

**CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY**



**CMCMUA USER CHARGE SYSTEM  
RATE SETTING REPORT**

**WASTEWATER MANAGEMENT PROGRAM  
USER CHARGES**

**EFFECTIVE JANUARY 1, 2023  
(PROPOSED)**

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, 2023, for Fiscal Year 2023 (i.e. calendar year 2023).

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 2023 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 2023.

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. In 2021 the Authority did not renew the operating permit for the facility, deeming the facility permanently closed.

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 2023.

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).

## **Section II. Background**

## II. Background

Created by resolution of the Cape May County Board of County Commissioners (formerly named The Board of Chosen Freeholders) in 1972, CMCMUA 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

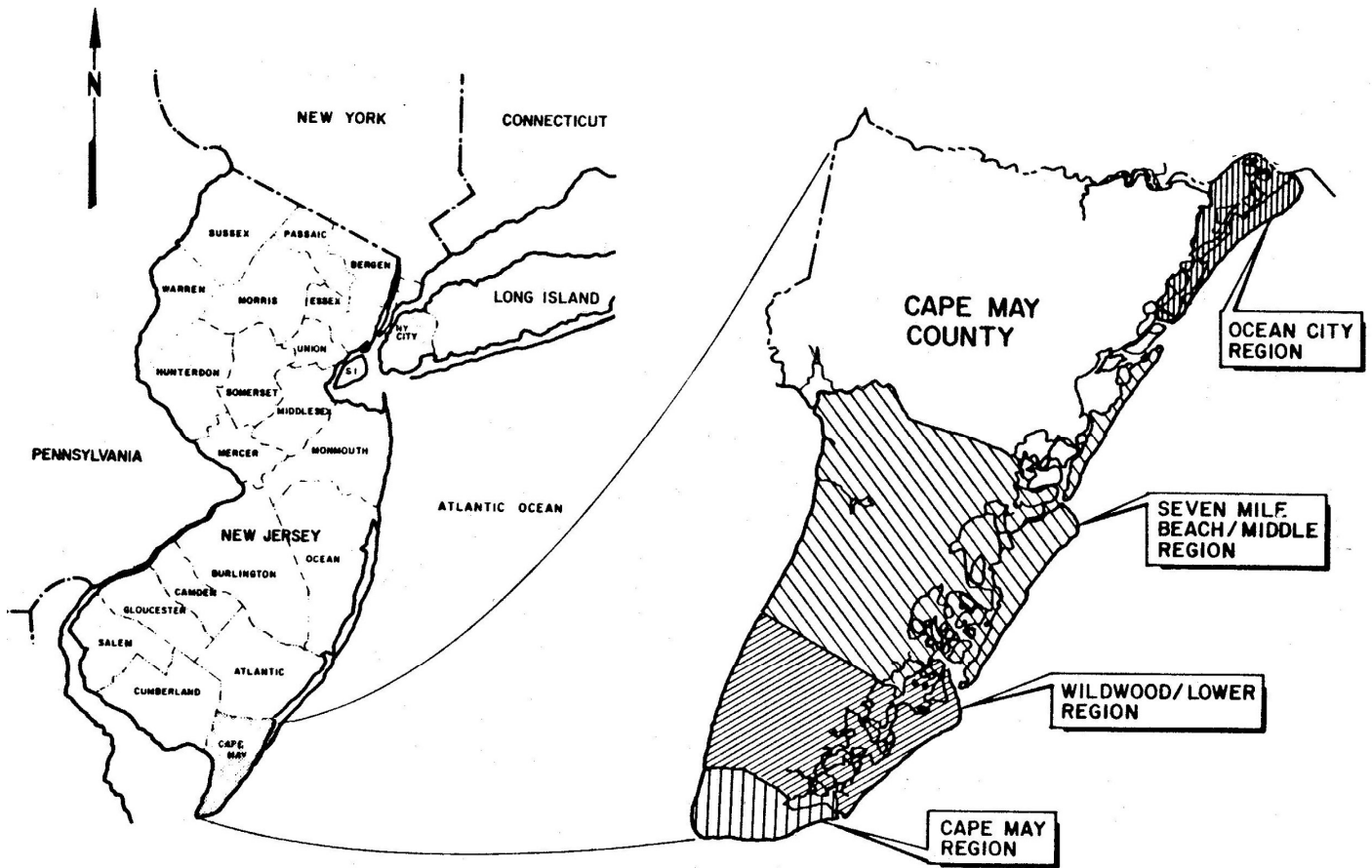
The CMCMUA, on November 16, 1977, officially adopted the "County-Wide Selected Plan", which established regional wastewater planning areas throughout Cape May County. This plan has been approved by the United States Environmental Protection Agency (USEPA) and New Jersey Department of Environmental Protection (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. In 2021, the Authority did not renew the operating permit for the facility, deeming the facility permanently closed. 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

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.

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. 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 2023 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 (4) 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 2023.

## **Section VII. Basis For Proposed Fiscal Year 2023 User Charges**



## VII. Basis for Proposed Fiscal Year 2023 User Charges

As noted earlier, the purpose of this Report is to present 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 2023. 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 2023. 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 2023, 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 2023, 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 2023. 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 2023 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 2023:

- Projected year 2023 flow rates for all 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).
- The actual flow from each Participant will be measured during calendar year 2023 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 2023 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 (4) operating Service Regions.
- ° Joint administrative costs are 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. The Operations & Maintenance Costs have increased 5.95% from Fiscal Year 2022. These increases are primarily attributable to increases in labor related costs.
- ° It is estimated that essentially all sewage sludge generated by the four (4) wastewater treatment facilities during calendar year 2023 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 1.15% rate of return on investments. Total estimated interest income for Fiscal Year 2023 is \$600,000.
- ° All interest income anticipated for Fiscal Year 2023, 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 2023 is in the amount of \$539,198.
- ° The projected volume of septage and landfill leachate for Fiscal Year 2023 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 2023.
- ° 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 2023 are \$105,000.

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM -- RATE SETTING REPORT -- FISCAL YEAR 2023

TABLE 1 - USER CHARGES INCLUDING SPECIFIC SERVICE CHARGES

USER CHARGES BY PARTICIPANT:

|                       | FIXED CHARGES: |                | VARIABLE CHARGES: |                | TOTAL:         |   |
|-----------------------|----------------|----------------|-------------------|----------------|----------------|---|
|                       | PERCENT<br>(1) | DOLLARS        | PERCENT<br>(1)    | DOLLARS        |                |   |
| OCEAN CITY            | 27.68%         | \$8,897,442    | 27.08%            | \$1,422,087    | \$10,319,529   | NOTES: (1) From TABLE 7<br>(2) From TABLE 6<br>(3) From TABLE 5<br>(4) From TABLE 4 |
| CITY OF CAPE MAY      | 7.40%          | \$2,379,402    | 7.97%             | \$418,502      | \$2,797,904    |   |
| WEST CAPE MAY         | 1.18%          | \$379,692      | 1.50%             | \$78,954       | \$458,646      |   |
| CAPE MAY POINT        | 0.59%          | \$189,846      | 0.62%             | \$32,403       | \$222,249      |   |
| STONE HARBOR          | 4.39%          | \$1,410,283    | 3.79%             | \$198,983      | \$1,609,266    |   |
| SEA ISLE CITY         | 9.96%          | \$3,202,067    | 9.10%             | \$477,832      | \$3,679,899    |   |
| AVALON                | 9.71%          | \$3,120,704    | 9.79%             | \$514,343      | \$3,635,047    |   |
| CREST HAVEN           | 0.44%          | \$141,028      | 0.65%             | \$34,229       | \$175,257      |   |
| RIO GRANDE            | 2.30%          | \$739,495      | 3.34%             | \$175,251      | \$914,745      |   |
| C. M. COURT HOUSE     | 2.25%          | \$723,222      | 3.46%             | \$181,640      | \$904,862      |   |
| AVALON MANOR          | 0.22%          | \$70,514       | 0.23%             | \$11,866       | \$82,380       |   |
| S. H. BOULEVARD       | 0.27%          | \$86,787       | 0.30%             | \$15,973       | \$102,760      |   |
| COURT HOUSE SOUTH     | 1.06%          | \$339,914      | 1.60%             | \$83,974       | \$423,889      |   |
| HARBOR BAY CENTER     | 0.01%          | <u>\$3,616</u> | 0.01%             | <u>\$456</u>   | <u>\$4,072</u> |   |
| MIDDLE TWP. TOTAL     |                | \$1,963,549    |                   | \$469,161      | \$2,432,708    |   |
| NJ TURNPIKE AUTHORITY | 0.02%          | \$6,541        | 0.02%             | \$913          | \$7,454        |   |
| WILDWOOD              | 10.26%         | \$3,297,894    | 9.80%             | \$514,799      | \$3,812,692    |   |
| WILDWOOD CREST        | 9.97%          | \$3,203,875    | 8.76%             | \$460,033      | \$3,663,908    |   |
| WEST WILDWOOD         | 1.31%          | \$421,277      | 1.66%             | \$87,169       | \$508,446      |   |
| NORTH WILDWOOD        | 10.54%         | \$3,388,296    | 9.82%             | \$515,712      | \$3,904,008    |   |
| SHAWCREST (LTMUA)     | 0.44%          | \$141,028      | 0.50%             | \$26,470       | \$167,499      |   |
| TOTALS (2):           | 100.00%        | \$32,142,923   | \$1.00            | \$5,251,589.00 | \$37,394,512   |   |

SPECIFIC SERVICE CHARGES:

|  |           |
|--|-----------|
| L.T.M.U.A EFFLUENT DISPOSAL (3):                         | \$539,198 |
| HIGH STRENGTH SURCHARGES (4):                            |           |
| HIGH STRENGTH B.O.D. (\$/lb)                             | \$0.76    |
| HIGH STRENGTH S.S. (\$/lb)                               | \$1.21    |
| SEPTAGE/SLUDGE/RAW WASTE DISPOSAL (\$/1000 gallons) (3): | \$62.62   |
| LANDFILL LEACHATE DISPOSAL (\$/1000 gallons) (3):        | \$12.29   |

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM -- RATE SETTING REPORT -- FISCAL YEAR 2023

TABLE 2 -- OPERATING EXPENSE BUDGET BY FACILITY

| Sum of 2023 Proposed     |                         | Process Type Fixed / Variable |           |                      |           |                 |           |                   |           | Grand Total |
|--------------------------|-------------------------|-------------------------------|-----------|----------------------|-----------|-----------------|-----------|-------------------|-----------|-------------|
|                          |                         | Conveyance System             |           | Wastewater Treatment |           | Solids Handling |           | Effluent Disposal |           |             |
| Facility Name            | Element Name            | Fixed                         | Variable  | Fixed                | Variable  | Fixed           | Variable  | Fixed             | Variable  |             |
| Cape May Region          | Benefits and Taxes      |                               |           | \$398,443            |           |                 |           |                   |           | \$398,443   |
|                          | Chemicals               | \$0                           |           |                      | \$15,000  | \$0             | \$15,000  | \$0               | \$68,000  | \$98,000    |
|                          | Equipment               | \$6,500                       |           | \$23,000             |           | \$1,500         |           | \$600             |           | \$31,600    |
|                          | Fuels, Oils and Greases | \$11,000                      |           | \$36,300             |           | \$0             |           | \$0               |           | \$47,300    |
|                          | Materials               | \$0                           |           | \$500                |           | \$0             |           | \$0               |           | \$500       |
|                          | Outside Services        | \$10,000                      |           | \$26,000             |           | \$500           | \$71,500  | \$500             |           | \$108,500   |
|                          | Rents and Leases        | \$40,000                      |           | \$800                |           |                 |           |                   |           | \$40,800    |
|                          | Repair Parts            | \$7,100                       |           | \$21,800             |           | \$1,750         |           | \$1,750           |           | \$32,400    |
|                          | Salaries and Wages      |                               |           | \$807,000            | \$26,000  |                 | \$0       |                   |           | \$833,000   |
|                          | Supplies                | \$2,100                       |           | \$17,600             |           |                 |           |                   |           | \$19,700    |
|                          | Travel                  |                               |           | \$0                  |           |                 |           |                   |           | \$0         |
|                          | Utilities               | \$2,000                       | \$70,000  | \$2,500              | \$185,000 |                 | \$0       |                   |           | \$259,500   |
| Ocean City Region        | Benefits and Taxes      |                               |           | \$601,078            |           |                 |           |                   |           | \$601,078   |
|                          | Chemicals               | \$0                           |           | \$0                  | \$164,000 |                 | \$30,000  | \$0               | \$320,000 | \$514,000   |
|                          | Equipment               | \$2,700                       |           | \$36,500             |           | \$2,000         |           | \$750             |           | \$41,950    |
|                          | Fuels, Oils and Greases | \$10,500                      |           | \$60,500             |           |                 | \$2,000   | \$0               |           | \$73,000    |
|                          | Materials               | \$0                           |           | \$0                  |           |                 |           | \$0               |           | \$0         |
|                          | Outside Services        | \$15,100                      |           | \$46,500             |           | \$0             | \$22,000  | \$500             |           | \$84,100    |
|                          | Rents and Leases        | \$50,000                      |           | \$1,000              |           |                 |           |                   |           | \$51,000    |
|                          | Repair Parts            | \$39,000                      |           | \$54,000             |           | \$13,500        |           | \$8,000           |           | \$114,500   |
|                          | Salaries and Wages      |                               |           | \$1,142,000          | \$28,000  |                 |           |                   |           | \$1,170,000 |
|                          | Supplies                | \$2,000                       |           | \$34,300             |           |                 |           |                   |           | \$36,300    |
|                          | Travel                  |                               |           | \$500                |           |                 |           |                   |           | \$500       |
|                          | Utilities               | \$4,000                       | \$155,000 | \$22,000             | \$275,000 |                 |           |                   |           | \$456,000   |
| Wildwood Lower Region    | Benefits and Taxes      |                               |           | \$565,059            |           |                 |           |                   |           | \$565,059   |
|                          | Chemicals               | \$0                           |           | \$21,000             |           |                 | \$97,900  | \$0               | \$400,000 | \$518,900   |
|                          | Equipment               | \$21,600                      |           | \$39,800             |           | \$17,000        |           | \$8,900           |           | \$87,300    |
|                          | Fuels, Oils and Greases | \$41,000                      |           | \$80,000             |           | \$0             | \$10,000  | \$1,200           |           | \$132,200   |
|                          | Materials               | \$0                           |           | \$0                  |           | \$0             |           | \$0               |           | \$0         |
|                          | Outside Services        | \$36,500                      |           | \$56,500             |           | \$4,000         | \$8,500   | \$9,000           |           | \$114,500   |
|                          | Rents and Leases        | \$40,000                      |           | \$1,500              |           |                 |           |                   |           | \$41,500    |
|                          | Repair Parts            | \$38,000                      |           | \$50,200             |           | \$18,100        |           | \$16,800          |           | \$123,100   |
|                          | Salaries and Wages      |                               |           | \$1,205,000          | \$30,000  |                 |           |                   |           | \$1,235,000 |
|                          | Supplies                | \$2,500                       |           | \$32,200             |           |                 |           | \$1,000           |           | \$35,700    |
|                          | Travel                  |                               |           | \$200                |           |                 |           |                   |           | \$200       |
|                          | Utilities               | \$4,000                       | \$200,000 | \$9,100              | \$525,300 |                 |           | \$100             | \$70,000  | \$808,500   |
| Seven Mile Middle Region | Benefits and Taxes      |                               |           | \$594,405            |           |                 |           |                   |           | \$594,405   |
|                          | Chemicals               | \$0                           | \$0       |                      | \$65,000  |                 | \$120,000 | \$0               | \$225,000 | \$410,000   |
|                          | Equipment               | \$18,200                      |           | \$39,500             |           | \$5,000         |           | \$5,000           |           | \$67,700    |
|                          | Fuels, Oils and Greases | \$55,500                      |           | \$27,100             |           | \$56,000        | \$50,000  | \$12,000          |           | \$200,600   |
|                          | Materials               | \$200                         |           | \$0                  |           | \$0             |           | \$0               |           | \$200       |
|                          | Outside Services        | \$24,500                      |           | \$63,000             |           | \$1,000         | \$25,000  | \$0               |           | \$113,500   |
|                          | Rents and Leases        | \$40,000                      |           | \$1,750              |           |                 |           |                   |           | \$41,750    |
|                          | Repair Parts            | \$31,500                      |           | \$58,600             |           | \$9,000         |           | \$3,500           |           | \$102,600   |
|                          | Salaries and Wages      |                               |           | \$1,184,000          | \$29,000  |                 |           |                   |           | \$1,213,000 |
|                          | Supplies                | \$2,000                       |           | \$38,900             |           | \$0             |           |                   |           | \$40,900    |
|                          | Travel                  |                               |           | \$100                |           |                 |           |                   |           | \$100       |
|                          | Utilities               | \$12,000                      | \$250,000 | \$19,000             | \$550,000 |                 |           | \$0               |           | \$831,000   |
| Project Crew             | Benefits and Taxes      |                               |           | \$650,732            |           |                 |           |                   |           | \$650,732   |
|                          | Equipment               |                               |           | \$24,500             |           |                 |           |                   |           | \$24,500    |
|                          | Fuels, Oils and Greases |                               |           | \$19,300             |           |                 |           |                   |           | \$19,300    |
|                          | Materials               |                               |           | \$0                  |           |                 |           |                   |           | \$0         |
|                          | Outside Services        | \$2,500                       |           | \$5,000              |           |                 |           |                   |           | \$7,500     |
|                          | Rents and Leases        |                               |           | \$61,000             |           |                 |           |                   |           | \$61,000    |
|                          | Repair Parts            | \$8,500                       |           | \$9,000              |           | \$0             |           |                   |           | \$17,500    |
|                          | Salaries and Wages      |                               |           | \$1,235,000          | \$0       |                 |           |                   |           | \$1,235,000 |
|                          | Supplies                |                               |           | \$23,900             |           |                 |           |                   |           | \$23,900    |
|                          | Utilities               |                               |           | \$65,000             |           |                 |           |                   |           | \$65,000    |

|                           |                            |           |             |              |             |             |             |          |             |              |
|---------------------------|----------------------------|-----------|-------------|--------------|-------------|-------------|-------------|----------|-------------|--------------|
| Laboratory                | Benefits and Taxes         |           | \$89,154    |              |             |             | \$89,154    |          |             |              |
|                           | Equipment                  |           | \$9,000     |              |             |             | \$9,000     |          |             |              |
|                           | Materials                  |           | \$0         |              |             |             | \$0         |          |             |              |
|                           | Outside Services           |           | \$2,700     |              |             |             | \$2,700     |          |             |              |
|                           | Rents and Leases           |           | \$4,200     |              |             |             | \$4,200     |          |             |              |
|                           | Repair Parts               |           | \$2,000     |              |             |             | \$2,000     |          |             |              |
|                           | Salaries and Wages         |           | \$158,000   | \$1,000      |             |             | \$159,000   |          |             |              |
|                           | Supplies                   |           | \$15,200    |              |             |             | \$15,200    |          |             |              |
| Sludge Transfer           | Benefits and Taxes         |           |             |              | \$190,635   |             | \$190,635   |          |             |              |
|                           | Chemicals                  |           |             |              | \$0         | \$0         | \$0         |          |             |              |
|                           | Equipment                  |           |             |              | \$6,000     |             | \$6,000     |          |             |              |
|                           | Fuels, Oils and Greases    |           |             |              | \$9,000     |             | \$9,000     |          |             |              |
|                           | Materials                  |           |             |              | \$3,000     | \$0         | \$3,000     |          |             |              |
|                           | Outside Services           |           |             |              | \$50,000    | \$1,500,000 | \$1,550,000 |          |             |              |
|                           | Rents and Leases           |           |             |              | \$10,000    |             | \$10,000    |          |             |              |
|                           | Repair Parts               |           |             |              | \$49,000    |             | \$49,000    |          |             |              |
|                           | Salaries and Wages         |           |             |              | \$306,500   | \$21,500    | \$328,000   |          |             |              |
|                           | Supplies                   |           |             |              | \$9,400     |             | \$9,400     |          |             |              |
|                           | Travel                     |           |             |              | \$8,000     |             | \$8,000     |          |             |              |
|                           | Utilities                  |           |             |              | \$0         | \$0         | \$0         |          |             |              |
| Wastewater Administration | Advertising and Publicity  |           | \$1,800     |              |             |             | \$1,800     |          |             |              |
|                           | Benefits and Taxes         |           | \$222,308   |              |             |             | \$222,308   |          |             |              |
|                           | Dues and Subscriptions     |           | \$4,000     |              |             |             | \$4,000     |          |             |              |
|                           | Education                  |           | \$43,500    |              |             |             | \$43,500    |          |             |              |
|                           | Equipment                  |           | \$106,500   |              |             |             | \$106,500   |          |             |              |
|                           | Financial Management       |           | \$21,944    |              |             |             | \$21,944    |          |             |              |
|                           | Insurance                  |           | \$487,028   |              |             |             | \$487,028   |          |             |              |
|                           | Other Misc.                |           | \$500       |              |             |             | \$500       |          |             |              |
|                           | Outside Services           |           | \$287,300   |              |             |             | \$287,300   |          |             |              |
|                           | Permits and Fees           |           | \$240,000   |              |             |             | \$240,000   |          |             |              |
|                           | Professional Fees          |           | \$95,000    |              |             |             | \$95,000    |          |             |              |
|                           | Rents and Leases           |           | \$8,600     |              |             |             | \$8,600     |          |             |              |
|                           | Salaries and Wages         |           | \$497,000   |              |             |             | \$497,000   |          |             |              |
|                           | Supplies                   |           | \$3,100     |              |             |             | \$3,100     |          |             |              |
|                           | Tower Shared Services      |           | \$35,000    |              |             |             | \$35,000    |          |             |              |
|                           | Travel                     |           | \$2,150     |              |             |             | \$2,150     |          |             |              |
|                           | Utilities                  |           | \$71,000    |              |             |             | \$71,000    |          |             |              |
|                           | Joint Administrative Costs |           | \$6,511,200 |              |             |             | \$6,511,200 |          |             |              |
| Grand Total               |                            | \$580,500 | \$675,000   | \$18,430,851 | \$1,893,300 | \$770,885   | \$1,973,400 | \$69,600 | \$1,083,000 | \$25,476,536 |

|                |              |
|----------------|--------------|
| Total Fixed    | \$19,851,836 |
| Total Variable | \$5,624,700  |
| Total          | \$25,476,536 |

|                            |              |
|----------------------------|--------------|
| Total Conveyance           | \$1,255,500  |
| Total Wastewater Treatment | \$20,324,151 |
| Total Solids Handling      | \$2,744,285  |
| Total Effluent Disposal    | \$1,152,600  |
| Total                      | \$25,476,536 |

|                        |              |
|------------------------|--------------|
| Cape May Total         | \$1,869,743  |
| Ocean City Total       | \$3,142,428  |
| Wildwood Total         | \$3,661,959  |
| Seven Mile Total       | \$3,615,755  |
| Lab Total              | \$281,254    |
| Project Crew Total     | \$2,104,432  |
| Sludge Transfer Total  | \$2,163,035  |
| Wastewater Admin Total | \$8,637,930  |
| Total                  | \$25,476,536 |

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM -- RATE SETTING REPORT -- FISCAL YEAR 2023

TABLE 3 -- DEBT SERVICE REQUIREMENTS

|                      | PRINCIPAL | INTEREST  | TOTAL     | ALLOCATION<br>CMCMUA PORTION<br>PERCENT<br>(see calculation of percentages at bottom of page) | DOLLARS   | LTMUA PORTION<br>PERCENT | DOLLARS |  |
|----------------------|-----------|-----------|-----------|---|-----------|--------------------------|---------|--|
| 2010(A) SERIES (1)   | \$12,046  | \$967     | \$13,013  | 100.00%   | \$13,013  | 0.00%                    | \$0     | NOTE (1) NJ Environmental Trust<br>Financing Dated 2/22/2010 |
| 2010(B) SERIES (2)   | \$34,474  | \$9,206   | \$43,680  | 99.93%  | \$43,649  | 0.07%                    | \$31    | NOTE (2) NJ Environmental Trust<br>Financing Dated 12/2/2010 |
| 2010(C) SERIES (2)   | \$461,780 | \$95,461  | \$557,241 | 100.00%   | \$557,241 | 0.00%                    | \$0     | NOTE (3) NJ Environmental Trust<br>Financing Dated 5/3/2012  |
| 2012(A-1) SERIES (3) | \$40,339  | \$6,460   | \$46,799  | 100.00%   | \$46,799  | 0.00%                    | \$0     | NOTE (4) NJ Environmental Trust<br>Financing Dated 5/26/2016 |
| 2012(A-2) SERIES (3) | \$40,340  | \$3,347   | \$43,687  | 100.00%   | \$43,687  | 0.00%                    | \$0     |  |
| 2016(A) SERIES (4)   | \$158,583 | \$17,171  | \$175,754 | 100.00%   | \$175,754 | 0.00%                    | \$0     |  |
| SUBTOTAL             | \$747,562 | \$132,612 | \$880,174 |   | \$880,143 |                          | \$31    |  |
| ABANDONED FACILITIES | \$0       | \$0       | \$0       |   | \$0       |                          | \$0     |  |
| TOTALS               | \$747,562 | \$132,612 | \$880,174 | 100.00%   | \$880,143 | 0.00%                    | \$31    |  |

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.  
LTMUA share of the use of Subsystem 'C' averages 15.8%  
=15.8% X 0.4% = 0.07%

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
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TABLE 4 -- CALCULATION OF SPECIFIC COSTS

|                       | PROJECTED FLOW<br>(thousands of gallons) | AVERAGE STRENGTH (1) |              | TOTAL QUANTITY (2) |             |
|-----------------------|--|----------------------|--------------|--------------------|-------------|
|                       |  | BOD<br>(mg/l)        | SS<br>(mg/l) | BOD<br>(lbs)       | SS<br>(lbs) |
| WASTEWATER FROM USERS | 4,200,055                                |                      | 225 210      | 7,881,403          | 7,355,976   |
| SEPTAGE               | 15,600                                   |                      | 3,800 3,200  | 494,395            | 416,333     |
| LANDFILL LEACHATE     | 12,000                                   |                      | 450 325      | 45,036             | 32,526      |
| TOTALS                | 4,227,655                                |                      |              | 8,420,834          | 7,804,835   |

## 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 RR Contribution  
 - Use of Bond Reserve"  
 (5) From Table 2

## COSTS TO BE RECOVERED

## DEBT SERVICE: (4)

| TOTAL                |         | VOLUME           |         | BOD          |             | SS        |             |
|----------------------|---------|------------------|---------|--------------|-------------|-----------|-------------|
|                      | (3)     |                  |         |              |             |           |             |
| CONVEYANCE           | 23.65%  | \$3,880,263      | 100.00% | \$3,880,263  | 0.00%       | \$0       | 0.00%       |
| WASTEWATER TREATMENT | 24.89%  | \$4,083,141      | 60.00%  | \$2,449,885  | 20.00%      | \$816,628 | 20.00%      |
| SOLIDS HANDLING      | 20.50%  | \$3,362,271      | 0.00%   | \$0          | 25.00%      | \$840,568 | 75.00%      |
| EFFLUENT DISPOSAL    | 30.96%  | \$5,078,499      | 100.00% | \$5,078,499  | 0.00%       | \$0       | 0.00%       |
| TOTAL                | 100.00% | \$16,404,174 (4) |         | \$11,408,647 | \$1,657,196 |           | \$3,338,332 |

## OPERATING COSTS: (5)

|                      |              |         |              |        |             |        |             |
|----------------------|--------------|---------|--------------|--------|-------------|--------|-------------|
| CONVEYANCE           | \$1,255,500  | 100.00% | \$1,255,500  | 0.00%  | \$0         | 0.00%  | \$0         |
| WASTEWATER TREATMENT | \$20,324,151 | 60.00%  | \$12,194,491 | 20.00% | \$4,064,830 | 20.00% | \$4,064,830 |
| SOLIDS HANDLING      | \$2,744,285  | 0.00%   | \$0          | 25.00% | \$686,071   | 75.00% | \$2,058,214 |
| EFFLUENT DISPOSAL    | \$1,152,600  | 100.00% | \$1,152,600  | 0.00%  | \$0         | 0.00%  | \$0         |
|                      | \$25,476,536 |         | \$14,602,591 |        | \$4,750,901 |        | \$6,123,044 |
| TOTALS:              | \$41,880,710 |         | \$26,011,238 |        | \$6,408,097 |        | \$9,461,376 |

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

\$6.15 per 1000 gallons

0.76 per lb BOD

\$1.21 per lb SS



CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
 USER CHARGE SYSTEM -- RATE SETTING REPORT -- FISCAL YEAR 2023

**TABLE 5 -- CALCULATION OF SPECIFIC SERVICE CHARGES**

| WASTEWATER<br>TREATMENT<br>PARAMETER        | (1)<br>CHARACTERISTICS | UNITS<br>PER<br>1000 GAL | UNIT<br>COSTS | COST<br>PER<br>1000 GAL |
|---|------------------------|--------------------------|---------------|-------------------------|
| <b><u>SEPTAGE:</u></b>                      |                        |                          |               |                         |
| VOLUME                                      | 1,000 GALLONS          | 1.00                     | \$6.15        | \$6.15                  |
| BOD   | 3,800 MG/L             | 31.69                    | \$0.76        | \$24.12                 |
| SS  | 3,200 MG/L             | 26.69                    | \$1.21        | \$32.35                 |
| PROPOSED SEPTAGE DISPOSAL FEE (\$/1000 GAL) |                        |                          |               | \$62.62                 |

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  | 450 MG/L      | 3.75 | \$0.76 | \$2.86  |
| SS   | 325 MG/L      | 2.71 | \$1.21 | \$3.29  |
| PROPOSED LEACHATE DISPOSAL FEE (\$/1000 GALLONS) |               |      |        | \$12.29 |

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

|                                 |           |
|---------------------------------|-----------|
|                                 | TOTAL     |
| DEBT SERVICE (2):               | \$31      |
| OPERATING COSTS (3):            | \$539,168 |
| TOTAL EFFLUENT DISPOSAL CHARGE: | \$539,198 |

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM -- RATE SETTING REPORT -- FISCAL YEAR 2023

TABLE 6 -- DETERMINATION OF TOTAL USER CHARGES

|  | TOTAL            | FIXED            | VARIABLE        | NOTES: |
|--|------------------|------------------|-----------------|--------|
| EXPENSES AND COSTS:  |                  |                  |                 |        |
| TOTAL OPERATING COSTS (1)                                      | \$25,476,536     | \$19,851,836     | \$5,624,700     |        |
| TOTAL DEBT SERVICE(2)  | \$880,174        | \$880,174        | \$0             |        |
| RENEWAL AND REPLACEMENT<br>CONTRIBUTION                        | \$15,524,000     | 15,130,271       | 393,729         |        |
| TOTAL EXPENSES AND COSTS                                       | \$41,880,710     | \$35,862,281     | \$6,018,429     |        |
| REVENUES AND INCOMES:  |                  |                  |                 |        |
| INTEREST ON INVESTMENTS AND DEPOSITS:                          | \$600,000        | \$600,000        | \$0             |        |
| MANAGEMENT FEE   | \$2,122,000      | \$1,655,160      | \$466,840       |        |
| SEPTAGE DISPOSAL FEES:   | \$600,000        | \$500,000        | \$100,000       |        |
| LANDFILL LEACHATE DISPOSAL FEES:                               | \$300,000        | \$260,000        | \$40,000        |        |
| COMPOST PRODUCT SALES:   | \$0              | \$0              | \$0             |        |
| PROCESSING OF "OUTSIDE" SLUDGE                                 | \$200,000        | \$50,000         | \$150,000       |        |
| LOWER TOWNSHIP M.U.A. EFFLUENT DISPOSAL FEE(3):                | \$539,198.24     | \$539,198        | \$0             |        |
| TOWER RENTAL INCOME  | \$105,000        | \$105,000        | \$0             |        |
| MISCELLANEOUS REVENUES (INSURANCE REBATE, ETC)                 | \$20,000         | \$10,000         | \$10,000        |        |
| TOTAL REVENUES AND INCOMES:                                    | \$4,486,198.241  | \$3,719,358      | \$766,840       |        |
| AMOUNT TO BE COLLECTED FROM USERS:<br>(EXPENSES LESS REVENUES) | \$37,394,511.759 | \$32,142,922.759 | \$5,251,589.000 |        |

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
 USER CHARGE SYSTEM -- RATE SETTING REPORT -- FISCAL YEAR 2023

TABLE 7 -- ESTIMATED FLOWS (ON ANNUAL BASIS)

|                       | DAILY FLOWS:            |              | TOTAL SUMMER FLOW (1): |                 | TOTAL NON-SUMMER FLOW: |                 | TOTAL YEARLY FLOW (2): |                 |
|-----------------------|-------------------------|--------------|------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|
|                       | SUMMER TOTAL YEARLY     |              | (Thousands of Gallons) |                 | (Thousands of Gallons) |                 | (Thousands of Gallons) |                 |
|                       | (Million Gallons / Day) |              | gallons                | % of Total Flow | gallons                | % of Total Flow | gallons                | % of Total Flow |
| OCEAN CITY            | 4.921                   | 3.116        | 442,890                | 27.68%          | 694,450                | 26.71%          | 1,137,340              | 27.08%          |
| CITY OF CAPE MAY      | 1.316                   | 0.917        | 118,440                | 7.40%           | 216,265                | 8.32%           | 334,705                | 7.97%           |
| WEST CAPE MAY         | 0.210                   | 0.173        | 18,900                 | 1.18%           | 44,245                 | 1.70%           | 63,145                 | 1.50%           |
| CAPE MAY POINT        | 0.105                   | 0.071        | 9,450                  | 0.59%           | 16,465                 | 0.63%           | 25,915                 | 0.62%           |
| STONE HARBOR          | 0.780                   | 0.436        | 70,200                 | 4.39%           | 88,940                 | 3.42%           | 159,140                | 3.79%           |
| SEA ISLE CITY         | 1.771                   | 1.047        | 159,390                | 9.96%           | 222,765                | 8.57%           | 382,155                | 9.10%           |
| AVALON                | 1.726                   | 1.127        | 155,340                | 9.71%           | 256,015                | 9.85%           | 411,355                | 9.79%           |
| CREST HAVEN           | 0.078                   | 0.075        | 7,020                  | 0.44%           | 20,355                 | 0.78%           | 27,375                 | 0.65%           |
| RIO GRANDE            | 0.409                   | 0.384        | 36,810                 | 2.30%           | 103,350                | 3.97%           | 140,160                | 3.34%           |
| C. M. COURT HOUSE     | 0.400                   | 0.398        | 36,000                 | 2.25%           | 109,270                | 4.20%           | 145,270                | 3.46%           |
| AVALON MANOR          | 0.039                   | 0.026        | 3,510                  | 0.22%           | 5,980                  | 0.23%           | 9,490                  | 0.23%           |
| S. H. BOULEVARD       | 0.048                   | 0.035        | 4,320                  | 0.27%           | 8,455                  | 0.33%           | 12,775                 | 0.30%           |
| COURT HOUSE SOUTH     | 0.188                   | 0.184        | 16,920                 | 1.06%           | 50,240                 | 1.93%           | 67,160                 | 1.60%           |
| HARBOR BAY CENTER     | <u>0.002</u>            | <u>0.001</u> | <u>180</u>             | <u>0.01%</u>    | <u>185</u>             | <u>0.01%</u>    | <u>365</u>             | <u>0.01%</u>    |
| TOTAL MIDDLE TWP.     | 1.086                   | 1.028        | 97,740                 | 6.11%           | 277,480                | 10.67%          | 375,220                | 8.93%           |
| NJ TURNPIKE AUTHORITY | 0.004                   | 0.002        | 326                    | 0.02%           | 404                    | 0.02%           | 730                    | 0.02%           |
| WILDWOOD              | 1.824                   | 1.128        | 164,160                | 10.26%          | 247,560                | 9.52%           | 411,720                | 9.80%           |
| WILDWOOD CREST        | 1.772                   | 1.008        | 159,480                | 9.97%           | 208,440                | 8.02%           | 367,920                | 8.76%           |
| WEST WILDWOOD         | 0.233                   | 0.191        | 20,970                 | 1.31%           | 48,745                 | 1.87%           | 69,715                 | 1.66%           |
| NORTH WILDWOOD        | 1.874                   | 1.130        | 168,660                | 10.54%          | 243,790                | 9.38%           | 412,450                | 9.82%           |
|                       |                         |              | 0                      | 0.00%           |                        |                 |                        |                 |
| SHAWCREST (LTMUA)     | 0.078                   | 0.058        | 7,020                  | 0.44%           | 14,150                 | 0.54%           | 21,170                 | 0.50%           |
| TOTALS                | 17.778                  | 11.507       | 1,599,986              | 100%            | 2,600,069              | 100%            | 4,200,055              | 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 2020 through 2022 Budgeted Expenses and Revenues, the Fiscal Year 2023 Proposed Expenses and Revenues, and Projected Expenses and Revenues through 2026. 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 rates between 3.69% and 5.95% from 2023 through 2026. Revenues from Septage and Leachate Disposal are projected to be \$900,000 between 2023 and 2026.
- Interest Revenues remain constant. Short-term interest rates have been estimated at 1.15% for the period between 2023 and 2026. 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.

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY  
USER CHARGE SYSTEM -- RATE SETTING REPORT -- FISCAL YEAR 2023

COMPARISON - 2020 through 2026 USER RATES

|                                   | 2020<br>BUDGET      | 2021<br>BUDGET      | 2022<br>BUDGET      | 2023<br>PROPOSED    | 2024<br>PROJECTED   | 2025<br>PROJECTED   | 2026<br>PROJECTED   |
|-----------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>EXPENSES</b>                   |                     |                     |                     |                     |                     |                     |                     |
| Debt Service                      | \$3,862,252         | \$883,132           | \$879,449           | \$880,174           | \$878,096           | \$867,261           | \$867,499           |
| Operations & Maintenance          | \$23,265,411        | \$23,420,297        | \$24,044,867        | \$25,476,536        | \$26,414,073        | \$27,481,201        | \$28,750,833        |
| INCREASE/DECREASE (O&M)           | \$4,383,263         | \$154,886           | \$624,570           | \$1,431,669         | \$937,537           | \$1,067,129         | \$1,119,417         |
|                                   | 23.21%              | 0.67%               | 2.67%               | 5.95%               | 3.68%               | 4.04%               | 4.62%               |
| Renwal & Replacement Contribution | <u>\$15,539,000</u> | <u>\$15,234,000</u> | <u>\$15,377,500</u> | <u>\$15,524,000</u> | <u>\$15,673,000</u> | <u>\$15,830,000</u> | <u>\$15,830,000</u> |
| <b>TOTAL EXPENSES</b>             | <b>\$42,666,663</b> | <b>\$39,537,429</b> | <b>\$40,301,816</b> | <b>\$41,880,710</b> | <b>\$42,965,169</b> | <b>\$44,178,462</b> | <b>\$45,448,332</b> |
| <b>REVENUES</b>                   |                     |                     |                     |                     |                     |                     |                     |
| Interest Income                   | \$700,000           | \$100,000           | \$100,000           | \$600,000           | \$600,000           | \$600,000           | \$600,000           |
| Management Fee                    | \$2,000,000         | \$2,040,000         | \$2,080,800         | \$2,122,000         | \$2,164,000         | \$2,208,000         | \$2,252,160         |
| Septage/Leachate Disposal         | \$925,000           | \$900,000           | \$900,000           | \$900,000           | \$900,000           | \$900,000           | \$900,000           |
| Lower Twp. Effluent Disposal      | \$483,056           | \$491,501           | \$501,331           | \$539,198           | \$554,026           | \$570,647           | \$587,766           |
| Processing of "Outside" Sludge    | \$125,000           | \$200,000           | \$200,000           | \$200,000           | \$200,000           | \$200,000           | \$200,000           |
| Tower Rental                      | \$105,000           | \$105,000           | \$105,000           | \$105,000           | \$105,000           | \$105,000           | \$105,000           |
| Miscellaneous                     | \$20,000            | \$20,000            | \$20,000            | \$20,000            | \$20,000            | \$20,000            | \$20,000            |
| Use of Bond Reserve               | \$2,979,375         | \$0                 | \$0                 | \$0                 | \$0                 | \$0                 | \$0                 |
| <b>TOTAL REVENUES</b>             | <b>\$7,337,431</b>  | <b>\$3,856,501</b>  | <b>\$3,907,131</b>  | <b>\$4,486,198</b>  | <b>\$4,543,026</b>  | <b>\$4,603,647</b>  | <b>\$4,684,926</b>  |
| <b>NET FROM USERS</b>             | <b>\$35,329,232</b> | <b>\$35,680,928</b> | <b>\$36,394,685</b> | <b>\$37,394,512</b> | <b>\$38,422,142</b> | <b>\$39,574,815</b> | <b>\$40,763,405</b> |
| <b>INCREASE/DECREASE</b>          | <b>\$693,269</b>    | <b>\$351,696</b>    | <b>\$713,757</b>    | <b>\$999,827</b>    | <b>\$1,027,631</b>  | <b>\$1,152,673</b>  | <b>\$1,188,590</b>  |
| <b>PERCENTAGE</b>                 | <b>2.00%</b>        | <b>1.00%</b>        | <b>2.00%</b>        | <b>2.75%</b>        | <b>2.75%</b>        | <b>3.00%</b>        | <b>3.00%</b>        |