



City of Scottsdale Water and Sewer Rate Report

Fiscal Year 2019/20

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I. Summary

As prescribed by the City of Scottsdale's adopted Comprehensive Financial Policies, the City sets rates for water and sewer customers based on an annually updated five-year financial plan for each enterprise fund. The five-year plans are used to ensure that rate adjustments generate enough revenues to cover costs of serving customers and to maintain adequate reserves in accordance with the City's adopted financial policies; reserve policies provide for contingencies and stabilize rate increases over the five-year planning period. As part of the comprehensive planning effort, the impact on the combined utility bill is carefully considered in determining the appropriate balance between rate increases and debt financing. To accomplish this objective, the City systematically incorporates marginal rate changes in conjunction with debt financing to avoid acute rate escalations at any point in time.

In accordance with its adopted financial policies, the City completed the annual updates to the comprehensive five-year financial plans that incorporate all projected operating and capital revenues and expenses to determine the cash needs of the Water and Sewer Enterprise funds. To meet the cost recovery and revenue requirements identified in the updated plans and to achieve rate stabilization over the five-year planning period, the City is proposing modifications to its water and sewer rates which will increase annual revenues by 3.0% and 2.0%, respectively. The City is also proposing an increase to miscellaneous water charges to meet cost recovery requirements for services provided to specific customer groups.

Based on the updated five-year financial plans, a synopsis of revenue requirements and recommended water, sewer and miscellaneous water charges for the enterprise funds are explained below:

Water – Revenue requirements for the water enterprise fund are impacted by increasing actions required for drought preparedness, such as increased maintenance and replacement of aging infrastructure, expansion of conservation programs, the rising costs of raw water and the increasing cost of technology required to operate the City's sophisticated water systems. Other factors affecting the water fund revenue requirements over the five-year planning period include:

- Groundwater treatment operating costs to improve the reliability and water quality of south Scottsdale wells,
- Water distribution system improvements that are essential to ensure water system safety and reliability,
- Operating cost increases for conservation initiatives, personnel services and benefits.

Increases to base fees are proposed to better reflect the recovery of fixed operating costs and adjusted to capture the demand availability designed into the system.

Proposed changes for residential customers include:

- An increase in the second-tier commodity rate from \$2.95 to \$3.00,
- An increase in the third-tier commodity rate from \$3.75 to \$3.90,
- An increase in the fourth-tier from \$4.85 to \$5.20 and
- An increase in the fifth-tier from \$5.70 to \$6.10.

Proposed changes for commercial and landscaping include:

- An increase in the second-tier commodity rate from \$2.95 to \$3.00,
- An increase in the third-tier commodity rate from \$3.75 to \$3.90, and
- An increase in the fourth tier from \$4.25 to \$4.60.

Overall, the water base fee and rate adjustments are forecasted to generate an annual revenue increase of approximately \$3.0 million or 3.0% and effective November 1, 2019.

The current and proposed base fees, tiers and commodity rates are as follows:

Base Fees (All Customers)		
Size	Current Fee	Proposed
5/8" Meter	\$12.40	\$13.00
3/4" Meter	\$16.00	\$16.80
1" Meter	\$22.60	\$23.80
1.5" Meter	\$37.20	\$39.00
2" Meter	\$49.70	\$52.00
3" Meter	\$98.80	\$104.00
4" Meter	\$154.40	\$162.50
6" Meter	\$308.90	\$325.00
8" Meter	\$430.00	\$455.00

Residential Commodity Rates and Tiers						
Tier	Current			Proposed		
	Rate	From	To	Rate	From	To
1	\$1.65	0	5,000	\$1.65	0	5,000
2	\$2.95	5,001	12,000	\$3.00	5,001	12,000
3	\$3.75	12,001	30,000	\$3.90	12,001	30,000
4	\$4.85	30,001	65,000	\$5.20	30,001	65,000
5	\$5.70	Over	65,000	\$6.10	Over	65,000
Rates are Per 1,000 Gallons						

Commercial/Landscaping Commodity Rates and Tiers						
Tier	Current			Proposed		
	Rate	From	To	Rate	From	To
1	\$1.65	0	5,000	\$1.65	0	5,000
2	\$2.95	5,001	12,000	\$3.00	5,001	12,000
3	\$3.75	12,001	30,000	\$3.90	12,001	30,000
4	\$4.25	Over	30,000	\$4.60	Over	30,000
Rates are Per 1,000 Gallons						

The proposed water rate schedule is presented as Exhibit A.

Wastewater – Revenue requirements for the wastewater enterprise fund are impacted by capital costs for wastewater treatment and collection systems improvements to address aging infrastructure, and the increasing cost of technology required to operate the City’s sophisticated wastewater systems. Other factors affecting the wastewater fund revenue requirements over the five-year planning period include:

- Increased maintenance costs required to ensure regulatory compliance with Capacity, Management, Operations and Maintenance (CMOM) regulations and minimize wastewater overflows,
- Increased costs for odor control maintenance and repair,
- Operating cost increase for personnel services.

Increases to base fees are proposed to better reflect the recovery of fixed operating costs and adjusted to capture the demand availability designed into the system.

Proposed volumetric changes for residential and commercial customers include an increase in all categories by approximately 1.1%.

Overall, the wastewater rate changes are forecasted to generate an annual revenue increase of approximately \$0.8 million or 2.0% and effective July 1, 2019.

The current and proposed base fees, tiers and commodity rates are as follows:

Base Fees (All Customers)		
Size	Current Fee	Proposed
5/8" Meter	\$3.50	\$3.75
3/4" Meter	\$3.50	\$3.75
1" Meter	\$3.50	\$3.75
1.5" Meter	\$21.00	\$22.50
2" Meter	\$49.00	\$52.50
3" Meter	\$63.00	\$67.50
4" Meter	\$92.00	\$99.00
6" Meter	\$175.00	\$187.50
8" Meter	\$245.00	\$262.50

Customer Category	Current Rate	Proposed Rate
Single Family Residential	\$2.64	\$2.67
Multi Family Residential	\$2.64	\$2.67
Commercial Without Dining	\$2.64	\$2.67
Commercial With Dining	\$3.52	\$3.56
Hotels Without Dining	\$2.88	\$2.91
Hotels With Dining	\$3.52	\$3.56
Car Washes	\$2.61	\$2.64
Commercial Laundry	\$3.17	\$3.20
Laundromats	\$2.64	\$2.67
Metal Platers	\$2.91	\$2.94
Restaurants/Bakeries	\$4.92	\$4.97
Service Station Auto Repair	\$2.64	\$2.67
Medical Institutions	\$2.64	\$2.67
Schools	\$2.64	\$2.67
Rates are Per 1,000 Gallons		

The proposed sewer rate schedule is presented as Exhibit B.

Long Term Financing – To address water and wastewater rehabilitation and replacement needs the City may issue up to \$25.0 million of water debt in fiscal year 2020/21 and \$60.0 million in fiscal year 2023/24.

Water and Wastewater Miscellaneous Charges - Increases to several miscellaneous charges are proposed effective July 1, 2019 to meet the City's financial policy that charges recover all direct and indirect costs of service. The proposed miscellaneous charge increases include:

- Service Line installations, all meter sizes
- Meter and Service Line installations, all meter sizes
- Fire Service Lines, all meter sizes
- Turn On/Off Within 24 Hour Period
- Raise/Lower Meter Over 15 Feet
- Commercial Water Hauler Capital Recovery
- Construction Hydrant Meter Deposit, 1" meter size

Miscellaneous charges are assessed to specific users of the service so that general rate payers do not bear the burden. The water miscellaneous charge adjustments are forecasted to increase revenue in fiscal year 2019/20 by approximately \$45,000 and effective July 1, 2019. There are no miscellaneous changes proposed for wastewater miscellaneous charges.

Changes to the City Code for housekeeping updates, including processes, definitions and titles are proposed to be effective July 1, 2019.

II. Background

The City of Scottsdale Water Resources Division's mission is "Provide simply better sustainable water services for a world class community."

To accomplish this mission, the City incurs costs related to the operation, maintenance and construction of its water and sewer systems. Following are some of the primary factors affecting the water and sewer costs of operation and capital program:

- Compliance with the Groundwater Management Act - With the passage of the Arizona Groundwater Management Act (GMA) in 1980, the Phoenix Active Management Area was created to reduce groundwater withdrawals to a point where "safe-yield" is achieved by year 2025. "Safe-yield" is achieved when the groundwater withdrawals equal the amount of groundwater that is naturally or artificially recharged (i.e., zero groundwater mining). The GMA also requires the City to demonstrate a 100-year Assured Water Supply for existing committed and future demand. This impacts costs in three ways:
 - Source of supply – additional water supplies were obtained and include surface water purchases/leases and/or groundwater recharge in compliance with the GMA;
 - Treatment – surface and reclaimed water require more treatment than groundwater;
 - Distribution – an increased distribution system is required when treatment is from a central facility rather than from local wells.
- Compliance With Federal And State Water Quality Standards - The Safe Drinking Water Act and the Clean Water Act set the standards for water treatment/delivery and sewer treatment/collection, respectively. As the level of these standards has become more stringent, the City's compliance costs have also increased. Most recently, the Stage 2 Disinfectants and Disinfection Byproducts (DBP) Rule has caused a major escalation of costs for both capital improvements and operating costs. The City currently meets the EPA Stage 2 DBP Rule which requires a compliance limit of 80 parts per billion at individual locations.
- Geography and Dispersed Population - The City's population is distributed over 185 square miles. The water system includes 18 service zones due to mountainous terrain. Elevations increase over 2,300 feet, rising generally from the south to the north and east, greatly affecting electricity, maintenance, water distribution and sewer collection costs.
- Major Water Capital Projects
 - Booster Station Upgrades - Rehabilitate multiple potable water booster stations that have reached the end of their useful service lives. Many of these facilities were constructed by developers, are more than 25 years old and no longer meet current accepted design standards.
 - Chaparral Water Treatment Plant Pretreatment - Design and construct pretreatment infrastructure to meet tighter water quality regulations and improve operational performance given new challenges posed by deteriorating source water quality. Funds will be used to immediately address infrastructure and operational needs to achieve compliance with tighter water quality rules.
 - Cluster 3 Arsenic Treatment – Design and construct groundwater treatment infrastructure for arsenic treatment. Strengthen the resiliency of City water supply system in the event Central Arizona Project (CAP) water deliveries are reduced or interrupted, and for long-term reliability and or short-term disruption. Facilitate groundwater delivery from Cluster 3 wells into the

potable water distribution system while achieving all regulatory water quality standards and City water quality operating goals.

Cross Roads East Water - Construct water lines within the area consistent with a development agreement and the Infrastructure Improvement Plan (IIP). The IIP is a written document per Arizona Revised Statute 9-463.05, identifying growth driven water and wastewater infrastructure needs that are funded with development fees. Advance construction of streets within the Core North and Core South area by the city that will require concurrent installation of water lines to provide service for future adjacent development. These lines are normally installed by the development community and will be reimbursed with development fees.

Deep Well Recharge/Recovery Projects - Design and construct deep well water recharge and recovery facilities to ensure the long-term sustainability of the city's northern well field. The city will continue to use wells in its system to supply water to the community. For the city's 100-year water supply, the city is required to recharge water into its aquifers. This program will determine the best areas for this to occur. Initial testing has been completed, and the city will explore options further north of the Water Campus

Thomas Groundwater Treatment Facility - Design and construct a new Reverse Osmosis (RO) treatment facility which will receive and treat a side stream of product water discharged from the adjacent Central Groundwater Treatment Facility (CGTF). The added water RO treatment will eliminate existing complex blending plans, enhance groundwater availability, and establish more robust technology needed to address potential future regulations. The naturally occurring water hardness in the groundwater will be reduced to levels similar to water in the city's water distribution system.

Water Distribution System Improvements - Improve the water distribution system due to system aging, and increasing demands attributed to downtown revitalization. The project includes replacement of mains, pressure regulating valves, meters and other valves, as well as the design and construction of new water mains at various locations throughout the distribution system to improve service and to reduce operating cost. Replacement of existing small mains (4-inches and smaller) is required to meet fire flow requirements as set forth by city ordinance. This project will also include minor design maintenance and construction modifications to various water treatment plant infrastructure, pump stations and storage tanks as driven by finds from the Asset Management Program.

Water Meter Replacement Program - Purchase and install automated water meter equipment. The City is in the process of a multi-year transition from conventional-read water meters to automated metering devices for all customers.

Water Treatment Facility Improvements - Improve the water treatment facilities due to aging components. This project will include minor design maintenance and construction modifications to various water treatment plant infrastructure. In addition, replacement of media, pump stations and storage tanks will be conducted as identified in the Asset Management Program.

- Major Sewer Capital Projects

SROG Transmission Line – Expand, modify and improve the regional wastewater conveyance facilities and the 91st Avenue Wastewater Treatment Plant (located in Phoenix) according to existing intergovernmental agreements with the Sub-Regional Operating Group (SROG).

Wastewater System Improvements - Design and construct sewer lines, complete treatment plant work and rehabilitate sewer manholes in the aging sewer system per the Asset Management Program. Many of the sewer lines in the city have been in use for over 30 years. The city is being proactive to avoid serious problems in the sewer system resulting from the aging infrastructure. In conjunction with the Asset Management Program, sewer lines will be video taped to identify potential problems. Design will be initiated to correct any identified problems. Additionally, this project will replace undersized sewer lines and provide new infrastructure to support redevelopment associated with downtown revitalization.

Wastewater Treatment Facility Improvements - Design and construct treatment plant modifications at the Water Campus and the Gainey Ranch Wastewater Treatment Facility. This includes the rehabilitation and replacement of wastewater headworks, piping, clarifiers, pumps, filters, electrical and control systems, heating, ventilation and air conditioning (HVAC) equipment, odor control infrastructure, disinfection and other chemical systems. Also provides for miscellaneous site work such as access drives, shade canopies, grading improvements, and site lighting.

- Water and Sewer Rate Structures

Water Rate Structure - Water rate structures play an essential role in communicating the value of water to customers, thus promoting long-term efficient use. Increasing block rate structures most effectively communicate this message and encourage efficient water use when compared to other types of rate structures. Through this increasing block rate design, the unit price for water increases as the volume consumed increases, with prices being set for each “block” of water use. Customers who use low volumes of water are charged a modest unit price and rewards conservation; those using higher volumes pay higher unit prices.

The City’s water rate structure consists of a monthly base service charge, which is based on the size of the water meter, and a monthly volume/commodity charge. A five-tier increasing block rate structure is used to determine the water volume charge for single family residential accounts. A four-tier increasing block rate structure is used for multi-family residential, commercial/industrial, and non-residential landscape/irrigation customers.

The tiers are intended to provide a pricing incentive to differentiate between responsible water use and excessive use primarily associated with high levels of outdoor watering of turf areas with treated drinking water.

Sewer Rate Structure – Sewer customers are billed based upon 90% of their average water consumption billed in the months of December, January and February of the prior year. If a customer experiences an unusual amount of indoor and/or outdoor water use during these months, the customer may request an adjustment by completing a “Water Resources Sewer Adjustment Form”.

- Rate History and Benchmarking

- Rate History - A key objective of the City’s comprehensive planning effort is to keep the combined increases to water and sewer rates at or below the change in the Consumer Price Index. The City has been consistently below the CPI for the last ten years as shown in the table below.

SUMMARY OF ANNUAL UTILITY RATE INCREASES

Fiscal Year	Water % Increase	Sewer % Increase	CPI*
2008/09	5.5%	6.0%	5.7%
2009/10	2.5%	3.0%	5.7%
2010/11	0.0%	0.0%	4.7%
2011/12	0.0%	0.0%	5.7%
2012/13	0.0%	0.0%	3.6%
2013/14	-1.0%	4.0%	4.6%
2014/15	0.0%	-1.2%	3.8%
2015/16	1.3%	2.6%	3.4%
2016/17	0.0%	0.0%	3.2%
2017/18	2.9%	2.6%	4.5%

* This is the percentage change for "Water, sewer and trash collection services" as reported by the US Department of Labor in the Consumer Price Index Report (CPI-U), Table 1. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category and commodity and service group.

- **Benchmarking** - The following table presents the proposed monthly utility charges in comparison with other local communities. Comparison is based on use of a 5/8-inch water meter, 11,500 gallons of water consumption, 8,000 gallons of sewer collection.

City or Town	Water Charges	Sewer Charges	Total Bill Excluding Taxes
Chandler	\$ 28.19	\$ 27.32	\$ 55.51
Gilbert	\$ 34.66	\$ 24.73	\$ 59.39
Tempe	\$ 40.20	\$ 25.02	\$ 65.22
COS Adopted	\$ 43.43	\$ 24.62	\$ 68.05
COS Proposed	\$ 44.55	\$ 25.11	\$ 69.66
Phoenix	\$ 38.11	\$ 33.35	\$ 71.45
Peoria	\$ 45.51	\$ 26.60	\$ 72.11
Glendale	\$ 44.49	\$ 41.80	\$ 86.29
Mesa	\$ 57.62	\$ 37.33	\$ 94.95

Although Scottsdale's water charges are higher than several other cities there are system characteristics that significantly impact the costs which include but are not limited to: (1) a heavier reliance on the more expensive CAP surface water supplies versus the significantly less expensive Salt River Project (SRP) water supplies; (2) larger impacts of arsenic regulations on Scottsdale's groundwater supplies and (3) significant elevation changes which require increased electrical power costs.

III. Financial Planning Process

In conjunction with the budget process and based on the most current Water Resources Master Plans, the City develops and maintains a comprehensive multi-year Water Resources Financial Plan, which is updated annually. The plan consists of projections of operating and capital costs of the Water and Sewer systems, as well as projections of funding from user rates, development fees, bond issuances, interest earnings, inter-fund loans, and existing cash balances of the funds. The plan also considers projected changes to three required reserves: 1) the expansion and replacement reserve required by bond indenture, 2) the revenue bond reserve required by bond indenture and 3) the operating reserve funded between 60 and 90 days of budgeted expenditures required by the City's financial policy. In addition, the plan considers the capital/rate stabilization balance. The plan considers a voluntary additional reserve for drought planning which will be used upon the formal declaration of a Lower Basin Drought.

Consistent with American Water Works Association (AWWA) Principles of Water Rates, Fees and Charges, the City bases its water and sewer rate increases on the cash need projections shown in the financial plan for the prospective five-year period, currently fiscal year 2019/20 through fiscal year 2023/24.

Water Resources Financial Planning Objectives:

- To maintain a comprehensive financial plan which incorporates all projected operating and capital revenue and expense of the Water and Sewer Funds for the planning period;
- To maintain a minimum ratio of revenue to debt service higher than the minimum bond indenture requirement of 1.2/1 to ensure debt coverage in times of revenue fluctuations attributable to weather or other causes, and to ensure a balanced pay-as-you-go Capital Improvement Plan;
- To maintain expansion and replacement reserves equal to 2% of assets in accordance with bond indenture requirements;
- To provide an operating reserve funded between 60 and 90 days of budgeted operational expenditures in accordance with the City's financial policy;
- To maintain a capital/rate stabilization balance to fund the capital program and evenly distribute necessary operating rate increases over time to minimize dramatic rate escalations in any one year;
- To maintain and fund the water and sewer funds as separate, self-sustaining enterprise funds;
- To continue to develop a cost-based rate structure encouraging water conservation;
- To maintain development fees which reflect current growth projections and capital needs so that growth is paying a proportionate share of these costs.

The City accomplishes these financial planning objectives through the following activities:

- Periodic review of Water Resources Master Plans and the Asset Management Plan to ensure that existing and planned infrastructure and water supplies continue to be adequate to provide reliable service to existing customers and meet growth projections and that the Water Resources Capital Improvement Program incorporates these needs.

- Annual review and update of the financial plan to ensure that the plan reflects enough revenues to fund operating and capital cost projections, including the impact of any new state or federal regulations.
- Periodic review and adjustment of development fees to ensure that new development pays for a “proportionate share” of the capital cost of infrastructure capacity needed for growth.
- Annual review and adjustment of water and sewer rates. The City desires to keep utility bills affordable for its customers and, as part of the comprehensive planning effort, carefully considers the impact on the combined utility bill in determining the appropriate balance between rate increases and debt financing. To accomplish this, the City has a systematic planned approach that incorporates marginal rate changes from year to year in conjunction with debt financing.

The following charts summarize the forecasted cash flows for the Water and Sewer Enterprise Funds for the five-year period. Following this chart are descriptions of the sources and uses of funds. Annual detail is presented in Section IV.

**Sources and Uses of Funds
FY 2019/20 Through FY 2023/24
Amounts in \$Millions
Water and Sewer Enterprise Funds**

	Water Fund	Sewer Fund
Sources of Funds		
Beginning Cash	\$132.8	\$102.2
Rate Revenues	548.4	238.3
Other Revenues	13.4	10.1
Development Fee Revenues	11.3	7.5
New Bonds Issues	30.0	0.0
Total Sources of Funds	735.8	358.2
Uses of Funds		
Operating Expenses	295.7	118.5
Operating Transfers	45.9	17.8
Debt Service	104.2	62.5
Capital Improvements	237.2	88.5
Total Uses Funds	682.9	287.3
Ending Cash Balance	52.9	70.8
Less Required Reserves		
Operating Reserve	13.5	4.6
Expansion & Replacement Reserve	30.8	14.9
Revenue Bond Reserve	0.0	4.6
Drought Reserve	3.0	0.0
Capital/Rate Stabilization Balance	\$5.6	\$46.7

Note: Minor differences due to rounding

Sources of Funds

Beginning/Existing Cash - Previously accumulated cash balances will contribute to the total funding sources.

Rate Revenues - Charges for services provided to the customer, such as metered sales in the water fund or seasonal sewage flows in the sewer fund.

Development Fee Revenues - Fees to compensate the City for the additional costs of water and sewer infrastructure and water purchases which are driven by development. The City currently charges two types of development fees:

- Water and Water Resources Development Fees - for the cost of new water treatment, production, pumping, storage, transmission facilities driven by developments and for acquiring and leasing new water supplies and for reclamation of the groundwater aquifer driven by development. Effective July 1, 2014 the water resource supply fee is combined with the water development fee.
- Sewer Development Fees - for the cost of sewer capital expansion for enlargement of the publicly owned treatment works and the wastewater collection system driven by development.

• Other Revenues - Charges for services provided, including account initiation charges, connection charges, unmetered sales charges, penalties and interest earnings on cash balances.

New Bond Issues - The City plans to issue \$30.0 million in bonds during the five-year planning period for water system improvements.

Uses of Funds

Operating Expenses - Expenditures incurred to provide services to customers and are recovered through water and sewer rates and charges. These include the expenses of the Water Resources Division as well as expenses of the Treasurer's Office connected with water and sewer billings and collections.

Operating Transfers - Transfers to the City's general fund for use of assets or for services provided, including:

- Indirect cost allocation - a general allocation charge for services provided by the general fund for the benefit of the water and sewer funds.
- Franchise fees - a reimbursement to the general fund for the utility's use of City streets and rights-of-way. This fee is currently 5.0% of the operating revenues of the utility funds.

Debt Service - Annual principal and interest expense for repayment of borrowed funds. A portion of these bonds will be repaid from development fee revenues for expenditures associated with growth-related projects.

Capital Improvement Plan (CIP) Funding - Transfers for expansion, rehabilitation and replacement of water and sewer infrastructure derived from the most recently updated Water and Sewer Capital Improvement Plan.

IV. Five Year Financial Plan

The Water and Sewer Five Year Financial Plan for fiscal year 2019/20 through fiscal year 2023/24 begins with forecasted cash balances totaling \$133.1 million for water and \$60.6 million for sewer.

The Water and Sewer Five Year Financial Plan forecasts the following rate increases:

	2019/20	2020/21	2021/22	2022/23	2023/24
Water	3.0%	3.0%	3.0%	3.0%	3.0%
Sewer	2.0%	2.0%	2.0%	2.0%	2.0%

Total forecasted rate revenues for the five-year period are \$560.4 million for water and \$248.4 million for sewer.

Forecasted operating expenses and transfers for the five-year period total \$342.6 million for water and \$136.8 million for sewer; these forecasts include inflationary cost increases and anticipated operating impacts from capital projects that become operational during the planning period.

The most significant area impacting the five-year plan is the forecasted Capital Improvement Plan (CIP) funding transfers that total \$325.7 million for water and sewer. Forecasted CIP expenditures are expected to peak in fiscal year 2019/20 with a combined water and sewer total of \$106.5 million.

The following pages provide annual detail for fiscal year 2019/20 through fiscal year 2023/24.

Sources and Uses of Funds
FY 2019/20 Through FY 2023/24
Amounts in \$Millions
Water Enterprise Fund

	<u>2019/20</u>	<u>2020/21</u>	<u>2021/22</u>	<u>2022/23</u>	<u>2023/24</u>	<u>Recap</u>
Sources of Funds						
Beginning Cash	\$132.8	\$73.0	\$52.4	\$70.9	\$57.1	\$132.8
Rate Revenues*	99.5	107.4	110.5	113.8	117.1	548.4
Other Revenues*	2.4	2.6	2.8	2.8	2.9	13.4
Development Fee Revenues*	2.3	2.3	2.3	2.3	2.3	11.3
New Bonds Issues	0.0	0.0	30.0	0.0	0.0	30.0
Total Sources of Funds	236.9	185.2	197.9	189.8	179.4	735.8
Uses of Funds						
Operating Expenses	55.0	57.0	58.8	61.0	63.8	295.7
Operating Transfers	8.2	8.9	9.2	9.6	10.0	45.9
Debt Service	20.8	20.6	20.7	20.6	21.5	104.2
Capital Improvements	79.9	46.3	38.3	41.4	31.2	237.2
Total Uses Funds	163.9	132.9	127.0	132.6	126.5	682.9
Ending Cash Balance	73.0	52.4	70.9	57.1	52.9	52.9
Less Required Reserves						
Operating Reserve	13.6	12.1	12.6	13.1	13.5	
Expansion & Replacement Reserve	27.6	28.5	29.3	30.1	30.8	
Revenue Bond Reserve	0.0	0.0	0.0	0.0	0.0	
Drought Reserve	1.5	3.0	3.0	3.0	3.0	
Capital/Rate Stabilization Balance	\$30.4	\$8.7	\$26.0	\$11.0	\$5.6	
Debt Coverage Ratio (Includes 50% of Development Fees)	1.75%	2.01%	2.06%	2.10%	2.01%	

*Cash flow projections for residential and nonresidential customers

Note: Minor differences due to rounding

Sources and Uses of Funds
FY 2019/20 Through FY 2023/24
Amounts in \$Millions
Sewer Enterprise Fund

	<u>2019/20</u>	<u>2020/21</u>	<u>2021/22</u>	<u>2022/23</u>	<u>2023/24</u>	<u>Recap</u>
Sources of Funds						
Beginning Cash	\$102.2	\$87.5	\$77.2	\$73.7	\$70.9	\$102.2
Rate Revenues	46.3	46.1	47.4	48.6	49.9	238.3
Other Revenues	1.7	1.9	2.1	2.2	2.2	10.1
Development Fee Revenues	1.5	1.5	1.5	1.5	1.5	7.5
New Bonds Issues	0.0	0.0	0.0	0.0	0.0	0.0
Total Sources of Funds	151.8	137.1	128.2	126.0	124.5	358.2
Uses of Funds						
Operating Expenses	22.1	23.2	23.8	24.4	25.0	118.5
Operating Transfers	3.2	3.4	3.6	3.7	3.8	17.8
Debt Service	12.4	12.5	12.6	12.7	12.4	62.5
Capital Improvements	26.6	20.8	14.5	14.2	12.5	88.5
Total Uses Funds	64.2	59.9	54.5	55.1	53.7	287.3
Ending Cash Balance	87.5	77.2	73.7	70.9	70.8	70.8
Less Required Reserves						
Operating Reserve	4.1	4.2	4.4	4.5	4.6	
Expansion & Replacement Reserve	13.7	14.1	14.4	14.7	14.9	
Revenue Bond Reserve	4.6	4.6	4.6	4.6	4.6	
Capital/Rate Stabilization Balance	\$65.2	\$54.3	\$50.4	\$47.2	\$46.7	
Debt Coverage Ratio						
(Includes 50% of Development Fees)	1.70%	1.56%	1.58%	1.61%	1.71%	

*Cash flow projections for residential and nonresidential customers

Note: Minor differences due to rounding

Capital Project Expenditure – Cash Flow Forecast
FY 2019/20 Through FY 2023/24
Amounts in \$Millions
Water and Sewer Enterprise Funds

<u>Project Description</u>	<u>2019/20</u>	<u>2020/21</u>	<u>2021/22</u>	<u>2022/23</u>	<u>2023/24</u>	<u>Total</u>
Advance Water Treatment Plant Membranes - Wastewater	\$0.0	\$0.9	\$0.9	\$0.5	\$1.3	\$3.6
Air Park Zone 4 Water Transmission Main	1.5	0.2	0.0	0.0	0.0	1.7
Booster Station 57 Replacement	2.3	1.8	1.0	0.0	0.0	5.2
Booster Station Upgrades	6.2	2.8	3.0	4.0	4.3	20.4
Chaparral Water Treatment Plant Pretreatment	7.0	7.6	1.2	0.7	0.6	17.0
Cluster 3 Arsenic Treatment	0.7	3.4	4.3	0.1	0.0	8.5
Cross Roads East Wastewater	3.3	1.0	0.0	0.0	0.0	4.3
Cross Roads East Water	2.3	3.3	2.5	0.4	0.0	8.5
Deep Well Recharge/Recovery Projects	6.3	0.2	0.6	1.9	1.9	10.9
Dynamite Road Sewer Interceptor	0.0	0.0	0.1	1.6	0.0	1.7
Frank Lloyd Wright 24-inch Transmission Main & Booster Station 83B Modifications	5.6	0.0	0.0	0.0	0.0	5.6
Jomax Road Sewer Interceptor and Lift Station	4.4	0.0	0.0	0.0	0.0	4.4
Radio Telemetry Monitoring Automation Citywide-Water	1.6	1.0	0.9	1.1	0.2	4.7
Site 42 Reservoir Storage Expansion	1.3	1.0	0.0	0.0	0.0	2.3
SROG Transmission Line	3.7	4.5	3.1	4.6	0.0	15.8
State Land Near Legend Trails I	0.0	0.0	2.8	1.2	1.0	5.1
State Land Near Legend Trails II	0.0	0.0	0.5	4.1	2.1	6.8
Technology Master Plan Identified Wastewater Project	0.8	0.9	0.6	0.3	0.3	2.8
Technology Master Plan Identified Water Projects	2.1	1.8	0.5	0.9	0.2	5.5
Thomas Groundwater Treatment Facility	20.0	3.2	0.0	0.0	0.0	23.2
Wastewater System Improvements	8.2	6.1	5.3	3.2	7.1	29.9
Wastewater Treatment Facility Improvements	3.1	5.4	2.6	2.6	2.1	15.8
Water Campus Vadose Well Rehabilitation	0.3	0.4	0.3	0.2	0.4	1.6
Water Distribution System Improvements	7.7	8.9	10.3	6.8	9.9	43.5
Water Meter Replacement Program	3.2	3.2	3.2	2.2	1.7	13.6
Water Reclamation Participation Program	1.0	1.0	1.0	1.0	0.8	4.8
Water Reclamation Security Enhancements	0.4	0.3	0.3	0.2	0.3	1.5
Water System Security Enhancement Projects	0.6	0.5	0.4	0.4	0.2	2.1
Water Treatment Facility Improvements	5.8	2.5	1.5	5.4	5.5	20.7
Water Treatment Plant Membranes	0.7	0.6	0.8	1.0	1.2	4.3
Well Site-In Cross Roads East-North of Loop 101 (Construction)	0.0	0.0	0.4	2.6	0.5	3.4
Well Sites	0.4	1.7	0.2	0.2	0.3	2.7
Zone 14/16 Water System Improvements Phase 2	1.7	0.6	1.0	1.6	0.0	4.8
Miscellaneous & CPI Adjustments	4.3	2.5	3.4	7.1	1.9	19.2
Total Projects	\$106.5	\$67.1	\$52.8	\$55.6	\$43.7	\$325.7

Note: Minor differences due to rounding

Exhibits

The following exhibits include the proposed water and sewer rate schedules.

EXHIBIT A



Water Rates Schedule

DRAFT Effective November 1, 2019

Source: City of Scottsdale Revised City Code, Section 49-48

BASE FEES	
All Customer Classes	
5/8"	\$13.00
3/4"	\$16.80
1"	\$23.80
1 1/2"	\$39.00
2"	\$52.00
3"	\$104.00
4"	\$162.50
6"	\$325.00
8"	\$455.00

COMMODITY RATES			
Tier #	Rate per 1,000 Gal	Gallons of Use	
Single Family Residential and Landscape/Irrigation by Single Family			
		From	To
1	\$1.65	0	5,000
2	\$3.00	5,001	12,000
3	\$3.90	12,001	30,000
4	\$5.20	30,001	65,000
5	\$6.10	Over 65,000	
Multi-Family Residential/ Commercial/Industrial/ Non-Residential			
		From	To
1	\$1.65	0	5,000
2	\$3.00	5,001	12,000
3	\$3.90	12,001	30,000
4	\$4.60	Over 30,000	
Landscape/Irrigation by Multi-Family Residential/ Commercial/Industrial/ Non-Residential			
		From	To
1	\$1.65	0	5,000
2	\$3.00	5,001	12,000
3	\$3.90	12,001	30,000
4	\$4.60	Over 30,000	

Notes:

In addition to the rates charged in this section: 1) a stormwater account charge of four dollars and ten cents (\$4.10) per month and 2) a State of Arizona water quality assurance fee of \$0.0065 per 1,000 gallons will be added to the total of all water charges calculated in accordance with the above rate schedules. Applicable privilege tax and other taxes will be added.

Outside of City customers are charged a surcharge up to fifteen percent (15%) applied to the base fee and commodity rates described above.

In addition to the base fees above, commercial water hauler capital recovery fee of twenty dollars (\$20.00) per month or residential five dollars (\$5.00) per month will be added.

Treasury Department – Utility Billing Office

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EXHIBIT B



Wastewater/Sewer Rates Schedule

DRAFT Effective July 1, 2019

Source: City of Scottsdale Revised City Code, Section 49-141

User Category	Charge Per 1,000 Gallons ⁽¹⁾		
	O & M	Capital	Total
Single-family Residential	\$1.17	\$1.50	\$2.67
Multi-family Residential	\$1.17	\$1.50	\$2.67
Commercial without dining	\$1.16	\$1.51	\$2.67
Commercial with dining	\$1.72	\$1.84	\$3.56
Hotels, motels without dining	\$1.25	\$1.66	\$2.91
Hotels, motels with dining	\$1.71	\$1.85	\$3.56
Carwashes	\$1.08	\$1.56	\$2.64
Commercial Laundry	\$1.48	\$1.72	\$3.20
Laundromats	\$1.10	\$1.57	\$2.67
Metal Platers	\$1.33	\$1.61	\$2.94
Restaurants; bakeries	\$2.43	\$2.54	\$4.97
Service station auto repair	\$1.18	\$1.49	\$2.67
Medical Institutes	\$1.12	\$1.55	\$2.67
Schools	\$1.09	\$1.58	\$2.67
Non-compliant	See below	See below	See below

Notes: The monthly wastewater service charge is calculated by multiplying 90% of the customer's average winter consumption for the prior December, January and February by the rates shown above. In addition to the O & M and Capital charges, all wastewater users shall pay a base fee for all customer classes as follows:

Meter size	Base Fee
5/8, 3/4 and 1 Inch	\$3.75
1.5 Inch	\$22.50
2 Inch	\$52.50
3 Inch	\$67.50
4 Inch	\$99.00
6 Inch	\$187.50
8 Inch	\$262.50

- Non-Compliant: Once a customer is designated as non-compliant, the then current O & M and Capital charges will be adjusted by one hundred and fifty percent (150%) for a minimum of six months.
- Out of City customers are charged a surcharge up to fifteen percent (15%) applied to the O & M, Capital and Base Fees described above.
- Applicable privilege tax will be added.

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