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MEMORANDUM

TO: Board of Directors
Mr. Jeff Hodge, General Manager
Ms. Christina Hawker, Office Manager
Donala Water and Sanitation District

DATE: December 05, 2022

FROM: Mr. Roger J. Sams, P.E.
GMS, Inc., Consulting Engineers

RE: ***2022 Cost of Service Analyses and User Charge Modifications***
Wastewater Management Services and Water Supply, Treatment and Delivery Services

In accordance with the request of the Donala Water and Sanitation District (DWSD or "District,") GMS, Inc. has reviewed and updated the previous work accomplished to assess cost of service and suggested user charges to support wastewater and water services to the District's constituents. This particular effort identified as the *2022 Cost of Service and User Charge Analyses* has a primary purpose of providing the basis for the District to adopt a revised wastewater user charge system. In addition, an assessment of the cost of service for water supply, treatment and delivery has been accomplished for use in assessing possible changes in the District's water user charge or rate schedule.

The previous draft, reviewed with the Board of Directors at its workshop on November 17, 2022, has been updated in several areas which has resulted in an increase in the documented cost of service. The most significant changes from the last draft document are:

- Increased all labor costs at a rate of 7% per annum from the November 17, 2023 draft budget amount, compounded through 2025.

- The service units for water operations, i.e. production, treatment and delivery, have been examined using the delivered water (metered sales) for rolling 12-month periods between January 1, 2021 and October 31, 2022. This has resulted in a reduced service volume equaling 767 annual acre feet (AAF). The prior draft analyses used 860 AAF as a probable supply requirement. The value of 767 AAF is the 50th percentile, or median, of the eleven (11) 12-month periods in the records reviewed. Water deliveries to consumers during year 2020 were not used in this analysis because of the extraordinary use conditions which existed during 2020.

- Other minor modifications to the computations of the three year average cost of service which generally have minor impacts on year one suggested user charges.

Application of a volume based wastewater user charge was first discussed in early 2021. In December 2021, GMS, Inc. prepared a preliminary analysis utilizing a volume-based user charge system in lieu of a flat rate system to support user charges and operations for wastewater management services. Following review of that document, the DWSD has given direction to proceed with the final development of a volume-based wastewater user charge system for consideration of implementation by the District.

A. PRINCIPLES OF THE COST OF SERVICE ANALYSES

The basis of a cost of service evaluation considers the cost of service for the following service units.

- Potable water produced, supplied and distributed, measured at delivery through the customer's meter
- Volume or flow rate of wastewater, measured at the Upper Monument Creek Regional Wastewater Treatment Facility (UMCR WWTF) as the volume delivered through the DWSD collection system
- Customer service charge

The customer service charge component reflects those costs incurred by the District to provide services to its customers which are largely independent of the volume of water delivered or the amount of wastewater generated by any given customer. For instance, billing a customer utilizing 5,000 gallons of water in a billing period is very likely to incur the same cost as billing a customer who has utilized 50,000 gallons in a billing period. Other costs of operation that provide relatively equal benefits to each customer are likewise part of a customer service charge or cost. For instance, casualty insurances on District infrastructure would uniformly benefit each customer regardless of the size of land parcels served, the amount of water delivered or the amount of wastewater generated by any given customer.

1. Allocation of Expenditures

The District provides water service to its constituents which includes potable water supply, conveyance of raw water, water treatment, and finished water distribution. Every component of water service comes at a cost to the District both operationally and administratively. The cost for the water production includes chemicals, repair and maintenance, vehicles, utilities, tools, salaries for operations staff, regulatory compliance monitoring and reporting, and water purchases.

The District provides wastewater service to its customer base which includes wastewater collection, wastewater conveyance through the collection system, lift stations and force mains, treatment and disposal. Treatment is completed at the UMCR WWTF and is a direct cost and expenditure of the District. The cost for wastewater collection service includes repair and maintenance, tools, permits, regulatory compliance monitoring and reporting, and salaries for operations staff.

The District budgets for all costs associated with water production and delivery, wastewater collection and customer service. However, it is not itemized by way of functional category, i.e. water delivery and treatment for instance, but is itemized in a manner to identify all direct costs associated with water production, delivery and treatment. The cost of service analysis is expected to be integral to development of user charges which are specific to water production, treatment and delivery and wastewater collection and treatment. Therefore, an allocation of budgeted expenditures to each functional

classification is necessary.

Included in the cost of service analysis was a determination of how each expenditure line item from the historic chart of accounts is attributable to water production, treatment and delivery, wastewater collection and treatment and customer service. Table A-1 is a demonstration of the allocation between water production, treatment and delivery, wastewater collection and customer service. This particular allocation was developed during a user charge evaluation and cost of service analysis prepared for the District in 2017. At the time of preparation of this 2022 cost of service evaluation, the District staff was consulted and it was agreed the allocations shown remain reasonably applicable. The following explanatory notes support the line items in the functional cost allocation in Table A-1.

- In historical income statements, the *Professional Engineer* line item is attributed to water resource engineering consultant services, primarily associated with water resource identification, development and support of permitting and adjudication of the District's water supplies.
- Historically, the *District Engineer* line item account is the professional services related to all other operational and capital improvement projects for infrastructure for both water production, treatment and delivery and wastewater collection. Since 2021, income statements and this cost of service analysis, have consolidated the *Professional Engineer* and *District Engineer* cost accounts.
- The *457 Plan* item is the District's cost sharing for the employee deferred compensation plan.
- *County Treasurer* costs are those costs incurred by the District in the collection and disbursement of property tax revenues and conduct of tax sales on property within the District subject to the assessment of ad valorem taxes.
- *CSU/Pueblo/Storm* is a budgeted line item related to the utilization of the District's owned and leased external water supplies from surface water sources. In addition, this includes payments to Pueblo County as part of the approval of a 1041 Permit by Pueblo County Board of County Commissioners for storage and conveyance of the District's raw water resources through the County via the Southern Delivery System which is owned and operated by Colorado Springs Utilities, Pueblo West Metropolitan District, the City of Fountain and the Security Water District. The DWSD was not a participant nor contributing to services provided by the Southern Delivery System when the initial environmental assessment, environmental impact statement and Record of Decision were completed and issued in final form.

The expenditure allocation provided in Table A-1 <u>does not</u> include the DWSD proportional share of operation, maintenance, renewal and replacement of the UMCR WWTF. That service is separately budgeted for the contributing utilities, Forest Lakes Metropolitan District, Triview Metropolitan District and DWSD. Each contribute proportionately to the cost of the facility, cost of operations, maintenance and renewals and replacement in accordance with an Intergovernmental Agreement (IGA) developed between the benefited wastewater utilities. As the designated operator and responsible party entity in accordance with the Colorado Discharge Permit System, the DWSD is responsible for budgeting the cost of operation. The cost of operation is then billed by the DWSD in accordance with the IGA to each of the contributing utilities.

TABLE A-1
DONALA WATER AND SANITATION DISTRICT
EXPENDITURE ALLOCATIONS

Expenditure	Water Production and Delivery	Wastewater Collection	Customer Service
Chemical and Lab	85%	15%	0%
Repair/Maintenance	75%	25%	0%
Residuals Management	75%	25%	0%
Vehicles	50%	50%	0%
Utilities	95%	4%	1%
Tools and Equipment	50%	50%	0%
Inspection Refunds	50%	50%	0%
Audit	0%	0%	100%
Insurance	72%	15%	13%
Legal Expenses	53%	27%	20%
Office Expenses	0%	0%	100%
Office Equipment	0%	0%	100%
Telephone	0%	0%	100%
Professional Engineer [4)]	100%	0%	0%
District Engineer [4)]	50%	50%	0%
Salaries [1)]	50%	12.5%	37.5%
Payroll Taxes[1)]	50%	12.5%	37.5%
457 Plan[1)]	50%	12.5%	37.5%
Contract Services [2)]	67%	7%	26%
Publications	0%	0%	100%
Fees, Permits, Dues	95%	5%	0%
Training [3)]	43.5%	43.5%	13%
Investment Expenses	0%	0%	100%
County Treasurer	0%	0%	100%
Misc. Expenses	11%	11%	78%
CSU/Pueblo/Storm	100%	0%	0%

1) The salary percentage attributable to operation is 62.5%. All compensation categories are also assigned at this same percentage.
2) *Contract Services* include uniform maintenance, trash service, cleaning service, and IT services,
3) *Training* is primarily for operations personnel; however, the administrative staff also attend trainings annually.
4) Each engineering expense account has been consolidated into a single account since 2021 with 80% allocated to water production and delivery and 20% to wastewater collection.

2. Basis of Cost of Service Projections

Estimates of annual costs or each of the expenditure accounts shown in Table A-1 have been developed based on the proposed 2023 draft budget as presented to the Board of Directors on November 17, 2022. Future expenditures which are currently known to change in the next three (3) years are addressed accordingly.

Recent cost increases and inflationary trends make future projections very tenuous and risky. Suffice it to say, nominal cost increases have been provided year-to-year in the estimates or projections of individual cost factors. Notable compounded annual increases are briefly discussed below.

- Salaries and directly related labor costs were increased at a rate of 7% from the proposed 2023 budget. The 2023 (November 17, 2022 Draft) provided for a 7% increase on 2022 budgeted personnel support.
- Utilities which include electric power from MVEA and propane fuel gas were projected to increase at a rate of 6% per year. The projected rates of increase by the energy suppliers is not offered until later in each calendar year.
- Insurances were increased at an annual rate of 5% and 7% for years 2024 and 2025 respectively. This line item includes general liability, property, worker's compensation, health, life and disability insurances. Although the District has not necessarily always experienced annual increases, there have been intermittent increases, which, when compounded, amount to 5 or 6% per annum.
- Some line items to include chemical and in-house and contract laboratory services were assessed independently based on prior years cost and planned changes in District operations which will affect those line items. Contract services have been addressed in a similar fashion due to the 2021 change in water treatment operations to remove and dispose of arsenic and radium containing water treatment residuals without discharge to the wastewater system.
- Fees, permits and dues were assessed independently based on published rate schedules from permitting agencies.
- Other cost items which have predefined amounts or changes such as the changes to payments for external surface water supplies have been assessed accordingly. This is projected to be reduced in 2024 and 2025 as the District management plans to utilize local water sources to the maximum extent feasible in the next 2 to 5 years.

The cost of service for wastewater management is for the collection of wastewater, conveyance of wastewater through the gravity collection system, lift stations and force mains, and for treatment and disposal. This includes wastewater generated within the institutional boundaries of the DWSD and from the adjacent Academy Water and Sanitation District (AWSD) through a service agreement between the two Districts. The AWSD is located northeast of and adjacent to the DWSD where AWSD wastewater is delivered through a flow measurement device into the DWSD gravity wastewater collection system. The total wastewater flow from the DWSD service area to include the AWSD contribution is measured at the flume in the DWSD trunk sewer immediately upstream of the UMCR WWTF.

The District treats wastewater regionally with other adjacent Districts; Forest Lakes Metropolitan District and Triview Metropolitan District. The cost of service was evaluated for treatment and for collection/conveyance separately using the total volume that is collected (AWSD and DWSD only) and the total volume treated at the UMCR WWTF. The

proposed 2023 draft budget for the UMCR WWTF operations has been used with annual costs for 2024 and 2025 being estimated with nominal increases.

As previously discussed, the cost of operation of the UMCR WWTF is separately budgeted and accounted in accordance with the IGA among the three wastewater utilities utilizing that facility. The IGA defines the manner in which the cost of operation, renewals, replacement and improvements will be paid by each benefited entity.

Additionally, there is a cost of service as it pertains to customer accounts. The total number of accounts to be serviced is as shown in Table A-2. This serves as the basis for allocation of the customer service charge.

TABLE A-2
DONALA WATER AND SANITATION DISTRICT
NUMBER OF ACCOUNTS - AUGUST 2022

Type of Account	Number of Water Accounts	Number of Wastewater Accounts
Apartments	13 (servicing 240 units)	13 (servicing 240 units)
Residential [1)]	2,542	2,536
Irrigation only	35	-
Commercial	49	49
AWSD	-	298
TOTAL	**2,639**	**2,896**

1) Residential units include townhomes which are billed individually

The data provided in Table A-2 pertains to only separate accounts which are billed by the DWSD within its institutional boundaries. This is not representative of single family equivalents (SFE) or equivalent residential units (EQR), but is only an identification of the number of separate accounts billed. The number of accounts will be the "service units," for consideration of the customer service charge.

In projecting cost of service for fiscal years 2023 through 2025, an average annual value has been utilized. This may be sufficient for a finding to be made in late 2022 that the projected three year cost of service and required user charges will be satisfactory for that three year period. However, during each annual budget cycle, the impact of budgeted expenditures on the unit cost of service to customers should be observed and evaluated to identify any need for adjustment in revenues. For purposes of this cost of service analysis, the following service units have been projected for fiscal years 2023 through 2025.

- Water operations: 249,911,000 gallons per year or 767 annual acre-feet (AAF)
- Wastewater treatment operations - UMCR WWTF: 299,300,000 gallons per year or 820,000 gallons per day (GPD)
- DWSD wastewater collection operations: 139,180,000 gallons per year or 381,300 GPD.
- Customer service: 2,639 water users
  2,896 wastewater contributors

The service units for wastewater treatment operations shown above is based on the total throughput at the UMCR WWTF. It is on this basis that the unit cost of service is

developed, then allocated to the DWSD in the proportion dictated by the ratio of contributions among all benefited users. The service units associated with DWSD wastewater collection operations pertains only to the wastewater volume generated in the DWSD service area, including AWSD, and delivered to the UMCR WWTF.

3. Capital Improvement Plan

It has been the practice of the DWSD to include a listing of capital improvements with the preparation of each annual operations budget for consideration by the Board of Directors. Within the scope of this cost of service and user charge evaluation, a 10 year capital improvement plan has been updated and included with this cost of service evaluation. Refer to Table A-3. Although this is called a capital improvement plan, it separates capital improvements from renewals and replacements; capital improvements being new facilities to change or improve the manner in which existing infrastructure is utilized or operated.

Renewals and replacements are the technical equivalent of depreciation, i.e. implementation of renewals and replacements maintains existing capabilities and capacities under existing conditions to continue to provide the existing service level to the District's constituents in perpetuity. In the case of water and wastewater utilities which have a significant undeveloped portion of their service area, capital improvements would be necessary to provide for incremental improvements in capacity of the utility's infrastructure. Those costs are commonly supported by plant investment fees, or sometimes referred to as tap fees. In utilities having a similar service area condition as the DWSD with limited potential for added customer services because of the status of development, there is not an identified need for increasing capacity. There will always be a continuing need to maintain existing capability.

There are however, improvements requiring infrastructure to change capability in order to meet the requirements of new standards and means and methods of operation. For wastewater management, this commonly manifests itself in added wastewater treatment processes to either reach a greater level of treatment and removal of pollutants, or processes that address removal and management of pollutants that have not previously been addressed in the wastewater management system. These improvements are considered capital improvements. Most often improvements to address required changes in capability apply to all users, existing as well as new or prospective users. Use of reserve funds, some increment of user charges and debt funding are mechanisms to address infrastructure improvements benefitting all users.

The capital improvements and renewals and replacements presented in Table A-3 have been reviewed and integrated with the budget and statement of 2023 capital improvements and renewals and replacements prepared by DWSD staff. The relative priority in timing within a prospective ten year time frame can remain flexible. However, due to the time duration required to implement major improvements, it is recommended that the first 5 years in the 10-year plan be refined and programmed on a reasonably fixed schedule.

For purposes of a cost of service analysis and with the potential for them to have a significant impact on user charges, the cost of capital improvements and renewals and replacements has been averaged over a prospective five year period. Each year going forward rolls that five year averaging period forward as well. This is an attempt to reduce the random increases in user charges which might occur should it be expected to fund infrastructure improvements on a year by year basis, basically matching the expected

disbursements in that given year. There are some major projects which require major expenditures in one year, while in other years there are either few projects or smaller in monetary value that do not demand the same level of increased funding on an annual basis.

Detailed attention is given in this current effort to the first five years of this capital improvement plan as to needs and priorities of specific projects. There are major projects which are near or at the end of the next prospective ten year period and beyond, particularly as they relate to wastewater management and the implementation of stream water quality standards and resultant treatment facility effluent limits for nutrients. Those are not reflected in the current analysis of cost of service nor projected user charges.

4. Consolidated Cost of Service Model

Table A-4 is a consolidated and summarization of the detailed cost of service model presented in this Memorandum. This has applied the described operations and costs to derive unit costs of service for providing water supply, treatment and distribution services together with wastewater management services to the District's constituents.

TABLE A-3
DONALA WATER AND SANITATION DISTRICT

WATER & WASTEWATER ENTERPRISE 10-YEAR CAPITAL IMPROVEMENTS PLAN - Draft of November 11, 2022

No.	Description of Work Items **WASTEWATER**	2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032	
		Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R
	DWSD Collection System																						
S1.	Customer Service System Upgrades-Hardware & Software				$10,000																		
S2.	Contract Work- CCTV Van & Camera				$25,000				$25,000				$30,000				$35,000						$40,000
S3.	Jet Rodder						$300,000																
S4.	Crew Truck								$30,000				$15,000								$15,000		
S5.	Fox Run Wastewater Pump Station				$10,000								$12,000								$15,000		
S6.	Fox Pines Wastewater Pump Station								$5,000								$7,000						
S7.	Collection System Rehabilitation - Cured in Place Lining						$100,000																
S8.	Operation Staff Vehicles; 50 % Use With Water Fund								$15,000														
S9.	Maintenance Equipment - Hand Tools; Power Tools; Light Bars; Signage; Location Equip		$5,000				$5,000				$5,000							$400,000	$5,000				
S10.	SCADA Upgrades				$10,000						$5,000						$7,000						$9,000
S11.	Collection System Rehabilitation - Manhole rehabilitation				$50,000								$60,000								$70,000		
S12.	Collection System Rehabilitation - Manhole replacements				$25,000				$25,000														
	TOTAL DWSD COLLECTION SYSTEM CAPITAL AND R&R PROJECTS			$0	$130,000	$0	$405,000	$0	$100,000	$0	$10,000	$0	$117,000	$0	$0	$0	$49,000	$400,000	$5,000	$0	$100,000	$0	$49,000
	Upper Monument Creek Regional WWTF-Total Cost																						
WT1	Tool and maintenance equipment replacement				$11,000						$12,000						$13,000						$14,000
WT2	Security System Improvements at UMCR WWTF				$20,000																		
WT3	Nutrient Control Detailed Planning									$50,000		$50,000						$50,000		$50,000			
WT4	Cost Analysis for plant operations				$75,000																		
WT5	Laboratory equipment replacements				$8,500																		
WT6	SBR PLC Upgrade and replacements				$50,000																		
WT7	Pumps, Motors, Drives updates and replacements				$25,000																		
	TOTAL UMCR WWTF CAPITAL AND R&R PROJECTS	**$0**	**$0**	**$0**	**$189,500**	**$0**	**$0**	**$0**	**$0**	**$50,000**	**$12,000**	**$50,000**	**$0**	**$0**	**$0**	**$0**	**$13,000**	**$50,000**	**$0**	**$50,000**	**$0**	**$0**	**$14,000**

TOTAL CAPITAL COLLECTION SYSTEM PROJECTS - DWSD ONLY - 2023 through 2032 =	$400,000	
TOTAL CAPITAL COLLECTION SYSTEM PROJECTS - 2023 through 2027 =	$0	$0 per year
TOTAL R & R COLLECTION SYSTEM PROJECTS DWSD ONLY- 2023 through 2032 =	$965,000	
TOTAL RENEWAL & REPLACEMENT WASTEWATER PROJECTS - 2023 through 2027 =	$762,000	$152,400 per year

TOTAL CAPITAL UMCF WWTF PROJECTS - 2023 through 2032 =	$200,000	
TOTAL CAPITAL UMCR WWTF PROJECTS - 2023-2027 =	$100,000	$20,000 per year
DWSD Share of Capital Projects = 38.86%		
TOTAL DWSD SHARE OF CAPITAL UMCF WWTF PROJECTS - 2023 through 2032 =	$77,714	
TOTAL DWSD SHARE OF CAPITAL UMCR WWTF PROJECTS - 2023-2027 =	$38,857	$7,771 per year
TOTAL R & R UMCF WWTF PROJECTS - 2023 through 2032 =	$1,003,857	
TOTAL R & R UMCR WWTF PROJECTS - 2023-2027 =	$965,000	$193,000 per year
DWSD Share of R & R Projects = 38.86%		
TOTAL DWSD SHARE OF R & R UMCF WWTF PROJECTS - 2023 through 2032 =	$390,070	
TOTAL DWSD SHARE OF R & R UMCR WWTF PROJECTS - 2023-2027 =	$374,971	$74,994 per year

Notes:

1. Cost estimates are in estimated mid-2022 cost value with incremental costs for similar scope for inflationary cost allowance.
2. Renewal & replacement projects are proposed to be funded from user charges.
3. Capital projects are proposed to be funded from accumulated cash reserves and/or debt proceeds.

TABLE A-3
DONALA WATER AND SANITATION DISTRICT

WATER & WASTEWATER ENTERPRISE 10-YEAR CAPITAL IMPROVEMENTS PLAN - Draft of November 11, 2022

	Description of Work Items	Calendar Years 2023 to 2032																			
	WATER	2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032	
		Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R
	Transmission, Distribution & Storage																						
W1.	Distribution System-Replace Non-PVC Piping						$500,000				$500,000				$500,000				$500,000		$1,500,000		$1,500,000
W2.	Fire hydrant and system valve renewal & replacements				$250,000		$50,000				$50,000				$50,000				$50,000				$50,000
W3.	PRV SCADA Controls			$80,000		$50,000		$60,000		$70,000		$80,000											
W4.	Water meter renewals and replacements		$25,000				$50,000						$60,000										
W5.	Select service line & corp saddle replacements						$50,000				$50,000				$50,000								
W6.	Latrobe Storage Tank Coating Rehabilitation				$275,000																		
W7.	Holbein 1.0 & 1.5 MG Storage Tank Coating Rehabilitation				$530,000																		
W8	Fox Run 1.0 MG Storage Tank Coating Rehabilitation							$20,000	$325,000	$20,000		$20,000											
W9	Water Tank Site Monitoring													$250,000									
W10	FW Transmission to Holbein Tanks			$150,000		$750,000		$750,000															
	Treatment																						
W11	R.Hull WTP Rehabilitation and Filter Media Replacement				$375,000																		
W12	Holbein WTP Raw Water pump replacements				$22,000																		
W13	Holbein WTP Rehabilitation and Filter Media Replacement		$400,000																				
	Controls and SCADA																						
W14	New Server								$30,000														
W15	Replace Motorola Moscad Units				$50,000				$50,000														
W16	Upgrade Control System at Holbein Plant		$125,000																				
W17	Upgrade Control System at R Hull Plant				$125,000	$25,000		$25,000															
	Wells and Booster System																						
W18	Well 3A Replacement-Future Decision				$80,000										$50,000						$2,000,000		
W19	Well Rehabilitation 12A-Add VFD and upgraded SCADA				$80,000																		
W20	Well Rehabilitation 4A-Add VFD and upgraded SCADA								$80,000														
W21	Rebuild 3D Well pump and motor		$50,000																				
W22	Baptist Rd. Booster Station										$250,000												
W23	Jessie Booster Station (VFD and/or HVAC)												$250,000										
W24	Well 16A Pump, Motor, Xfrmr, VFD, RW Pipeline; Ctrl Vault		$1,800,000		$500,000																		
W25	Equip Wells with VFDs; Upgrade SCADA Controls				$320,000																		
	Equipment																						
W25	Crew Truck; Operations Staff Vehicle-50% Use with WW Fund				$60,000				$15,000												$15,000		
W26	Backhoe								$100,000										$65,000				
W27	Skid Steer / Bobcat										$65,000												
W28	Dump Truck						$125,000																
	Water Resource Management																						
W29.	Laughlin Ditch-Legal					$50,000		$50,000		$50,000													
W30.	Laughlin Water Source Implementation	$25,000		$25,000																			
W31.	Pueblo County 1041 Permit Fees	$10,927		$11,255		$11,593		$11,941		$12,299		$12,668		$13,048		$13,439		$13,842		$14,258		$14,685	
W32.	Denver Basin Wells-Pump R&R		$200,000		$200,000		$200,000		$200,000		$200,000		$200,000		$200,000		$200,000		$200,000		$200,000		$200,000
W33.	Denver Basin Wells-Well structure Rehab						$250,000						$300,000						$350,000		$35,000		
W34	Surface Water Acquisition	$200,000				$300,000				$300,000													
W35	Surface Water Delivery Infrastructure; Alter: IPR or DPR	$25,000		$50,000		$200,000																	
W36	CSU Regional Service WRSAF - 25 Yr Amortization			$50,000		$206,372		$206,372		$206,372		$206,372		$206,372		$206,372		$206,372		$206,372		$206,372	
	SUBTOTAL-WATER PROJECTS	**$260,927**	**$2,600,000**	**$366,255**	**$2,867,000**	**$1,592,965**	**$1,225,000**	**$1,123,313**	**$800,000**	**$658,671**	**$1,115,000**	**$319,040**	**$810,000**	**$469,420**	**$850,000**	**$219,811**	**$200,000**	**$220,214**	**$1,165,000**	**$220,630**	**$3,750,000**	**$221,057**	**$1,750,000**

TOTAL CAPITAL WATER PROJECTS - 2023 through 2032 =	$5,411,375		
TOTAL CAPITAL WATER PROJECTS - 2023 through 2027 =	$4,163,407	$832,681	per year
TOTAL RENEWAL & REPLACEMENT WATER PROJECTS - 2023 through 2032 =	$14,532,000		
TOTAL RENEWAL & REPLACEMENT WATER PROJECTS - 2023 through 2027 =	$4,800,000	$960,000	per year

TABLE A-3
DONALA WATER AND SANITATION DISTRICT

WATER & WASTEWATER ENTERPRISE 10-YEAR CAPITAL IMPROVEMENTS PLAN - Draft of November 11, 2022

	Adminstration Capital Improvement Projects	2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032	
		Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R	Capital	R&R
A1	Customer Service System Upgrades-Hardware & Software		$2,500				$20,000				$5,000				$5,000				$25,000				$25,000
A2	Refresh Office Spaces-Customer Service Area								$5,000					$100,000									
A3	Office equipment and furnishings						$10,000				$8,000				$6,000				$4,000				$10,000
																							$25,000
	TOTAL ADMINISTRATION CAPITAL AND R & R	$0	$2,500	$0	$0	$0	$30,000	$0	$5,000	$0	$13,000	$0	$0	$100,000	$11,000	$0	$0	$0	$29,000	$0	$0	$0	$60,000

TOTAL ADMIN RENEWAL & REPLACEMENT PROJECTS - 2023 through 2032 =	$148,000	
TOTAL ADMIN RENEWAL & REPLACEMENT PROJECTS - 2023 through 2027 =	$48,000	$9,600 per year

TOTAL ADMINISTRATION CAPITAL PROJECTS - 2023 through 2032 =	$100,000	
TOTAL ADMINISTRATION CAPITAL PROJECTS - 2023 through 2027 =	$0	$0 per year

TABLE A-4

DONALA WATER & SANITATION DISTRICT - UNIT 2023-2025 COST OF SERVICE

		Service Units			
		Water Operations	Wastewater Treatment Operations (UMCR WWTF)	DWSD Wastewater Collection Operations	Customer Charge
	2023-2025 Average Operations Budget	Sales Volume, 1000 gals.	Volume, 1000 gals.	Volume, 1000 gals.	Number of WW Accts; 263 fewer water accts
		249,911	299,300	139,180	2896
		Amount	Amount	Amount	
Water and Wastewater Utility Services					
Water Production / Delivery	$ 4,262,060	$ 4,262,060			
DWSD Wastewater Collection	$ 630,071			$ 630,071	
UMCR WWTF Wastewater Treatment-All/Total	$ 1,691,813		$ 1,691,813		
DWSD General Adminstration	$ 650,226				$ 650,226
TOTAL ANNUAL OPERATING EXPENDITURES	**$ 7,234,170**	**$ 4,262,060**	**$ 1,691,813**	**$ 630,071**	**$ 650,226**
Capital Improvements	$ 840,453	$ 832,681	$ 20,000	$ -	0
Renewal & Replacements	$ 1,196,994	$ 960,000	193,000	$ 152,400	$ 9,600
TOTAL CIP/R&R	**$ 2,037,447**	**$ 1,792,681**	**$ 213,000**	**$ 152,400**	**$ 9,600**
2020 Refunding Bond P&I and Service Costs	$ 751,752	$ 585,690		$166,062	
	$ -	$ -			
TOTAL DEBT SERVICE	**$ 751,752**	**$585,690**	**$0**	**$166,062**	**$0**
TOTAL - ALL OPERATING, CAPITAL COSTS, & DEBT SERVICE	**$10,023,369**	**$6,640,431**	**$1,904,813**	**$948,533**	**$659,826**

Basis of User Charges	**Water Usage**		**WW Treatment-All/Total**		**WW Collection (DSWD only)**		**Water Customer Accounts**	**Wastewater Customer Accounts**
Service Units From Above	249,911	kgal.	299,300	kgal.	139,180	kgal.	2,639 each	2,896 each
Unit Costs for Operating Expenditures	$17.054	per kgal.	$5.653	per kgal	$4.527	per kgal	$160.52 per year	$78.58 per year
Unit Costs for Annualized Future CIP and R&R	$7.173	per kgal.	$0.712	per kgal	$1.095	per kgal	$13.38 per month	$6.55 per month
Unit Costs for Debt Service	$2.344	per kgal.	$1.193	per kgal	-	per kgal		
Total Cost Operating Expenditures, CIP, R&R, and Debt Service	$26.571	per kgal.	$7.557	per kgal	$5.622	per kgal		

B. WASTEWATER MANAGEMENT SYSTEM USER CHARGE SYSTEM

This cost-of-service analysis and suggested modifications to the wastewater user charge system follows the presentation given in the, "*2021 Wastewater User Charge System Modifications and 2022-2024 Cost of Service Evaluation*". This current cost-of-service evaluation, "*2022 Cost of Service Analyses and User Charge Modifications*", updates that previous effort and presents the volume-based user charge system for wastewater management services for the District's consideration for implementation.

Following the November 17, 2022 workshop with the Board and staff, the current analysis has been accomplished with the intent that the volume-based user charge system for wastewater management services would be implemented with the billing period of July 2023, with the billing statements issued in August 2023. The actual implementation of the volume based system will be dependent upon the availability of necessary DWSD resources; i.e. staff time and billing system adaptation.

The perceived benefit of a volume-based user charge is one of equity among all users in a given user class. This is particularly applicable to detached single-family constituents which can have varying volume contributions to the DWSD's wastewater system. It is not uncommon for this user class to have individual users ranging from two to six or more generating wastewater in a detached single-family residence. In a flat rate system, each such customer would pay the same amount, recognizing that two people might contribute 130 gallons per day while six people could contribute 250 or 300 gallons per day; and each such constituent would pay the same monetary amount for wastewater service in a flat rate system.

This same principle is proposed to be applicable to non-residential users. Under present policy, non-residential user charges are based on a base rate reflecting 6,000 gallons per billing period. It is proposed that the same unit charges and assessment system would be used for non-residential users.

With a volume-based system, the user charges are more closely related to the actual load, or demand, a given constituent contributes to the wastewater system. Although there is normally some component of a volume-based system that is the same for each customer, such as the cost of maintaining a customer account and other fixed costs of the wastewater utility, the total user charge is variable reflecting the variations in each constituent's volume of wastewater delivered to the system for conveyance, treatment and disposal.

Detailed measurement of the quantity of wastewater delivered to the system by each user is normally not practical and thus not ordinarily practiced, particularly in a gravity flow, residential or domestic wastewater system. Accordingly, the approach of using the metered water volume delivered to the customer during times when nearly all of the water delivered to a point of use is returned to the wastewater utility after a single use is a common practice. This is usually during winter months when there is very little non-domestic use of the water supply that is not returned through a centralized wastewater collection system.

Metered water volumes during the December, January and February billing periods are generally used for this purpose. Following the assessment of metered water volume during this period, it is common to establish a volume upon which the volume-based user charge is applied and which would be applicable for a 12-month period.

The average billing period volume would ordinarily be used as the basis of assessment of user charges for the period of March through February. The same process would be applied

to each account each year with a reassessment being accomplished during March of each year with the billing issued in April for the March billing period being reflective of the most recent assessment of the volume of water delivered to the customer.

The primary and most significant revenue source for the DWSD in supporting wastewater management service is the user charges assessed to each separate user discharging to the District's wastewater management system. Other sources of funds to support the operations of the wastewater management system include the following:

- Ad valorem taxes
- Vehicle ownership fees and taxes
- Plant investment or tap fees
- Investment income
- Accumulated reserves
- Debt proceeds; loan or bond proceeds

Use of revenues from each of the above sources can be limited with certain restrictions which the DWSD may place on that use. As an example, there could be a covenant with the sale of bonds or terms and conditions of a loan agreement specifying the use of ad valorem taxes for only bond or loan repayments. Another example could be the DWSD, by policy, may restrict, or generally govern the use of accumulated plant investment fees (tap fees) for capital improvement expenditures, recognizing that a plant investment fee is often considered an asset purchase, or “buy-in,” to the existing or future infrastructure assets providing wastewater management services.

The current wastewater user charge is based on a fixed billing period rate for the equivalent of a single family detached unit. For calendar year 2022, the District has assessed a rate of $39.55 per monthly billing period for each single family equivalent or residential unit. For non-residential contributions, this fixed rate per billing period is proportioned based on the ratio of metered water delivered to the customer (minimum of 6,000 gallons) to a monthly volume of 6,000 gallons. This has been the practice for non-residential customers for many years.

The non-residential user charges described above are based on water volumes delivered to those customers during the billing periods of December through March of each calendar year. This is similar to the suggested approach to a volume-based system discussed above. This system is based on the principle that this timeframe represents minimum use other than domestic use which is substantially returned to the wastewater collection system i.e., 90% to 97% is returned to the District through the wastewater collection system.

The District, through an Intergovernmental Agreement (IGA), bills for wastewater management services for the Academy Water and Sanitation District (AWSD) at an incremental rate of $2 more than the fixed billing period rate for single family equivalents in the DWSD. For calendar year 2022, this results in a rate of $41.55 assessed on the 298 residential units in the AWSD District. The AWSD District is responsible for operation of its wastewater collection and delivery system to the DWSD collection system.

1. Cost of Service

   The detailed presentation of the development of cost of service is presented in the oversized pages at the end of this Memorandum. This has used the proposed 2023 budget issued to the District for review on November 17, 2022, and consideration with a few minor adaptations for the separation of cost categories.

There are estimates for the cost of service for 2023 through 2025. This has been presented in this manner in the event the DWSD may desire to assess user charges that may be satisfactory for a period of time extending beyond one budget year. Alternatively, the cost of service can be used as a basis of assessing incrementally increasing user charges over a three year period to satisfy the projected cost of service.

Table B-1 is a summary of the unit cost of service developed in the analysis. With the assumptions presented in this Memorandum, this reflects the following unit cost of wastewater management services.

TABLE B-1

DONALA WATER AND SANITATION DISTRICT

UNIT COST OF WASTEWATER SERVICE

Basis of User Charges	Wastewater (WW) Treatment	WW Collection (DSWD and AWSD only)	Wastewater Customer Service
Unit Costs for Operating Expenditures	$5.653 per kgal(1)	$4.527 per kgal	
Unit Costs for Annualized Future CIP and R&R Funding	$0.712 per kgal	$1.095 per kgal	$78.58 per year
Unit Costs for Debt Service	$1.193 per kgal	$0.00 per kgal	$6.55 per mo.
Total Cost Operating Expenditures, CIP, R&R, and Debt Service	$7.557 per kgal	$5.622 per kgal	

(1) kgal = 1000 gallons

As shown in the cost-of-service analysis, the volume-based unit costs were developed using the measured wastewater volume at the UMCR WWTF. For purposes of billing for wastewater management services, the volume of water delivered to a customer serves as the basis of the volume-based user charges. The development of the unit user charge is subject to a revenue model analysis to modify or adjust the volume-based cost of service to result in a revenue, or "source of funds," stream to compensate the District for the cost of services provided. This approach provides for consideration of financial support of the cost of service from sources other than user charges.

2. Revenue Model for Wastewater Services

The cost of wastewater management services has been projected over a three year period, 2023 through 2025. As of the preparation of this report, there are no major capital improvements nor changes in operations anticipated during this period of time. In the 2021 evaluation of the alternative wastewater user charge, consideration was given to capital improvement project for initial design and preparation of construction documents for the North Monument Creek Interceptor Sewer (NMCI). This 2022 cost of service evaluation has not included a capital improvement project going forward for the NMCI. This is based on action taken by the Board of Directors to indicate the DWSD would not be a participant in the NMCI proposed for implementation by Colorado Springs Utilities.

Table B-2 is a revenue model based on the cost of service analysis presented in this Memorandum with application of non-operating revenues shown in this model. This demonstrates the effect of applying certain other revenue sources, i.e., ad valorem taxes and investment income, to support portions of the cost of service for wastewater management services. This particular assumption demonstrates the effect of applying a portion of ad valorem tax revenue to service the estimated portion of wastewater related indebtedness. This includes servicing a loan remaining payable to the Colorado Water Resources and Power Development Authority and a portion of the 2020 refunding bond debt service related to refunding a prior wastewater infrastructure related outstanding loan.

In additional, a portion of the customer service cost is proposed to be supported with ad valorem revenues as a governmental entity function. A portion of investment income is proposed to be applied to the cost of wastewater collection operations. As of the preparation of this cost-of-service analysis and user charge development, plant investment or tap fees are not included as a revenue source. These are estimated to be relatively small in monetary value over the next several years because the District is sustainably "built out." User charges developed for the year 2023 through 2025 period have not relied on the use of existing reserve funds for support of wastewater management services.

TABLE B-2
DONALA WATER AND SANITATION DISTRICT
WASTEWATER SERVICES REVENUE MODEL – 2023 THROUGH 2025

User Class	No. of Users	Customer Service Charge	Unit Volume Charge	Customer Volume, Each; gallons per month	Customer Volume User Charge; $$ per month	Total Annual User Charge Revenue, per User Class
SOURCE OF FUNDS:						
User Charges						
Residential						
SF Detached	2,536	$6.55	$9.10	3,763	$34.24	$1,241,422
MF Attached	240	$6.55	$9.10	3,210	$29.21	$102,992
Commercial	49	$6.55	$9.10	24,014	$218.53	$132,346
AWSD	298	$8.55	$9.10	3,763	$34.24	$153,029
Investment revenue-portion allocated to wastewater management system						$19,060
Ad valorem tax revenue Equal to wastewater related debt service						$166,062
Equal to customer service direct personnel cost						$160,365
					TOTAL FUNDS AVAILABLE =	**$1,975,275**
USE OF FUNDS: – From Cost of Service Analysis						
Wastewater Collection System Operations						$630,071
Wastewater Collection System Renewals, Replacements and Capital Improvements						$152,400
Wastewater Treatment System Operations, Renewals, Replacements and Capital Improvements						$798,167
Debt Service Allocated to Wastewater Management System						$166,062
Customer Service Costs; 31.8% of Total Allocated to Wastewater Management System						$201,066
					TOTAL FUNDS USED =	**$1,947,766**

3. Volume-Based User Charge System

In developing user charges, it is important to adhere to certain critical principles. The core principles used in this evaluation for the cost of service-based user charges for the District are as follows.

- Rates must be just and reasonable.
- Rates must bear a reasonable relationship to the District's purpose.
- Rates must bear a reasonable relationship to the District's current and/or future operating and capital costs.
- Rates reasonably related to the costs of providing service are not unreasonably discriminatory.
- Rates that are charged to a class of customers should provide revenues that are reasonably proportional to the costs of serving that class.

The direction given by the Board of Directors to examine the potential for a volume-based wastewater user charge system, has been presented in this evaluation report. The benefit of using a volume-based user charge system is that it improves equity among users in a given user class. There is an added administrative effort to change each user's billing rate

each year; however, it fulfills the purpose of operating a, "user pay…," user charge system. Based on the assumptions given in this evaluation report as of November 29, 2022, the suggested wastewater user charge components are presented below.

As discussed in this presentation, the cost of service has been examined over the three-year period of 2023 through 2025 and average individual cost of service determined over this period of time. If a uniform rate schedule, for a three year period per Table B-2 were implemented, this would represent a 5.16% increase over the 2022 rate applicable to single-family residential users. The District may desire to give some consideration to incrementally increasing the user charge for each of the next two to three years. The following are suggested changes over a three-year period, commencing in 2023.

The volume charge has been stepped up over the three-year period yielding a total user charge revenue over the three years the same as that represented in Table B-2. By comparison, the total estimated single family residential user charge for 2023 as compared to that in effect for 2022, is an increase of 2.60%. The subsequent two years are reflective of approximately a 2.5% annual change from each previous year.

TABLE B-3
DONALA WATER AND SANITATION DISTRICT
WASTEWATER USER CHARGES – 2023 THROUGH 2025

User Charge Item	Customer Service Charge	Unit Volume Charge
Proposed 2023 - 2025	**Per account billing period:** **2023 - $6.55** **2024 - $6.55** **2025 - $6.55**	**Per 1,000 gallons of metered water:** **2023 = $8.95** **2024 = $9.10** **2025 = $9.30**

The proposed user charge system for wastewater services is planned to be applied uniformly to both residential and non-residential users. The District has historically utilized the winter season to determine the basis of annual wastewater user charges for non-residential customers, using the same rate regardless if that user has a seasonal variation in domestic wastewater generation.

It is noted that the District bills water deliveries in increment of a single, whole gallon even though the rates are bracketed in 1,000 gallon increments. The same procedure can be applied to wastewater user charges even though the rates are cited in 1,000 gallon increments. This procedure also improves the equitability of the user charge system.

The District may give some consideration to billing the non-residential users on the basis of the fixed customer service charge and the volume charge based on the metered volume of water each month. If a user has an irrigation meter, this would remain reasonably equitable; however, without an irrigation account, there could be excess billing for wastewater services resulting from landscape irrigation use. Alternatively, the school, with a significantly different domestic waste generation profile in 3 or 4 months during each annual cycle, would realize improved equitability in user charges by being billed on the basis of delivered water each month; assuming they retain an irrigation account which would not be considered in wastewater user charges.

This matter of policy and user charge system implementation can be discussed prior to final adoption of any changes to the system. In addition, the manner in which multifamily

wastewater generation will be billed should be recognized. It may warrant the same approach as described above in order to improve equitability of the user charge assessment when vacant multifamily dwelling units are not generating wastewater requiring the District's services. Based on our understanding of the existing irrigation water supply metering for town homes and the Ridgepoint Apartments, the principle of equitability would be reasonably satisfied.

C. WATER SUPPLY, DELIVERY AND TREATMENT COST OF SERVICE AND USER CHARGES

At the outset of this cost of service evaluation and review of user charges, it appears as if there is no overriding rationale to modify the basic user charge structure for water supply, delivery and treatment services provided to the District's constituents. The tiered rate structure has been effective in promoting conservation as evidenced by the significant change in annual water use in approximately 2011 when the tiered rate structure was first implemented. The water use went from in excess of 1,000 annual acre feet to approximately 830 annual acre feet in a comparatively short period of time. The annual water supply demand has further decreased over the last few years, generally ranging from 755 to 820 AAF.

1. Cost of Service

Table A-4 is a consolidated summarization of the unit cost of service which has been developed in this analysis effort. The details supporting each of the major cost of service categories are presented in the detailed itemization located at the end of this Memorandum. The summarization of the unit cost of service for water supply, delivery and treatment is presented in Table C-1. This cost of service has developed a broad, all inclusive unit cost for operations and is not reflective of the tiered rate structure. The tiered rate structure is considered in this analysis, to be primarily a conservation tool. Further discussion is provided in this Memorandum regarding the, "supplemental revenue," resulting from the conservation based tiered rate structure.

TABLE C-1
DONALA WATER AND SANITATION DISTRICT

UNIT COST OF WATER SERVICE

Basis of User Charges	Water Production & Delivery	Wastewater Customer Service
Unit Costs for Operating Expenditures	$17.054 per kgal (1)	$160.52 per year $13.38 per mo.
Unit Costs for Annualized Future CIP and R&R Funding	$7.173 per kgal	
Unit Costs for Debt Service	$2.344 per kgal	
Total Cost Operating Expenditures, CIP, R&R, and Debt Service	$26.571 per kgal	

(1) kgal = 1000 gallons

2. Revenue Model for Water Production, Treatment and Delivery

The cost of water production, treatment and delivery together with capital improvements, renewals and replacements and pertinent debt service have been projected over a three year period, 2023 through 2025. As of the preparation of this report, the draft 2023 budget includes $3,422,000 for capital improvements and renewals and replacements. The capital improvement plan at Table A-3 reflects the proposed improvements, however they are adjusted in the 10-year plan on the basis of required cash flow. The 5-year averaging approach to present capital improvements in the annual cost of service has resulted in assessing an annual capital improvement and renewals and replacement cost of $1,792,681.

The CIP shown at Table A-3 (page 2 of Table A-3) assumes the DWSD will pursue a long term water supply agreement with Colorado Springs Utilities commencing in 2024. The regional water system availability fee (WRSAF) due Colorado Springs Utilities in the amount presently applicable is shown with a 25 year amortization commencing in 2024. This is based on that agreement being completed and in place at the end of 2023.

Table C-2 is a revenue model based on the cost of service analysis presented in this Memorandum with application of non-operating revenues shown in this model. This demonstrates the effect of applying ad valorem tax revenues and investment income to support portions of the cost of potable water service. This assumption applies a portion of ad valorem tax revenue to service the water system related indebtedness payable during the next three years. This provides for required principal and interest payments on the 2020 refunding bond debt.

In additional, a portion of the customer service cost is proposed to be supported with ad valorem revenues as a governmental entity function. A portion of investment income is also proposed to be applied to the cost of water system operations. Plant investment or tap fees are not included as a revenue source because the District is sustainably "built out." User charges developed for the year 2023 through 2025 period have included the use of existing debt proceeds for support of capital improvements.

TABLE C-2
DONALA WATER AND SANITATION DISTRICT
WATER SERVICES REVENUE MODEL – 2023 THROUGH 2025

User Class	No. of Users	Customer Service Charge	Unit Volume Charge	Customer Volume, Each; gallons per month	Customer Volume User Charge; $$ per month	Total Annual User Charge Revenue, per User Class	
SOURCE OF FUNDS:							
Residential							
SF Detached	2302	$ 31.38	$ 8.26	7,600	$ 62.75	$2,600,321	
MF Attached	240	$ 31.38	$ 8.26	3,310	$ 27.33	$ 169,094	
Total =	2542						
Commercial	49	$ 31.38	$ 8.26	44,514	$ 367.52	$ 234,558	
Irrigation	35	$ 31.38	$ 8.26	25,000	$ 206.41	$ 41,614	
AWSD	0	$ -	$ -	-	$ -	$ -	
SF-Tier 1	200	$ -	$ 8.26	2,000	$ 16.51	$ 39,630	
SF-Tier 2	150	$ -	$ 13.74	5,000	$ 68.71	$ 41,228	
SF-Tier 2	20	$ -	$ 13.74	5,000	$ 68.71	$ 5,497	
SF-Tier 3	10	$ -	$ 18.35	5,000	$ 91.77	$ 3,671	
Investment Revenue-portion allocated to water services						$ 76,240	
Bond proceeds in reserve						$ 2,032,000	
Ad Valorum Tax Revenue-portion;							
Equal to water system debt service						$ 585,690	
Remaining portion not committed or restricted						$ 1,261,990	
					TOTAL FUNDS AVAILABLE =		**$ 7,091,532**
USE OF FUNDS:							
Water Production and Delivery						$ 4,262,060	
Water System Renewals, Replacements and Capital Improvements						$ 1,792,681	
TOTAL Water System Operations, Renewals, Replacements and Capital Improvements						$ 6,054.741	
Debt Service Allocated to Wastewater Management System						$ 585,690	
Customer Service Costs; 68.3% of Total Allocated to Water System						$ 450,661	
					TOTAL FUNDS USED =		**$ 7,091,092**

D. Suggested Water User Charges – 2023

The revenue model provided in Table C-2 has been developed with the following changes in user charges. This model demonstrates the revenue required each year, 2023 through 2025, to support the demonstrated cost of service.

- The customer service charge has been increased by 8.90% to $31.38 per billing period from the existing charge of $29.06.

- The Tier 1 volume charge has been increased by 9.50% to $8.26 per 1000 gallons from the current Tier 1 volume rate of $7.54.

- Use for a relatively small proportion of the customer base at Tier 2 and Tier 3 rates has been included accounting for added revenue of about $90,026.

The revenue model as presented reasonably balances with the use of $2,032,000 in bond proceeds in each year 2023 through 2025, in the current District reserves. This assumption needs to be validated with the current income statement and balance sheet brought current with end of year 2022 projections. Based on the draft 2023 budget, this appears to be a valid assumption. The use of reserved bond proceeds in the amount of $2,032,000 is reasonably balanced by the annualized capital improvements and renewals and replacements scheduled in the 10-year capital improvement plan of $1,792,681. This includes a proportionate share of the annualized amortization of the Colorado Springs Utilities regional water system availability fee associated with a long-term service agreement for up to 668 AAF for conveyance, treatment and delivery service.

Should the District desire to consider an annual increment in water system user charges, one possible rate structure is given in Table C-3. The rates shown in the revenue model at Table C-2 would appear to be sufficient to support the project cost of service if uniformly applied over the three (3) year period of 2023 through 2025. In lieu of a uniform rate structure over that 3-year period, the annual increments shown in Table C-3 will produce the same total revenue over the 3-years as the uniform rate system. The annual increment approach shown in Table C-3 results in annual increases of 5.46%, 3.35% and 5.50% respectively for each year's rate change for 2023 through 2025 for a typical residential user in Tier 1. If a greater increase in the unit rates would be found acceptable, the use of current reserves could be reduced.

TABLE C-3
DONALA WATER AND SANITATION DISTRICT
INCREMENTAL WATER USER CHARGES – 2023 THROUGH 2025

User Charge Item	Customer Service Charge	Unit Volume Charge
Proposed 2023 - 2025	**Per account billing period:** **2023 - $30.66** **2024 - $31.38** **2025 - $33.11**	**Per 1,000 gallons of metered water:** **2023 = $7.95** **2024 = $8.26** **2025 = $8.71**

E. Plant Investment Fees/Tap Fees and Development Fees

Plant investment or tap fees have not been given consideration in this cost of service analysis. Due to the capital improvements which the District may be contemplating in the future, say five to twenty years, nominal increases in the plant investment and water development fees would be valid.

The tap fees and water development fees were significantly increased at January 1, 2022, after having remained fixed for seven years. A more nominal increase at the present time, say on the order of less than 5% may be warranted. It is suggested that the water development fee be targeted at the current market value of municipal water resources on an acre-foot and single family equivalent basis. A valuation of the District's water and wastewater assets would serve as the basis of plant investment or tap fees going forward. That valuation would be for purposes of assigning a value to the asset "buy-in" by new customers for the District's infrastructure as it exists at the present time.

Donala Water and Sanitation District
2022 Cost of Service Analysis

UPDATED 11-29-2022 PER WORKSHOP MEETING 11-17-2022								Projected Avg Annual Budgets- 2023-2025	Water Operations		Wastewater Collection/ Treatment Operations		Customer Service [3]	
	2019 Actual	2020 Actual	2021 Actual	2022 Projected	Projected 2023	Projected 2024	Projected 2025							
Operations Cost [1]					11-29-22 Budget									
Chemical And Testing	$ 33,890	$ 69,137	$ 94,952	$ 61,058	$ 78,905	$ 82,850	$ 86,993	$ 82,916	85.0%	$ 70,479	15.0%	$ 12,437	0.0%	$ -
Repair/Maintenance	$ 332,730	$ 93,025	$ 170,509	$ 300,000	$ 1,003,000	$ 1,043,120	$ 1,084,840	$ 1,043,653	75.0%	$ 782,740	25.0%	$ 260,913	0.0%	$ -
Residuals Management	$ -	$ -	$ 12,572	$ 77,007	$ 96,200	$ 105,820	$ 116,400	$ 106,140	75.0%	$ 79,605	25.0%	$ 26,535	0.0%	$ -
Vehicles	$ 60,646	$ 28,490	$ 38,016	$ 50,000	$ 58,000	$ 60,000	$ 63,000	$ 60,333	50.0%	$ 30,167	50.0%	$ 30,167	0.0%	$ -
Utilities	$ 267,659	$ 396,200	$ 432,122	$ 300,000	$ 455,371	$ 482,690	$ 511,650	$ 483,237	95.0%	$ 459,075	4.0%	$ 19,329	1.0%	$ 4,832
Tools And Equipment	$ 1,598	$ 41,833	$ 10,289	$ 10,000	$ 15,000	$ 15,600	$ 16,220	$ 15,607	50.0%	$ 7,803	50.0%	$ 7,803	0.0%	$ -
Inspection Refunds	$ 400	$ -	$ -	$ -	$ 2,000	$ 2,000	$ 1,500	$ 1,833	50.0%	$ 917	50.0%	$ 917	0.0%	$ -
Audit	$ 21,800	$ 22,500	$ 23,200	$ 23,900	$ 24,617	$ 25,360	$ 26,120	$ 25,366	0.0%	$ -	0.0%	$ -	100.0%	$ 25,366
Insurance	$ 235,993	$ 277,370	$ 402,652	$ 290,000	$ 301,914	$ 317,010	$ 339,200	$ 319,375	72.0%	$ 229,950	15.0%	$ 47,906	13.0%	$ 41,519
Legal Expenses	$ 47,202	$ 60,784	$ 35,426	$ 89,300	$ 89,300	$ 50,000	$ 50,000	$ 63,100	53.0%	$ 33,443	27.0%	$ 17,037	20.0%	$ 12,620
Office Expenses	$ 17,722	$ 14,559	$ 35,690	$ 63,469	$ 68,800	$ 70,860	$ 72,990	$ 70,883	0.0%	$ -		$ -	100.0%	$ 70,883
Office Equipment	$ 29,677	$ 11,203	$ -	$ 5,000	$ 20,000	$ 20,600	$ 21,220	$ 20,607	0.0%	$ -		$ -	100.0%	$ 20,607
Telephone	$ 20,420	$ 26,715	$ 39,705	$ 29,500	$ 31,831	$ 33,100	$ 34,420	$ 33,117	0.0%	$ -		$ -	100.0%	$ 33,117
Engineering	$ 84,208	$ 63,642	$ 144,705	$ 435,600	$ 335,000	$ 341,700	$ 348,530	$ 341,743	80.0%	$ 273,395	20.0%	$ 68,349	0.0%	$ -
Salaries	$ 677,266	$ 760,457	$ 796,286	$ 622,670	$ 696,414	$ 745,160	$ 797,320	$ 746,298	50.0%	$ 373,149	12.5%	$ 93,287	37.5%	$ 279,862
Payroll Taxes	$ 49,638	$ 57,563	$ 53,802	$ 46,700	$ 52,231	$ 57,005	$ 60,995	$ 56,744	50.0%	$ 28,372	12.5%	$ 7,093	37.5%	$ 21,279
457 Plan	$ 41,656	$ 45,826	$ 49,669	$ 79,651	$ 48,749	$ 52,160	$ 55,810	$ 52,240	50.0%	$ 26,120	12.5%	$ 6,530	37.5%	$ 19,590
Contract Services	$ 51,274	$ 57,537	$ 166,040	$ 239,337	$ 259,681	$ 259,681	$ 259,681	$ 259,681	67.0%	$ 173,986	7.0%	$ 18,178	26.0%	$ 67,517
Publications	$ 15,608	$ 14,634	$ 12,927	$ 3,100	$ 5,000	$ 5,150	$ 5,150	$ 5,100	0.0%	$ -	0.0%	$ -	100.0%	$ 5,100
Fees, Permits, Dues	$ 14,916	$ 14,402	$ 28,383	$ 14,712	$ 15,000	$ 17,000	$ 18,000	$ 16,667	95.0%	$ 15,833	5.0%	$ 833	0.0%	$ -
Training	$ 14,911	$ 9,200	$ 25,340	$ 20,279	$ 30,000	$ 25,000	$ 25,000	$ 26,667	43.5%	$ 11,600	43.5%	$ 11,600	13.0%	$ 3,467
Investment Expenses	$ 5,700	$ 14,004		$ 2,100	$ 2,000	$ 2,060	$ 2,120	$ 2,060	0.0%	$ -	0.0%	$ -	100.0%	$ 2,060
County Treas.	$ 26,548	$ 29,384	$ 29,578	$ 29,630	$ 33,200	$ 34,200	$ 35,230	$ 34,210	0.0%	$ -	0.0%	$ -	100.0%	$ 34,210
Misc. Expenses	$ 11,608	$ 8,466		$ 12,292	$ 10,000	$ 10,500	$ 11,030	$ 10,510	11.0%	$ 1,156	11.0%	$ 1,156	78.0%	$ 8,198
CSU/Pueblo/Storm	$ 2,156,535	$ 1,753,195	$ 1,164,354	$ 1,266,226	$ 1,792,813	$ 1,600,000	$ 1,600,000	$ 1,664,271	100.0%	$ 1,664,271	0.0%	$ -	0.0%	$ -
	$ 4,219,605	$ 3,870,126	$ 3,766,217	$ 4,071,531	$ 5,525,026	$ 5,458,626	$ 5,643,419	**$ 5,542,357**		**$ 4,262,060**		**$ 630,071**		**$ 650,226**
Debt Service														
2020 Refunding Bond - Allocated between Water & Wastewater		$ 1,075,443	$ 653,791	$ 748,715	$ 750,085	$ 750,085	$ 755,085	$ 751,752	77.9%	$ 585,690	22.1%	$ 166,062	0%	$ -
								$ -		$ -				
										$ 585,690		$ 166,062		$ -

WASTEWATER TREATMENT			2021 Actual	2022 Projected	Projected 2023	Projected 2024	Projected 2025	Avg Annual 2023-2025						
UMCR WWTF Operations-Total for all contributors			$1,247,937	$ 1,438,240	$ 1,666,811	$ 1,716,815	$ 1,768,320	$ 1,691,813						
UMCR WWTF Renewals, Replacements & CIP (2022 CIP)-DWSD				$ 20,000	$ 30,000	$ 20,000		$ 25,000	0.0%	$ -	100.0%	$ 25,000	0.0%	$ -
UMCR WWTF Operations, R/R, & CIP-DWSD Allocation				$ 696,548	$ 814,068	$ 782,266	$ 785,134	$ 798,167	0.0%	$ -	100.0%	**$ 798,167**	0.0%	$ -
										Not Applicable		***$ 1,594,300***		***$325,113***

UMCR WWTF TREATMENT EXPENDITURES [2]				2022 Projected	Projected 2023	Projected 2024	Projected 2025	
DONALA Waste Plant; 2022=46.6%; 2024-2025=44.4%				$ 676,548	$ 784,068	$ 762,266	$ 785,134	**$ 773,167**
TV Waste Plant Expenses; 2022=47.0%; 2024-2025=48.1%				$ 673,672	$ 780,734	$ 825,788	$ 850,562	$ 803,261
FL Waste Plant Expenses; 2022=6.4%; 2024-2025=7.5%				$ 88,020	$ 102,009	$ 128,761	$ 132,624	$ 115,385
Total Owners Costs =				$ 1,438,240	$ 1,666,811	$ 1,716,815	$ 1,768,320	**1,691,813**
Check Total:					$ 1,666,811	$ 1,716,815	$ 1,768,320	

[1] Does not include UMCR WWTF allocated cost, Renewals & Replacements, or CIPs

[2] Proration of total 2023 Budget based on GMS review of 2022 headworks loading and projected to 2023, 2024 and 2025