ISLE OF PALMS WATER & SEWER COMMISSION

WATER AND SEWER IMPACT FEE REPORT

August 14, 2018

CONFLUENCE
Consulting, LLC

EXECUTIVE SUMMARY

The Isle of Palms of Palms Water and Sewer Commission (Commission) engaged Confluence Consulting, Inc. (Confluence) to conduct an Impact Fee Study (Study) to determine cost justified water and sewer impact fees in accordance with South Carolina's 1999 Development Impact Fee Act. As part of the Study, Commission management developed a five-year water and sewer capital improvements plan (CIP) that includes a variety of capital projects required to provide capacity to meet increased demands for water and sewer services associated with anticipated customer growth. The Commission adopted the CIP on May 30, 2018.

In general, impact fees are defined as one-time capital recovery charges assessed against new development as a way to recover a proportional share of the cost of capital facilities constructed to provide service capacity for new customers. Numerous approaches to determining impact fees have been adopted by water and sewer utilities across the country. The major goal in selecting an impact fee methodology is to select an approach which provides equity to existing and future customers and is legally defensible.

1. Capital Improvement Plans

Although not expressly subject to the State's impact fee legislation, the Commission has determined to have a CIP in place before imposition of the impact fees. The CIP is a multi-year schedule that lays out a series of water and sewer capital projects and costs over a five-year capital planning period (FY 2018 through FY 2022). The CIP provides a specific plan for how the Commission expects to expand or construct its facilities and services to meet the demands of existing and/or new population and businesses.

A. Water Capital Improvements

The Commission currently owns and operates a 1.2 million gallon per day (MGD) Reverse Osmosis Water Treatment Plant (WTP) and water distribution system for retail customers located on the Isle of Palms. This distribution system conveys treated water either produced at the Reverse Osmosis WTP or purchased from the City of Charleston Commission of Public Works (CPW). Based on a 1995 Wholesale Water Supply, Treatment, and Transmission Contract with CPW, the Commission purchased "Contract Capacity" of up to 3.0 MGD of capacity in the CPW water system. The water distribution system has approximately 275,000 linear feet of water line ranging in diameter from 2 inches to 16 inches, two pumping stations, and a total storage capacity of 2.4 million gallons.

The Commission does not have any planned expansions to its Reverse Osmosis WTP or Contract Capacity with CPW. However, the Commission is required to make annual capital payments totalling nearly $1.0 million during the planning period for its portion of the annual improvements to the CPW water system. The water CIP also includes several improvements to the Commission's distribution system including hydrants, water line improvements for looping and increased capacity, and replacing smaller diameter

lines with larger lines. Because these improvements benefit both existing and new customers, they are included in the impact fee calculation and allocated to all customers based on a cost per gpd. The total costs of the five-year water CIP are approximately $8.5 million.

Appendix B: Schedule 1 provides more detail on the expansion-related projects in the water CIP.

B. Sewer Capital Improvements

The Commission currently owns and operates the 1.07 MGD Wild Dunes Wastewater Treatment Plant (WWTP), the 0.30 MGD Forest Trails WWTP, and a sewer collection system to serve retail sewer customers located in portions of the City of Isle of Palms. The collection system consists of 129,624 linear feet of gravity sewer lines ranging from 6 inches to 10 inches in diameter and 44,000 feet of force mains ranging from 2 inches to 12 inches in diameter. The collection system conveys sewer discharges to the two wastewater treatment plants.

To increase treatment efficiencies and consolidate all its treatment services at the newer Forest Trails WWTP, the Commission plans to expand the capacity of the Forest Trails WWTP to 1.4 MGD and construct a new pumping station at the Wild Dunes WWTP to divert existing flows to the expanded Forest Trails WWTP. The expansion to the Forest Trails WWTP will cost an estimated $7.4 million, and the new Wild Dunes pumping station will cost an estimated $1.3 million during the planning period. These projects will allow for the decommission of the old Wild Dunes WWTP and a consolidation of treatment operations at the Forest Trails WWTP.

The sewer CIP also includes several minor improvements to the Commission's collection system, including sewer extensions to replace grinder pumps and upgrading electrical systems. These improvements benefit both existing and new customers and are included in the impact fee calculation and allocated to all customers based on a cost per gpd. The total costs of the five-year sewer CIP are $10.4 million.

Appendix B: Schedule 2 provides more detail on the expansion related projects in the sewer CIP.

2. Calculation of Impact Fees

The most common and accepted methodologies for calculating water and sewer impact fees are: 1) the system buy-in approach focusing on the cost of buying into the net equity of the existing system, and 2) the marginal incremental cost methodology focusing on the cost of adding additional facilities to serve new customers. The system buy-in approach is appropriate for utility systems with existing capacity already in place to serve new customers, while the marginal incremental cost methodology is appropriate for utilities that must provide additional capacity to serve new customers. However, many utilities often determine impact fees based on a hybrid approach that recognizes the average cost of the net equity of the existing system and cost of adding additional facilities to serve new customers.

A. Water Impact Fees

Since the existing water system has available capacity to serve new customers, and the Commission has planned capital projects that will benefit new customers and expand service capacity, the water capacity fee is calculated based on a hybrid of the system buy-in approach and the marginal incremental-cost approach.

System Buy-In Value

The Buy-In value of the existing water facilities represents the replacement cost new less depreciation (RCNLD) of the assets of the water system, which is determined by escalating depreciated water facility asset values based on the Engineering News Record (ENR) 20-City Cost Index. The value of any assets that were contributed by developers, funded through grants, contributed by other parties, or have contractual restrictions are excluded from the buy-in value of facilities available to serve new ERUs. After the assets are allocated to the water and sewer systems and deductions are made to exclude assets contributed by developers or funded through FEMA grants, the buy-in value of the water system is approximately **$20.3 million**. This represents the value of existing assets that is available to serve both existing and future customers of the water system.

Marginal Incremental Cost Value

The Marginal Incremental cost value of the water system represents the water capital improvements included in the Commission's five-year CIP. The Commission plans to perform $8.4 million in water capital improvements. Since these capital improvements will benefit both existing and new customers through replacements and oversizing of water lines, it is appropriate to include all the water capital improvements in the marginal incremental cost value, since the impact fees are determined based on the total value of the 4.2 MGD of water system capacity.

Based on the hybrid approach, the proposed water impact fee per ERU is **$3,082.** This fee per ERU is based on daily the water demand of the typical single-family residence and represents the 300 gpd average daily water demand identified in DHEC standards for determining sewer system capacity escalated by a 1.50x peaking factor. This peaking factor is applied, since water systems are sized to meet peak demand, and is based on the average daily water use by residential customers during the peak water use month (August) in calendar year 2017, divided by the annual daily average water use by residential customers during 2017.

The Commission will continue to assess single-family homes based on the square footage of the home, recognizing that larger homes have a much higher daily demand than smaller homes. For other non-residential establishments, the Commission should continue to charge the water impact fee based on the DHEC standards unit contributory loadings for various establishments. However, Confluence recommends applying the 1.50x peaking factor to these standards to reflect peak day water demands.

Executive Summary Table 1 presents the proposed residential single-family water impact fees in comparison with the existing impact fees that have been in place since 2007.

Table ES 1: Proposed Residential Water Impact Fees per Square Footage

Single-Family Residential (Square Feet Area)	Demand (gpd) (1)	Impact Fee		Change	
		Current	Proposed	Increase	Percent
2,000 and Fewer (1 ERU)	450.00	$ 2,400.00	$ 3,082.00	$ 682.00	28%
2,001 to 3,500	675.00	$ 3,700.00	$ 4,623.00	$ 923.00	25%
Greater than 3,500	1,020.00	$ 5,500.00	$ 6,986.00	$ 1,486.00	27%

(1) The differentials applied to the demand factors for the 2,001 to 3,500 square feet and greater than 3,500 square feet categories are based on the historical consumption and square footage analysis performed by TMG.

B. Sewer Impact Fees

Since the existing sewer system also has available capacity to serve new customers, and the Commission has planned capital projects that will benefit new customers and expand service capacity, the sewer impact fee is also calculated based on a hybrid of the system buy-in approach and the marginal incremental cost approach.

System Buy-In Value

The buy-in value of the existing sewer facilities represents the RCNLD of assets of the sewer system, which is determined by escalating depreciated wastewater facility asset values based on the ENR 20-City Cost Index. Again, the value of any assets contributed by developers, funded through grants, contributed by other parties, or have contractual restrictions are excluded from the buy-in value of facilities available to serve new ERUs. Additionally, since the Commission plans to decommission the Wild Dunes WWTP and consolidate treatment operations at the Forest Trails WWTP, the RCNLD of the Wild Dunes WWTP is also excluded from the sewer buy-in value. After the assets are allocated to the water and sewer systems and deductions are made to exclude assets contributed by developers, funded through FEMA grants, and the value of the soon to be decommissioned Wild Dunes WWTP, the system buy-in value of the sewer system is approximately **$9.7 million**. This represents the value of existing assets that are available to serve both existing and future customers of the sewer system.

Marginal Incremental Cost Value

The marginal incremental cost value of the sewer system represents the capital improvements included in the Commissions five-year CIP. The Commission plans to perform $10.4 million in sewer capital improvements. The major projects relate to expanding the Forest Trails WWTP and diverting the wastewater flows from the Wild Dunes WWTP to Forest Trails WWTP. Since these capital improvements will benefit both existing and new customers through replacements and oversizing of sewer lines, it is

appropriate to include all the sewer capital improvements in the marginal incremental cost value since the impact fees are determined based on the total value of the 1.4 MGD of sewer system capacity. Since the Commission plans to fund the $2.0 million in capital costs through a future bond issue and will receive $2.5 million in FEMA grant funds, a debt principal credit and FEMA grant deduction is applied to the marginal incremental cost value for water.

Based on the hybrid approach, the proposed sewer impact fee per ERU is **$3,432.** This fee per ERU is based on daily water demand characteristics of the typical single-family residence and represents the 300 gpd average daily water demand identified in DHEC standards for determining sewer system capacity. The 300 gpd daily demand per ERU is not adjusted, since wastewater treatment and collection systems are sized to meet average day sewer flows.

As with water, the Commission will continue to assess single-family homes based on the square footage of the home, recognizing that larger homes have a much higher daily demand than smaller homes. For other non-residential establishments, the Commission should continue to charge the water impact fee based on the DHEC standards unit contributory loadings for various establishments.

Executive Summary Table 2 presents the proposed residential single-family sewer impact fees in comparison with the existing impact fees that have been in place since 2007.

Table ES 2: Proposed Residential Sewer Impact Fees per Square Footage

Single-Family Residential (Square Feet Area)	Demand (gpd) (1)	Impact Fee		Change	
		Current	Proposed	Increase	Percent
2,000 and Fewer (1 ERU)	300.00	$ 2,500.00	$ 3,432.00	$ 932.00	37%
2,001 to 3,500	450.00	$ 3,800.00	$ 5,148.00	$ 1,348.00	35%
Greater than 3,500	680.00	$ 5,700.00	$ 7,779.00	$ 2,079.00	36%

(1) The differentials applied to the demand factors for the 2,001 to 3,500 square feet and greater than 3,500 square feet categories are based on the historical consumption and square footage analysis performed by TMG.

For more information on the contributory loading factors to be used by multi-family and non-residential establishments, see Appendix A.

THIS PAGE INTENTIONALLY BLANK

I. INTRODUCTION

Confluence Consulting, LLC (Confluence) is pleased to submit this Final Impact Fee Report (Report) documenting the Isle of Palms Water & Sewer Commission (Commission) water and sewer impact fee study (Study). Impact fees, also referred to as capacity fees, are one-time charges assessed against new water and sewer customers or developers to recover a proportional share of the capital costs incurred by the utility to provide service capacity to new utility customers. The Commission is in the planning process to expand its Forest Trails Wastewater Treatment Plant (WWTP) and decommission the Wild Dunes WWTP to consolidate its treatment capacity at the Forest Trails WWTP to serve existing and future customer demands. The current impact fees were adopted in 2007 and no longer reflect the current cost of providing water and sewer capacity to new customers. To ensure these new customers pay their proportionate share of the capital investments necessary to provide both water and sewer system capacity, the Commission is interested in having Confluence calculate cost-justified and legally defensible impact fees.

The Commission provides water and sewer service to the Isle of Palms, a 6-mile barrier island located in Charleston County. The Commission is governed by a board of elected officials and provides service in areas that cannot be provided for by any other agency. The Commission was created in 1992 through an ordinance enacted by the City of Isle of Palms and Section 5-31-250, et. seq., of the Code of Laws of South Carolina 1976 to own, operate, and manage the water and sewer systems of the Isle of Palms. The Commission is governed by five Commissioners elected by the residents of the City of Isle of Palms and currently provides water to approximately 4,595 water accounts and 2,630 sewer accounts.

1. State Legislative Requirements

In 1999 South Carolina enacted into law its Development Impact Fee Act ("Act"), which allows counties and/or municipalities to assess impact fees to recover the cost of new public facilities required to serve growth and new development. Specifically, these new public facilities include fire, police, emergency, parks and recreation, storm water, roads and streets, libraries, solid waste, and others. The purpose of this Act was to develop a set of consistent guidelines and procedures for each of the State's 269 municipalities and other jurisdictions in developing and calculating impact fees. However, the Act also creates certain challenges for the State's municipalities related to developing and administering the fees. For example, the Act requires that a county or municipality adopt an impact fee ordinance that:

- Defines the procedures and policies governing the administration of collecting and appropriating the impact fees;
- Establishes the fee;
- Includes the amount of the fee; and
- Provides an explanation regarding the calculation of the fee.

The Act also requires that the governing body adopt a capital improvements plan (CIP) that identifies the facilities eligible for impact fee funding and estimates the capital costs associated with those facilities. In addition, the Act requires the impact fee revenues be appropriated to fund those capital projects included in the CIP. Finally, a report must be prepared that estimates the effects of recovering expansion-related capital costs through impact fees on the availability of affordable housing within the municipality.

The Act by its terms does not expressly apply to the Commission for at least two reasons. First, the Act imposes requirements only on a "governmental entity", which is defined in § 6-1-920(11) as "county", as provided in Chapter 9, Title 4, and a municipality, as defined in § 5-1-20." Those definitions refer to the 46 counties of the State of South Carolina and to incorporated municipalities and do not include commissions of public works or special purpose districts. Second, the Act defines "development impact fee" in § 6-1-920(8) to mean "a payment of money imposed as a condition of development approval." Insofar as the Commission has no development approval and proposes to charge its impact fee at the time of connection rather than upon development approval, the proposed water and sewer impact fees are not development impact fees.

In any event, since utility impact fees are more common and have been used more extensively over the years both nationally and throughout the State, the Act does provide certain exemptions related to implementing water and sewer impact fees. Specifically, water and sewer utility impact fees are exempt from most of the provisions of the Act except the following, as stated in the legislation:

1. The governing body or utility have a CIP before imposition of development impact fees;
2. The governing body prepare a report to be made public before imposition of the impact fees that includes, but not be limited to, an explanation of the basis, use, calculation, and method of collection of the impact fees; and
3. The impact fees be enacted in accordance with the local planning process or the provisions of Article 3 (relating to the authority of local governments to assess taxes and fees).

Recognizing the anticipated future growth occurring within Commission's service area and its planned capital improvements to meet that demand, the Commission engaged Confluence to calculate water and sewer impact fees.

2. Purpose of Report

The purpose of this Report is to provide an explanation of the methodology used to calculate the impact fees, identify the system improvements to be recovered through the impact fees, define the service units of capacity, and otherwise address the requirements of the Act related to calculating water and sewer impact fees.

II. CAPITAL IMPROVEMENTS PLAN

The Commission has determined to have a CIP in place before imposition of the impact fees and adopted the current CIP on May 30, 2018. The CIP aims to recognize and resolve deficiencies in existing facilities and to anticipate and meet future demand for capital facilities. The CIP is a multi-year schedule that lays out a series of water and sewer capital projects and costs over a five-year capital planning period (FY 2018 through FY 2022). The CIP provides a specific plan for how the Commission expects to expand or construct its facilities and services to meet the demands of existing and/or new population and businesses. The Commission has designed a CIP to coordinate the financing and timing of capital improvements in a way that maximizes the benefits to the Commission and its water and sewer customers.

Since the Act requires the Commission have a CIP before imposing the updated water and sewer impact fees, this section of the report summarizes the Commission's CIP. Specifically, this section and the Schedules in Appendix B include the following:

- A general description of existing facilities and existing levels of service;
- An analysis of total and average day capacity and the level of current usage;
- A table establishing the service unit for an equivalent residential unit (ERU) for both water and sewer and a conversion table for other non-residential customer types (land uses);
- A description of system improvements; and
- An identification of the funding sources for the system improvements included in the CIP.

This section describes the Commission's water and sewer CIP and contains analyses of the total and average day capacity, the level of current usage, and commitments for usage of capacity for existing public facilities. These analyses were prepared by Confluence in consultation with management personnel of the Commission, using generally accepted principles and professional standards. The usage and capacity were based on actual water production and purchases and sewer flow data provided by the Commission and other information provided through local and state governmental agencies. More information on all the capital projects included in the Commission's CIP, detailed schedules setting forth the estimated dates for commencing and completing all the water and sewer capital projects, as well as the planned financing methods for these projects are included in the materials attached as Appendix B.

1. Water Capital Improvements Plan

The water CIP is a multi-year capital plan that was adopted as part of the Commissions fiscal year (FY) 2019 Budget and includes capital projects to improve and expand water treatment and distribution facilities. The water CIP also includes 60% of the costs for joint capital projects that benefit both water and sewer. The Commission operates the water system as a single integrated system.

A. Description of Water System and Existing Levels of Service

The Commission currently owns and operates a 1.2 million gallon per day (MGD) Reverse Osmosis Water Treatment Plant (WTP) and a water distribution system for retail customers located on the Isle of Palms. This distribution system serves approximately 4,595 retail customers by distributing treated water either produced at the Reverse Osmosis WTP or purchased from the City of Charleston Commission of Public Works (CPW).[1] Based on a 1995 Wholesale Water Supply, Treatment, and Transmission Contract with CPW (Water Contract), the Commission purchased "Contract Capacity" of up to 3.0 MGD in the CPW water system. The water distribution system has approximately 275,000 linear feet of water line ranging in diameter from 2 inches to 16 inches, four pumping stations, and a total storage capacity of 2.4 million gallons.

Based on production and purchased water data from July 2017 to June 2018, the average day demand is 1.15 MGD, and the peak day demand is 2.34 MGD, which represent the existing level of service for the Commission's water system. The peak day demand that can be served by the current water production and distribution facilities and the planned water distribution projects included in the CIP is 4.2 MGD. This includes the 1.2 MGD of peak day demand that can be served by the existing Reverse Osmosis WTP and the 3.0 MGD of Contract Capacity in the CPW water system. This peak day water production capacity of 4.2 MGD is supported by the existing and planned water distribution projects.

B. Water Units of Service

Peak water system capacity is available to serve both existing and new customers. To determine how this peak capacity is distributed equitably among all customers, a service unit is determined to create a nexus between available water capacity and equivalent demands for water services. An appropriate service unit basis for water impact fees is the typical peak daily water use by the typical residential single-family unit, or an equivalent residential unit (ERU).

According to the 2015 South Carolina Department of Health and Environmental Control (DHEC) Standards for Wastewater Facility Construction R.61-67 (DHEC standards) in determining sewer system capacity available to serve new customers, the typical average daily water demand for a residential home is 300 gpd. This 300 gpd represents the average use per residential equivalent unit. However, since water systems are sized to meet peak demands, a 1.50x peaking factor is applied to the 300 gpd average day factor to determine a 450 gpd water service unit per ERU.[2] This service unit applies the typical single-family home that is 2,000 square feet or fewer home.

---

[1] Although currently referred to as Charleston Water System, the 1995 Water Contract refers to the City of Charleston Commission of Public Works as CPW. This report will use the term CPW as defined in the 1995 Water Contract.

[2] Based on 2017 customer billing data, the average monthly water use per single-family residential customers during the peak usage month (August) divided by the annual average day water use per single-family residential customers is 1.5 times.

The Commission will continue to assess single-family homes based on the square footage of the home, recognizing that larger homes have a much higher daily demand than smaller homes. This is particularly the case in Isle of Palms, which is a beach community that has seen the recent development of very large high-density rental beach houses with multiple bedrooms. To ensure these larger homes are assessed impact fees that reflect their higher demands, the Commission currently uses three square footage categories to assess its water and sewer development fees. These square footage categories include:

1. 2,000 or fewer;
2. 2,001 to 3,500; or
3. Greater than 3,500.

For other non-residential establishments, the Commission should continue to charge the water impact fee based on the DHEC standards unit contributory loadings for various establishments. However, for water impact fees, Confluence recommends applying the 1.50x peaking factor to these standards to reflect peak day demands.

Table 1 below presents the water demand factors per single-family residential homes for homes within the square footage categories. The DHEC standards and contributing loading factors are included in Appendix A.

Table 1: Residential Water Demand Factors Based on Square Footage

Single-Family Residential (Square Feet Area)	Demand (gpd) (1)
2,000 and Fewer (1 ERU)	450.00
2,001 to 3,500	675.00
Greater than 3,500	1,020.00

(1) The differentials applied to the demand factors for the 2,001 to 3,500 square feet and greater than 3,500 square feet categories are based on the historical consumption and square footage analysis performed by TMG.

C. Water System Improvements to Serve Growth

The Commission does not have any planned expansions to its Reverse Osmosis WTP or Contract Capacity with CPW. However, the Commission is required to make annual capital payments totaling nearly $1.0 million during the planning period for its portion of the annual improvements to the CPW water system. The water CIP also includes several improvements to the Commission's distribution system, including hydrants, water line improvements for looping and increased capacity, and replacing smaller diameter lines with larger lines. Because these improvements benefit both existing and new customers, they are

included in the impact fee calculation and allocated to all customers based on a cost per gpd. The total costs of the five-year water CIP are approximately $8.5 million.

Table 2 provides more detail on the expansion-related projects in the water CIP.

Table 2: Five-Year Total for Water Capital Improvements Plan

Water Capital Improvements		**FY 2018 - 2022 Total**
W1	CCPW Capital Improvements Plan	$ 974,477
W3	Beachwood East to Dunecrest-Replace 2" w/8' add loop	$ 692,873
ENG	Beachwood East to Dunecrest Project Engineering	$ 80,274
W4	49th-53rd-Replace 2" and 4" w/6" add five hydrants	$ 781,498
ENG	49th-53rd Project-Engineering	$ 65,679
W5	Duneridge-replace existing w/10"-replace loop across golf course	$ 1,090,284
ENG	Duneridge Project-Engineering	$ 126,316
W6	Twin Oaks-Replace existing 2" w/8" and add hydrants	$ 532,010
ENG	Twin Oaks Project-Engineering	$ 62,438
W7	Ocean Point-Replace existing w/8" WL	$ 889,315
ENG	Ocean Point Project Engineering	$ 109,214
W9	Abalone-Shad replace 2" pvc lines and services w/6" wl	$ 1,311,410
ENG	Abalone-Shad Project-Engineering	$ 56,000
W10	Edgewater and Sandcrab-replace existing with 8" WL	$ 739,568
W11	Dunecrest to Beachclub Villas-replace existing with 8" WL	$ 475,526
ENG	Edgewater and Sandcrab Project=Enginneering	$ 85,684
ENG	Dunecrest to Beachclub Villas Project-Engineering	$ 55,092
	Joint Project Allocated to Water	$ 346,862
Total Water Capital Projects		**$ 8,474,520**
Water Capital Funding Sources		
Annual Rate Funded		$ 8,364,520
Impact Fees		110,000
Grant Funding		-
Debt Funding		-
Total Funding Sources		$ 8,474,520

Appendix B: Schedule 1 provides more detail on the annual expenditures of expansion-related projects in the water CIP.

2. Sewer Capital Improvements Plan

The sewer CIP is a multi-year capital plan that was adopted as part of the Commission's FY 2019 Budget and includes capital projects to improve and expand sewer treatment and collection facilities. The sewer

CIP also includes 40% of the costs for joint capital projects that benefit both water and sewer. The Commission operates the sewer system as a single integrated system.

A. Description of Sewer System and Existing Level of Service

The Commission currently owns and operates the 1.10 MGD Wild Dunes WWTP, the 0.30 MGD Forest Trails WWTP, and a sewer collection system that serves retail sewer customers located in portions of the City of Isle of Palms. The collection system consists of 129,624 linear feet of gravity sewer lines ranging from 4 inches to 10 inches in diameter and 44,000 feet of force mains ranging from 4 inches to 8 inches in diameter. The collection system serves approximately 2,630 retail customers through conveyance of sewer discharges to the two wastewater treatment plants.

Based on wastewater flow data from July 2017 to June 2018, current average day demand for the Wild Dunes WWTP was 0.31 MGD, and the current average day demand for the Forest Trails WWTP was 0.19 MGD. Based on this, the combined system average day demand is 0.50 MGD, which represents the existing level of service for the Commission's sewer system. The daily demand that can be served by the current wastewater treatment and collection facilities and the planned sewer collection projects included in the CIP is 1.40 MGD. This represents the current capacity and the total 1.40 MGD of capacity that will be available at the Forest Trails WWTP following the planned expansion to that facility and the decommissioning of the Wild Dunes WWTP. This average day wastewater treatment capacity of 1.40 MGD is supported by the existing and planned sewer collection projects.

B. Sewer Units of Service

Sewer system capacity is available to serve both existing and new customers. Similar to water, to determine how this capacity is distributed equitably among all customers, a service unit is determined to create a nexus between available sewer capacity and equivalent demands for sewer services. An appropriate service unit basis for sewer impact fees is the typical average day water use for a typical residential single-family unit, or an ERU.

According to the 2015 DHEC standards in determining wastewater system capacity available to serve new customers, the typical average daily demand for a residential home is 300 gpd. This 300 gpd represents the average water use per residential equivalent unit that is returned to the sewer system. This 300 gpd service unit applies to a 2,000 or fewer square foot home.

As with water, the Commission will continue to assess single-family homes based on the square footage of the home, recognizing that larger homes have a much higher daily demand than smaller homes. This is particularly the case in Isle of Palms, which is a beach community that has seen the recent development of very large high-density rental beach houses with multiple bedrooms. To ensure these larger homes are assessed impact fees that reflect their higher demands, the Commission currently uses three square

footage categories to assess its water and sewer development fees. These square footage categories include:

1. 2,000 or fewer;
2. 2,001 to 3,500; or
3. Greater than 3,500.

For other non-residential establishments, the Commission should continue to charge the sewer impact fee based on the DHEC standards unit contributory loadings for various establishments.

Table 3 below presents the demand factors per single-family residential homes for homes within the square footage categories. The DHEC standards and contributing loading factors are included in Appendix A.

Table 3: Residential Sewer Demand Factors Based on Square Footage

Single-Family Residential (Square Feet Area)	Demand (gpd) (1)
2,000 and Fewer (1 ERU)	300.00
2,001 to 3,500	450.00
Greater than 3,500	680.00

(1) The differentials applied to the demand factors for 2,001 to 3,500 square feet and greater than 3,500 square feet categories are based on the historical consumption and square footage analysis performed by TMG.

C. Sewer System Improvements to Serve Growth

To increase treatment efficiencies and consolidate all its treatment services at the newer Forest Trails WWTP, the Commission plans to expand the capacity of the Forest Trails WWTP to 1.4 MGD and construct a new pumping station at the Wild Dunes WWTP to divert existing flows to the expanded Forest Trails WWTP. The expansion to the Forest Trails WWTP will cost an estimated $7.4 million and the new Wild Dunes pumping station will cost an estimated $1.3 million during the planning period. These projects will allow for the decommission of the old Wild Dunes WWTP and a consolidation of treatment operations at the Forest Trails WWTP.

The sewer CIP also includes several minor improvements to the Commission's collection system, including sewer extensions to replace grinder pumps and upgrading electrical systems. These improvements benefit both existing and new customers and are included in the impact fee calculation and allocated to all customers based on a cost per gpd. The total costs of the five-year sewer CIP are $10.4 million.

Table 4 provides more detail on the expansion-related projects in the sewer CIP.

Table 4: Five-Year Sewer Capital Improvements Benefiting New Customers

		FY 2018 - 2022 Total
Sewer Capital Improvements		
S1	Upgrade Existing Electrical Systems & Equip.	$ 62,852
S2	Upgrade Forest Trails WWTP to 1.4 MGD	7,350,000
ENG	Upgrade Forest Trails WWTP-Engineering	650,000
S3	New Pump Station-Wild Dunes	1,330,000
ENG	New Pump Station-Wild Dunes-Engineering	60,000
S6	Sewer Extensions to replace grinder pumps	434,000
S7	Steel Replacement WD WWTP 450 Aeration Basin	38,458
S8	Plant Cleaning WD WWTP 450 Aeration Basin	37,966
S10	Spare Grinder Pumps	89,430
S11	Spare Submersible Pumps LS 6, 11, 20	25,647
S12	Odor Control LS 20	70,000
	Joint Project Allocated to Sewer	231,241
Total Sewer Capital Projects		**$ 10,379,594**
Sewer Capital Funding Sources		
	Annual Rate Funded	$ 6,327,594
	Impact Fees	$ 52,000
	Grant Funding	$ 2,000,000
	Debt Funding	$ 2,000,000
Total Funding Sources		$ 10,379,594

Appendix B: Schedule 2 provides more detail on the expansion-related projects in the sewer CIP.

3. Financing Methods

In the project summaries in Appendix B, Schedule 1 and Schedule 2, there are four different financing methods used. These methods include cash from rates, impact fee funds, debt, and grant funded capital. Cash from rates includes the general operating reserves generated by monthly rates and charges. These funds are available after all annual operating and maintenance expenses have been funded. Impact fee funds represent annual and accumulated balances of impact fee collections. Debt financing, which generally includes revenue bonds and/or State Revolving Fund ("SRF") Loans for water and sewer, are generally limited to the larger and more expensive projects such as treatment capacity and major infrastructure needs to be met immediately, while spreading out costs over 10 to 20 years. The Commission intends to issue 10-year revenue bonds to finance $2.0 million of capital improvement costs to the Forest Trails WWTP expansions, with another approximately $2.5 million available through Federal

Emergency Management Agency (FEMA) grant funds.[3] The remaining sewer capital improvements will be funded through a combination of cash from rates ($5.3 million) and impact fee funds ($52,000). All $8.4 million in water capital improvements will be funded through a combination of cash from rates ($8.4 million) and impact fee funds ($110,000).

Schedule 1 and Schedule 2 in Appendix B provide more detail on the financing plans for the planned projects in the water and sewer CIP.

A credit is provided in the calculation of the impact fees for the net present value (NPV) of the principal portion of debt service on the revenue bonds outstanding and to be issued by the Commission to fund the capital costs recovered through the impact fees[4]. This credit is provided to ensure that new customers are not charged twice for these costs through both the impact fees and their future utility rates and charges. Since bonds will be used to pay the initial costs of providing additional capacity to new customers connecting to the Commission's sewer systems over the next 10 to 20 years, the impact fees collected from these new customers over that period may also be used to pay down the debt principal or make annual debt service payments on the debt used to fund the expansion-related capital costs. Any capital costs and related capacity for projects to be fully funded through contributions and/or grants are excluded from the capacity fee calculations.

[3] The financial plan is based on the prevailing assumptions at of the time of this analysis. The actual amounts of FEMA grand funding and the amount and terms of the revenue bond issue will be determined closer to construction of the Forest Trails WWTP expansion project.

[4] The NPV of the remaining principal payments is determined based on a discount rate of 3.0%, which proxies the Commission's current cost of debt.

III. IMPACT FEE METHODOLOGY

Impact fees, or capacity fees, are defined as "one-time capital recovery charges assessed against new development as a way to recover a proportional share of the cost of capital facilities constructed to provide service capacity for new customers." [5] These types of fees are typically used in areas experiencing high growth where recovering expansion-related costs through rates would place an inequitable burden on existing customers.

Since project initiation, Confluence has worked closely with Commission staff in developing an understanding of the Commission's water and sewer service areas and the pricing objectives for impact fees. Based on this understanding, Confluence has calculated the impact fees based on the following recommendations:

- Calculate the impact fees in a manner consistent with the requirements of the Rational Nexus test and industry guidelines.
- Calculate the water and sewer impact fees based on a hybrid or combination of the industry accepted system buy-in approach, which estimates the cost of providing a unit of system capacity based upon the net equity investment in existing capacity, and the marginal incremental cost approach, which focuses on the cost of adding additional facilities to serve new customers included in the CIP.
- Determine the Replacement Cost New Less Depreciation (RCNLD) for the existing water and sewer assets recovered through the fees.
- Provide credits for the NPV of remaining principal payments on outstanding debt and future principal payments on proposed debt issues required to fund future additions of utility assets in the Commission's CIP.
- Include the estimated capital costs budgeted in the Commission's CIPs for relevant water and sewer projects proposed to expand or replace existing capacity available that will serve and benefit new customers locating within the Commission's service area.

These recommendations are developed and discussed in more detail in the following sections and exhibits of this section.

1. Impact Fee Approaches

Numerous approaches to determining impact fees have been adopted by water and sewer utilities across the country. The major goal in selecting an impact fee methodology is to select an approach which provides equity to existing and future customers and is legally defensible. To meet this goal, care must be taken to develop impact fees that reflect the current cost of providing capacity to meet each customer's

[5] Source: Comprehensive Guide to Water and Wastewater Finance and Pricing - Fourth Edition, George A. Raftelis.

needs or level of usage. The more prevalent and accepted methodologies for calculating impact fees are discussed below, followed by a brief discussion of the "Rational Nexus" test.

A. System Buy-In Approach

Under this approach, impact fees are based upon the "buy-in" concept that existing users, through service charges, tax contributions, and other up-front charges, have developed a valuable public capital facility. This method is appropriate for utility systems such as the Commission with additional capacity already in place and provides an estimate of the cost of providing a unit of capacity based upon the net equity of the existing assets. This method calculates a fee based upon the proportional cost of each user's, both existing and future, share of the existing system capacity. The costs of the facilities are based on a review of fixed asset records and include escalation of the depreciated value of those assets to current dollars. Any outstanding principal on funds borrowed to construct the core assets is deducted, based on the assumption that this cost will be recovered from all present and future customers through the retail utility rates.

B. Marginal Incremental Cost Methodology

The marginal incremental cost methodology specifically focuses on the cost of adding additional facilities to serve new customers. It is most appropriate in a situation where existing facilities do not have available capacity to serve to new customers, and the cost for new capacity can be tied to an approved CIP or master plan. This method includes the calculation of an adjustment or credit for relevant principal payments related to the new assets that will be recovered through future utility rates. This credit is designed to address the issue of double payment by new customers for the same unit of capacity through the capacity fee and through user rates and charges.

C. Hybrid Approach

Another approach that has become increasingly more common for determining water and sewer utility impact fees is a hybrid approach that combines the system buy-in approach and the marginal incremental cost methodology. This hybrid approach recognizes that new customers of water and sewer systems benefit from both facilities already in place and future improvements to those facilities, including planned extensions and expansions. Under the hybrid approach, an average value of existing and planned facilities is determined to reflect the investment of all existing and future customers of the system.

D. Rational Nexus

In general, properly developed impact fees must comply with the "Rational Nexus" test established in court cases. The "Rational Nexus" test requires that: 1) the need for impact fees is a result of new growth; 2) the amount of the fee does not exceed the reasonable cost to provide capacity to accommodate growth; and 3) the funds collected must be adequately earmarked for the sufficient benefit of new customers required to pay the fee. The development of appropriate impact fees is an important

component in the overall strategy for pricing utility services and represents a major challenge for public utilities.

2. Water Impact Fee Calculation Methodology

Since the existing water system has available capacity to serve new customers, and the Commission has planned capital projects to expand service capacity, the water capacity fee is calculated based on a hybrid of the system buy-in approach and the marginal incremental cost approach.

A. Buy-In to Existing Water Facilities

The buy-in value of the existing water facilities represents the RCNLD of the assets of the water system. This RCNLD is determined by escalating depreciated water facility asset values based on the ENR 20-City Cost Index. The value of any assets that were contributed by developers, funded through grants, contributed by other parties, or have contractual restrictions are excluded from the buy-in value of facilities available to serve new ERUs. By including the RCNLD of the water facilities available to serve new ERUs, the Commission can use water impact fee revenues to make annual payments on or retire debt issued to fund the existing water facilities.

Table 5 summarizes the determination of the buy-in value of the facilities included in the water impact fee.

Table 5: Buy-In to Existing Water Facilities

Water System Asset Category	Adjusted Original Cost	Acculated Depreciation	Depreciated Value	RCNLD (1)
Land (2)	$ 77,645	$ -	$ 77,645	$ 77,645
Buildings (2)	347,422	222,611	124,811	216,955
Water System	23,057,922	8,380,020	14,677,902	20,387,470
Reverse Osmosis System	2,487,795	1,476,150	1,011,645	1,793,702
Office Equipment (3)	11,452	10,799	653	698
Communications Equipment (2)	26,188	26,188	0	0
Vehicle And Equipment (2)	375,735	296,703	79,032	86,231
Computer System (2)	285,844	118,236	167,607	183,901
Subtotal Water System Assets	**$ 26,670,003**	**$ 10,530,708**	**$ 16,139,296**	**$ 22,746,603**
Less: Contributed Capital	(1,313,821)	(534,328)	(779,493)	(1,041,138)
Less: FEMA	(2,149,995)	(1,380,386)	(769,609)	(1,415,525)
Less: Debt Principal Credit (3)				
Water System Buy-In Value	$ 23,206,187	$ 8,615,993	$ 14,590,194	**$ 20,289,939**

(1) RCNLD is determined by escalating the depreciated value of asset line items by the annual inflationary cost factors from the ENR 20-City Cost Index.

(2) Because land, building, and other facilities and equipment benefit both water and sewer customers, the shared utility assets are allocated between water and sewer based on relevant factors such as personnel time logs for work performed between water and sewer functions.

(3) The Commission has no outstanding debt issues related to funding the water system assets.

After the assets are allocated to the water and sewer systems and deductions are made to exclude assets contributed by or funded through FEMA grants, the Buy-In value of the water system is approximately $20.3 million. This represents the value of existing assets that is available to serve both existing and future customers of the water system.

B. Marginal Incremental Cost Value of Water System

The marginal incremental cost value of the water system represents the water capital improvements included in the Commissions five-year CIP. As detailed in Table 2, the Commission plans to perform $8.4 million in water capital improvements. Although these capital improvements will benefit both existing and new customers through replacements and oversizing of water lines, it is appropriate to include all the water capital improvements in the marginal incremental cost value, since the impact fees are determined based on the total value of the 4.2 MGD of water system capacity.

Since the Commission plans to fund the five-year water CIP through cash from rates and available impact fee funds, no debt principal credit is applied to the marginal incremental cost value for water impact fees.

Table 6 summarizes the calculation of the water impact fee based on the hybrid System Buy-In and Marginal Incremental Cost approach.

Table 6: Calculation of Water Impact Fee per ERU

Water Impact Fee Calculation		**Fiscal Year Ending June 30, 2017**
System Buy-In Component		
Replacement Costs of Existing Facilities	**$**	**22,746,603**
Less:		
Contributed Capital	$	(1,041,138)
FEMA Grant Funded	$	(1,415,525)
Debt Principal Credit	$	-
Total Replacement Costs	**$**	**20,289,939**
Marginal Costs Component		
Planned CIP Improvements	$	8,474,520
Less:		
Debt Principal Credit	$	-
Total Marginal Costs	**$**	**8,474,520**
Total Value Benefiting Existing & New ERU	**$**	**28,764,459**
Current Capacity (MGD)		4.20
Cost per Gallon Per Day	$	6.85
Peak Daily Demand Per ERU (300 gpd x 1.5x)		450
Impact Fee Per ERU	**$**	**3,082.00**

Again, the water impact fee per ERU of **$3,082** is based on daily the water demand of the typical three-bedroom single-family residence. This demand is based on the 300 gpd average daily water demand identified in DHEC standards for determining sewer system capacity escalated by a 1.50x peaking factor, since water systems are sized to meet peak demands. The 1.50x peaking factor is based on the average daily water use by residential customers during the peak water use month (August) in calendar year 2017, divided by the annual daily average water use by residential customers during 2017.

The Commission will continue to assess single-family homes based on the square footage of the home, recognizing that larger homes have a much higher daily demand than smaller homes. As a beach community, Isle of Palms has seen the recent development of very large rental beach houses with multiple bedrooms and very high water use during the summer rental season. To ensure these larger homes are assessed impact fees that reflect their higher demands, the Commission currently uses three square footage categories to assess its water and sewer development fees.

Table 7 presents the water impact fees per residential single-family home for homes within the square footage categories.

Table 7: Single-Family Residential Water Impact Fees by Square Footage

Single-Family Residential (Square Feet Area)	Demand (gpd) (1)	Impact Fee		Change	
		Current	Proposed	Increase	Percent
2,000 and Fewer (1 ERU)	450.00	$ 2,400.00	$ 3,082.00	$ 682.00	28%
2,001 to 3,500	675.00	$ 3,700.00	$ 4,623.00	$ 923.00	25%
Greater than 3,500	1,020.00	$ 5,500.00	$ 6,986.00	$ 1,486.00	27%

(1) The differentials applied to the demand factors for the 2,001 to 3,500 square feet and greater than 3,500 square feet categories are based on the historical consumption and square footage analysis performed by TMG.

For other non-residential establishments, the Commission should continue to charge the water impact fee based on the DHEC standards unit contributory loadings for various establishments. However, Confluence recommends applying the 1.50x peaking factor to these standards to reflect peak day demands.

For more information on the contributory loading factors to be used by multi-family and non-residential establishments, see Appendix A.

3. Sewer Impact Fee Calculation Methodology

Since the existing sewer system also has available capacity to serve new customers, and the Commission has planned capital projects to expand service capacity, the sewer impact fee is also calculated based on a hybrid of the system buy-in approach and the marginal incremental cost approach.

A. Buy-In to Existing Sewer Facilities

The buy-in value of the existing sewer facilities represents the RCNLD of the assets of the water system. This RCNLD is determined by escalating depreciated wastewater facility asset values based on the ENR 20-City Cost Index. Again, the value of any assets that were contributed by developers, funded through grants, contributed by other parties, or have contractual restrictions are excluded from the buy-in value of facilities available to serve new ERUs. Additionally, since the Commission plans to decommission the Wild Dunes WWTP and consolidate treatment operations at the Forest Trails WWTP, the RCNLD of the Wild Dunes WWTP is also excluded from the sewer buy-in value. By including the RCNLD of the eligible sewer facilities available to serve new ERUs, the Commission can use sewer impact fee revenues to make annual payments on or retire debt issued to fund the existing sewer facilities.

Table 8 summarizes the determination of the buy-in value of the facilities included in the sewer impact fee.

Table 8: Buy-In to Existing Sewer Facilities

Wastewater System Asset Category	Adjusted Original Cost	Acculated Depreciation	Depreciated Value	RCNLD (1)
Land (2)	$87,557	$0	$87,557	$87,557
Buildings (2)	$391,774	$251,030	$140,744	$244,651
Sewer System	$19,961,053	$8,223,278	$11,737,775	$14,515,322
Office Equipment (2)	$10,571	$9,969	$603	$644
Communications Equipment (2)	$24,173	$24,173	$0	$0
Vehicle And Equipment (2)	$397,412	$313,821	$83,592	$91,206
Computer System (2)	$263,856	$109,141	$154,714	$169,755
Subtotal Wastewater System Assets	**$21,136,397**	**$8,931,411**	**$12,204,986**	**$15,109,135**
Less: Contributed Capital	(873,134)	(355,102)	(518,033)	(691,916)
Less: FEMA	(2,271)	(1,458)	(813)	(1,495)
Less: Wild Dunes WWTP	(2,233,351)	(1,687,326)	($546,024)	(839,692)
Less: Debt Principal Credit (3)				$ (3,848,263)
Wastewater System Buy-In Value	$18,027,641	$6,887,525	$11,140,116	**$9,727,770**

(1) RCNLD is determined by escalating depreciated value of assets by the annual inflationary cost factors from the ENR 20-City Cost Index.

(2) Because land, building, and other facilities and equipment benefit both water and sewer customers, the shared utility assets are allocated between water and sewer based on relevant factors such as personnel time logs for work performed between water and sewer functions.

(3) Represents the net present value of remaining principal payments on Series 2012 Revenue Bonds used to fund the initial construction of the Forest Trails WWTP.

After the assets are allocated to the water and sewer systems and deductions are made to exclude assets contributed by, funded through FEMA grants, and the value of the soon to be decommissioned Wild Dunes WWTP, the system buy-in value of the sewer system is approximately $9.7 million. This represents the value of existing assets that is available to serve both existing and future customers of the sewer system.

B. Marginal Incremental Cost Value of Sewer System

The marginal incremental cost value of the sewer system represents the capital improvements included in the Commissions five-year CIP. As detailed in Table 4, the Commission plans to perform $10.4 million in sewer capital improvements. The major projects relate to expanding the Forest Trails WWTP and diverting the wastewater flows from the Wild Dunes WWTP to Forest Trails WWTP. Although these capital improvements will benefit both existing and new customers through replacements and oversizing of sewer lines, it is appropriate to include all the sewer capital improvements in the marginal incremental cost value, since the impact fees are determined based on the total value of the 1.4 MGD of sewer system capacity.

Since the Commission plans to fund the $2.0 million in capital costs through a future bond issue and will receive $2.5 million in FEMA grant funds, a debt principal credit and FEMA grant deduction is applied to the marginal incremental cost value for water.

Table 6 summarizes the calculation of the sewer impact fee based on the hybrid System Buy-In and Marginal Incremental Cost approach.

Table 9: Calculation of Sewer Impact Fee per ERU

Sewer Impact Fee Calculation	**Fiscal Year Ending June 30, 2017**
System Buy-In Component	
Replacement Costs of Existing Facilities	**$ 15,109,135**
Less:	
Contributed Capital	$ (691,916)
FEMA Grant Funded	$ (1,495)
Wild Dunes WWTP	$ (839,692)
Debt Principal Credit	$ (3,848,263)
Total Replacement Costs	**$ 9,727,770**
Marginal Costs Component	
Planned CIP Improvements	$ 10,379,594
Less:	
FEMA Grant	$ (2,500,000)
Debt Principal Credit	$ (1,592,596)
Total Marginal Costs	**$ 6,286,998**
Total Value Benefiting Existing & New ERU	**$ 16,014,768**
Current & Planned Capacity (MGD)	1.40
Cost per Gallon Per Day	$ 11.44
Daily Demand Per ERU (DHEC)	300
Impact Fee Per ERU	**$ 3,432.00**

Again, the sewer impact fee per ERU of **$3,432** is based on daily water demand characteristics of the typical three-bedroom, single-family residence. This demand is based on the 300 gpd average daily water demand identified in DHEC standards for determining sewer system capacity. The 300 gpd daily demand per ERU is not adjusted, since wastewater treatment and collection systems are sized to meet average day sewer flows.

As with water, the Commission will continue to assess single-family homes based on the square footage of the home, recognizing that larger homes have a much higher daily demand than smaller homes. As a beach community, Isle of Palms has seen the recent development of very large rental beach houses with multiple bedrooms and very high water use during the summer rental season. To ensure these larger homes are assessed impact fees that reflect their higher demands, the Commission currently uses three square footage categories to assess its water and sewer development fees.

Table 10 presents the sewer impact fees per residential single-family home for homes within the square footage categories.

Table 10: Single-Family Residential Sewer Impact Fees by Square Footage

Single-Family Residential (Square Feet Area)	Demand (gpd) (1)	Impact Fee		Change	
		Current	Proposed	Increase	Percent
2,000 and Fewer (1 ERU)	300.00	$ 2,500.00	$ 3,432.00	$ 932.00	37%
2,001 to 3,500	450.00	$ 3,800.00	$ 5,148.00	$ 1,348.00	35%
Greater than 3,500	680.00	$ 5,700.00	$ 7,779.00	$ 2,079.00	36%

(1) The differentials applied to the demand factors for 2,001 to 3,500 square feet and greater than 3,500 square feet categories are based on the historical consumption and square footage analysis performed by TMG.

For other non-residential establishments, the Commission should continue to charge the water impact fee based on the DHEC standards unit contributory loadings for various establishments.

For more information on the contributory loading factors to be used by multi-family and non-residential establishments, see Appendix A.

IV. COMPARISON WITH LOCAL COMMUNITIES

One of the Commission's objectives is the development of impact fees that do not burden economic development. Therefore, a comparison of the Commission's recommended water and sewer impact fees to similar impact fees assessed to new customers in local communities provides a benchmark when considering the impact of the impact fees.

Table 11 provides a comparison between the Commission and eight other communities in South Carolina of the applicable water and sewer impact fees for a typical residential customer. These communities were chosen because of the population, geographic, and demographic characteristics they share with the Commission.

Table 11: Comparison of Water and Sewer Impact Fees with Local Communities

	Impact Fees (1)		
Utility/Community	**Water**	**Sewer**	**Total**
Mount Pleasant Waterworks	$ 2,295	$ 5,164	$ 7,459
Charleston Water System (CPW)	3,401	3,870	7,271
IOPWSC (Proposed)	**3,082**	**3,432**	**6,514**
Hilton Head Island PSD	2,400	3,040	5,440
IOPWSC (Current)	**2,400**	**2,500**	**4,900**
Beaufort-Jasper	1,200	2,760	3,960
Berkeley County	1,350	2,500	3,850
Dorchester County	2,600	690	3,290
Broad Creek PSD	950	2,250	3,200
Grand Strand	575	1,270	1,845
Average (Excluding IOPWSC)	$ 1,846	$ 2,693	$ 4,539

(1) Based on impact fees assessed per ERU or per typical single-family residential home.

.

V. OTHER CONSIDERATIONS

Although the Commission is exempted from much of the State's 1999 Act, Confluence believes there are several practices and policies the Commission should consider in its future administration of collecting and appropriating its impact fees. This section presents several procedures, policies, and documents Confluence recommends the Commission consider developing and implementing.

Separate Impact Fee Funds: The Commission should establish independent and separate funds to account for the collection and appropriation of impact fee funds. The "Rational Nexus" test requires that impact fees be used only for those facilities that benefit the customers who paid the impact fees. Municipalities and utilities may be challenged if impact fee funds are used for anything other than funding the capital facilities that the fees are designed to recover. Impact fees cannot be used to pay for operating expenses, nor can water impact fee funds be used to fund sewer capital projects and vice versa. Separate water and sewer impact fee funds should be established and tracked separately to ensure compliance with the "Rational Nexus" test and legal precedent.

Develop and Impact Fee Ordinance and/or Calculation Guide: The Commission should consider developing an impact fee ordinance and/or calculation guide that details how the impact fees are assessed to various types of customers. This document could include the costs per gpd of water and sewer system capacity and how the impact fees are determined for single-family residential homes based on square footage and the South Carolina DHEC Standards for Wastewater Facility Construction R.61-67. This document could also define how the redevelopment and/or renovations to existing establishments would result in the assessment of additional impact fees to compensate the Commission for the marginal increase in potential demands caused by the redevelopment.

Update the Demand Factors for Larger Single-Family Residential Homes: The differentials applied to the demand factors for the 2,001 to 3,500 square feet and greater than 3,500 square feet categories are based on a historical consumption and square footage analysis that was performed by TMG in 2002. The Commission should consider updating these factors, as home development trends and usage characteristics have likely changed since that time. The Commission may also consider implementing additional home size categories to ensure the fees appropriately reflect the higher demands larger homes place on the water and sewer systems.

Develop a Financial Policies Document: The Commission should consider developing a financial policies document that provides rate, debt, capital, grinder pump, and impact fee guidance for the Commission when making financial decisions related to serving existing and future customers. These policies can help the Commission create long-term financial stability and ensure rates and impact fees are fair, reasonable, and equitable.

APPENDIX A

APPENDIX B