fees were calculated and are being proposed.

<b>Summary of Calculated and Proposed Capital Improvement Charges</b>		
	Calculated Cost Per ERU	Proposed Fee
Water System	\$2,118.97	\$2,110.00
Wastewater System	1,831.31	1,830.00
Combined	<u>\$3,950.28</u>	<u>\$3,940.00</u>

**Impact Fee Comparisons**

In order to provide additional information to the District regarding the existing and calculated capital improvement charges, a comparison of the existing and calculated charges for the District with other Florida jurisdictions was prepared. This comparison is summarized on Table 7 at the

end of this report and provides a comparison of the existing and proposed District capital improvement charges for single-family residential connections (i.e., one ERU) relative to the impact fees or comparable charges currently imposed by other municipal / governmental water and wastewater systems located primarily in the southeast Florida region. It is important to note that the reader must view the comparison with caution as no in-depth analysis has been performed to determine the methods used in the development of the water and wastewater impact fees imposed by others, nor has any analysis been made to determine whether 100% of the cost of new facilities is recovered from system capacity charges, or some percentage less than 100% with the balance recovered through the user charges. Additionally, no analysis was conducted as to the rate of capital facilities currently in service or planned for the utility. For example, the costs of wastewater effluent disposal utilizing a deep injection well system generally has a higher capital cost per unit of capacity than percolation ponds.

The following is a summary of the survey results regarding the impact fee comparison of the District's fees with those of the surveyed utilities:

**Comparison on Capital Improvement Charges (Impact Fees) for Water and Wastewater Service [\*]**

	<u>Water</u>	<u>Wastewater</u>	<u>Combined</u>
Proposed Capital Improvement Charges	\$2,110	\$1,830	\$3,940
Other Neighboring Utilities Average	2,219	2,170	4,389

[\*] Amounts shown derived from a survey of charges and fees imposed by other neighboring utilities as shown on Table 7 at the end of this report.

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**CITY OF RIVIERA BEACH UTILITY SPECIAL DISTRICT  
CAPITAL IMPROVEMENT CHARGE EVALUATION**

**LIST OF TABLES**

<b>Table No.</b>	<b>Description</b>
1	Allocation of Existing Capital Assets, Capital Improvements, and Capital Investments to the Water and Wastewater Functions
2	Summary of the Water and Wastewater Function Allocation Factors
3	Allocation of Water Existing Capital Assets, Capital Improvements, and Capital Investments to the Service Functions
4	Summary of the Water Service Function Allocation Factors
5	Allocation of Wastewater Existing Capital Assets, Capital Improvements, and Capital Investments to the Service Functions
6	Summary of the Wastewater Service Function Allocation Factors
7	Comparison of Capital Improvement Charges for Water and Wastewater Service

City of Riviera Beach Utility Special District  
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Allocation of Existing Capital Assets, Capital Improvements, and Capital Investments to the Water and Wastewater Functions

Line No.	Description	Purchase Price [1]	Adjustments	Adjusted	Allocation [2]	Allocated Amount		
						Water	Sewer	Indirect
<b>Existing Capital Assets</b>								
<b>Land</b>								
1	Lift Station, Blk25 Inlet	\$ 750	\$ (750)	\$ -	Eliminate	\$ -	\$ -	\$ -
2	56-43-42-28-25-030-0000	280,000	(280,000)	-	Eliminate	-	-	-
3	56-43-42-28-25-030-0000	1,220	(1,220)	-	Eliminate	-	-	-
4	Lift Station #10, Yct Hrb	4,170	(4,170)	-	Eliminate	-	-	-
5	56-43-42-28-00-000-7000	394,801	(394,801)	-	Eliminate	-	-	-
6	00-42-43-02-00-000-1090	65,000	(65,000)	-	Eliminate	-	-	-
7	74-43-43-04-01-000-0733	4,400	(4,400)	-	Eliminate	-	-	-
8	56-42-42-36-00-000-3240	10	(10)	-	Eliminate	-	-	-
9	56-43-42-27-03-014-0010	10	(10)	-	Eliminate	-	-	-
10	56-43-42-28-25-028-0000	10	(10)	-	Eliminate	-	-	-
11	56-43-42-28-26-036-0000	10	(10)	-	Eliminate	-	-	-
12	56-43-42-29-13-015-0311	10	(10)	-	Eliminate	-	-	-
13	56-43-42-29-13-026-0010	10	(10)	-	Eliminate	-	-	-
14	56-43-42-29-13-026-0080	10	(10)	-	Eliminate	-	-	-
15	56-43-42-29-24-000-0200	10	(10)	-	Eliminate	-	-	-
16	56-43-42-30-00-000-5110	10	(10)	-	Eliminate	-	-	-
17	56-43-42-31-16-000-0010	10	(10)	-	Eliminate	-	-	-
18	56-43-42-32-01-025-0010	10	(10)	-	Eliminate	-	-	-
19	56-43-42-32-09-000-7420	10	(10)	-	Eliminate	-	-	-
20	56-43-42-33-06-027-0030	10	(10)	-	Eliminate	-	-	-
21	56-43-42-32-00-000-3020	10	(10)	-	Eliminate	-	-	-
<b>Buildings</b>								
22	Prior To 70 Buildings	\$ 268,836	\$ -	\$ 268,836	Direct-W	\$ 268,836	\$ -	\$ -
23	1981-82 Buildings	1,422,461	-	1,422,461	Direct-W	1,422,461	-	-
24	1982-83 Buildings	6,585,005	-	6,585,005	Direct-W	6,585,005	-	-
25	1986-87 Buildings	546,919	-	546,919	Direct-W	546,919	-	-
26	1987-88 Buildings	1,104,374	-	1,104,374	Direct-W	1,104,374	-	-
27	1996-97 Buildings	1,086,325	-	1,086,325	Direct-W	1,086,325	-	-
28	Prior 1976 Sewer	347,559	-	347,559	Direct-S	-	347,559	-
29	1996-97 Sewer/Buildings	520,177	-	520,177	Direct-S	-	520,177	-
30	2000-01 Buildings	65,210	-	65,210	Direct-W	65,210	-	-
31	2001-02 Buildings - Roof	501,313	-	501,313	Direct-W	501,313	-	-
32	2001-02 Sewer/Sewer Collection	504,259	-	504,259	Direct-S	-	504,259	-
33	Roof Repairs - Usd Buildings	110,000	(110,000)	-	Eliminate	-	-	-
34	Paint Utilities' Storage Tanks & Bldgs.	94,717	(94,717)	-	Eliminate	-	-	-
35	Usd Water Treatment Plant Improvement-Paint	343,257	(343,257)	-	Eliminate	-	-	-
<b>Utility Plant &amp; Systems</b>								
36	Sodium Hydrochlorite Disinfection Facility	\$ 292,585	\$ -	\$ 292,585	Direct-W	\$ 292,585	\$ -	\$ -
37	Prior To 74-75 Pumping & Treatment Equipment	1,293,493	-	1,293,493	Direct-W	1,293,493	-	-
38	76-77 Pumping & Treatment Equipment	54,094	-	54,094	Direct-W	54,094	-	-
39	78-79 Pumping & Treatment	10,734	-	10,734	Direct-W	10,734	-	-
40	79-80 Pumping & Treatment Equipment	55,932	-	55,932	Direct-W	55,932	-	-
41	83-84 Pumping & Treatment Equipment	81,939	-	81,939	Direct-W	81,939	-	-
42	85-86 Pumping & Treatment Equipment	11,152	-	11,152	Direct-W	11,152	-	-
43	88-89 Pumping & Treatment Equipment	948,813	-	948,813	Direct-W	948,813	-	-
44	89-90 Pumping & Treatment Equipment	438,120	-	438,120	Direct-W	438,120	-	-
45	90-91 Pumping & Treatment Equipment	1,311,132	-	1,311,132	Direct-W	1,311,132	-	-
46	91-92 Pumping & Treatment Equipment	306,427	-	306,427	Direct-W	306,427	-	-
47	92-93 Pumping & Treatment Equipment	81,134	-	81,134	Direct-W	81,134	-	-
48	94-95 Pumping & Treatment Equipment	147,128	-	147,128	Direct-W	147,128	-	-
49	96-97 Pumping & Treatment Equipment	184,254	-	184,254	Direct-W	184,254	-	-
50	00-01 Pumping & Treatment Equipment	1,104,374	-	1,104,374	Direct-W	1,104,374	-	-
51	North Cty Pud - Waste Wtr Pumping Sta	123,500	-	123,500	Direct-S	-	123,500	-
52	Pump Sta - Thousand Oaks Phase 1 & 2	130,700	-	130,700	Direct-S	-	130,700	-
53	Pump - 8" Trash For L/S #50	12,441	-	12,441	Direct-S	-	12,441	-
54	Filter Media Water Trmt Plt- Fltrs 3& 4	32,825	-	32,825	Direct-W	32,825	-	-
55	South Softening Basis @ Water Treatment Plant Rehab	541,934	-	541,934	Direct-W	541,934	-	-
56	Usd - Wtp Valve Replacement In No. Filter Bldg	208,778	-	208,778	Direct-W	208,778	-	-
57	Water Treatment Plant Improvement	1,483,595	-	1,483,595	Direct-W	1,483,595	-	-
58	Water System Evaluation	29,326	(29,326)	-	Eliminate	-	-	-
59	Water Pump Station @ No Singer Island	1,137,999	-	1,137,999	Direct-W	1,137,999	-	-
60	Ground Water Modeling System	261,058	(261,058)	-	Eliminate	-	-	-
61	Godwin Dri Prime Diesel Pump	48,128	-	48,128	Direct-W	48,128	-	-
62	Godwin Dri Prime Diesel Pump	45,718	-	45,718	Direct-W	45,718	-	-
63	Degasifiers For Wtp Air Stripping Towers	428,963	-	428,963	Direct-W	428,963	-	-
64	Water Meter - 5/8"x3/4" (Qty 700) Fy05/06 900M	131,950	-	131,950	Direct-W	131,950	-	-
65	Meters - 5/8" X 3/4" R900 T-10 (Qty 1,652) Fy06/07	302,145	-	302,145	Direct-W	302,145	-	-
66	Water Meters - Tru Flo (Qty. 277) Various Sizes Fy06/07	100,653	-	100,653	Direct-W	100,653	-	-
67	Meters - Neptune Radio Read & Sunstate Fy07/08	1,891,406	-	1,891,406	Direct-W	1,891,406	-	-
68	Radio Read Meters Installation	290,572	-	290,572	Direct-W	290,572	-	-
69	Meters & Accessories	21,018	-	21,018	Direct-W	21,018	-	-
70	Meter - 10' Protectusiii Fireline Meter	45,800	-	45,800	Direct-W	45,800	-	-
71	Meter - 8" Neptune Hp Protectus Iii Stainless R900I	13,251	-	13,251	Direct-W	13,251	-	-
72	Meter - 8" Neptune Hp Protectus Iii Stainless R900I	13,251	-	13,251	Direct-W	13,251	-	-
73	Water Meters - Various Sizes Fy13/14	84,198	-	84,198	Direct-W	84,198	-	-
74	1.00 Neptune 8" Stainless Prot Iii Ep731Rvg1 Meter 3790 Wes	13,251	-	13,251	Direct-W	13,251	-	-
75	1.00 Neptune 8" Stainless Prot Iii Ep7E1Wg1, Fire Line Gall	13,251	-	13,251	Direct-W	13,251	-	-
76	Meters & Accessories Fy 2015	179,647	-	179,647	Direct-W	179,647	-	-
77	Meters & Accessories Fy 2016	120,653	-	120,653	Direct-W	120,653	-	-
78	Meters & Accessories Fy 2017	176,441	-	176,441	Direct-W	176,441	-	-
79	Prior To 1978 Mains & Accessories	3,150,533	-	3,150,533	Direct-W	3,150,533	-	-
80	1979-80 Mains & Accessories	10,354	-	10,354	Lines	5,353	5,001	-
81	1980-81 Mains & Accessories	18,159	-	18,159	Lines	9,388	8,771	-
82	1981-82 Mains & Accessories	2,389,279	-	2,389,279	Lines	1,235,257	1,154,022	-
83	1984-85 Mains & Accessories	37,803	-	37,803	Lines	19,544	18,259	-

City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Allocation of Existing Capital Assets, Capital Improvements, and Capital Investments to the Water and Wastewater Functions

Line No.	Description	Purchase Price [1]	Adjustments	Adjusted	Allocation [2]	Allocated Amount		
						Water	Sewer	Indirect
<b>Existing Capital Assets</b>								
84	1985-86 Mains & Accessories	590,301	-	590,301	Lines	305,186	285,115	-
85	1986-87 Mains & Accessories	250,350	-	250,350	Lines	129,431	120,919	-
86	1989-90 Mains & Accessories	500,834	-	500,834	Lines	258,931	241,903	-
87	1994-95 Mains & Accessories	18,335	-	18,335	Lines	9,479	8,856	-
88	1996-97 Mains & Accessories	370,357	-	370,357	Lines	191,475	178,882	-
89	2001-02 Mains & Accessories	199,644	-	199,644	Lines	103,216	96,428	-
90	2001-02 Mains & Accessories	121,761	-	121,761	Lines	62,950	58,811	-
91	M&A - 20" Diameter Trans Line W27Th St	984,185	-	984,185	Direct-W	984,185	-	-
92	M&A - 20" Dia Trans Ln W27Th St To Wtr Trmt Pl (Design)	48,416	-	48,416	Direct-W	48,416	-	-
93	M&A - 18" Dia Force Main Ave "U" (Partial Replacement)	53,048	-	53,048	Direct-S	-	53,048	-
94	North City Pud - Potable Wtr Dist Sys	389,237	-	389,237	Direct-W	389,237	-	-
95	Indian Trace Apts - Potable Wtr Dist Sys	199,200	-	199,200	Direct-W	199,200	-	-
96	Woodbine - Potable Wtr Dist Sys	101,046	-	101,046	Direct-W	101,046	-	-
97	M&A - Video Raw Water Production Wells	43,572	-	43,572	Direct-W	43,572	-	-
98	M&A - 16" Potable Water Trans Line	842,411	-	842,411	Direct-W	842,411	-	-
99	Lift Station # 7 @ Marina Grande	19,771	-	19,771	Direct-S	-	19,771	-
100	M&A - Thousand Oaks Phase 1 & 2	678,683	-	678,683	Lines	350,879	327,804	-
101	Prof Fees Potable Water Mains Gramecy	19,485	-	19,485	Direct-W	19,485	-	-
102	Material For 12' Water Main Gramecy Park	50,080	-	50,080	Direct-W	50,080	-	-
103	Water Main Extension Haverhill Utilities	43,885	-	43,885	Direct-W	43,885	-	-
104	16" Water Main - Garden Road	20,205	-	20,205	Direct-W	20,205	-	-
105	2000' 12" Potable Water Main - Parke Ave	94,013	-	94,013	Direct-W	94,013	-	-
106	130' 10" Dia Potable Water Main-Blue Heron Blvd	62,312	-	62,312	Direct-W	62,312	-	-
107	Media Filters For Water Filters 9-16	373,827	-	373,827	Direct-W	373,827	-	-
108	M&A -Water Mains Haverhill Road Project	31,726	-	31,726	Direct-W	31,726	-	-
109	M&A - 2000' 10" Potable Water Main Lake Ajaro, 45Th St.	99,880	-	99,880	Direct-W	99,880	-	-
110	M&A - Water&Sewer Mains Military Trail (45Th St To Mlk)	575,419	-	575,419	Lines	297,492	277,927	-
111	M&A - Water&Sewer Mains Military Trail To I-95	294,791	-	294,791	Lines	152,407	142,384	-
112	M&A - Water&Sewer Mains Northlake End Reliever	226,550	-	226,550	Lines	117,126	109,424	-
113	M&A - Water&Sewer Mains Beeline Hwy (Garden To Military)	712,327	-	712,327	Lines	368,273	344,054	-
114	M&A - Water Mains Congress Avenue Utility Improv	61,129	-	61,129	Direct-W	61,129	-	-
115	M&A - Water Mains Gulfstream Way South, Singer Island	20,135	-	20,135	Direct-W	20,135	-	-
116	M&A - W. 30Th & 31St Sts (Ave R To Ave S)	39,043	-	39,043	Lines	20,185	18,858	-
117	Water Main-Mlk Blvd (M/Trail To Ave S)	115,791	-	115,791	Direct-W	115,791	-	-
118	Force Main - Garden Road (Design)	31,741	-	31,741	Direct-S	-	31,741	-
119	M&A Haverhill Rd (45 St, Epp10 Canal)	192,916	-	192,916	Lines	99,737	93,178	-
120	M&A-B/Heron Blvd (Old Dixie & East Fec)	46,687	-	46,687	Lines	24,137	22,550	-
121	M&A - W. 23Rd St (B/W Avenues R & O)	171,680	-	171,680	Lines	88,759	82,922	-
122	M&A - W. 34Th St (B/W Avenues R & O)	68,655	-	68,655	Lines	35,495	33,161	-
123	W&S Mains-Broadway (13Th St&S/Beach Rd	2,294,967	-	2,294,967	Lines	1,186,498	1,108,469	-
124	W&S Mains-Mlk (Sr 710)	2,064,380	-	2,064,380	Lines	1,067,284	997,095	-
125	W&S Mains - Sra1A (Bhb/Us1 To Burnt Brgd)	1,319,362	-	1,319,362	Lines	682,110	637,252	-
126	W&S Mains - Bhb & Congress Ave	110,286	-	110,286	Lines	57,018	53,268	-
127	W&S Mains - Haverhill Blvd & Dyer Rd	73,871	-	73,871	Lines	38,191	35,680	-
128	W&S Mains - Bhb (Old Dixie Hwy & Ave H)	39,373	-	39,373	Lines	20,356	19,017	-
129	W&S Mains - W. 35Th St (B/W Aves R & O)	105,299	-	105,299	Lines	54,440	50,860	-
130	M&A - Us Hwy 1 (S/Beach To W. 10Th St)	246,907	-	246,907	Lines	127,651	119,256	-
131	M&A - 45Th St (Jog Rd To Haverhill Rd)	14,730	-	14,730	Lines	7,615	7,115	-
132	M&A - Mlk Jr Blvd (Congress To Australian Aves)	445,977	-	445,977	Lines	230,570	215,407	-
133	M&A - W. 36Th St (Btw Aves R & O)	279,212	-	279,212	Lines	144,353	134,860	-
134	M&A - W. 13Th St Reconstruction	203,877	-	203,877	Lines	105,404	98,472	-
135	Garden Road Bridge Improvements	27,930	-	27,930	Lines	14,440	13,490	-
136	Mains & Accessories-W. 23Rd St	61,335	-	61,335	Lines	31,710	29,625	-
137	Lime Feed System Replacement	5,380	-	5,380	Direct-W	5,380	-	-
138	M&A - 20" Dia Trans Ln W27Th	19,486	-	19,486	Direct-W	19,486	-	-
139	Water Main-Mlk Blvd (M/Trail To Ave S) Fy 2009	15,609	-	15,609	Direct-W	15,609	-	-
140	Garden Rd Force Main Project	22,830	-	22,830	Direct-S	-	22,830	-
141	Prior To 82-83 Wells	649,755	-	649,755	Direct-W	649,755	-	-
142	1982-83 Wells	638,790	-	638,790	Direct-W	638,790	-	-
143	1984-85 Wells	164,804	-	164,804	Direct-W	164,804	-	-
144	1985-86 Wells	330,051	-	330,051	Direct-W	330,051	-	-
145	1986-87 Wells	611,582	-	611,582	Direct-W	611,582	-	-
146	1987-88 Wells	241,793	-	241,793	Direct-W	241,793	-	-
147	1988-89 Wells	150,034	-	150,034	Direct-W	150,034	-	-
148	1992-93 Wells	199,635	-	199,635	Direct-W	199,635	-	-
149	1993-94 Wells	176,845	-	176,845	Direct-W	176,845	-	-
150	1996-97 Wells	32,571	-	32,571	Direct-W	32,571	-	-
151	Usd-Raw Water Wells Rehab 801/803/861/921-2/961	149,318	-	149,318	Direct-W	149,318	-	-
152	Water Wells Improv (1/2004/12/805/852)	337,383	-	337,383	Direct-W	337,383	-	-
153	1996-97 Sewer/Sewer Collection	104,247	-	104,247	Direct-S	-	104,247	-
154	Prior To 1968 Sewer/Sewer Collection	3,034,786	-	3,034,786	Direct-S	-	3,034,786	-
155	1968-69 Sewer/Sewer Collection	97,091	-	97,091	Direct-S	-	97,091	-
156	1969-70 Sewer/Sewer Collection	42,272	-	42,272	Direct-S	-	42,272	-
157	1976-77 Sewer/Sewer Collection	1,646,756	-	1,646,756	Direct-S	-	1,646,756	-
158	1978-79 Sewer/Sewer Collection	456,314	-	456,314	Direct-S	-	456,314	-
159	1979-80 Sewer/Sewer Collection	603,232	-	603,232	Direct-S	-	603,232	-
160	1991-92 Sewer/Sewer Collection	1,972,770	-	1,972,770	Direct-S	-	1,972,770	-
161	1992-93 Sewer/Sewer Collection	1,061,686	-	1,061,686	Direct-S	-	1,061,686	-
162	1996-97 Sewer/Sewer Collection	430,028	-	430,028	Direct-S	-	430,028	-
163	North City Pud - Waste Wtr Coll Sys	672,189	-	672,189	Direct-S	-	672,189	-
164	Indian Trace Apts - Waste Wtr Coll Sys	153,561	-	153,561	Direct-S	-	153,561	-
165	Woodbine - Waste Wtr Coll Sys	92,682	-	92,682	Direct-S	-	92,682	-
166	Sewer Coll - Trans Line W. 26Th St	255,436	-	255,436	Direct-S	-	255,436	-
167	Sewer Coll - Thousand Oaks Phase 1 & 2	700,817	-	700,817	Direct-S	-	700,817	-



Table 1

City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Allocation of Existing Capital Assets, Capital Improvements, and Capital Investments to the Water and Wastewater Functions

Line No.	Description	Purchase			Allocation [2]	Allocated Amount		
		Price [1]	Adjustments	Adjusted		Water	Sewer	Indirect
<b>Existing Capital Assets</b>								
168	Manhole Repair - L/S#8 (1041 30Th St)	23,336	-	23,336	Direct-S	-	23,336	-
169	Sewer Imprv-A1A,Park Ave & Surf Rd	570,187	-	570,187	Direct-S	-	570,187	-
170	Waste Water Master Plan	534,270	(534,270)	-	Direct-S	-	-	-
171	1978-79 Sewer/City Owned Lift Station	700,801	-	700,801	Direct-S	-	700,801	-
172	1980-81 Sewer/City Owned Lift Station	61,491	-	61,491	Direct-S	-	61,491	-
173	1988-89 Sewer/City Owned Lift Station	62,285	-	62,285	Direct-S	-	62,285	-
174	1991-92 Sewer/City Owned Lift Station	3,185,576	-	3,185,576	Direct-S	-	3,185,576	-
175	Lift Station #2 (Replacement)	151,500	-	151,500	Direct-S	-	151,500	-
176	Refurbishment Of Lift Station 1A (Completed Fy 2004/5)	1,045,317	-	1,045,317	Direct-S	-	1,045,317	-
177	Lift Station #7 - Contribution From Developer	400,000	-	400,000	Direct-S	-	400,000	-
178	30" Gravity Line For L/S 1A	141,926	-	141,926	Direct-S	-	141,926	-
179	Wastewater Lift Station #23 - Rehab & Repair	165,796	-	165,796	Direct-S	-	165,796	-
180	Lift Station #22 & 50 Refurbishment	275,453	-	275,453	Direct-S	-	275,453	-
181	Lift Station #4 (13Th St) Rehab Project	451,332	-	451,332	Direct-S	-	451,332	-
182	Lift Station #40 Cable Replacement Prjt	20,860	-	20,860	Direct-S	-	20,860	-
183	Lift Station # 47 Rehab	72,044	-	72,044	Direct-S	-	72,044	-
184	Consolidated Utility	1,093,400	-	1,093,400	Lines	565,288	528,112	-
<b>Automotive and Mechanical Equipment</b>								
185	Pickup Truck - 2002 Ford F250	\$ 26,780	\$ (26,780)	\$ -	Eliminate	\$ -	\$ -	\$ -
186	Pickup Truck - 2002 Ford F250	26,780	(26,780)	-	Eliminate	-	-	-
187	Pickup Truck - 2002 Ford F250	26,780	(26,780)	-	Eliminate	-	-	-
188	Pickup Truck - 2002 Ford F150 (U708)	17,845	(17,845)	-	Eliminate	-	-	-
189	Pickup Truck - 2002 Ford F150 (U701)	21,671	(21,671)	-	Eliminate	-	-	-
190	Pickup Truck - 2002 Ford F150 (Ws752)	21,670	(21,670)	-	Eliminate	-	-	-
191	Truck - 1994 Ford L800 (Ws788)	56,084	(56,084)	-	Eliminate	-	-	-
192	Truck - 2005 Sterling (U736)	198,630	(198,630)	-	Eliminate	-	-	-
193	Generator - Volvo 230Kw Diesel	18,000	(18,000)	-	Eliminate	-	-	-
194	5000 Gal Generator Fuel Tank	14,000	(14,000)	-	Eliminate	-	-	-
195	Truck - 2004 Ford E450 Video Insp (U723)	133,298	(133,298)	-	Eliminate	-	-	-
196	Series A-758 Paste Slaker/Splitter Box	76,269	(76,269)	-	Eliminate	-	-	-
197	Surveillance Cameras	39,961	(39,961)	-	Eliminate	-	-	-
198	Automatic Security Gate (Wtr Trmt Plant)	28,754	(28,754)	-	Eliminate	-	-	-
199	Generator Model#Fps125Dm	27,950	(27,950)	-	Eliminate	-	-	-
200	Generator Model#Fps125Dm	27,950	(27,950)	-	Eliminate	-	-	-
201	Generator Model#Fps125Dm	27,950	(27,950)	-	Eliminate	-	-	-
202	Generator Model#Fps125Dm	27,950	(27,950)	-	Eliminate	-	-	-
203	Generator Model#Fps125Dm	27,950	(27,950)	-	Eliminate	-	-	-
204	Desk - Receptionist Desk With Credenza	11,825	(11,825)	-	Eliminate	-	-	-
205	Generator - Diesel Driven Engine	20,455	(20,455)	-	Eliminate	-	-	-
206	Generator - Diesel Driven Engine	20,455	(20,455)	-	Eliminate	-	-	-
207	Generator - Diesel Driven Engine	20,455	(20,455)	-	Eliminate	-	-	-
208	Generator - Diesel Driven Engine	20,455	(20,455)	-	Eliminate	-	-	-
209	Generator - Diesel Driven Engine	20,455	(20,455)	-	Eliminate	-	-	-
210	Generator - Diesel Driven Engine	20,455	(20,455)	-	Eliminate	-	-	-
211	Pump-Homa Submersible Ls#47-Akx1266-425/154H/C	31,375	-	31,375	Direct-S	-	31,375	-
212	Pump-Homa Submersible Ls#47-Akx1266-425/154H/C	31,375	-	31,375	Direct-S	-	31,375	-
213	Pump-Homa Submersible Ls#47-Akx1266-425/154H/C	31,375	-	31,375	Direct-S	-	31,375	-
214	Front End Loader - 2005 Volvo (U772)	171,065	(171,065)	-	Eliminate	-	-	-
215	Lime Slake & Splitter Box (Wallace & Tiernan)	78,061	(78,061)	-	Eliminate	-	-	-
216	Pickup Truck - 2006 Ford F250 (U725)	34,878	(34,878)	-	Eliminate	-	-	-
217	Pickup Truck - 2006 Ford F250 (U717)	18,853	(18,853)	-	Eliminate	-	-	-
218	Pickup Truck - 2006 Ford F250 (Ws793)	18,853	(18,853)	-	Eliminate	-	-	-
219	Pickup Truck - 2006 Ford F250 (U715)	18,853	(18,853)	-	Eliminate	-	-	-
220	Utility Scan System	17,999	(17,999)	-	Eliminate	-	-	-
221	Suv - 2007 Ford Explorer (U728)	22,299	(22,299)	-	Eliminate	-	-	-
222	Pickup Truck - 2008 Ford F250 (U732)	30,881	(30,881)	-	Eliminate	-	-	-
223	Loader - 2007 Case 325 Skid Steer (U797)	35,284	(35,284)	-	Eliminate	-	-	-
224	Generator - Standby For 4# Water Wells	264,202	(264,202)	-	Direct-W	-	-	-
225	Suv - 2008 Ford Explorer (U731)	23,967	(23,967)	-	Eliminate	-	-	-
226	Telemetry System For 50# City Lift Stns	212,441	-	212,441	Direct-S	-	212,441	-
227	Pickup Truck - 2009 Ford Ranger	14,184	(14,184)	-	Eliminate	-	-	-
228	Pickup Truck - 2009 Ford Ranger (Fin771)	14,184	(14,184)	-	Eliminate	-	-	-
229	Pickup Truck - 2009 Ford Ranger (U775)	14,184	(14,184)	-	Eliminate	-	-	-
230	Pickup Truck - 2009 Ford F250 (U779)	22,340	(22,340)	-	Eliminate	-	-	-
231	Pickup Truck - 2009 Ford F250 (U777)	22,340	(22,340)	-	Eliminate	-	-	-
232	Car - 2009 Ford Fusion (U705)	16,723	(16,723)	-	Eliminate	-	-	-
233	Suv - 2009 Ford Explorer (U707)	25,466	(25,466)	-	Eliminate	-	-	-
234	Quadruplex Chemical Metering System	31,807	-	31,807	Direct-W	31,807	-	-
235	Motorola Mesh System Broadband	150,000	(150,000)	-	Eliminate	-	-	-
236	Polymer Feed Pump	40,000	-	40,000	Direct-W	40,000	-	-
237	Vac Truck - 2010 Freightliner (U738)	284,900	(284,900)	-	Eliminate	-	-	-
238	Backhoe Loader - 2010 John Deere (U781)	115,330	(115,330)	-	Eliminate	-	-	-
239	Software Inframap For Valves	16,998	(16,998)	-	Eliminate	-	-	-
240	Valve Exercise Soft Dig Machine	55,473	(55,473)	-	Eliminate	-	-	-
241	Car - 2011 Ford Fusion (U709)	24,978	(24,978)	-	Eliminate	-	-	-
242	Pickup Truck - 2011 Ford F250 (U732)	30,394	(30,394)	-	Eliminate	-	-	-
243	Van - 2011 Ford E250 (U70)	22,909	(22,909)	-	Eliminate	-	-	-
244	Landscaping - Wtp & Lift Stations	10,438	(10,438)	-	Eliminate	-	-	-
245	Pickup Truck - 2012 Ford E250 (U61)	22,116	(22,116)	-	Eliminate	-	-	-
246	Pickup Truck - 2012 Ford F150 (Fin711)	18,475	(18,475)	-	Eliminate	-	-	-
247	Pickup Truck - 2013 Ford F150 (U727)	23,870	(23,870)	-	Eliminate	-	-	-
248	Pickup Truck - 2012 Ford F550 (U799)	58,061	(58,061)	-	Eliminate	-	-	-
249	Excavator - 2013 John Deere (U787)	23,344	(23,344)	-	Eliminate	-	-	-
250	Pickup Truck - 2013 Ford F250 (U750)	23,115	(23,115)	-	Eliminate	-	-	-
251	Suv - 2014 Ford Explorer (U713)	27,128	(27,128)	-	Eliminate	-	-	-
252	Pickup Truck - 2013 Ford F150 (U752)	18,157	(18,157)	-	Eliminate	-	-	-
253	Pickup Truck - 2014 Ford F250 (Ws759)	24,000	(24,000)	-	Eliminate	-	-	-
254	Pickup Truck - 2014 Ford F250 (U714)	24,000	(24,000)	-	Eliminate	-	-	-
255	Pickup Truck - 2014 Ford F250	11,792	(11,792)	-	Eliminate	-	-	-
256	Protectus Fireline Gallon Meter 8X2 Radio Read Meter	13,251	(13,251)	-	Eliminate	-	-	-
257	M2 112 Freightliner Cab And Chasis	85,920	(85,920)	-	Eliminate	-	-	-
258	Suv - 2015 Ford Explorer (U1536)	26,963	(26,963)	-	Eliminate	-	-	-
259	Goodwin Dr-Prim Cd150 Electric Pump	3,964	(3,964)	-	Eliminate	-	-	-
260	Gearbox/Rotor Drive Device Water Softening System	61,073	(61,073)	-	Eliminate	-	-	-
261	Existing Capital Assets	\$ 77,537,482	\$ (5,145,199)	\$ 72,392,282		\$ 43,990,716	\$ 28,401,566	\$ -

Table 1

City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Allocation of Existing Capital Assets, Capital Improvements, and Capital Investments to the Water and Wastewater Functions

Line No.	Description	Purchase Price [1]	Adjustments	Adjusted	Allocation [2]	Allocated Amount		
						Water	Sewer	Indirect
<b>Existing Capital Assets</b>								
<b>Capital Improvement Plan Projects</b>								
262	Aerial Crossing Rehabilitation	\$ 4,000,000	\$ -	\$ 4,000,000	Direct-S	\$ -	\$ 4,000,000	\$ -
263	High Service Water Pump Improvements	2,000,000	-	2,000,000	Direct-W	2,000,000	-	-
264	Lift Station #47 Rehabilitation	4,770,000	-	4,770,000	Direct-S	-	4,770,000	-
265	Line System Improvements	3,900,000	-	3,900,000	Direct-W	3,900,000	-	-
266	Parallel Intracoastal Water Main	3,193,000	-	3,193,000	Direct-W	3,193,000	-	-
267	Raw Water Wells Rehabilitation	6,830,288	-	6,830,288	Direct-W	6,830,288	-	-
268	SCADA Improvement [3]	3,500,000	(1,415,980)	2,084,020	Direct-W	2,084,020	-	-
269	Water and Wastewater Improvements	5,735,187	-	5,735,187	Assets	3,165,823	2,569,364	-
270	Air-Stripper Pump Driver Improvement	25,000	-	25,000	Direct-W	-	-	-
271	Booster Station Pump Improvement	1,200,000	-	1,200,000	Direct-W	1,200,000	-	-
272	Unidirectional Flushing	300,000	(300,000)	-	Direct-W	-	-	-
273	Water Meters	8,235,192	-	8,235,192	Direct-W	8,235,192	-	-
274	Water Storage Tank Inspections	50,000	(50,000)	-	Direct-W	-	-	-
275	Water Treatment Plant Disinfection [3]	4,346,380	(1,758,397)	2,587,983	Direct-W	2,587,983	-	-
276	Aqueous Ammonia System	513,500	-	513,500	Direct-W	513,500	-	-
277	Avenue U Pump Disinfection	500,000	-	500,000	Direct-W	500,000	-	-
278	Haverhill Road Improvements	550,000	-	550,000	Lines	284,350	265,650	-
279	Lift Station Rehabilitation - Phase 1	1,987,400	-	1,987,400	Direct-S	-	1,987,400	-
280	Media and Underdrain Improvement [3]	7,100,000	(2,872,417)	4,227,583	Direct-W	4,227,583	-	-
281	Raw Water Wells A & B [3]	3,000,000	-	3,000,000	Direct-W	3,000,000	-	-
282	Sanitary Sewer System Relining	1,391,000	-	1,391,000	Direct-S	-	1,391,000	-
283	Silver Beach Road Improvement	478,862	-	478,862	Lines	247,572	231,290	-
284	Utility Infrastructure in NSA	678,500	-	678,500	Lines	350,785	327,716	-
285	Water Treatment Plant Generators [3]	2,350,000	(950,730)	1,399,270	Direct-W	1,399,270	-	-
286	Fire Hydrant Improvement	300,000	-	300,000	Direct-W	300,000	-	-
287	Garden Road Improvement	96,225	-	96,225	Lines	49,748	46,477	-
288	Ground Water Sanitary Survey	200,000	(200,000)	-	Direct-W	-	-	-
289	Lift Station #48 Culvert	100,000	-	100,000	Direct-S	-	100,000	-
290	Lift Station Pump Improvement	213,358	-	213,358	Direct-S	-	213,358	-
291	Lift Station Rehabilitation - Phase II	2,180,000	-	2,180,000	Direct-S	-	2,180,000	-
292	North Tower Building Improvement [3]	1,300,000	(525,936)	774,064	Direct-W	774,064	-	-
293	Parallel Intracoastal Force Main	7,200,000	-	7,200,000	Direct-S	-	7,200,000	-
294	Inspection of Intracoastal Water Mains	750,000	(750,000)	-	Direct-W	-	-	-
295	Perimeter Wall - WTP [3]	1,505,000	(608,872)	896,128	Direct-W	896,128	-	-
296	Softening Units Improvement [3]	3,500,000	(1,415,980)	2,084,020	Direct-W	2,084,020	-	-
297	Utility Building Expansion	1,300,000	-	1,300,000	Assets	717,600	582,400	-
298	New Utility Field Operations Bldg	300,000	-	300,000	Assets	165,600	134,400	-
299	Water Mains - Palm Beach Shores	972,130	-	972,130	Direct-W	972,130	-	-
300	Facility Enhancement	2,297,981	(2,297,981)	-	Eliminate	-	-	-
301	Water Treatment Plant Upgrades and Improvements [3]	28,398,620	(11,489,110)	16,909,510	Direct-W	16,909,510	-	-
302	Total Capital Improvement Plan Projects	\$ 117,247,623	\$ (24,635,403)	\$ 92,612,220		\$ 66,613,166	\$ 25,999,054	\$ -
<b>Capital Investment in ECR [4]</b>								
303	ECR Investment as of 9-30-2017	35,202,589	\$ -	\$ 35,202,589	Direct-S	-	35,202,589	-
304	Total District Existing Assets, Capital Improvements, and Capital Investments	\$ 229,987,694	\$ (29,780,602)	\$ 200,207,092		\$ 110,603,882	\$ 89,603,209	\$ -

Footnotes:

[1] Amounts shown represents Fiscal Year 2017 Assets based on information included in the Fiscal Year 2017 Comprehensive Annual Financial Report ("CAFR") and other information and reports provided by District staff.

[2] Amounts shown derived from information provided on Table 2 of this Report.

[3] Amounts recognizes reflects adjustments to reflect estimated fixed asset retirements due to imposition of the capital improvement plan of the District which recognizes the removal of existing assets from service which are recognized in the water production and treatment process to determine the estimated marginal cost of the utility plant additions and derive that estimated capital costs for fee determinations purposes. Such adjustments have been estimated based on: i) an estimated in service life of 30 years; and ii) an estimate of historical inflation based on the 30 year change in the Construction Cost Index as published by Engineering News Record (the "ENR Index"), and is summarized below:

Calculation	
ENR Index - September 2018	11,170
ENR Index - September 1988	4,519
30 Year change	6,651
Estimated Retirement as Percent of Improvement	(40.46%)

[4] Amounts shown represents estimated gross value of wastewater treatment related investment owned by the City of West Palm Beach (the "City") based on: i) total gross assets of the East Central Wastewater Reclamation Facility (ECRWRF) as of September 30, 2017; ii) utilization of proceeds from the issuance of the Wastewater Treatment Facilities Revenue Bonds, Series 2014 (the "2014 ECRWF Bonds") (which were issued on behalf of the ECRWF to fund biosolids improvement projects; and iii) the City's wastewater treatment capacity entitlement in the ECRWF of approximately 20.5 MGD (or 29.2857%) of the total ECRWF capacity of 70 MGD. Amount shown calculated as follows:

Fiscal Year 2017	
Gross Assets of ECRWF	
Land	\$ 1,205,455
Property and Plant	175,400,202
Work In Process	89,140,554
Investment in SWA Biosolids Processing Capacity	10,643,394
Total Gross Assets of ECRWF	\$ 276,389,605
Adjustments:	
Add: 2014 ECRWF Bonds - Unspent Proceeds and Work-In-Process (Fund 473)	40,168,185
Add: 2016 ECRWF Bonds - Unspent Proceeds (Fund 477)	11,031,754
Add: 2018 ECRWF Bonds - Unspent Proceeds (Fund 47B)	41,500,000
Add: Additional R&R Fund 471 Spending - Fiscal Year 2019 - 2023	40,886,734
Less: Land	(1,205,455)
Less: Estimated Retirements - Work in Process (a)	(36,063,220)
Less: Estimated Retirements - 2014 ECRWF Bonds (a)	(16,250,674)
Less: Estimated Retirements - 2016 ECRWF Bonds (a)	(4,463,070)
Less: Estimated Retirements - 2018 ECRWF Bonds (a)	(16,789,481)
Less: Estimated Retirements - R&R Fund 471 (a)	(16,541,374)
Less: Estimated Grant Funding for AWT Facility	(10,641,119)
Total Adjustments:	\$ 31,632,280
Total Estimated Gross Assets of ECRWF	\$ 308,021,885
City's Wastewater Treatment Capacity Entitlement (8 MGD) - Percent	11.4286%
Estimated City's Gross Investment in ECRWF	\$ 35,202,589

(a) Estimated retirements have been recognized to account for capital improvements that are assumed to be replacing existing assets these adjustments have been estimated based on: i) an estimated in service life of 30 years; and ii) an estimate of historical inflation based on the 30 year change in the ENR Index as shown shown in footnote [2] above.

Table 2  
City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Summary of the Water and Wastewater Function Allocation Factors

Line No.	Description	Basis	Allocation Percentages				Total System
			Water System	Wastewater System	Reclaimed System	Indirect	
1	Direct Water System	Direct-W	100.0%	0.0%	0.0%	0.0%	100.0%
2	Direct Sewer System	Direct-S	0.0%	100.0%	0.0%	0.0%	100.0%
3	Direct Reclaimed System	Direct-R	0.0%	0.0%	100.0%	0.0%	100.0%
4	Indirect Cost	IndirectCost	0.0%	0.0%	0.0%	100.0%	100.0%
5	Eliminate	Eliminate	0.0%	0.0%	0.0%	0.0%	0.0%
6	Equal	Equal	50.0%	50.0%	0.0%	0.0%	100.0%
7	Lines	Lines	51.7%	48.3%	0.0%	0.0%	100.0%
8	Assets	Assets	55.2%	44.8%	0.0%	0.0%	100.0%

Accounts Allocation

Lines Allocation

Description	Basis of Allocation	Water	Wastewater	Total
9 Miles of Line 11/21/17		167.3	156.2	323.5
10 Allocation	Lines	51.7%	48.3%	100.0%

Fixed Assets Allocation

Description	Basis of Allocation	Water	Wastewater	Total
11 Fixed Assets		110,603,882.2	89,816,567.4	200,420,449.7
12 Allocation	Assets	55.2%	44.8%	100.0%

Indirect Cost Allocation

Series 2016 Debt Allocator		Water	Wastewater	Total
13	Capital Projects - Series 2016 Proceeds	\$ 26,016,000	\$ 14,700,000	40,716,000
14		63.90%	36.10%	
CIP Allocator		Water	Wastewater	Total
15	Capital Improvement Projects	\$ 94,973,668	\$ 23,865,107	118,838,775
16		79.92%	20.08%	

City of Riviera Beach Utility Special District  
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Allocation of Water Existing Capital Assets, Capital Improvements, and Capital Investments to the Service Functions

Line No.	Description	Water Allocated		Asset Function			
		Assets/Capital [1]	Allocation [2]	Treatment/Supply	Transmission	Distribution	Indirect
<b>Buildings</b>							
1	Prior To 70 Buildings	\$ 268,836	Treatment	\$ 268,836	\$ -	\$ -	\$ -
2	1981-82 Buildings	1,422,461	Treatment	1,422,461	-	-	-
3	1982-83 Buildings	6,585,005	Treatment	6,585,005	-	-	-
4	1986-87 Buildings	546,919	Treatment	546,919	-	-	-
5	1987-88 Buildings	1,104,374	Treatment	1,104,374	-	-	-
6	1996-97 Buildings	1,086,325	Treatment	1,086,325	-	-	-
7	2000-01 Buildings	65,210	Treatment	65,210	-	-	-
8	2001-02 Buildings - Roof	501,313	Treatment	501,313	-	-	-
<b>Utility Plant &amp; Systems</b>							
9	Sodium Hydrochlorite Disinfection Facility	\$ 292,585	Treatment	\$ 292,585	\$ -	\$ -	\$ -
10	Prior To 74-75 Pumping & Treatment Equipment	1,293,493	Treatment	1,293,493	-	-	-
11	76-77 Pumping & Treatment Equipment	54,094	Treatment	54,094	-	-	-
12	78-79 Pumping & Treatment	10,734	Treatment	10,734	-	-	-
13	79-80 Pumping & Treatment Equipment	55,932	Treatment	55,932	-	-	-
14	83-84 Pumping & Treatment Equipment	81,939	Treatment	81,939	-	-	-
15	85-86 Pumping & Treatment Equipment	11,152	Treatment	11,152	-	-	-
16	88-89 Pumping & Treatment Equipment	948,813	Treatment	948,813	-	-	-
17	89-90 Pumping & Treatment Equipment	438,120	Treatment	438,120	-	-	-
18	90-91 Pumping & Treatment Equipment	1,311,132	Treatment	1,311,132	-	-	-
19	91-92 Pumping & Treatment Equipment	306,427	Treatment	306,427	-	-	-
20	92-93 Pumping & Treatment Equipment	81,134	Treatment	81,134	-	-	-
21	94-95 Pumping & Treatment Equipment	147,128	Treatment	147,128	-	-	-
22	96-97 Pumping & Treatment Equipment	184,254	Treatment	184,254	-	-	-
23	00-01 Pumping & Treatment Equipment	1,104,374	Treatment	1,104,374	-	-	-
24	Filter Media Water Trmt Plt- Fltrs 3& 4	32,825	Treatment	32,825	-	-	-
25	South Softening Basis @ Water Treatment Plant Rehab	541,934	Treatment	541,934	-	-	-
26	Usd - Wtp Valve Replacement In No. Filter Bldg	208,778	Treatment	208,778	-	-	-
27	Water Treatment Plant Improvement	1,483,595	Treatment	1,483,595	-	-	-
28	Water Pump Station @ No Singer Island	1,137,999	Transmission	-	1,137,999	-	-
29	Godwin Dri Prime Diesel Pump	48,128	Treatment	48,128	-	-	-
30	Godwin Dri Prime Diesel Pump	45,718	Treatment	45,718	-	-	-
31	Degasifiers For Wtp Air Stripping Towers	428,963	Treatment	428,963	-	-	-
32	Water Meter - 5/8"X3/4" (Qty 700) Fy05/06 900M	131,950	Distribution	-	-	131,950	-
33	Meters - 5/8" X 3/4" R900 T-10 (Qty 1,652) Fy06/07	302,145	Distribution	-	-	302,145	-
34	Water Meters - Tru Flo (Qty. 277) Various Sizes Fy06/07	100,653	Distribution	-	-	100,653	-
35	Meters - Neptune Radio Read & Sunstate Fy07/08	1,891,406	Distribution	-	-	1,891,406	-
36	Radio Read Meters Installation	290,572	Distribution	-	-	290,572	-
37	Meters & Accessories	21,018	Distribution	-	-	21,018	-
38	Meter - 10" Protectusiii Fireline Meter	45,800	Distribution	-	-	45,800	-
39	Meter - 8" Neptune Hp Protectus Iii Stainless R900I	13,251	Distribution	-	-	13,251	-
40	Meter - 8" Neptune Hp Protectus Iii Stainless R900I	13,251	Distribution	-	-	13,251	-
41	Water Meters -Various Sizes Fy13/14	84,198	Distribution	-	-	84,198	-
42	1.00 Neptune 8" Stainless Prot Iii Ep731Rwg1 Meter 3790 Wes	13,251	Distribution	-	-	13,251	-
43	1.00 Neptune 8" Stainless Prot Iii Ep7E1Wg1, Fire Line Gall	13,251	Distribution	-	-	13,251	-
44	Meters & Accessories Fy 2015	179,647	Distribution	-	-	179,647	-
45	Meters & Accessories Fy 2016	120,653	Distribution	-	-	120,653	-
46	Meters & Accessories Fy 2017	176,441	Distribution	-	-	176,441	-
47	Prior To 1978 Mains & Accessories	3,150,533	Pipe	-	857,601	2,292,932	-
48	1979-80 Mains & Accessories	5,353	Pipe	-	1,457	3,896	-
49	1980-81 Mains & Accessories	9,388	Pipe	-	2,556	6,833	-
50	1981-82 Mains & Accessories	1,235,257	Pipe	-	336,247	899,010	-
51	1984-85 Mains & Accessories	19,544	Pipe	-	5,320	14,224	-
52	1985-86 Mains & Accessories	305,186	Pipe	-	83,074	222,112	-
53	1986-87 Mains & Accessories	129,431	Pipe	-	35,232	94,199	-
54	1989-90 Mains & Accessories	258,931	Pipe	-	70,483	188,448	-
55	1994-95 Mains & Accessories	9,479	Pipe	-	2,580	6,899	-
56	1996-97 Mains & Accessories	191,475	Pipe	-	52,121	139,354	-
57	2001-02 Mains & Accessories	103,216	Pipe	-	28,096	75,120	-
58	2001-02 Mains & Accessories	62,950	Pipe	-	17,136	45,815	-
59	M&A - 20" Diameter Trans Line W27Th St	984,185	Transmission	-	984,185	-	-
60	M&A - 20" Dia Trans Ln W27Th St To Wtr Trmt Pl (Design)	48,416	Transmission	-	48,416	-	-
61	North Cty Pud - Potable Wtr Dist Sys	389,237	Distribution	-	-	389,237	-
62	Indian Trace Apts - Potable Wtr Dist Sys	199,200	Distribution	-	-	199,200	-
63	Woodbine - Potable Wtr Dist Sys	101,046	Distribution	-	-	101,046	-
64	M&A - Video Raw Water Production Wells	43,572	Treatment	43,572	-	-	-
65	M&A - 16" Potable Water Trans Line	842,411	Transmission	-	842,411	-	-
66	M&A - Thousand Oaks Phase 1 & 2	350,879	Distribution	-	-	350,879	-

City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Allocation of Water Existing Capital Assets, Capital Improvements, and Capital Investments to the Service Functions

Line No.	Description	Water Allocated		Asset Function			
		Assets/Capital [1]	Allocation [2]	Treatment/Supply	Transmission	Distribution	Indirect
67	Prof Fees Potable Water Mains Gramecy	19,485	N/A	-	-	-	-
68	Material For 12" Water Main Gramecy Park	50,080	Transmission	-	50,080	-	-
69	Water Main Extension Haverhill Utilities	43,885	Distribution	-	-	43,885	-
70	16" Water Main - Garden Road	20,205	Transmission	-	20,205	-	-
71	2000' 12" Potable Water Main - Parke Ave	94,013	Transmission	-	94,013	-	-
72	130' 10" Dia Potable Water Main-Blue Heron Blvd	62,312	Transmission	-	62,312	-	-
73	Media Filters For Water Filters 9-16	373,827	Treatment	373,827	-	-	-
74	M&A -Water Mains Haverhill Road Project	31,726	Distribution	-	-	31,726	-
75	M&A - 2000' 10" Potable Water Main Lake Ajaro, 45Th St.	99,880	Transmission	-	99,880	-	-
76	M&A - Water&Sewer Mains Military Trail (45Th St To Mlk)	297,492	Transmission	-	297,492	-	-
77	M&A - Water&Sewer Mains Military Trail To I-95	152,407	Transmission	-	152,407	-	-
78	M&A - Water&Sewer Mains Northlake End Reliever	117,126	Transmission	-	117,126	-	-
79	M&A - Water&Sewer Mains Beeline Hwy (Garden To Military)	368,273	Transmission	-	368,273	-	-
80	M&A - Water Mains Congress Avenue Utility Improv	61,129	Transmission	-	61,129	-	-
81	M&A - Water Mains Gulfstream Way South, Singer Island	20,135	Transmission	-	20,135	-	-
82	M&A - W. 30Th & 31St Sts (Ave R To Ave S)	20,185	Transmission	-	20,185	-	-
83	Water Main-Mlk Blvd (M/Trail To Ave S)	115,791	Transmission	-	115,791	-	-
84	M&A Haverhill Rd (45 St_Epb10 Canal)	99,737	Transmission	-	99,737	-	-
85	M&A-B/Heron Blvd (Old Dixie & East Fec)	24,137	Transmission	-	24,137	-	-
86	M&A - W. 23Rd St (B/W Avenues R & O)	88,759	Distribution	-	-	88,759	-
87	M&A - W. 34Th St (B/W Avenues R & O)	35,495	Distribution	-	-	35,495	-
88	W&S Mains-Broadway (13Th St&S/Beach Rd	1,186,498	Transmission	-	1,186,498	-	-
89	W&S Mains-Mlk (Sr 710)	1,067,284	Transmission	-	1,067,284	-	-
90	W&S Mains - Sra1A (Bhb/Us1 To Burnt Brdg)	682,110	Transmission	-	682,110	-	-
91	W&S Mains - Bhb & Congress Ave	57,018	Distribution	-	-	57,018	-
92	W&S Mains - Haverhill Blvd & Dyer Rd	38,191	Distribution	-	-	38,191	-
93	W&S Mains - Bhb (Old Dixie Hwy & Ave H)	20,356	Distribution	-	-	20,356	-
94	W&S Mains - W. 35Th St (B/W Aves R & O)	54,440	Distribution	-	-	54,440	-
95	M&A - Us Hwy 1 (S/Beach To W. 10Th St)	127,651	Transmission	-	127,651	-	-
96	M&A - 45Th St (Jog Rd To Haverhill Rd)	7,615	Transmission	-	7,615	-	-
97	M&A - Mlk Jr Blvd (Congress To Australian Aves)	230,570	Transmission	-	230,570	-	-
98	M&A - W. 36Th St (Btw Aves R & O)	144,353	Distribution	-	-	144,353	-
99	M&A - W. 13Th St Reconstruction	105,404	Distribution	-	-	105,404	-
100	Garden Road Bridge Improvements	14,440	Distribution	-	-	14,440	-
101	Mains & Accessories-W. 23Rd St	31,710	Distribution	-	-	31,710	-
102	Lime Feed System Replacement	5,380	Treatment	5,380	-	-	-
103	M&A - 20" Dia Trans Ln W27Th	19,486	Transmission	-	19,486	-	-
104	Water Main-Mlk Blvd (M/Trail To Ave S) Fy 2009	15,609	Transmission	-	15,609	-	-
105	Prior To 82-83 Wells	649,755	Treatment	649,755	-	-	-
106	1982-83 Wells	638,790	Treatment	638,790	-	-	-
107	1984-85 Wells	164,804	Treatment	164,804	-	-	-
108	1985-86 Wells	330,051	Treatment	330,051	-	-	-
109	1986-87 Wells	611,582	Treatment	611,582	-	-	-
110	1987-88 Wells	241,793	Treatment	241,793	-	-	-
111	1988-89 Wells	150,034	Treatment	150,034	-	-	-
112	1992-93 Wells	199,635	Treatment	199,635	-	-	-
113	1993-94 Wells	176,845	Treatment	176,845	-	-	-
114	1996-97 Wells	32,571	Treatment	32,571	-	-	-
115	Usd-Raw Water Wells Rehab 801/803/861/921-2/961	149,318	Treatment	149,318	-	-	-
116	Water Wells Improv (1/2004/12/805/852)	337,383	Treatment	337,383	-	-	-
117	Consolidated Utility	565,288	Distribution	-	-	565,288	-
<b>Automotive and Mechanical Equipment</b>							
118	Quadraplex Chemical Metering System	31,807	Treatment	31,807	-	-	-
119	Polymer Feed Pump	40,000	Treatment	40,000	-	-	-
120	Total Existing Water Capital Assets	\$ 43,990,716		\$ 24,868,841	\$ 9,444,639	\$ 9,657,751	\$ -
<b>Capital Improvement Plan Water Projects</b>							
121	Aerial Crossing Rehabilitation	\$ -	N/A	\$ -	\$ -	\$ -	\$ -
122	High Service Water Pump Improvements	2,000,000	Transmission	-	2,000,000	-	-
123	Lime System Improvements	3,900,000	Treatment	3,900,000	-	-	-
124	Parallel Intracoastal Water Main	3,193,000	Transmission	-	3,193,000	-	-
125	Raw Water Wells Rehabilitation	6,830,288	Treatment	6,830,288	-	-	-
126	SCADA Improvement [3]	2,084,020	Treatment	2,084,020	-	-	-
127	Water and Wastewater Improvements	3,165,823	Indirect	-	-	-	3,165,823
128	Air-Stripper Pump Driver Improvement	25,000	Treatment	25,000	-	-	-
129	Booster Station Pump Improvement	1,200,000	Transmission	-	1,200,000	-	-
130	Water Meters	8,235,192	Distribution	-	-	8,235,192	-
131	Water Treatment Plant Disinfection	2,587,983	Treatment	2,587,983	-	-	-
132	Aqueous Ammonia System	513,500	Treatment	513,500	-	-	-

City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Allocation of Water Existing Capital Assets, Capital Improvements, and Capital Investments to the Service Functions

Line No.	Description	Water Allocated		Asset Function			
		Assets/Capital [1]	Allocation [2]	Treatment/Supply	Transmission	Distribution	Indirect
132	Avenue U Pump Disinfection	500,000	Treatment	500,000	-	-	-
133	Haverhill Road Improvements	284,350	Distribution	-	-	284,350	-
134	Media and Underdrain Improvement	4,227,583	Treatment	4,227,583	-	-	-
135	Raw Water Wells A & B	3,000,000	Treatment	3,000,000	-	-	-
136	Silver Beach Road Improvement	247,572	Distribution	-	-	247,572	-
137	Utility Infrastructure in NSA	350,785	Distribution	-	-	350,785	-
138	Water Treatment Plant Generators	1,399,270	Treatment	1,399,270	-	-	-
139	Fire Hydrant Improvement	300,000	Distribution	-	-	300,000	-
140	Garden Road Improvement	49,748	Distribution	-	-	49,748	-
141	North Tower Building Improvement	774,064	Indirect	-	-	-	774,064
142	Perimeter Wall - WTP	896,128	Treatment	896,128	-	-	-
143	Softening Units Improvement	2,084,020	Treatment	2,084,020	-	-	-
144	Utility Building Expansion	717,600	Indirect	-	-	-	717,600
145	New Utility Field Operations Bldg	165,600	Indirect	-	-	-	165,600
146	Water Mains - Palm Beach Shores	972,130	Transmission	-	972,130	-	-
147	Water Treatment Plant Upgrades and Improvements	16,909,510	Treatment	16,909,510	-	-	-
<b>Capital Investment in ECR</b>							
	ECR Investment as of 9-30-2017	-	N/A	-	-	-	-
148	Total Capital Improvement Plan Water Projects	\$ 66,613,166		\$ 44,957,302	\$ 7,365,130	\$ 9,467,646	\$ 4,823,088
149	Total Water Existing Assets, Capital Improvements, and Capital Investments	\$ 110,603,882		\$ 69,826,143	\$ 16,809,769	\$ 19,125,397	\$ 4,823,088
Reallocation of Indirect Asset Function							
150	Asset Function Percentage (All Asset Functions Excluding Indirect)			66.02%	15.89%	18.08%	
151	Indirect Asset Allocation Reallocation Amount			\$ 3,184,318	\$ 766,585	\$ 872,185	
152	Total Existing Water Assets by Function			\$ 73,010,460	\$ 17,576,354	\$ 19,997,583	
153	Existing Water Treatment Capacity - Design Capacity - Gallons			17,500,000	17,500,000		
154	Water Treatment Plant - Peak Day Flow as Percent of Average Daily Flow - Fiscal Year 2017			143.77%	143.77%		
155	Adjusted Available Water Treatment Plant Capacity - Average Daily Flow - Gallons			12,172,263	12,172,263		
156	Proposed Capital Improvement Charge Per Gallon Per Day			\$ 6.00	\$ 1.44		
157	Existing Level of Service Per ERU - Gallons Per Day [3]			241.0	241.0		
158	Adjustment for Non-Revenue / Unaccounted for Water [4]			34.0	34.0		
159	Adjusted Level of Service at Water Treatment Plant			275.0	275.0		
160	Proposed Water Functional Capital Improvement Charge Per ERU			\$ 1,649.48	\$ 397.09		
161	Total Water Proposed Capital Improvement Charge Per ERU			\$ 2,046.57			
162	Total Water Proposed Capital Improvement Charge Per ERU (Rounded)			\$ 2,040.00			
163	Existing Water Capital Improvement Charge Per ERU			\$ 1,376.00			
164	Recommended Adjustment			\$ 664.00			

## Footnotes:

- [1] Amounts shown derived from information provided on Table 1 of this Report.  
 [2] Amounts shown derived from information provided on Table 4 of this Report.  
 [3] The District's Level of Service ("LOS") for an Equivalent Residential Unit ("ERU") is defined as "an individual residential user who uses an average of 7,340 U.S. gallons of water per month" as adopted by the District with the imposition of the City of Riviera Beach's Code of Ordinances Section 20-73 - Capital Improvement Charges item (b). The Amount shown represents the estimated average daily LOS (7,340 gallons per month x 12 months per year / 365 days per year = 241.32)  
 [4] During Fiscal Year 2017, the District reported that unaccounted/non-revenue water accounted for approximately 17.31% of the total finished water produced at the District's water treatment facility. During Fiscal Year 2017 the District was required to flush lines in the western portion of the District's water service territory in order to maintain proper water quality. Based on discussions with District staff the unaccounted/non-revenue water percentage has been adjusted to remove the effect of flushing. The following calculation was utilized in order to produce the revised unaccounted/non-revenue water percentage (net of flushing water):

Estimated Unaccounted Water Due to Line Flushings	Calculation
Line Size - Diameter in Inches	6.00
Volume Per Linear Foot - Gallons	1.47
Estimated Flow Rate - Feet Per Second	6.00
Estimated Line Flushing Per Minute	529
Flushing Locations	5.00
Estimated Daily Flushing Per Location - Hours	2.50
Estimated Flushing Per Week - Hours	87.50
Estimated Annual Flushing - Gallons	144,343,302
Finished Water Produced - Fiscal Year 2017 - Gallons	2,918,718,000
Existing Unaccounted/Non-Revenue Water - Percent	17.31%
Existing Unaccounted/Non-Revenue Water - Gallons	505,230,086
Less Estimated Annual Flushing - Gallons	(144,343,302)
Revised Unaccounted/Non-Revenue Water - Gallons	360,886,784
Revised Unaccounted/Non-Revenue Water - Percent	12.36%

Table 4  
City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Summary of the Water Service Function Allocation Factors

Line No.	Description	Basis	Allocation Percentages				Total System
			Treatment	Transmission	Distribution	Indirect	
1	Direct Water Treatment	Treatment	100.0%	0.0%	0.0%	0.0%	100.0%
2	Direct Water Transmission	Transmission	0.0%	100.0%	0.0%	0.0%	100.0%
3	Direct Water Distribution	Distribution	0.0%	0.0%	100.0%	0.0%	100.0%
4	Indirect Allocation	Indirect	0.0%	0.0%	0.0%	100.0%	100.0%
5	Linear Feet of Pipe	Pipe	0.0%	27.2%	72.8%	0.0%	100.0%
6	Not Applicable	N/A	0.0%	0.0%	0.0%	0.0%	0.0%
			Weighting	Weighted			
	Lines Allocator	Linear Feet	Factor	Linear Feet	Transmission	Distribution	
7	2" Water Pipes	18,969	2	37,938	0	37,938	
8	3" Water Pipes	45,160	3	135,480	0	135,480	
9	4" Water Pipes	84,803	4	339,212	0	339,212	
10	6" Water Pipes	280,061	6	1,680,366	0	1,680,366	
11	8" Water Pipes	209,400	8	1,675,200	0	1,675,200	
12	10" Water Pipes	109,437	10	1,094,370	0	1,094,370	
13	12" Water Pipes	91,600	12	1,099,200	1,099,200	0	
14	14" Water Pipes	18,324	14	256,536	256,536	0	
15	16" Water Pipes	19,380	19	368,220	368,220	0	
16	20" Water Pipes	6,151	20	123,020	123,020	0	
17	30" Water Pipes	304	30	9,120	9,120	0	
18	Total	883,589		6,818,662	1,856,096	4,962,566	
19	<b>Lines Allocation</b>				27.22%	72.78%	

City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Allocation of Wastewater Existing Capital Assets, Capital Improvements, and Capital Investments to the Service Functions

Line No.	Description	Sewer Allocated		Asset Function				
		Assets/Capital [1]	Allocation [2]	Treatment/Supply	Transmission	Collection	Indirect	
<b>Buildings</b>								
1	Prior 1976 Sewer	\$ 347,559	DO-LiftStations	\$ -	\$ 20,445	\$ 327,114	\$ -	
2	1996-97 Sewer/Buildings	520,177	DO-LiftStations	-	30,599	489,578	-	
3	2001-02 Sewer/Sewer Collection	504,259	DO-LiftStations	-	29,662	474,597	-	
<b>Utility Plant &amp; Systems</b>								
4	North Cty Pud - Waste Wtr Pumping Sta	\$ 123,500	Collection	\$ -	\$ -	\$ 123,500	\$ -	
5	Pump Sta - Thousand Oaks Phase 1 & 2	130,700	Collection	-	-	130,700	-	
6	Pump - 8" Trash For L/S #50	12,441	Collection	-	-	12,441	-	
7	1979-80 Mains & Accessories	5,001	Pipe	-	1,643	3,358	-	
8	1980-81 Mains & Accessories	8,771	Pipe	-	2,881	5,890	-	
9	1981-82 Mains & Accessories	1,154,022	Pipe	-	379,107	774,915	-	
10	1984-85 Mains & Accessories	18,259	Pipe	-	5,998	12,261	-	
11	1985-86 Mains & Accessories	285,115	Pipe	-	93,663	191,452	-	
12	1986-87 Mains & Accessories	120,919	Pipe	-	39,723	81,196	-	
13	1989-90 Mains & Accessories	241,903	Pipe	-	79,467	162,435	-	
14	1994-95 Mains & Accessories	8,856	Pipe	-	2,909	5,947	-	
15	1996-97 Mains & Accessories	178,882	Pipe	-	58,765	120,118	-	
16	2001-02 Mains & Accessories	96,428	Pipe	-	31,677	64,750	-	
17	2001-02 Mains & Accessories	58,811	Pipe	-	19,320	39,491	-	
18	M&A - 18" Dia Force Main Ave "U" (Partial Replacement)	53,048	Transmission	-	53,048	-	-	
19	Lift Station # 7 @ Marina Grande	19,771	Collection	-	-	19,771	-	
20	M&A - Thousand Oaks Phase 1 & 2	327,804	Collection	-	-	327,804	-	
21	M&A - Water&Sewer Mains Military Trail (45Th St To Mlk)	277,927	Transmission	-	277,927	-	-	
22	M&A - Water&Sewer Mains Military Trail To I-95	142,384	Transmission	-	142,384	-	-	
23	M&A - Water&Sewer Mains Northlake End Reliever	109,424	Transmission	-	109,424	-	-	
24	M&A - Water&Sewer Mains Beeline Hwy (Garden To Military)	344,054	Transmission	-	344,054	-	-	
25	M&A - W. 30Th & 31St Sts (Ave R To Ave S)	18,858	Transmission	-	18,858	-	-	
26	Force Main - Garden Road (Design)	31,741	Transmission	-	31,741	-	-	
27	M&A Haverhill Rd (45 St_Epb10 Canal)	93,178	Transmission	-	93,178	-	-	
28	M&A-B/Heron Blvd (Old Dixie & East Fec)	22,550	Transmission	-	22,550	-	-	
29	M&A - W. 23Rd St (B/W Avenues R & O)	82,922	Collection	-	-	82,922	-	
30	M&A - W. 34Th St (B/W Avenues R & O)	33,161	Collection	-	-	33,161	-	
31	W&S Mains-Broadway (13Th St&S/Beach Rd	1,108,469	Transmission	-	1,108,469	-	-	
32	W&S Mains-Mlk (Sr 710)	997,095	Transmission	-	997,095	-	-	
33	W&S Mains - Sra1A (Bhb/Us1 To Burnt Brdg)	637,252	Transmission	-	637,252	-	-	
34	W&S Mains - Bhb & Congress Ave	53,268	Collection	-	-	53,268	-	
35	W&S Mains - Haverhill Blvd & Dyer Rd	35,680	Collection	-	-	35,680	-	
36	W&S Mains - Bhb (Old Dixie Hwy & Ave H)	19,017	Collection	-	-	19,017	-	
37	W&S Mains - W. 35Th St (B/W Aves R & O)	50,860	Collection	-	-	50,860	-	
38	M&A - Us Hwy 1 (S/Beach To W. 10Th St)	119,256	Transmission	-	119,256	-	-	
39	M&A - 45Th St (Jog Rd To Haverhill Rd)	7,115	Transmission	-	7,115	-	-	
40	M&A - Mlk Jr Blvd (Congress To Australian Aves)	215,407	Transmission	-	215,407	-	-	
41	M&A - W. 36Th St (Btw Aves R & O)	134,860	Collection	-	-	134,860	-	
42	M&A - W. 13Th St Reconstruction	98,472	Collection	-	-	98,472	-	
43	Garden Road Bridge Improvements	13,490	Collection	-	-	13,490	-	
44	Mains & Accessories-W. 23Rd St	29,625	Collection	-	-	29,625	-	
45	Garden Rd Force Main Project	22,830	Collection	-	-	22,830	-	
46	1996-97 Sewer/Sewer Collection	104,247	Pipe	-	34,246	70,001	-	
47	Prior To 1968 Sewer/Sewer Collection	3,034,786	Collection	-	-	3,034,786	-	
48	1968-69 Sewer/Sewer Collection	97,091	Collection	-	-	97,091	-	
49	1969-70 Sewer/Sewer Collection	42,272	Collection	-	-	42,272	-	
50	1976-77 Sewer/Sewer Collection	1,646,756	Pipe	-	540,975	1,105,781	-	
51	1978-79 Sewer/Sewer Collection	456,314	Pipe	-	149,903	306,411	-	
52	1979-80 Sewer/Sewer Collection	603,232	Pipe	-	198,167	405,065	-	
53	1991-92 Sewer/Sewer Collection	1,972,770	Pipe	-	648,074	1,324,696	-	
54	1992-93 Sewer/Sewer Collection	1,061,686	Pipe	-	348,774	712,912	-	
55	1996-97 Sewer/Sewer Collection	430,028	Pipe	-	141,268	288,760	-	
56	North Cty Pud - Waste Wtr Coll Sys	672,189	Collection	-	-	672,189	-	
57	Indian Trace Apts - Waste Wtr Coll Sys	153,561	Collection	-	-	153,561	-	
58	Woodbine - Waste Wtr Coll Sys	92,682	Collection	-	-	92,682	-	
59	Sewer Coll - Trans Line W. 26Th St	255,436	Collection	-	-	255,436	-	
60	Sewer Coll - Thousand Oaks Phase 1 & 2	700,817	Collection	-	-	700,817	-	
61	Manhole Repair - L/S#8 (1041 30Th St)	23,336	Collection	-	-	23,336	-	
62	Sewer Imprv-A1A,Park Ave & Surf Rd	570,187	Collection	-	-	570,187	-	
63	1978-79 Sewer/City Owned Lift Station	700,801	Collection	-	-	700,801	-	
64	1980-81 Sewer/City Owned Lift Station	61,491	Collection	-	-	61,491	-	
65	1988-89 Sewer/City Owned Lift Station	62,285	Collection	-	-	62,285	-	
66	1991-92 Sewer/City Owned Lift Station	3,185,576	Collection	-	-	3,185,576	-	



City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Allocation of Wastewater Existing Capital Assets, Capital Improvements, and Capital Investments to the Service Functions

Line No.	Description	Sewer Allocated		Asset Function			
		Assets/Capital [1]	Allocation [2]	Treatment/Supply	Transmission	Collection	Indirect
67	Lift Station #2 (Replacement)	151,500	Collection	-	-	151,500	-
68	Refurbishment Of Lift Station 1A (Completed Fy 2004/5)	1,045,317	Collection	-	-	1,045,317	-
69	Lift Station #7 - Contribution From Developer	400,000	Collection	-	-	400,000	-
70	30" Gravity Line For L/S 1A	141,926	Transmission	-	141,926	-	-
71	Wastewater Lift Station #23 - Rehab & Repair	165,796	Transmission	-	165,796	-	-
72	Lift Station #22 & 50 Refurbishment	275,453	Collection	-	-	275,453	-
73	Lift Station #4 (13Th St) Rehab Project	451,332	Collection	-	-	451,332	-
74	Lift Station #40 Cable Replacement Prjt	20,860	Collection	-	-	20,860	-
75	Lift Station # 47 Rehab	72,044	Transmission	-	72,044	-	-
76	Consolidated Utility	528,112	Collection	-	-	528,112	-
<b>Automotive and Mechanical Equipment</b>							
77	Pump-Homa Submersible Ls#47-Akx 1266-425/154H/C	31,375	Transmission	-	31,375	-	-
78	Pump-Homa Submersible Ls#47-Akx 1266-425/154H/C	31,375	Transmission	-	31,375	-	-
79	Pump-Homa Submersible Ls#47-Akx 1266-425/154H/C	31,375	Transmission	-	31,375	-	-
80	Telemetry System For 50# City Lift Stns	212,441	DO-LiftStations	-	12,497	199,945	-
81	Total Existing Wastewater Capital Assets	\$ 28,401,566		\$ -	\$ 7,521,412	\$ 20,880,154	\$ -
<b>Capital Improvement Plan Water Projects</b>							
82	Aerial Crossing Rehabilitation	\$ 4,000,000	Transmission	\$ -	\$ 4,000,000	\$ -	\$ -
83	Lift Station #47 Rehabilitation	4,770,000	Transmission	-	4,770,000	-	-
84	Water and Wastewater Improvements	2,569,364	Pipe	-	844,060	1,725,303	-
85	Haverhill Road Improvements	265,650	Transmission	-	265,650	-	-
86	Lift Station Rehabilitation - Phase 1	1,987,400	DO-LiftStations	-	116,906	1,870,494	-
87	Sanitary Sewer System Relining	1,391,000	Collection	-	-	1,391,000	-
88	Silver Beach Road Improvement	231,290	Transmission	-	231,290	-	-
89	Utility Infrastructure in NSA	327,716	Collection	-	-	327,716	-
90	Garden Road Improvement	46,477	Collection	-	-	46,477	-
91	Lift Station #48 Culvert	100,000	Collection	-	-	100,000	-
92	Lift Station Pump Improvement	213,358	DO-LiftStations	-	12,550	200,808	-
93	Lift Station Rehabilitation - Phase II	213,358	DO-LiftStations	-	12,550	200,808	-
94	North Tower Building Improvement	2,180,000	DO-LiftStations	-	128,235	2,051,765	-
95	Inspection of Intracoastal Water Mains	7,200,000	Transmission	-	7,200,000	-	-
96	New Utility Field Operations Bldg	582,400	Indirect	-	-	-	582,400
97	Water Mains - Palm Beach Shores	134,400	Indirect	-	-	-	134,400
98	Total Capital Improvement Plan Wastewater Projects	\$ 26,212,412		\$ -	\$ 17,581,243	\$ 7,914,370	\$ 716,800
<b>Capital Investment in ECR</b>							
99	ECR Investment as of 9-30-2017	\$ 35,202,589	Treatment	\$ 35,202,589	\$ -	\$ -	\$ -
100	Total Wastewater Existing Assets, Capital Improvements, & Capital Investments	\$ 89,816,567		\$ 35,202,589	\$ 25,102,655	\$ 28,794,523	\$ 716,800
101	Asset Function Percentage			39.51%	28.17%	32.32%	
102	Indirect Allocated Assets from Function Allocation						\$ 716,800
103	Total Indirect Asset			\$ 283,202	\$ 201,949	\$ 231,649	
104	Total Wastewater Assets by Function			\$ 35,485,791	\$ 25,304,604	\$ 29,026,173	
105	Existing Wastewater Treatment Capacity (Gallons Per Day) [3]			8,000,000	8,000,000		
106	Total Wastewater Treatment Capacity			8,000,000	8,000,000		
107	Proposed Capital Improvement Charge Per Gallon Per Day			\$ 4.44	\$ 3.16		
108	Existing Level of Service Per ERU - Gallons Per Day [4]			241.0	241.0		
109	Proposed Wastewater Functional Capital Improvement Charge Per ERU			\$ 1,069.01	\$ 762.30		
110	Total Wastewater Proposed Capital Improvement Charge Per ERU			\$ 1,831.31			
111	Total Wastewater Proposed Capital Improvement Charge Per ERU (Rounded)			\$ 1,830.00			
112	Existing Wastewater Capital Improvement Charge Per ERU			\$ 1,116.00			
113	Recommended Adjustment			\$ 714.00			

## Footnotes:

- [1] Amounts shown derived from information provided on Table 1 of this Report.
- [2] Amounts shown derived from information provided on Table 6 of this Report.
- [3] On September 2, 1992 the District entered into an interlocal agreement with the City of West Palm Beach, the Town of Palm Beach, the City of Lake Worth, and Palm Beach County (the "Entities") for the operations of the East Central Regional Wastewater Reclamation Facility (the "ECRWRF"). The purpose of the ECRWRF is to receive, treat, and dispose of wastewater generated by each Entity; currently all of the Entities except for Palm Beach County utilize the ECRWRF for all of their respective wastewater treatment and disposal needs. The District owns a wastewater treatment capacity entitlement of 8,000,000 gallons per day of the total wastewater treatment capacity of the ERCWRF of 70,000,000 gallons per day or 11.42860%. The District's wastewater treatment capacity entitlement at the ECRWRF is currently the District's only method of wastewater treatment and disposal.
- [4] The District's Level of Service ("LOS") for an Equivalent Residential Unit ("ERU") is defined as "an individual residential user who uses an average of 7,340 U.S. gallons of water per month" as adopted by the District with the imposition of the City of Riviera Beach's Code of Ordinances Section 20-73 - Capital Improvement Charges item (b). The Amount shown represents the estimated average daily LOS (7,340 gallons per month x 12 months per year / 365 days per year = 241.32)

Table 6  
City of Riviera Beach Utility Special District  
Capital Improvement Charge (Impact Fee) Evaluation (DRAFT 10/31/2018)

Summary of the Wastewater Service Function Allocation Factors

Line No.	Description	Basis	Allocation Percentages				Total System
			Treatment	Transmission	Distribution	Indirect	
1	Direct Water Treatment	Treatment	100.0%	0.0%	0.0%	0.0%	100.0%
2	Direct Transmission	Transmission	0.0%	100.0%	0.0%	0.0%	100.0%
3	Direct Collection	Collection	0.0%	0.0%	100.0%	0.0%	100.0%
4	Indirect Allocation	Indirect	0.0%	0.0%	0.0%	100.0%	100.0%
5	Linear Feet of Pipe	Pipe	0.0%	32.9%	67.1%	0.0%	100.0%
6	Not Applicable	N/A	0.0%	0.0%	0.0%	0.0%	0.0%
7	Gravity Sewer Pipes Only	Gravity	0.0%	7.0%	93.0%	0.0%	100.0%
8	Forcemain Sewer Pipes Only	Forcemain	0.0%	76.0%	24.0%	0.0%	100.0%
9	Number of Lift Station By Function	LiftStations	0.0%	3.5%	97.6%	0.0%	101.1%
10	Number of District Owned Lift Station By Function	DO-LiftStations	0.0%	5.9%	94.1%	0.0%	100.0%
<b>Lines Allocation</b>							
	Lines Allocator	Linear Feet	Weighting Factor	Weighted Linear Feet	Allocator	Primary	Secondary
<b>Gravity Mains</b>							
11	2" Pipes	2,162	2	4,324		0	4,324
12	4" Pipes	3,274	4	13,096	Collection	0	13,096
13	6" Pipes	559,617	6	3,357,702	Collection	0	3,357,702
14	8" Pipes	34,048	8	272,384	Collection	0	272,384
15	10" Pipes	11,936	10	119,360	Collection	0	119,360
16	12" Pipes	548	12	6,576	Collection	0	6,576
17	14" Pipes	4,233	14	59,262	Transmission	59,262	0
18	16" Pipes	143	16	2,288	Transmission	2,288	0
19	18" Pipes	2,844	18	51,192	Transmission	51,192	0
20	20" Pipes	368	20	7,360	Transmission	7,360	0
21	24" Pipes	3,456	24	82,944	Transmission	82,944	0
22	30" Pipes	2,660	30	79,800	Transmission	79,800	0
23	Total Gravity Mains	625,289		4,056,288		282,846	3,773,442
	Gravity Sewer Pipes Only Allocator					6.97%	93.03%
<b>Force Main</b>							
24	2" Pipes	1,798	2	3,596	Collection	0	3,596
25	3" Pipes	380	3	1,140	Collection	0	1,140
26	4" Pipes	32,938	4	131,752	Collection	0	131,752
27	6" Pipes	34,746	6	208,476	Collection	0	208,476
28	8" Pipes	29,836	8	238,688	Collection	0	238,688
29	10" Pipes	11,266	10	112,660	Transmission	112,660	0
30	12" Pipes	18,355	12	220,260	Transmission	220,260	0
31	14" Pipes	5,390	14	75,460	Transmission	75,460	0
32	16" Pipes	26,763	16	428,208	Transmission	428,208	0
33	18" Pipes	9,356	18	168,408	Transmission	168,408	0
34	20" Pipes	6,137	20	122,740	Transmission	122,740	0
35	24" Pipes	68	24	1,632	Transmission	1,632	0
36	30" Pipes	14,917	30	447,510	Transmission	447,510	0
37	36" Pipes	7,552	36	271,872	Transmission	271,872	0
38	Total Forcemains	199,502		2,432,402		1,848,750	583,652
	Forcemain Sewer Pipes Only Allocator					76.01%	23.99%
39	Total Pipes (Gravity Sewer and Forcemains)	824,791		6,488,690		2,131,596	4,357,094
	Linear Feet of Pipe Allocator					32.85%	67.15%
<b>Number of Lift Stations</b>							
	Lift Stations by Type	Amount	Transmission	Collection			
40	District Owned - Master/Major Lift Stations	3	3	0			
41	District Owned - Retail/Neighborhood Lift Stations	48	0	48			
42	Total Number of District Owned Lift Stations	51	3	48			
43	<b>Number of District Owned Lift Stations Allocator</b>		5.88%	94.12%			
44	Privately Owned Lift Stations	36	0	36			
45	Total	87	3	85			
46	<b>Number of Lift Stations Allocator</b>		3.52%	97.63%			

**Riviera Beach Special Utility District  
Capital Improvement Charge (Impact Fee) Evaluation (Draft 10/31/2018)**

**Comparison of Capital Improvement Charges (Impact Fees) for Water and Wastewater Service [1]**

Line No.	Description	Residential 5/8" x 3/4" Meter		
		Water	Wastewater	Combined
<b>City of Riviera Beach Utility Special District</b>				
1	Existing Charges	\$ 1,376	\$ 1,116	\$ 2,492
	Proposed Charges	2,040	1,830	3,870
<b><u>Utilities Located in Palm Beach County:</u></b>				
2	City of Boca Raton	\$ 5,195	\$ 4,168	\$ 9,363
3	City of Boynton Beach	1,122	665	1,787
4	City of Delray Beach	788	1,084	1,872
5	Town of Jupiter	2,270	3,305	5,575
6	City of Lake Worth	3,659	2,483	6,142
7	Town of Lantana	1,511	2,000	3,511
8	Palm Beach County	1,500	2,500	4,000
9	City of West Palm Beach	2,190	1,270	3,460
10	Seacoast Utility Authority	1,500	1,200	2,700
11	Village of Tequesta	3,009	3,305	6,314
12	Village of Wellington	1,660	1,890	3,550
	Utilities Located in Palm Beach County Average	\$ 2,219	\$ 2,170	\$ 4,389
<b><u>Other Surveyed Florida Utilities:</u></b>				
13	Broward County	\$ 1,590	\$ 2,010	\$ 3,600
14	City of Cooper City	1,316	2,201	3,517
15	City of Dania Beach	1,557	725	2,282
16	Town of Davie	3,050	2,920	5,970
17	City of Fort Lauderdale	1,386	651	2,037
18	City of Hollywood	1,130	2,130	3,260
19	Fort Pierce Utilities Authority	1,850	2,850	4,700
20	Martin County	1,710	2,100	3,810
21	Okeechobee Utility Authority	1,510	2,935	4,445
22	City of Port St. Lucie	1,380	2,111	3,491
23	St. Lucie County	3,773	3,425	7,198
24	City of Sunrise	1,500	1,350	2,850
25	City of Tamarac	1,700	2,200	3,900
	Other Surveyed Florida Utilities' Average	\$ 1,804	\$ 2,124	\$ 3,928
26	Combined Surveyed Florida Utilities' Average	\$ 1,994	\$ 2,145	\$ 4,139

**Footnotes:**

- [1] Unless otherwise noted, amounts shown reflect residential rates in effect October 2018 and are exclusive of taxes or franchise fees, if any, and reflect rates charged for inside the city service. All rates are as reported by the respective utility. This comparison is intended to show comparable charges for comparison purposes only.