

**CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY**



**CMCMUA USER CHARGE SYSTEM  
RATE SETTING REPORT**

**WASTEWATER MANAGEMENT PROGRAM  
USER CHARGES**

**EFFECTIVE JANUARY 1, 2020**

**(ADOPTED)**

CMCMUA USER CHARGE SYSTEM  
RATE SETTING REPORT

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## **Section I. Introduction**

## I. Introduction

The primary purpose of this Rate Setting Report is to present information to Participants of the Cape May County Municipal Utilities Authority's (hereinafter referred to as Authority or CMCMUA) Wastewater Management Program and the general public regarding the user charges which are proposed to go into effect commencing on January 1, 2020, for Fiscal Year 2020 (i.e. calendar year 2020).

The charges for wastewater conveyance and treatment services in Ocean City will be billed to New Jersey American Water which provides local sewage collection service within the City of Ocean City. In turn, New Jersey American Water will pass these costs onto the individual users of the system, along with New Jersey American Water's own cost for the operation of the local sewage collection system.

The charges for wastewater conveyance and treatment services in the City of Cape May, Borough of West Cape May, Borough of Cape May Point, Borough of Stone Harbor, City of Sea Isle City, Borough of Avalon, Township of Middle (including areas in Cape May Court House, Mayville, Burleigh, Rio Grande, Avalon Manor, Stone Harbor Manor/Blvd. and Harbor Bay Center), City of North Wildwood, City of Wildwood, Borough of Wildwood Crest, Borough of West Wildwood, and the Shawcrest Area of the Township of Lower, will be billed by the CMCMUA directly to each Participant municipality or local sewerage agency, as appropriate. In turn, each Participant will pass the cost for regional service on to the individual users of the system, along with the Participant's own costs for the operation of the local sewage collection system.

The County of Cape May will be billed for the sewage received from the County Complex at Crest Haven. Likewise, the New Jersey Turnpike Authority will be billed for the sewage received from the Garden State Parkway's Ocean View Service Area and Swainton Maintenance Yard and Avalon State Police Barracks.

The CMCMUA has, historically, not received any high strength waste from its Participants, and the proposed Fiscal Year 2020 Budget does not anticipate receiving any additional revenue from such waste. However, in order to accommodate the receipt of any high strength wastes from any sources within any of the Service Regions, as in

past years, this Report also proposes rates for a surcharge on high strength wastes for Fiscal Year 2020.

Due to damages incurred by a fire in one of the two reactors at the County-Wide Sludge Composting Facility in November 2015, the County-Wide Sludge Composting Facility is not currently in operation and will remain so for the foreseeable future.

In addition, rates are proposed for the receipt and treatment of septage and landfill leachate at the Seven Mile Beach/Middle Regional Wastewater Treatment Facility during Fiscal Year 2020. .

Rates are herein proposed for the conveyance and disposal of the treated effluent from the Lower Township Municipal Utilities Authority's Wastewater Treatment Facility. This rate has been calculated in accordance with the Service Agreement between the Authority and Lower Township Municipal Utilities Authority (LTMUA).

The CMCMUA plans to conduct a public hearing on December 4, 2019 to present the information contained within this Report relative to its proposed revisions to the current rates. The public hearing will provide an opportunity for the receipt of comments from Participants and the general public regarding these proposed rates and also an opportunity for the Authority to respond to questions regarding the proposed rates for Fiscal Year 2020.

The Authority's proposed schedule of wastewater charges/rates proposed for Fiscal Year 2020, with any modifications deemed appropriate by the Members of the Authority following consideration of any comments received at, or prior to, the public hearing, are expected to be considered for adoption by the Members of the Authority, upon the closing of the public hearing on December 4, 2019 and shall become effective on January 1, 2020.

## **Section II. Background**

## II. Background

Created by resolution of the Board of Chosen Freeholders of Cape May County in 1972, the Cape May County Municipal Utilities Authority ("CMCMUA" or the "Authority") was formed specifically for the purposes of planning, designing and implementing wastewater and solid waste management programs for the improvement, preservation, and protection of the natural and socio-economic environments of Cape May County.

### A. Regional Service Areas

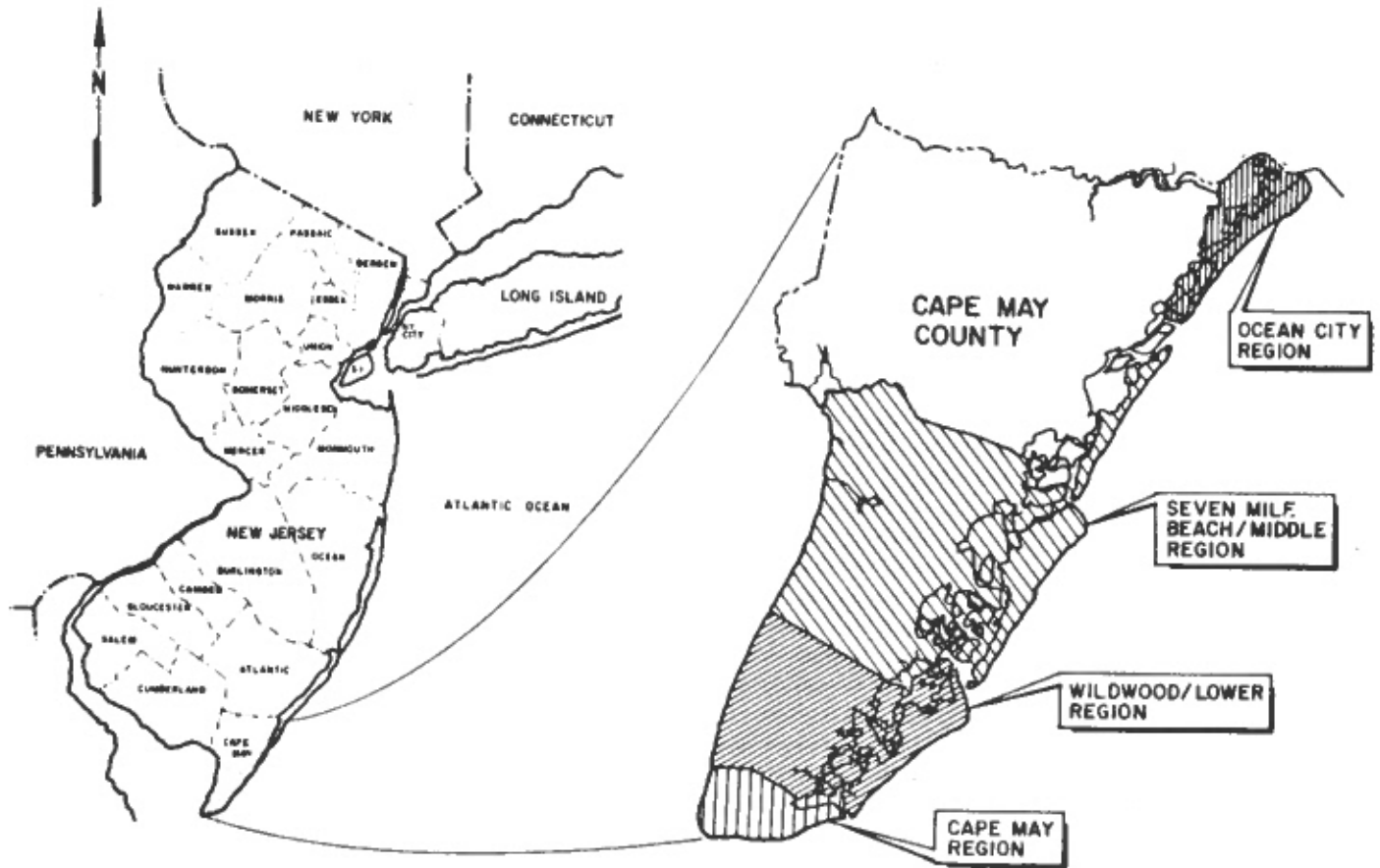
The CMCMUA, on November 16, 1977, officially adopted the "County-Wide Selected Plan", which established regional wastewater planning areas throughout Cape May County. This plan has been approved by the United States Environmental Protection Agency (USEPA) and New Jersey Department of Environmental Protection (NJDEP). The four (4) Regional Planning Areas delineated by this Selected Plan, for which facilities have been provided during the initial planning phase, are: the Ocean City, Cape May, Seven Mile Beach/Middle and Wildwood/Lower Service Regions. The general area of each region has been identified geographically, as shown in Figure 1, while Figure 2 lists the Participants within each Service Region currently serviced by the Regional Wastewater System. The Service Regions delineated in Figure 1 represent the study areas which were evaluated during the facilities planning process. Therefore, it should be recognized that large portions of the study areas, particularly on the mainland, are not slated to receive regional wastewater treatment services.

Wastewater collection, transmission, treatment and disposal facilities have been separately provided for in each of the four (4) Service Areas.

All Service Areas are currently operational. Management and administration of these regional facilities are centralized under the coordinated control of the CMCMUA. Within each Service Area, or Region, staffing is provided as necessary to operate and maintain the Wastewater Treatment Facilities. In addition, a centralized Sludge Composting Facility / Sludge Transfer Facility, located adjacent to the Seven Mile Beach/Middle Region Wastewater Treatment Facility, receives the sludge which is generated at the four (4) Regional Wastewater Treatment Plants. Descriptions of the CMCMUA's Wastewater and Sludge Treatment Facilities are briefly presented below:

Figure 1

**CMCMUA User Charge System**  
**Location of Participants by Region**





**Figure 2**  
**CMCMUA USER CHARGE SYSTEM**  
**LIST OF PARTICIPANTS BY REGION**

<b><u>Region</u></b>	<b><u>Participant</u></b>
Ocean City	<ul style="list-style-type: none"> <li>- Ocean City</li> <li>- New Jersey-American Water Company</li> </ul>
Cape May	<ul style="list-style-type: none"> <li>- West Cape May</li> <li>- Cape May Point</li> <li>- Cape May City (Includes the U.S. Coast Guard Base)</li> </ul>
Seven Mile Beach/Middle	<ul style="list-style-type: none"> <li>- Stone Harbor</li> <li>- Sea Isle City</li> <li>- Avalon</li> <li>- Cape May County (Crest Haven Complex)</li> <li>- Middle Township - (Cape May Court House)</li> <li>- Middle Township - (Avalon Manor)</li> <li>- Middle Township - (Stone Harbor Manor/Stone Harbor Blvd.)</li> <li>- Middle Township - (Court House South)</li> <li>- Middle Township - (Harbor Bay Center)</li> <li>- New Jersey Turnpike Authority (Ocean View Service Area/Swainton Maintenance Yard and Avalon State Police Barracks)</li> </ul>
Wildwood/Lower	<ul style="list-style-type: none"> <li>- Wildwood</li> <li>- Wildwood Crest</li> <li>- West Wildwood</li> <li>- North Wildwood</li> <li>- Middle Township - (Rio Grande)</li> <li>- Lower Township Municipal Utilities Authority (Shawcrest)</li> </ul>

1. Ocean City Region

A 6.3 million gallons per day (MGD) capacity Secondary Wastewater Treatment Facility for Ocean City has been in operation since February 1982. The facility was re-rated at 7.3 MGD by the NJDEP in the summer of 1994. Effective with the reissuance of the NJPDES permit renewal on April 1, 2001, the facility was again re-rated by the NJDEP at 8.24 MGD. Transmission facilities consist of four (4) regional pumping stations and approximately 52,000 lineal feet of force mains. These Transmission Facilities terminate at the Regional Wastewater Treatment Facility located at the western end of 45th Street. Treated effluent is discharged through an outfall and diffuser system which extends approximately 6,000 lineal feet from the shoreline into the Atlantic Ocean, east of the treatment facility site.

2. Cape May Region

A 3.0 MGD capacity Secondary Wastewater Treatment Facility, located at the site of the former Cape May City Treatment Plant, began operation in February, 1984. Regional transmission facilities consist of three (3) pumping stations and approximately 20,000 lineal feet of force mains. The treated effluent is conveyed by force main to the Authority's Effluent Disposal Facility adjunct to the Lower Township Municipal Utilities Authority's Wastewater Treatment Facility, where it is combined with the effluent from the Lower Township Municipal Utilities Authority's Wastewater Treatment Facility and re-pumped to the effluent pumping station at the Wildwood/Lower Regional Wastewater Treatment Facility. The combined effluent from all three treatment plants is discharged into the Atlantic Ocean via the Wildwood/Lower Regional Ocean Outfall and diffuser system.

3. Seven Mile Beach/Middle Region

A 7.67 MGD capacity Secondary Wastewater Treatment Facility, located near the County Complex at Crest Haven in Middle Township, began operation in August, 1987. Transmission facilities include ten (10) pumping stations and approximately 84,000 lineal feet of force main pipelines. Treated effluent is discharged into the Atlantic Ocean through an outfall and diffuser system consisting of 30,000 lineal feet of land-based pipeline and 5,200 lineal feet of marine outfall line.

In addition, facilities have been provided at the Seven Mile Beach/Middle Regional Wastewater Treatment Facility to receive and treat all of the septage waste, leachates and liquid sludges generated in Cape May County.

4. Wildwood/Lower Region

A 14.2 MGD capacity Secondary Wastewater Treatment Facility located on Route 47 east of Rio Grande, began operation in April, 1988. Transmission facilities include seven (7) pumping stations and approximately 52,900 lineal feet of force mains. Effluent is discharged into the Atlantic Ocean through an ocean outfall and diffuser system.

The Wildwood/Lower's effluent disposal system also conveys the treated effluent from the Cape May Region and the Lower Township Municipal Utilities Authority Wastewater Treatment Facilities for discharge through the common ocean outfall and diffuser system into the Atlantic Ocean.

5. County-Wide Sludge Composting Facility / Sludge Transfer Facility

A centralized Sludge Composting Facility utilizing an in-vessel mechanical composting process followed by aerated windrows to stabilize sludges generated at the various Regional Wastewater Treatment Facilities is located adjacent to the Seven Mile Beach/Middle Treatment Plant. The resulting stabilized product, known as "CAPEORGANIC", is marketed for use as a specialty fertilizer.

The County-Wide Sludge Composting Facility was initially placed in operation in late 1985. Due to damages incurred by a fire in one of the two reactors at the County-Wide Sludge Composting Facility in November 2015, the facility is not currently in operation and the Authority is evaluating its long term sludge management options.

Prior to the fire, the County-Wide Sludge Composting Facility had a capacity to handle 140 dry tons per week of sewage sludge from the CMCMUA's regional facilities. If the Authority should decide to recommence composting operations in the unaffected reactor the facility would have a capacity of 40 dry tons per week of sewage sludge which provides for excess processing capacity during the non-peak months.

Currently, the sewage sludges generated by the Authority are transported by the Authority to the Atlantic County Utilities Authority at a rate of 50 dry tons per week during non-peak months and 84 dry tons per week during peak months. During peak months, the Authority currently relies upon a contract with an outside contractor to transport and dispose approximately 56 dry tons per week of excess sewage sludge generated by its facilities.

### **Section III. Factors Affecting User Charge System**

### III. Factors Affecting User Charge System

The terms of executed service agreements and bond covenants, as well as regulatory requirements and grant conditions, affect a user charge system. A discussion of each of these factors as they affect the CMCMUA user charge system is presented in the following subsections.

#### A. Service Agreement

A Service Agreement with the CMCMUA was entered into by Participant Cities, Boroughs, Townships, Sewerage Districts, and the New Jersey American Water (herein collectively referred to as "Participants") in order to identify applicable responsibilities and/or procedures regarding items such as:

1. The construction and operation of the Regional System
2. Connection to the Regional System
3. Charges and establishment of rates by the CMCMUA, and payments by Participants
4. Meters, records and local operations
5. Payment for abandoned Wastewater Treatment Facilities and their demolition

With respect to charges for wastewater treatment and disposal under Item 3, Section 401 of the Service Agreement states that the sum of annual charges to Participants "shall at all times be sufficient to pay or provide for the expenses of operation, repair and maintenance of the Regional System, including (without limitation of the foregoing) insurance, renewals and replacements, and the cost of all extensions and alterations of the Regional System not otherwise provided for, the principal of and interest on any and all bonds or other obligations of the Authority as the same become due, and to provide for any deficits of the Authority resulting from failure to receive sums payable to the Authority by any Participant or any other person, partnership, firm or corporation, or from any other cause, and to provide and maintain such reserves or sinking funds for any of the foregoing proposes as may be required by the terms of any contract or other obligation of the Authority."

In addition, Section 402 of the Service Agreement states that the annual charge "shall be computed and established by the Authority on the basis of the quantity, quality and other characteristics of the sewage so delivered as shown by the records of the Authority, at the rate or rates prescribed by the Authority in accordance with this Article ..."

#### B. CMCMUA Bond Covenants

Bond covenants associated with the CMCMUA's issuance of revenue bonds used to finance the construction of the Authority's regional wastewater facilities also affect the user charge system, as each of the following items are addressed: obligation for and payment of bonds, establishment and application of reserve funds, rate stabilization funds, investment of funds, the rate covenant, annual budget responsibilities, audits, insurance and arbitrage.

The CMCMUA user charge system's debt service for construction of facilities, beginning with the Ocean City Region, was set forth by the 1979 bond covenant, as contained in the "Official Statement Relating to \$17,000,000 CMCMUA County Agreement Sewer Revenue Bonds, Series 1979." These revenue bonds were structured to recover construction costs and the portion of the project development costs (i.e., regional planning, design and financing costs) attributable to these projects.

Similarly, additional financing for the Cape May Region, County-Wide Sludge Composting Facility, Seven Mile Beach/Middle Region, and Wildwood/Lower Region (with the exception of the Cape May Region/Lower Township Effluent Disposal System) was obtained through the issuance of additional Sewer Revenue Bonds.

Each series of sewer revenue bonds initially issued by the CMCMUA for the construction of the Authority's regional wastewater facilities was subsequently refunded by the Authority in order to take advantage of more favorable bond market conditions (i.e. lower interest rates).

In May 1999, through a competitive bidding process, the Authority sold its option to recall up to \$85,195,000 of the then currently outstanding Series 1992-A Sewer Revenue Refunding Bonds and to reissue/resell these bonds should lower interest rates

become available at some point in the future. In return for surrendering the Authority's right to recall the bonds for a two-year period, between the Fall of 2002 and the Fall of 2005, the Authority received an upfront payment of \$3,830,000 from Lehman Brothers, Inc. In accordance with the terms of this Forward Bond Sale, in November 2002, the CMCMUA Series 1992-A Bonds were recalled and reissued as the Authority's Series 2002-A Sewer Revenue Refunding Bonds at the same rates and terms as the Series 1992A Bonds.

The Authority has invested the \$3.83 Million in proceeds from the above noted Forward Bond Sale and has utilized the interest income and a portion of the proceeds over a multi-year period to offset its User Charges to Participants as part of a Rate Stabilization strategy. In an additional effort to stabilize User Rates, in October 2002, the Authority approved the refunding of the Series 1992 and 1993-B Sewer Revenue Refunding Bonds through the issuance of the Series 2002-B and Series 2002-C Sewer Revenue Refunding Bonds. This refinancing scheme took advantage of low interest rates and restructured the schedule for debt service payments.

The Authority's currently outstanding sewer revenue bond issues are described in detail in the following documents:

Official Statement: The Cape May County Municipal Utilities Authority, Sewer Revenue Refunding Bonds, Series 2011; dated November 3, 2011. These bonds retired the then-outstanding Sewer Revenue Refunding Bonds, Series, 2002-C, at a significant savings in interest costs.

Financing for portions of the CMCMUA's regional conveyance and treatment system was also provided through low interest loans obtained from the New Jersey Department of Environmental Protection acting on behalf of the State of New Jersey, and the New Jersey Wastewater Treatment Trust. The Cape May Region/Lower Township Effluent Disposal System was financed through this low interest loan program. Agreements setting forth the terms for this loan were finalized and executed in October, 1987.

During 1994, the New Jersey Wastewater Treatment Trust issued refunding bonds for the interest bearing loans. This refinancing provided significant short term savings during Fiscal Years 1994 and 1995 with stable annual debt payments thereafter.

Similarly, the Court House South Project, which consisted of the construction of two (2) pump stations and connecting force mains to extend wastewater treatment services to the Burleigh and Mayville sections of Middle Township, was also funded through the NJDEP/NJ Wastewater Treatment Trust Loan Program. The interest bearing portion of this loan was refunded by the New Jersey Wastewater Treatment Trust in May of 2004.

In 2010, the Authority obtained low (2010 (A) Series) and (2010 (B) Series) interest loans from the New Jersey Environmental Infrastructure Trust (NJEIT) Loan Program. The proceeds from these loans financed the refurbishment of the Authority's force main in West Wildwood and other various projects.

Also, in 2010, the Authority obtained additional low interest and zero interest loans from the NJEIT (2010 (C) Series) for refurbishment of the force mains along Avalon Boulevard and other projects.

In 2012, the Authority obtained low (2012 (A-1) Series) and zero (2012 (A-2) Series) interest loans from the NJEIT Loan Program. The proceeds from these loans financed the purchase of replacement emergency generators, pumps, valving, control systems, property improvements, and heavy equipment.

In 2016, the Authority obtained a low (2016A) interest loan from the NJEIT Loan Program. The proceeds from this loan financed the construction of bypass pumping around the Authority's pumping stations for emergency pumping situations and for maintenance purposes.



### C. Regulatory Requirements

All requirements of the USEPA and the NJDEP imposed as a result of grant conditions associated with the receipt of Federal and State grant funds for the construction of the CMCMUA's Regional Wastewater Program have been considered in design of the CMCMUA user charge system, including the adoption of a system of charges which ensures that each user (or class of users) pays its proportionate share of the Regional Facilities' construction, operation, maintenance and replacement costs. Proportionality encompasses such user characteristics as volume, strength and rate of flow. The concept of proportionality also includes all debt and administrative costs incurred by the CMCMUA as a result of the Cape May County regional planning, design and construction process. Additional regulatory requirements have been met with regards to potential customers subject to high strength wastewater surcharges and specific service charges.

#### **Section IV. The Regional Rate Setting Concept**

#### IV. The Regional Rate Setting Concept

In accordance with the requirements of N.J.S.A. 40:14B-22 and the terms of the Service Agreement with its Participants, the CMCMUA user charges will be uniform with respect to wastewater conveyance, treatment and disposal services.

The CMCMUA user charge system provides a rate structure and a methodology through which the actual rates can be adjusted periodically to ensure continued coverage of all wastewater, conveyance, treatment and disposal costs by revenue generated throughout the four (4) Regional Systems as each system or system extension is placed into operation.

It should be noted that the user charge system developed in this Report only addresses direct CMCMUA charges to the Participants. These projected annual charges, therefore, do not include any administrative, billing, or collection costs which will be incurred and passed along by the local Participants, as they distribute the cost for the Authority's regional wastewater conveyance and treatment services along with their own charges for the operation and maintenance of their local collection systems, to the individual customers receiving local sewage service.

## **Section V. Methodology for User Charge Cost Determinations**

## V. Methodology for User Charge Cost Determinations

Costs to be recovered from Participants through user charges include: debt service, operation, maintenance, replacement, and CMCMUA administrative cost. Each of these cost items is discussed in the following paragraphs.

The CMCMUA debt service costs are composed of several annual cost components. The major cost item is the debt service payments made on bonds issued for facilities' construction and refurbishing. The sale of these bonds provided the local share of the total capital requirement for planning, design, construction, and project financing activities. The term "local share" refers to the balance remaining after all Federal and State grants have been applied to the total capital cost.

Annual operation and maintenance (O & M) cost attributable to the conveyance systems, treatment facilities, solids handling facilities and effluent disposal systems maintained by the CMCMUA have been estimated for each Region. Upon examination, it has been found that many of these costs are essentially fixed in nature, in that they are not dependent on the total annual flow transmitted to the treatment plant. Examples of such costs include most of the wages and salaries of the permanent (i.e., year round) employees, heating costs, and general upkeep of the facility sites. These costs have been referred to as fixed O & M costs. The Authority's annual debt service obligations also represent a fixed cost.

Other costs, which vary with the actual volume of wastewater transported and treated, include electrical costs for pumping and aeration, chemical costs for flocculation and disinfection, and for various sludge handling, treatment and disposal costs. These costs have been referred to as variable O & M costs.

USEPA regulations require that the Grantee establish a provision for replacing large capital items whose service life falls short of the life expectancy of the treatment plant itself. An annual contribution to a replacement fund has been established to meet this requirement.

Annual costs associated with administration of the CMCMUA Regional Wastewater Treatment System have been incorporated into the rate projections.

The CMCMUA user charge rate structure consists of three (3) basic types of charges: A) specific service charges; B) high strength surcharges and; C) charges to Participants. Each of these charges is described as follows:

A. Specific Service Charges

These charges recover the costs which benefit a specific customer or class of customers (e.g. septage haulers). These specific services are charged directly to the customer(s) receiving the service in proportion to the estimated costs of providing these services.

For septage disposal, the projected service charge consists of the actual cost to treat the Biochemical Oxygen Demand (BOD) and Suspended Solids (SS) concentrations contained in the septage, based on sample test data acquired since 1982. To conform with the NJDEP's practice of categorizing septage tank pumpage as "sludge", the CMCMUA will apply the same charge for domestic septage, approved septage sludge, or raw wastewater originating from outside the regional sewerage system area in Cape May County. Likewise, specific service charges for landfill leachate disposal have also been calculated.

For the conveyance and disposal of the effluent from the LTMUA's Wastewater Treatment Facility, the Specific Service Charge is calculated in accordance with the existing Service Agreement between the two Authorities, utilizing the actual debt service and estimated operating and maintenance costs attributable to the Effluent Disposal System.

B. High-Strength Surcharges

High-strength surcharges, also referred to as specific surcharges, recover the costs for treatment of high-strength wastewaters. High-strength wastewaters are defined as discharges whose polluting characteristics; in terms of BOD and SS are greater than those associated with domestic wastewater from residential customers. The

concentration limits, beyond which surcharges will be assessed, have been set at 350 milligrams per liter (mg/l) BOD, and 300 milligrams per liter (mg/l) SS, as per the Service Agreement. No income revenue from high-strength surcharges is envisioned at this time and, therefore, no costs and/or incomes have been included in the projected User Rates.

C. Charges to Participants

The annual charge per Participant receiving wastewater treatment services recovers all costs for debt service, operations, maintenance and equipment replacement costs, and administrative services remaining after the collection of specific service charges, surcharges for high-strength wastes, grants, interest income and other revenues. Allocation of these costs among the Participants is based upon the projected volume and rate of flow from each Participant, expressed as a **percentage of the total flow** from all Participants. The costs which are fixed in nature (debt service plus fixed O&M costs) are allocated on the basis of the projected summer flow from each Participant. This methodology is used in an attempt to equitably distribute the fixed costs associated with the additional conveyance and treatment capacity necessitated by the increased flow rates resulting from the seasonal increase in population during the summer months in Cape May County.

The projected Fiscal Year 2020 annual charges per Participant developed herein do not include the recovery of any costs for wastewater collection and/or treatment services beyond the responsibility of the CMCMUA.

**Section VI. Methodology For Determination Of  
Projected Annual Charges By Participants**



## VI. Methodology for Determination of Projected Annual Charges by Participant

In order to determine the annual charges projected for each Participant, estimates for summer and non-summer flow rates were developed from actual CMCMUA flow measurements from each of the four Regional Systems. As discussed previously, fixed charges (debt service plus fixed operating costs) were allocated based upon a proportioning of the total summer flow received from all Participants receiving regional sewerage service. Total summer flow is represented by the total flow received in the 90-day period from mid-June through mid-September.

The estimated "total summer flows" were tabulated with each Participant's contribution expressed as a percentage of the total of all of the "total summer flows" to be received from all Participant service areas during the Fiscal Year. The projected annual fixed charge for each Participant receiving service was then calculated by multiplying each Participant's percentage of the "total summer flow" by the total fixed costs to be recovered.

The determination of the projected annual charge to each Participant for the variable (or flow related) portion of the cost was based upon each Participant's percentage contribution to the total annual flow projected to be received from all Participants.

The total annual user charge, which will be billed to each Participant receiving service from the CMCMUA within any given fiscal year, combines the fixed and variable components of the user charge as described above. Table 1, contained in Section VII of this Report, presents the total annual user charge for each Participant projected to receive Regional wastewater conveyance, treatment, and disposal service during Fiscal Year 2020.

## **Section VII. Basis For Proposed Fiscal Year 2020 User Charges**

## VII. Basis for Proposed Fiscal Year 2020 User Charges

As noted earlier, the purpose of this Report is to prescribe the proposed rates for wastewater conveyance, treatment, and disposal services in the CMCMUA's Ocean City, Cape May, Seven Mile Beach/Middle, and Wildwood/Lower Service Regions which will become effective for Fiscal Year 2020. A surcharge is also being proposed for the treatment of high-strength wastes at the Authority's treatment plants, and for the handling and treatment of septage and landfill leachate at these facilities during Fiscal Year 2020. In addition, a specific service charge for the Lower Township Municipal Utilities Authority's use of the Effluent Disposal System is proposed.

The rates adopted for Fiscal Year 2020, shall remain in effect until such time as the schedule of rates is proposed for further modification. Prior to any modification of the rates adopted by the CMCMUA for Fiscal Year 2020, the Authority will provide adequate public notice and conduct a public hearing for the purpose of receiving comments relative to any proposed modifications under consideration at that time.

Included within this section are the user charges proposed to go into effect in Fiscal Year 2020. They are presented in Table 1 of this section. Supplemental tables providing a further breakdown of the proposed user charges are also presented in this section of the Report. The Participants to be serviced in Fiscal Year 2020 will be billed in accordance with the executed Service Agreements.

The following factors were considered in the preparation of the projected user charges for Fiscal Year 2020:

- ° Projected year 2020 flow rates for most Participants are based on actual wastewater flows as measured by the Authority during the previous six (6) year period (with the exception of extreme storm flows or known groundwater pumping events). Projected flows from the New Jersey Turnpike Authority's Service Area and the Swainton Maintenance Yard and Avalon State Police Barracks are based on flows from the site since the full service restaurant facility was closed.

- The actual flow from each Participant will be measured during calendar year 2020 and any adjustments to the fees collected from each Participant, based on these actual flow records, will be made as necessary after final audit of the Fiscal Year 2020 operating expenses.
- Data Entry and Review: Flow meter totalizer readings are read daily by facility staff and entered into the Authority's process database and reviewed by Authority supervisors. Monthly Data is tabulated and distributed to all municipal Participants.
- Billing Meter Certification: On three (3) separate occasions throughout the year, a qualified third party contractor reviews, calibrates, and certifies the operation of the Authority's billing flow meters.
- Meter Data and Estimates: On occasion, meter totalizer data cannot be obtained due to a malfunction or scheduled maintenance. When this occurs, notations are made on the corresponding monthly municipal flow report that is distributed to all Participants. Estimated flows are calculated during these periods using representative flow data which in the assessment of the Authority presents the most accurate estimate.
- O & M costs for the Regional Wastewater System and the proportioning of these costs into fixed or variable components were budgeted based upon actual experience in the four operating Service Regions.
- As presented in the Fiscal Year 2019 User Charges, joint administrative costs were allocated among the "Operations & Maintenance" and "Renewal and Replacement Project Overhead" expenditure categories. Beginning in Fiscal Year 2020, the Authority will change its method of allocating joint administrative costs among the Wastewater Management Program and Solid Waste Program. All joint administrative costs will be recorded in the Wastewater Management Program "Operations and Maintenance" expenditure category, with an associated "Management Fee" being charged to the Solid Waste Management Program for its proportionate share of joint administrative costs. Therefore the Operations & Maintenance Costs for the Regional Wastewater System have increased 23.21% from Fiscal Year 2019,

proportionally offset by the associated Management Fee revenue from the Solid Waste Management Program. It is important to note that this change in method of cost allocation has zero effect on the overall Fiscal year 2020 proposed percent increase of the revenue anticipated from the Participants

- It is estimated that essentially all sewage sludge generated by the four (4) wastewater treatment facilities during calendar year 2020 will be processed at either the Atlantic County Utilities Authority or through a contract with a third party collection and disposal company
- Allocation of projected costs to treatment parameters (i.e., flow, BOD and SS) are based upon actual past experience.
- For those funds not in long-term investments, projected interest income was estimated by the CMCMUA's Chief Financial Officer, based on an average 1.75% rate of return on investments. Total estimated interest income for Fiscal Year 2020 is \$700,000.
- All interest income anticipated for Fiscal Year 2020, including the interest income from the Wastewater Management Program's Construction Funds, will be used to offset debt service, operations and maintenance costs, and contribution to the Renewal and Replacement fund and is included in the above total.
- The specific service charge for the conveyance and disposal of the effluent from the LTMUA has been calculated in accordance with the existing Service Agreement between the LTMUA and CMCMUA utilizing the actual debt service and estimated operation and maintenance costs attributable to the CMCMUA's Effluent Disposal System. The proposed specific service charge for the LTMUA's use of the Effluent Disposal System in Fiscal year 2020 is in the amount of \$483,056.
- The projected volume of septage and landfill leachate for Fiscal Year 2020 is based on actual quantities received during the last several years.
- The quality of septage and leachate is based upon average values obtained from laboratory analyses for BOD and SS.

- The septage disposal charge is based upon an analysis of septage quality, the projected average cost to treat a pound of BOD, a pound of SS, and to handle 1,000 gallons of septage.
- No Revenues have been anticipated in this year's budget for the sale of compost product during calendar year 2020.
- Miscellaneous revenues in the amount of \$20,000 have been included in anticipation of insurance premium rebates and the sale of surplus equipment.
- The projected revenues from communication tower leases for Fiscal Year 2020 are \$105,000.
- The series 2011 Wastewater Bonds are maturing in 2020. The revenue item "Use of Bond Reserve " in the amount of \$2,979,372 represents the amount originally set aside in the Bond Reserve Fund at the time of issuance, which represented the highest year's bond service payment; this amount in the reserve fund will now be used for the final bond payment.

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM – RATE SETTING REPORT – FISCAL YEAR 2020

TABLE 1 - USER CHARGES INCLUDING SPECIFIC SERVICE CHARGES

USER CHARGES BY PARTICIPANT:				TOTAL:			
	FIXED CHARGES:		VARIABLE CHARGES:				NOTES:
	PERCENT (1)	DOLLARS	PERCENT (1)	DOLLARS			
OCEAN CITY	24.20%	\$7,506,243	23.50%	\$1,013,157	\$8,519,399		(1) From TABLE 7
CITY OF CAPE MAY	8.45%	\$2,621,873	9.30%	\$400,944	\$3,022,818		(2) From TABLE 6
WEST CAPE MAY	1.05%	\$325,688	1.30%	\$56,047	\$381,735		(3) From TABLE 5
CAPE MAY POINT	0.69%	\$214,023	0.72%	\$31,041	\$245,065		(4) From TABLE 4
STONE HARBOR	4.46%	\$1,382,466	3.70%	\$159,518	\$1,541,985		
SEA ISLE CITY	10.00%	\$3,101,785	8.75%	\$377,239	\$3,479,024		
AYALON	9.41%	\$2,918,781	8.89%	\$383,120	\$3,301,901		
CREST HAVEN	0.58%	\$180,007	0.75%	\$32,453	\$212,460		
RIO GRANDE	2.69%	\$834,381	4.50%	\$194,009	\$1,028,389		
C. M. COURT HOUSE	2.66%	\$825,075	4.75%	\$204,787	\$1,029,862		
AYALON MANOR	0.22%	\$68,239	0.22%	\$9,531	\$77,770		
S. H. BOULEVARD	0.26%	\$80,646	0.27%	\$11,813	\$92,459		
COURT HOUSE SOUTH	1.26%	\$390,825	2.10%	\$90,537	\$481,363		
HARBOR BAY CENTER	0.03%	\$8,202	0.02%	\$992	\$9,193		
MIDDLE TWP. TOTAL		\$2,207,368		\$511,668	\$2,719,037		
NJ TURNPIKE AUTHORITY	0.02%	\$6,204	0.02%	\$800	\$7,004		
WILDMOOD	10.90%	\$3,380,948	10.00%	\$431,131	\$3,812,078		
WILDMOOD CREST	10.61%	\$3,290,996	9.15%	\$394,484	\$3,685,480		
WEST WILDMOOD	1.20%	\$372,214	1.60%	\$68,955	\$441,169		
NORTH WILDMOOD	10.84%	\$3,363,416	9.90%	\$426,819	\$3,790,236		
SHAWCREST (LTMUA)	0.47%	\$145,784	0.56%	\$24,057	\$169,841		
TOTALS (2):	100.00%	\$31,017,797	100.00%	\$4,311,435	\$35,329,232		
SPECIFIC SERVICE CHARGES:							
L.T.M.U.A EFFLUENT DISPOSAL (3):				\$483,056			
HIGH STRENGTH SURCHARGES (4):							
HIGH STRENGTH B.O.D. (\$8b)				\$0.73			
HIGH STRENGTH S.S. (\$8b)				\$1.08			
SEPTAGE/SOLIDGE/RAW WASTE DISPOSAL (\$/1000 gallons) (3):				\$58.95			
LANDFILL LEACHATE DISPOSAL (\$/1000 gallons) (3):				\$11.31			

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM – RATE SETTING REPORT – FISCAL YEAR 2019

TABLE 2 -- OPERATING EXPENSE BUDGET BY FACILITY

	CONVEYANCE SYSTEM:			WASTEWATER TREATMENT:			SOLIDS HANDLING:			EFFLUENT DISPOSAL:			TOTAL:		
	TOTAL	FINED	VAR.	TOTAL	FINED	VAR.	TOTAL	FINED	VAR.	TOTAL	FINED	VAR.	TOTAL	FINED	VAR.
OCEAN CITY REGION:															
TOTAL SALARIES AND WAGES	231,289	229,253	2,035	773,575	749,980	23,594	57,318	56,848	470	57,218	56,871	447	1,119,500	1,092,954	26,546
TOTAL FRINGE BENEFITS	111,227	110,248	979	391,663	379,717	11,946	27,564	27,338	226	7,914	7,852	62	538,568	525,156	13,412
TOTAL MISC. EXPENSES/ TRAVEL	0	0	0	1,000	500	500	0	0	0	0	0	0	1,000	500	500
TOTAL SUPPLIES	2,000	2,000	0	33,500	33,500	0	0	0	0	0	0	0	35,500	35,500	0
TOTAL PARTS	39,500	39,500	0	66,000	66,000	0	18,500	18,500	0	7,000	7,000	0	131,000	131,000	0
TOTAL FUEL/OIL/SGREASES	11,000	11,000	0	60,100	60,100	0	1,000	1,000	0	0	0	0	72,100	72,100	0
TOTAL MATERIALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL CHEMICALS	0	0	0	107,000	0	107,000	24,500	0	24,500	310,000	0	310,000	441,500	0	441,500
TOTAL UTILITIES	89,458	88,671	787	299,203	290,077	9,126	22,170	21,988	182	22,170	21,997	173	433,000	422,732	10,268
TOTAL RENTALS	0	0	0	3,000	3,000	0	0	0	0	0	0	0	3,000	3,000	0
TOTAL EQUIPMENT	10,500	10,500	0	53,000	53,000	0	2,500	2,500	0	1,100	1,100	0	67,100	67,100	0
TOTAL OUTSIDE SERVICES	14,600	14,600	0	52,800	52,800	0	76,000	0	76,000	250	250	0	143,650	67,650	76,000
OCEAN CITY REGION TOTALS	509,573	505,772	3,801	1,840,840	1,688,675	152,165	229,552	128,175	101,378	405,752	95,070	310,682	2,985,718	2,417,692	568,026
CAPE MAY REGION:															
TOTAL SALARIES AND WAGES	175,050	173,279	1,771	589,491	566,265	23,226	7,624	7,552	72	5,835	5,790	45	778,000	762,836	25,164
TOTAL FRINGE BENEFITS	87,257	86,349	907	293,842	282,265	11,577	3,801	3,764	36	2,909	2,886	22	387,808	375,265	12,543
TOTAL MISC. EXPENSES/ TRAVEL	0	0	0	1,000	500	500	0	0	0	0	0	0	1,000	500	500
TOTAL SUPPLIES	2,100	2,100	0	17,900	17,900	0	0	0	0	0	0	0	20,000	20,000	0
TOTAL PARTS	13,200	13,200	0	33,200	33,200	0	3,000	3,000	0	3,000	3,000	0	52,400	52,400	0
TOTAL FUEL/OIL/SGREASES	9,000	9,000	0	42,150	42,150	0	0	0	0	0	0	0	51,150	51,150	0
TOTAL MATERIALS	0	0	0	500	500	0	0	0	0	0	0	0	500	500	0
TOTAL CHEMICALS	0	0	0	22,000	0	22,000	30,500	0	30,500	70,000	0	70,000	122,500	0	122,500
TOTAL UTILITIES	45,465	45,462	404	153,402	148,723	4,679	11,366	11,273	93	11,366	11,278	89	232,000	216,736	15,264
TOTAL RENTALS	0	0	0	3,000	3,000	0	0	0	0	0	0	0	3,000	3,000	0
TOTAL EQUIPMENT	10,000	10,000	0	38,200	38,200	0	1,500	1,500	0	1,500	1,500	0	51,200	51,200	0
TOTAL OUTSIDE SERVICES	10,200	10,200	0	28,000	28,000	0	59,600	500	59,000	500	500	0	98,200	39,200	59,000
CAPE MAY REGION TOTALS	351,672	349,540	2,132	1,222,685	1,166,703	61,982	117,291	27,590	89,702	95,110	24,954	70,156	1,787,758	1,562,387	224,977



CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM – RATE SETTING REPORT – FISCAL YEAR 2019

TABLE 2 -- OPERATING EXPENSE BUDGET BY FACILITY

	CONVEYANCE SYSTEM:			WASTEWATER TREATMENT:			SOLIDS HANDLING:			EFFLUENT DISPOSAL:			TOTAL:		
	TOTAL	FIXED	VAR.	TOTAL	FIXED	VAR.	TOTAL	FIXED	VAR.	TOTAL	FIXED	VAR.	TOTAL	FIXED	VAR.
SEVEN MILE/MIDDLE REGION (INCLUDES CENTRALIZED LABORATORY AND PROJECT CREW):															
TOTAL SALARIES AND WAGES	494,408	491,846	3,362	1,736,175	1,717,772	18,403	90,810	90,274	536	25,108	24,967	141	2,346,500	2,324,058	22,442
TOTAL FRINGE BENEFITS	232,747	231,164	1,583	817,320	808,657	8,664	42,749	42,497	252	11,826	11,753	66	1,104,636	1,094,071	10,565
TOTAL MISC. EXPENSES/TRAVEL	0	0	0	1,000	500	500	0	0	0	0	0	0	1,000	500	500
TOTAL SUPPLIES	2,000	2,000	0	85,600	85,600	0	0	0	0	0	0	0	87,600	87,600	0
TOTAL PARTS	39,500	39,500	0	105,700	105,700	0	9,000	9,000	0	5,000	5,000	0	159,200	159,200	0
TOTAL FUEL/OIL/SGREASES	37,000	37,000	0	37,850	37,850	0	66,000	66,000	0	12,000	12,000	0	152,850	152,850	0
TOTAL MATERIALS	500	500	0	0	0	0	0	0	0	0	0	0	500	500	0
TOTAL CHEMICALS	3,000	0	3,000	40,000	0	40,000	120,500	0	120,500	230,000	0	230,000	393,500	0	393,500
TOTAL UTILITIES	185,940	184,304	1,636	621,900	602,932	18,968	46,080	45,702	378	46,880	45,721	359	900,000	878,658	21,342
TOTAL RENTALS	0	0	0	4,500	4,500	0	0	0	0	0	0	0	4,500	4,500	0
TOTAL EQUIPMENT	27,500	27,500	0	117,500	117,500	0	7,000	7,000	0	1,000	1,000	0	153,000	153,000	0
TOTAL OUTSIDE SERVICES	32,500	32,500	0	101,300	101,300	0	28,500	3,500	25,000	0	0	0	162,300	137,300	25,000
SEVEN MILE/MIDDLE REGION TOTAL	1,055,094	1,045,513	9,581	3,668,846	3,582,311	86,535	410,639	263,973	146,666	331,007	100,441	230,566	5,485,586	4,992,238	473,348
WILWOOD/LOWER REGION:															
TOTAL SALARIES AND WAGES	262,915	261,049	1,867	601,239	578,562	22,666	110,650	110,152	498	249,206	247,911	1,296	1,224,000	1,197,673	26,327
TOTAL FRINGE BENEFITS	131,510	130,576	934	300,734	289,296	11,338	55,347	55,098	249	124,653	124,004	648	612,243	599,074	13,169
TOTAL MISC. EXPENSES/TRAVEL	0	0	0	1,000	1,000	0	0	0	0	0	0	0	1,000	1,000	0
TOTAL SUPPLIES	2,250	2,250	0	27,500	27,500	0	0	0	0	1,200	1,200	0	30,950	30,950	0
TOTAL PARTS	38,000	38,000	0	53,500	53,500	0	26,000	26,000	0	17,500	17,500	0	135,000	135,000	0
TOTAL FUEL/OIL/SGREASES	35,000	35,000	0	73,500	73,500	0	15,000	0	15,000	1,000	1,000	0	124,500	109,500	15,000
TOTAL MATERIALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL CHEMICALS	0	0	0	20,000	20,000	0	100,000	0	100,000	386,000	0	380,000	500,000	20,000	480,000
TOTAL UTILITIES	162,491	161,061	1,430	543,472	526,896	16,576	40,269	39,939	330	40,269	39,935	314	786,500	767,850	18,650
TOTAL RENTALS	0	0	0	3,000	3,000	0	0	0	0	0	0	0	3,000	3,000	0
TOTAL EQUIPMENT	24,000	24,000	0	48,800	48,800	0	23,000	23,000	0	6,500	6,500	0	102,300	102,300	0
TOTAL OUTSIDE SERVICES	23,000	23,000	0	54,000	54,000	0	20,000	10,000	10,000	16,000	16,000	0	113,000	103,000	10,000
WILWOOD/LOWER REGION TOTAL	679,166	674,936	4,230	1,726,734	1,676,154	50,580	390,365	264,188	126,077	836,328	454,070	382,258	3,632,493	3,069,347	563,146

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
 USER CHARGE SYSTEM – RATE SETTING REPORT – FISCAL YEAR 2019

TABLE 2 – OPERATING EXPENSE BUDGET BY FACILITY

SLUDGE COMPOSTING FACILITY:	CONVEYANCE SYSTEM:			WASTEWATER TREATMENT:			SOLIDS HANDLING:			EFFLUENT DISPOSAL:			TOTAL:		
	TOTAL	FIXED	VAR.	TOTAL	FIXED	VAR.	TOTAL	FIXED	VAR.	TOTAL	FIXED	VAR.	TOTAL	FIXED	VAR.
TOTAL SALARIES AND WAGES							337,000	328,339	8,661	337,000	328,339	8,661	337,000	328,339	8,661
TOTAL FRINGE BENEFITS							151,560	147,665	3,895	151,560	147,665	3,895	151,560	147,665	3,895
TOTAL MISC. EXPENSES/TRAVEL							0	0	0	0	0	0	0	0	0
TOTAL SUPPLIES							10,400	5,747	4,653	10,400	5,747	4,653	10,400	5,747	4,653
TOTAL PARTS							49,000	0	49,000	49,000	0	49,000	49,000	0	49,000
TOTAL FUEL/OIL/SGREASES							14,000	0	14,000	14,000	0	14,000	14,000	0	14,000
TOTAL MATERIALS							3,000	0	3,000	3,000	0	3,000	3,000	0	3,000
TOTAL CHEMICALS							0	0	0	0	0	0	0	0	0
TOTAL UTILITIES							500	0	500	500	0	500	500	0	500
TOTAL RENTALS							1,500	0	1,500	1,500	0	1,500	1,500	0	1,500
TOTAL EQUIPMENT							6,600	0	6,600	6,600	0	6,600	6,600	0	6,600
TOTAL OUTSIDE SERVICES							52,500	0	52,500	52,500	0	52,500	52,500	0	52,500
COMPOSTING FACILITY TOTALS							626,060	481,751	144,309	626,060	481,751	144,309	626,060	481,751	144,309
ADMINISTRATIVE:															
TOTAL SALARIES AND WAGES				530,000	530,000	0				530,000	530,000	0	530,000	530,000	0
TOTAL MISC. EXPENSES				62,350	62,350	0				62,350	62,350	0	62,350	62,350	0
TOTAL SUPPLIES				1,600	1,600	0				1,600	1,600	0	1,600	1,600	0
TOTAL PARTS				0	0	0				0	0	0	0	0	0
TOTAL FUEL/OIL/SGREASES				0	0	0				0	0	0	0	0	0
TOTAL MATERIALS				0	0	0				0	0	0	0	0	0
TOTAL CHEMICALS				0	0	0				0	0	0	0	0	0
TOTAL UTILITIES				65,000	65,000	0				65,000	65,000	0	65,000	65,000	0
TOTAL RENTALS				0	0	0				0	0	0	0	0	0
TOTAL EQUIPMENT				64,500	64,500	0				64,500	64,500	0	64,500	64,500	0
TOTAL TOWER SHARED SERVICES				40,000	40,000	0				40,000	40,000	0	40,000	40,000	0
TOTAL OUTSIDE SERVICES				91,000	91,000	0				91,000	91,000	0	91,000	91,000	0
TOTAL FRINGE BENEFITS				209,943	209,943	0				209,943	209,943	0	209,943	209,943	0
TOTAL INSURANCE				384,924	384,924	0				384,924	384,924	0	384,924	384,924	0
TOTAL PROFESSIONAL SERVICES				88,500	88,500	0				88,500	88,500	0	88,500	88,500	0
TOTAL FINANCIAL SERVICES				24,444	24,444	0				24,444	24,444	0	24,444	24,444	0
ADMINISTRATIVE OVERHEAD				5,456,535	4,256,097	1,200,438				5,456,535	4,256,097	1,200,438	5,456,535	4,256,097	1,200,438
PERMITS AND FEES				249,000	249,000	0				249,000	249,000	0	249,000	249,000	0
SLUDGE DISPOSAL				1,500,000	0	1,500,000				1,500,000	0	1,500,000	1,500,000	0	1,500,000
ADMINISTRATIVE TOTALS				8,767,796	6,067,358	2,700,438				8,767,796	6,067,358	2,700,438	8,767,796	6,067,358	2,700,438

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM -- RATE SETTING REPORT -- FISCAL YEAR 2019

TABLE 2 -- OPERATING EXPENSE BUDGET BY FACILITY

	CONVEYANCE SYSTEM			WASTEWATER TREATMENT			SOLIDS HANDLING			EFFLUENT DISPOSAL			TOTAL		
	TOTAL	FINED	VAR.	TOTAL	FINED	VAR.	TOTAL	FINED	VAR.	TOTAL	FINED	VAR.	TOTAL	FINED	VAR.
TOTAL - ALL WASTEWATER FACILITIES:															
TOTAL SALARIES AND WAGES	1,164,661	1,154,577	9,085	4,230,469	4,142,580	87,890	603,402	593,165	10,237	337,467	335,439	1,928	6,335,000	6,225,860	109,140
TOTAL MISC. EXPENSES	0	0	0	66,350	64,850	1,500	0	0	0	0	0	0	66,350	64,850	1,500
TOTAL SUPPLIES	8,350	8,350	0	166,100	166,100	0	10,400	5,747	4,653	1,200	1,200	0	186,050	181,297	4,653
TOTAL PARTS	130,200	130,200	0	258,400	258,400	0	105,500	56,500	49,000	33,500	32,500	0	526,600	477,600	49,000
TOTAL FUEL/SOILS/GREASES	92,000	92,000	0	213,600	213,600	0	96,000	67,000	29,000	13,000	13,000	0	414,600	385,600	29,000
TOTAL MATERIALS	500	500	0	500	500	0	3,000	0	3,000	0	0	0	4,000	1,000	3,000
TOTAL CHEMICALS	3,000	0	3,000	189,000	20,000	169,000	0	0	275,500	0	0	990,000	1,457,500	20,000	1,437,500
TOTAL UTILITIES	483,754	479,497	4,257	1,682,977	1,633,628	49,348	120,385	118,902	1,483	119,885	118,950	935	2,407,000	2,350,977	56,023
TOTAL RENTALS	0	0	0	13,500	13,500	0	1,500	0	1,500	0	0	0	15,000	13,500	1,500
TOTAL EQUIPMENT	72,000	72,000	0	322,000	322,000	0	40,600	34,000	6,600	10,100	10,100	0	444,700	438,100	6,600
TOTAL TOWER SHARED SERVICES	0	0	0	40,000	40,000	0	0	0	0	0	0	0	40,000	40,000	0
TOTAL OUTSIDE SERVICES	80,300	80,300	0	327,100	327,100	0	236,500	14,000	222,500	16,750	16,750	0	660,650	438,150	222,500
TOTAL FRINGE BENEFITS	562,740	558,338	4,403	2,013,502	1,969,977	43,524	281,021	276,363	4,659	147,295	146,496	799	3,004,558	2,951,174	53,384
TOTAL INSURANCE	0	0	0	384,924	384,924	0	0	0	0	0	0	0	384,924	384,924	0
TOTAL PROFESSIONAL SERVICES	0	0	0	88,500	88,500	0	0	0	0	0	0	0	88,500	88,500	0
TOTAL FINANCIAL SERVICES	0	0	0	24,444	24,444	0	0	0	0	0	0	0	24,444	24,444	0
ADMINISTRATIVE OVERHEAD	0	0	0	5,456,535	4,256,097	1,200,438	0	0	0	0	0	0	5,456,535	4,256,097	1,200,438
PERMITS AND FEES	0	0	0	249,000	249,000	0	0	0	0	0	0	0	249,000	249,000	0
SLUDGE DISPOSAL	0	0	0	1,500,000	0	1,500,000	0	0	0	0	0	0	1,500,000	0	1,500,000
GRAND TOTALS	2,596,506	2,575,761	20,744	17,226,901	14,175,200	3,051,700	1,773,808	1,165,676	608,132	1,668,197	674,535	993,662	23,265,411	18,591,173	4,674,238

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM – RATE SETTING REPORT – FISCAL YEAR 2020

TABLE 3 – DEBT SERVICE REQUIREMENTS

	PRINCIPAL	INTEREST	TOTAL	ALLOCATION		DOLLARS	LTM/A PORTION PERCENT	DOLLARS	LTM/A PORTION PERCENT	DOLLARS	
				C/MC/A PORTION	PERCENT						
				(see calculation of percentages at bottom of page)							
2010(A) SERIES (1)	\$11,728	\$1,284	\$13,012	100.00%		\$13,012	0.00%	\$0			NOTE (1) NJ Environmental Trust Financing Dated 2/22/2010
2010(B) SERIES (2)	\$29,474	\$12,010	\$41,484	99.93%		\$41,485	0.07%	\$29			NOTE (2) NJ Environmental Trust Financing Dated 12/2/2010 Replaces 2002(C) Series
2010(C) SERIES (2)	\$433,113	\$126,473	\$559,586	100.00%		\$559,586	0.00%	\$0			NOTE (3) NJ Environmental Trust Financing Dated 5/3/2012
2011 SERIES (3)	\$2,850,000	\$127,625	\$2,977,625	98.37%		\$2,929,090	1.63%	\$48,535			NOTE (4) NJ Environmental Trust Financing Dated 5/26/2016
2012(A-1) SERIES (4)	\$37,992	\$10,581	\$48,573	100.00%		\$48,573	0.00%	\$0			NOTE (5) NJ Environmental Trust Financing Dated 5/26/2016
2012(A-2) SERIES (4)	\$40,636	\$5,478	\$46,114	100.00%		\$46,114	0.00%	\$0			
2016(A) SERIES (5)	\$153,583	\$22,275	\$175,858	100.00%		\$175,858	0.00%	\$0			
SUBTOTAL	\$3,556,526	\$305,726	\$3,862,252			\$3,813,687		\$48,565			
ABANDONED FACILITIES	\$0	\$0	\$0			\$0		\$0			
TOTALS	\$3,556,526	\$305,726	\$3,862,252	98.74%		\$3,813,687	1.26%	\$48,565			

For Subsystem 'C', (2011 SERIES) financed through C/MC/A regular bond issues:

LTM/A percentage equals 15.8% (from Service Agreement) of debt service attributable to Subsystem 'C' (10.32% of total debt service):  
= 15.8% x 10.32% = 1.63%

Bond Issues 2010(B) include the cost of installing two 450 HP variable speed drives on the effluent pumps at the WW/L WTF, which is part of

Subsystem 'C'. This part of the project represents \$32,000 / \$7,667,900 = 0.4% of the debt service.

LTM/A share of the use of Subsystem 'C' averages 15.8%

= 15.8% x 0.4% = 0.07%

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TABLE 4 – CALCULATION OF SPECIFIC COSTS

	PROJECTED FLOW (thousands of gallons)	AVERAGE STRENGTH (1)		TOTAL QUANTITY (2)	
		BOD (mg/l)	SS (mg/l)	BOD (lbs)	SS (lbs)
WASTEWATER FROM USERS	4,199,126	205	205	7,179,246	7,179,246
SEPTAGE	10,500	3,200	3,700	280,224	324,009
LANDFILL LEACHATE	22,500		550	200	103,208
					37,530
TOTALS	4,232,126			7,562,677	7,540,785

## NOTES:

- (1) From Laboratory Data  
(2) MG x mg/l x 8.34 lbs/gal  
(3) Percent of construction cost  
attributed to each component  
(4) Total Debt + Project R/R Contribution  
– Use of Bond Reserve"  
(5) From Table 2

## COSTS TO BE RECOVERED

	TOTAL	VOLUME	BOD	SS
DEBT SERVICE: (4)				
CONVEYANCE	(3)			
WASTEWATER TREATMENT	23.65% \$3,884,451	100.00% \$3,884,451	0.00% \$0	0.00% \$0
SOLIDS HANDLING	24.89% \$4,087,548	60.00% \$2,452,529	20.00% \$817,510	20.00% \$817,510
EFFLUENT DISPOSAL	20.50% \$3,365,900	0.00% \$0	25.00% \$841,475	75.00% \$2,524,425
	30.96% \$5,083,980	100.00% \$5,083,980	0.00% \$0	0.00% \$0
TOTAL	100.00% \$16,421,877 (4)		\$1,658,985	\$3,341,935
OPERATING COSTS: (5)				
CONVEYANCE	\$2,596,506	100.00% \$2,596,506	0.00% \$0	0.00% \$0
WASTEWATER TREATMENT	\$17,226,901	60.00% \$10,336,140	20.00% \$3,445,380	20.00% \$3,445,380
SOLIDS HANDLING	\$1,773,808	0.00% \$0	25.00% \$443,452	75.00% \$1,330,356
EFFLUENT DISPOSAL	\$1,668,197	100.00% \$1,668,197	0.00% \$0	0.00% \$0
	\$23,265,411		\$3,888,832	\$4,775,736
TOTALS:	\$39,687,288	\$26,021,802	\$5,547,817	\$8,117,671

COST PER 1000 GALLONS  
COST PER POUND OF BOD  
COST PER POUND OF SS

\$6.15 per 1000 gallons

0.73 per lb BOD

\$1.08 per lb SS

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TABLE 5 – CALCULATION OF SPECIFIC SERVICE CHARGES

WASTEWATER TREATMENT PARAMETER	(1) CHARACTERISTICS	UNITS PER 1000 GAL	UNIT COSTS	COST PER 1000 GAL
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SEPTAGE:

VOLUME	1,000	GALLONS	1.00	\$6.15	\$6.15
BOD	3,200	MG/L	26.69	\$0.73	\$19.58
SS	3,700	MG/L	30.86	\$1.08	\$33.22

PROPOSED SEPTAGE DISPOSAL FEE (\$/1000 GAL)

\$58.95

NOTES: (1) From Table 4  
 (2) From Table 3  
 (3) Calculated per  
 Service Agreement

LANDFILL LEACHATE:

VOLUME	1,000	GALLONS	1.00	\$6.15	\$6.15
BOD	550	MG/L	4.59	\$0.73	\$3.36
SS	200	MG/L	1.67	\$1.08	\$1.80

PROPOSED LEACHATE DISPOSAL FEE (\$/1000 GALLONS)

\$11.31

LOWER TOWNSHIP M.U.A. EFFLUENT DISPOSAL CHARGE:

	TOTAL
DEBT SERVICE (2):	\$48,565
OPERATING COSTS (3):	\$434,492
TOTAL EFFLUENT DISPOSAL CHARGE:	\$483,056

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TABLE 6 – DETERMINATION OF TOTAL USER CHARGES

EXPENSES AND COSTS:	TOTAL	FIXED	VARIABLE	NOTES:
TOTAL OPERATING COSTS (1)	\$23,265,411	\$18,591,173	\$4,674,238	(1) From Table 2
TOTAL DEBT SERVICE(2)	\$3,862,252	\$3,862,252	\$0	(2) From Table 3
RENEWAL AND REPLACEMENT CONTRIBUTION	\$15,539,000	15,211,803	327,197	(3) From Table 5
TOTAL EXPENSES AND COSTS	\$42,666,663	\$37,665,228	\$5,001,435	
REVENUES AND INCOMES:				
INTEREST ON INVESTMENTS AND DEPOSITS:	\$700,000	\$700,000	\$0	
MANAGEMENT FEE	\$2,000,000	\$1,560,000	\$440,000	
SEPTAGE DISPOSAL FEES:	\$600,000	\$500,000	\$100,000	
LANDFILL LEACHATE DISPOSAL FEES:	\$325,000	\$285,000	\$40,000	
COMPOST PRODUCT SALES:	\$0	\$0	\$0	
PROCESSING OF "OUTSIDE" SLUDGE	\$125,000	\$25,000	\$100,000	
LOWER TOWNSHIP M.U.A. EFFLUENT DISPOSAL FEE(3):	\$483,056	\$483,056	\$0	
TOWER RENTAL INCOME	\$105,000	\$105,000	\$0	
MISCELLANEOUS REVENUES (INSURANCE REBATE, ETC)	\$20,000	\$10,000	\$10,000	
WITHDRAWAL FROM RATE STABILIZATION FUND:	\$0	\$0	\$0	
USE OF BOND RESERVE	\$2,979,375	\$2,979,375	\$0	
TOTAL REVENUES AND INCOMES:	\$7,237,431	\$6,647,431	\$590,000	
AMOUNT TO BE COLLECTED FROM USERS: (EXPENSES LESS REVENUES)	\$35,229,232	\$31,017,797	\$4,311,435	

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TABLE 7 -- ESTIMATED FLOWS (ON ANNUAL BASIS)

DAILY FLOWS:

	SUMMER TOTAL YEARLY (Million Gallons / Day)		TOTAL SUMMER FLOW (1): (Thousands of Gallons) % of Total		TOTAL NON-SUMMER FLOW: (Thousands of Gallons) % of Total		TOTAL YEARLY FLOW (2): (Thousands of Gallons) % of Total	
			gallons	Flow	gallons	Flow	gallons	Flow
OCEAN CITY	4.016	2.703	361,479	24.20%	625,286	23.11%	986,765	23.50%
CITY OF CAPE MAY	1.403	1.070	126,262	8.45%	264,238	9.77%	390,500	9.30%
WEST CAPE MAY	0.174	0.150	15,684	1.05%	38,903	1.44%	54,587	1.30%
CAPE MAY POINT	0.115	0.083	10,307	0.69%	19,926	0.74%	30,233	0.72%
STONE HARBOR	0.740	0.426	66,576	4.46%	88,787	3.28%	155,363	3.70%
SEA ISLE CITY	1.660	1.007	149,373	10.00%	218,040	8.06%	367,413	8.75%
AVALON	1.562	1.022	140,560	9.41%	232,580	8.60%	373,140	8.89%
CREST HAVEN	0.096	0.087	8,669	0.58%	22,939	0.85%	31,608	0.75%
RIO GRANDE	0.446	0.518	40,181	2.69%	148,774	5.50%	188,955	4.50%
C. M. COURT HOUSE	0.441	0.546	39,733	2.66%	159,719	5.90%	199,453	4.75%
AVALON MANOR	0.037	0.025	3,286	0.22%	5,996	0.22%	9,282	0.22%
S. H. BOULEVARD	0.043	0.032	3,884	0.26%	7,622	0.28%	11,505	0.27%
COURT HOUSE SOUTH	0.209	0.242	18,821	1.26%	69,358	2.56%	88,179	2.10%
HARBOR BAY CENTER	0.004	0.003	395	0.03%	571	0.02%	966	0.02%
TOTAL MIDDLE TWP.	1.181	1.365	106,300	7.12%	392,039	14.49%	498,340	11.87%
NJ TURNPIKE AUTHORITY	0.003	0.002	299	0.02%	481	0.02%	779	0.02%
WILDWOOD	1.809	1.150	162,817	10.90%	257,083	9.50%	419,900	10.00%
WILDWOOD CREST	1.761	1.053	158,485	10.61%	225,724	8.34%	384,209	9.15%
WEST WILDWOOD	0.199	0.184	17,925	1.20%	49,234	1.82%	67,159	1.60%
NORTH WILDWOOD	1.800	1.139	161,972	10.84%	253,729	9.38%	415,701	9.90%
SHAWCREST (LTM/A)	0.078	0.064	7,021	0.47%	16,410	0.61%	23,430	0.56%
TOTALS	16.597	11.504	1,493,728	100%	2,705,398	100%	4,199,126	100.00%

NOTES: All flows projected from past actual data.

(1) Used for Fixed Charges

(2) Used for Variable Charges



## **Section VIII. Future Projections Of User Charges**

### VIII. Future Projections of User Charges

Previously, during the public hearings on Proposed User Rates, the CMCMUA was asked to forecast user rates further into the future.

The following table shows the previously adopted 2017 through 2019 Budgeted Expenses and Revenues, the Fiscal Year 2020 Proposed Expenses and Revenues, and estimated expenses and revenues through 2023. The following assumptions were made:

- Debt service includes all principal and interest due under the various bond issues.
- The Renewal and Replacement Contribution will be escalated in future years to provide adequate funds for the replacement of equipment and infrastructure beyond its designed useful life.
- Operational, Maintenance and Administration Costs have been escalated at the rate of 2.50% per year from 2020 through 2022. Revenues from Septage and Leachate Disposal are projected to be \$925,000 between 2020 and 2022.
- Interest Revenues will increase as the principal amounts in the various funds increase. Short-term interest rates have been estimated at 1.75% for the period between 2020 and 2022. Anticipated income from fixed rate long-term investments have also been included.
- It should be pointed out that the projected increases are based upon an estimated total amount to be collected from all Participants. The actual User Rate billed to each individual Participant in each year will be based upon actual recorded sewage flow rates.

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COMPARISON - 2017 through 2023 USER RATES

	2017 BUDGET	2018 BUDGET	2019 BUDGET	2020 PROPOSED	2021 PROJECTED	2022 PROJECTED	2023 PROJECTED
<b>EXPENSES</b>							
Debt Service	\$3,881,024	\$3,890,441	\$3,877,399	\$3,862,252	\$885,716	\$882,311	\$882,962
Increase/(Decrease) in Debt	\$153,550	\$9,417	(\$13,042)	(\$15,147)	(\$2,976,536)	(\$3,405)	\$651
Operations & Maintenance	\$18,189,275	\$18,479,125	\$18,882,148	\$23,265,411	\$23,847,046	\$24,443,222	\$25,054,303
Increase/(Decrease) in O&M	\$26,986	\$289,850	\$403,023	\$4,383,263	\$581,635	\$596,176	\$611,081
	0.15%	1.59%	2.18%	23.21%	2.50%	2.50%	2.50%
Renewal and Replacement Project Overhead	\$1,375,000	\$1,391,000	\$1,460,000	\$15,539,000	\$15,670,000	\$15,808,000	\$15,940,000
Renewal and Replacement Projects	\$11,502,000	\$11,867,000	\$12,395,000	\$15,539,000	\$15,670,000	\$15,808,000	\$15,940,000
Total Renewal & Replacement	\$12,877,000	\$13,258,000	\$13,855,000	\$15,539,000	\$15,670,000	\$15,808,000	\$15,940,000
Contribution	\$34,947,299	\$35,627,566	\$36,614,547	\$42,666,663	\$40,402,762	\$41,133,533	\$41,877,265
<b>TOTAL EXPENSES</b>							
<b>REVENUES</b>							
Annual Interest Income	\$88,088	\$94,938	\$400,000	\$700,000	\$700,000	\$700,000	\$700,000
Increase/(Decrease) in Int. Income	\$1,750	\$5,950	\$305,062	\$300,000	\$0	\$0	\$0
Management Fee	\$880,000	\$880,000	\$880,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Septic/Leechate Disposal	\$0	\$0	\$0	\$925,000	\$925,000	\$925,000	\$925,000
Compost Product Sales	\$460,927	\$470,145	\$473,584	\$483,056	\$492,717	\$502,571	\$512,623
Lower Twp. Effluent Disposal	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Lower Twp. MUA Settlement	\$100,000	\$100,000	\$100,000	\$125,000	\$125,000	\$125,000	\$125,000
Processing of "Outside" Sludge	\$100,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000
Tower Rental	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Miscellaneous							
Withdrawal from Rate Stab. Fund <sup>(1)</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Use of Bond Reserve	\$0	\$0	\$0	\$2,979,375	\$0	\$0	\$0
<b>TOTAL REVENUES</b>							
NET FROM USERS	\$33,292,384	\$33,957,483	\$34,635,963	\$35,229,232	\$36,035,045	\$36,755,962	\$37,489,642
INCREASE/DECREASE	\$652,748	\$665,099	\$678,480	\$693,269	\$705,813	\$720,917	\$733,681
PERCENTAGE	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

Future 2015 - 2021