APPENDIX A

SUMMARY INFORMATION OF THE CITY OF PHOENIX WATER SYSTEM

ORGANIZATION AND ADMINISTRATION

The City's Water System (the *"System"*) is operated as a financially self-supporting municipal utility service. It is organized as a functional division of the City's Water Services Department (the "*Department"*). The Department also contains the Wastewater System as a separate functional division that also acts as a completely self-supporting utility service. The Department's authority and responsibility are derived from the Phoenix City Charter and City Council adopted ordinances and resolutions. The Department is required to prepare and submit an annual budget for the Water and Wastewater Systems to the City Council prior to the beginning of each fiscal year. The City Council is required to hold a public hearing on the proposed budget and a specified notice of this hearing must be given to any bondholder who requests such notice in writing. If for any reason a budget is not adopted, the budget of the preceding fiscal year shall apply. The City Council adopts both the water and wastewater budgets, establishes water and wastewater rate structures and sets overall policy for the Department.

The Water Services Director currently reports to a Deputy City Manager. The four Assistant Water Services Directors for Administration, Water, Wastewater and Technical Services report to the Water Services Director.

Karen L. Peters, Deputy City Manager, joined the City in 2005 after 18 years of practice as an attorney and former partner with Squire Sanders & Dempsey LLP (now Squire Patton Boggs (US) LLP). She received her J.D. from the Georgetown University Law Center in 1987 and B.S. summa cum laude from Arizona State University in 1984. Currently, Ms. Peters serves as a Trustee for The Nature Conservancy, Arizona Chapter. Ms. Peters has served as a member and Past President of the Arizona State University College of Liberal Arts and Science Alumni Board, the Board of Directors of Phoenix Day Child, and Family Learning Center, the State Bar of Arizona Environmental and Natural Resources Law Section, and the Board of Directors of the Arizona League of Conservation Voters. She co- chaired the Arizona Groundwater Cleanup Task Force which made recommendations for reform in 1997 of Arizona's State Superfund laws. Ms. Peters is a member of Valley Leadership Class XXVI and Arizona Town Hall.

Troy Hayes, Water Services Director — Water, has over 25 years of civil engineering and management experience in the water and wastewater industry. Prior to becoming the Water Services Director, he served as Assistant Water Services Director and Deputy Water Services Director for the Water Production Division. He holds a bachelor's degree in Chemical Engineering from the University of Arizona, a master's degree in Business Administration from the University of Phoenix and is a licensed professional civil engineer in the states of Arizona and Colorado. He also holds Arizona Department of Environmental Quality Grade 4 Operator License in all disciplines of water and wastewater.

Brandy Kelso, Assistant Water Services Director — Water, has over 25 years of civil engineering and management experience in the water and wastewater industry. In her current role, Ms. Kelso oversees the Water Utility, which includes the Water Production Division, Water Distribution Division, Water Meter Division, and Water Engineering and Construction Division. These divisions manage the treatment and delivery of safe, reliable drinking water to the City's 1.7 million customers. Prior to becoming the Assistant Water Services Director, she served as Deputy Water Services Director for Water Resources and Development Planning Division. She holds a bachelor's and master's degree in Civil Engineering from Arizona State University and is a licensed professional civil engineer in the state of Arizona.

Nazario Prieto, Assistant Water Services Director — Wastewater, has over 18 years of civil engineering and management experience in the water and wastewater industry. Prior to becoming an Assistant Water Services Director, he served as a Deputy Water Services Director for the Assets and Development Planning Division. He holds a bachelor's degree in Civil Engineering from the University of Texas at El Paso and is a licensed professional civil engineer in the State of Arizona.

Holly Rosenthal, Assistant Water Services Director — Finance & Administration, has over 20 years of private and public sector executive management experience, including operating and capital budget oversight, rate setting and finance. She served as Treasurer and Deputy Executive Director of the Onondaga County Water Authority and Executive Director of the Onondaga County Metropolitan Water Board through successful consolidation of the two regional water utilities. Ms. Rosenthal holds a bachelor's degree in Landscape Architecture/Environmental Studies and is completing a master's in public administration from Syracuse University's Maxwell School. She is an accredited professional in Leadership in Energy and Environmental Design and a licensed landscape architect.

Jim Swanson, Assistant Water Services Director – Technical Services, has over 30 years of water/wastewater operations, regulatory, water resources, and management experience across the water and wastewater industry. In his current role, Mr. Swanson oversees Technical Services which includes the following divisions: Environmental Services, Assets and Development Planning,

Infrastructure Records, and Process Control. These divisions manage various aspects of the Departments water quality compliance, regulatory compliance, water resources and conservation, development planning, master planning, safety and training, security, GIS records, and process control across the City's water and wastewater systems. Prior to becoming the Assistant Water Services Director, he served as Deputy Water Services Director over the Water Distribution Division and the Water Meter Division. Mr. Swanson holds a holds a Bachelor of Science degree in geology from Arizona State University, a grade 4 certified Water Distribution System Operator license, and a Water Treatment System Operator license from the State of Arizona.

FINANCIAL PLANNING AND WATER RATES DEVELOPMENT

Financial planning and water rates development are provided by the Finance Department in coordination with the Water Services Department. In addition, the Finance Department reviews the timeliness and accuracy of the billing services, provides all financial reporting and financial information, establishes financial policies, and recommends water rates and fees. Water rates are set to recover the direct and indirect costs of service.

In addition, the Water/Wastewater Rate Advisory Committee acts in an advisory capacity to the City Manager and City Council on water rate and fee structure. The committee is charged with annually reviewing the Department's Capital Improvement Program, revenue requirements and operations and maintenance budget as they impact future water and wastewater rates.

BILLING AND COLLECTION RESPONSIBILITY

The Water Services Department is responsible for a combined municipal services bill for water, sanitary sewer, and solid waste services along with a jail tax and, storm water management program tax and other general applicable taxes. Water meters are read, and all accounts are billed monthly. Payment of a regular bill is due 21 days after the bill issuance date. If payment is not received within three days after the due date, a late payment charge is assessed to the outstanding account balance. All customers receive one notice of nonpayment indicating a pending turnoff if not paid. If the total amount due is not received within ten days from the date of notice of nonpayment, the process to discontinue water service to the premises begins and a turn-off fee of $55.00 plus tax is charged to the customer's account. The total amount of the bill, including all fees, is collected before water service is restored.

Prior to the pandemic, the City began piloting flow restriction devices to provide a minimum amount of water for basic needs and hygiene in lieu of full shut off. In response to the pandemic, full flow service was restored to all customers. Since COVID-19, Phoenix Water Customer Services deployed a Deferred Payment Arrangement Program for COVID-19 impacted customers. CARES Act and general fund assistance has also been offered to residential and commercial customers. The shut-off moratorium continues but is periodically reevaluated. When the moratorium is lifted, Water System will return to flow restricted service during summer months in lieu of shut offs.

The Department bills more than 438,840 water accounts in an approximately 543 square mile service area for a service population of approximately 1,642,656. The service area includes accounts both inside and outside the corporate limits of the City. Approximately 386,205 (88.2%) of the accounts are single-family residential, 16,553 (3.8%) are multi-family residential, and 34,909 (8.0%) are non-residential. For fiscal year 2020-21, the Department billed 127,284,630 hundred cubic feet (*"ccf*") of retail water sales of which 64,850,922 ccf (50.9%) was delivered to single-family residential accounts, 18,854,635 ccf (14.8%) to multi-family residential accounts, and 43,579,073 ccf (34.2%) to non-residential accounts. The largest single customer is the City which accounted for 2.8% of the total retail revenue. The top ten customers accounted for 5.8% of the total retail water revenue. Of the top ten customers, four are governmental entities and not one private entity accounted for more than 0.5% of total retail revenue.

WATER RATE STRUCTURE

Water rate schedules are adopted by the Mayor and City Council by ordinance, subject to certain statutory restrictions on rates charged to non-residents. Since 1974, water rates have been reviewed annually, in accordance with the Council's adopted policy. The City's principal consideration in adjusting water rates is to maintain the System's operations as a completely self-supporting enterprise. Within the last twenty years, the City has approved seventeen general rate adjustments, with the most recent approved increase of 3.0% effective October 1, 2021, and 3.5% effective March 2022.

The following table summarizes the effective dates of these adjustments and the corresponding annualized percentage change in water rate revenue:

Effective Date	Annualized % Change in Water Rate Revenues (1)(2)
March 4, 2002	5.0
March 3, 2003	3.0
March 3, 2004	4.0
March 2, 2005	7.0
March 2, 2006	8.5
March 2, 2007	9.5
March 3, 2008	12.0
March 3, 2009	11.0
March 1, 2010	9.0
April 1, 2011	7.0
July 1, 2012	4.5
March 1, 2016	3.0
March 1, 2017	2.0
March 4, 2019	6.0
February 1, 2020	6.0
October 1, 2021	3.0
March 1, 2022	3.5

(1) There were no rate revenue adjustments from 2013 through 2015 and 2018.
(2) On March 17, 2021, Phoenix City Council approved a 6.5% water rate increase over a two-year period with 3.0% effective October 2021, followed by an additional increase of 3.5% effective March 2022.

WATER SERVICES CHARGES

Metered Water Charges

The City's current water rate structure, implemented in June 1990, is a seasonal uniform rate structure with a fixed monthly service charge that varies by the size of the meter. Included in the service charge to all accounts is 6 ccf per month (4,488 gallons of water) for the months of October through May and 10 ccf per month (7,480 gallons of water) for June through September. The seasonal rates charged for usage above that are split into three distinct seasons: summer (June-September), winter (December-March) and spring/fall (April-May and October-November). The summer months of June through September have the highest rate with the lowest rate charged in the winter months of December through March. The spring and fall months of April, May, October, and November have intermediate rates that transition customers between the high and low-rate seasons. The high summer rates are designed to encourage water conservation in the peak demand period. Under this rate structure, excluding those customers with very low water consumption, customers will pay more during the summer months when rates are higher and less during the winter, spring and fall months when rates are lower. Of the twenty largest cities in the nation, the average single-family monthly water bill in the City is the third lowest in terms of cost.

Environmental Charge

An environmental charge, which is assessed to recover the annual cost of complying with new environmental standards, was implemented on December 1, 1992. The current fee is $0.62 per ccf effective February 1, 2020. The charge is indicated as a separate line item on the customer's bill. Revenues from this charge are used to cover all operation, maintenance, replacement, administrative

and capital expense necessary for water treatment processes and facilities to meet federal, state and county environmental regulations.

Raw Water Charge

In June 1994, a raw water charge was implemented to recover the costs associated with obtaining untreated water resources. The current fee is $0.42 per ccf effective February 1, 2020. This charge is not indicated separately on the customer's bill.

DEVELOPMENT OCCUPATIONAL FEE

The Development Occupational Fee was established in May 1982 to be applied to new water and wastewater service connections and to existing customers when the water meter size is increased, or additional meters are installed. The fee is currently $600 for each single- family service connection and varies by meter size for other types of connections. The use of revenues from this fee is restricted to the funding of projects listed in the approved infrastructure financing plan adopted by City Council related to water and wastewater growth capital improvement projects or debt service on outstanding water and wastewater obligations issued for growth related purposes.

WATER RESOURCE ACQUISITION FEE

In November 1989, the City Council adopted a Water Resource Acquisition Fee to be applied to all new and existing service connections when the water meter size is increased, or additional meters are installed. The fee is based on the residential use, meter size and location of the development within the City. The fee ranges from $0 in the On-Project area (as defined under "SOURCES OF WATER SUPPLY") and $778 for a similar meter for Off-Project areas (as defined under "SOURCES OF WATER SUPPLY"). Revenue from this fee is restricted to recover costs for the acquisition of new water supplies to support growth and projects that reduce water demand. The fee had been capped at 70% of full recovery since January 1996.

DEVELOPMENT IMPACT FEE

Water Development Impact Fees began to be established at various times in growth areas beginning in the late 1980s and are applied to new and existing water service customers when the water meter size is increased, or additional meters are installed. The fee is charged in the northern and southern growth areas of the City where most of new development is occurring. There are separate charges for the northern area and the southern area. The fee currently being charged for a 3/4-inch residential meter in the northern growth areas is $5,935, and the fee currently being charged for the same meter in the southern growth area is $3,499. Fees for other meters vary according to size and maximum capacity. The fee is collected at the time the developer pays for building permits. Developers may be given Development Impact Fee credits or pay reduced fees if capital projects are constructed and contributed by the developer that typically are the responsibility of the City. The use of revenues from this fee is restricted to the funding of projects listed in the approved infrastructure financing plan adopted by City Council related to water and wastewater growth capital improvement projects or debt service on outstanding water and wastewater obligations issued for growth related purposes.

CONNECTION FEE

The City Code requires the City to assess a fee to new services to recover the cost of meter and service line installations. The fee charged varies depending upon meter size and the extent of installation work required.

UTILITY REPAYMENT AGREEMENTS

The City may enter into a utility repayment agreement with a developer in instances where a developer pays for major water facilities in order to expedite the completion of these facilities. The funding source for current repayment agreements is Development Occupational Fee previously described. These agreements typically have a limited number of years for repayment and are based upon the availability of Development Occupational Fee revenues.

WATER RESOURCES

The City's water supply is expected to be more than adequate to meet current and future demand. The City actively manages its water supply and demand with the use of a resource planning strategy, a water conservation program, and a comprehensive Drought Management Plan.

In 1980, the Arizona Groundwater Management Act (the *"Act"*) was enacted by the State Legislature. The Act designates the

Phoenix area as one of four Active Management Areas. Regulations under the Act required a 6% reduction in per capita water consumption from 1980 levels to 251 gallons per capita per day (gpcd) by 1987, and maintenance of that level through 1990 under what is termed the first management plan. The second management plan required by the Act mandated further reductions to 237 gpcd by 1995 and 224 gpcd by 2000. Additionally, the Act requires a gradual elimination of groundwater use in excess of that recharged, by 2025. The City is in compliance with the Act.

The Arizona Department of Water Resources ("*ADWR*") published a fourth management plan in 2020, which established a water use target of 194 gpcd for the City beginning January 1, 2023. The City's water usage remains below the current target of 218 gpcd and based on current usage, will be below the 2023 target of 194 gpcd. In addition, the Act requires the ADWR to designate the adequacy of each municipality or water provider's water supply to support proposed development. The Water Services Department is currently engaged in the process of updating its 100 year Assured Water Supply, a process that is repeated by the ADWR every 15 years. It is anticipated that this will be submitted to the State of Arizona in 2023 with an expected re-designation by the ADWR by December 31, 2024.

In response to the Act's requirements, the City has maintained a Water Resources Plan, (the "*Plan*") that was first completed in 1985. The Plan provides guidance for water acquisition, water management and infrastructure actions necessary to ensure sustainable water availability for current customers and anticipated growth over the next 50 years. The Plan outlines the water conservation and water resource development actions necessary during both normal and drought conditions. The Plan was updated in 1987, 1990, 1995, 2000, 2005, 2011 and most recently in 2021.

The following table presents the water supply that was available in fiscal year 2020-21 along with the demand for that year. The table also provides forecasted water supply and demand in fiscal years 2021-22 through 2059-60 based upon the City's current water rights. Current and forecasted water supply exceeds forecasted demand throughout the forecast period. Figures are in acre-feet ("*AF*").

	2020-21	**2021-22**	**2029-30**	**2039-40**	**2049-50**	**2059-60**
On-Project Supply (1) …….	356,208	356,208	394,491	432,774	432,774	432,774
Off-Project Supply (2) ……	191,062	191,062	202,062	202,062	202,062	202,062
Groundwater Supply ……...	16,250	16,250	29,710	29,710	29,710	29,710
Intermittent Supply (3) ……	57,300	57,300	57,300	57,300	57,300	57,300
Total Supply ……	620,820	620,820	683,563	717,846	721,846	721,846
Demand ……...	315,011	299,121	340,000	340,000	340,000	340,000

(1) The On-Project supply reflects the total supply available to the City from the Salt River Project; however, the City can only use the amount required to meet demands within the boundaries of the Salt River Valley Users' Association ("On-Project").
(2) For planning purposes, Off-Project supply includes water rights from the Central Arizona Project.
(3) For forecast purposes, the Other Surface Water supply is capped at 57,300 AF even though this supply may be higher in any given year. Other Surface Water supply includes Verde River gate water, Roosevelt Dam new conservation space and water from the Roosevelt Irrigation District.

The City uses reclaimed wastewater in lieu of other water supplies whenever possible. In fiscal year 2020-21, the City produced approximately 128,368 AF of reclaimed wastewater at its wastewater treatment plants. The majority of the reclaimed wastewater was used by the Palo Verde Nuclear Generating Station for cooling reactors and by the Roosevelt Irrigation District and Buckeye Irrigation Company to irrigate crops.

The City has been proactive securing and managing other water sources. The City has participated in water rights settlements with the Salt River Pima Maricopa, Fort McDowell, and Gila River Indian Communities from which it has leased or been assigned approximately 22,323 AF of Central Arizona Project Water annually. In addition to the groundwater supply listed above, the City has recharged excess supplies and as a result has accumulated long-term storage credits of 434,357 AF and groundwater allowance credits of 3,699,500 AF that can be accessed, if needed, by adding wells and additional distribution methods to the System. Also, the Arizona Water Banking Authority has stored 1,921,828 AF of water underground for drought protection in the Phoenix Active Management Area, of which the City would receive allocations if needed.

WATER CONSERVATION PROGRAM

In 1986, the City Council approved a comprehensive Water Conservation Plan, which identified conservation programs that are effective in saving water, cost beneficial, and publicly supported. The City Council approved an update of the plan in January 1999. Under the Water Conservation Plan, conservation activities are focused around five program areas: education and public awareness; technical assistance; regulation; planning and research; and interagency and intra-City coordination.

(1) Education and public awareness programs consist of school and general public education efforts. These efforts involve the distribution of classroom materials, water issue training, advertising, and providing books for schools and public libraries. The City also distributes literature on conservation and conducts seminars regarding desert landscaping and irrigation practices.

(2) Technical assistance includes retrofitting houses and apartments with low flow plumbing, auditing of commercial property water use and conducting design review for new facilities.

(3) Regulation involves monitoring peak summer water demand on large turf facilities to assure compliance with water allotments. The conservation program also monitors compliance with the City plumbing code.

(4) Planning and research is an ongoing element of the program to determine more effective technologies and program elements to save water in a cost-effective way.

(5) Interagency and intra-City coordination involves working with national and local efforts to define how water is currently used, and the development of effective conservation measures for use in the City.

In 2019, the City Council convened an Ad Hoc Water Conservation Committee to evaluate the effectiveness of current water conservation programs and examine whether additional conservation measures were necessary. In late 2019, the City Council adopted the recommendations of the Ad Hoc Water Conservation Committee to add or expand 12 new conservation initiatives. This included the addition of new staff and a Conservation Coordinator, which was accomplished in 2021. Phoenix expects to phase in the additional and expanded conservation programs beginning in 2022.

DROUGHT MANAGEMENT PLAN

The City first adopted a Drought Management Plan in January 1991 to provide measures that would be taken in the event of water supply shortages during a drought. The Drought Management Plan was updated in 2015. The Drought Management Plan allows for the unrestricted use of recycled water during a water shortage, the implementation of the Drought Management Plan on a non-citywide basis to address localized shortages and appeals on water restrictions for best practices in commercial and industrial water use.

The Drought Management Plan also provides for four stages of voluntary and involuntary demand reduction activities in the event of a drought. The main focus of the Drought Management Plan is the use of a surcharge on water rates. The Water Services Director can institute this surcharge in a declared drought to cover costs for more expensive alternative water supplies, to provide demand reduction assistance to customers, and to offset revenue lost during periods when water consumption is declining.

A stage one alert requires the City to provide public information on the drought and requests voluntary demand reductions from water users. Stages two through four call for increased public information, mandatory water demand reductions, and an increasing drought surcharge to reduce water demands to meet supply levels and maintain the revenue base. Since the implementation of the Drought Management Plan, a stage one alert was required in 1991 and in 2003, when the Salt River Project reduced deliveries of raw water to the City by one-third. In January 2005, Salt River Project restored deliveries back to normal levels due to winter rains that filled the Salt and Verde Rivers' reservoirs. On April 15, 2005, the City lifted the stage one alert, and no alerts have been issued since.

WATER SYSTEM - FACILITIES

Raw water is presently treated at five facilities located adjacent to the Central Arizona Project Hayden- Rhodes Aqueduct and Salt River Project canals. The capacity in million gallons per day ("*mgd*") of the plants, including active well capacity, is indicated below:

Water System Facilities	Total Treatment Capacity (mgd)
Union Hills Plant	160
Lake Pleasant Plant	80
24th Street Plant	140
Deer Valley Plant	100
Val Vista Plant (1)	130
Groundwater (2)	36
Total	646

(1) The Val Vista Water Treatment Plant is jointly owned by the cities of Phoenix and Mesa with a treatment capacity of 220 mgd of which the City owns 130 mgd.
(2) There are 22 active wells that are in compliance with Federal standards, which became effective in 2006.

The System also includes the Cave Creek Water Reclamation Plant ("*WRP*") that became operational in December 2001 with an initial capacity of 8 mgd. The plant provided additional water resources through the use of recycled wastewater for irrigation of turf facilities larger than five acres in the service area and groundwater recharge in the northeast area of the City. Due to lower wastewater flows resulting from economic conditions, the plant was shut down in October 2009 until flows return to higher levels. The plant treatment process is not operationally efficient at these lower flows. Flows are bypassed to the 91st Avenue Wastewater Treatment Plant, where sufficient capacity exists to process the additional load. During the shutdown of the plant, turf facilities previously using reclaimed water from the Cave Creek WRP will be delivered potable water. This temporary change results in more efficient operation of the wastewater system.

In addition to the major treatment and reclamation facilities, the System maintains other supplemental facilities. Storage capacity for treated water in ground reservoirs and elevated tanks total over 500 million gallons to meet peak-day demand. Approximately 7,027 miles of water mains make up the transmission and distribution system. These mains range in size from 2 inches to 108 inches in diameter. Approximately 24.5% of the mains have been installed since 2000. To maintain static pressure range of 60 to 100 pounds per square inch throughout 76 pressure zones, there are 114 booster stations and 171 hydraulic control valves. Public fire protection inside the water utility service area is provided by approximately 55,000 fire hydrants. In addition, the system has over 9,400 active fire connections to commercial, governmental, and industrial customers. Lost and unaccounted for water is 8.5%, which is below the industry standard of 10.0%.

REGULATORY REQUIREMENTS

The quality of treated water produced by the System meets all chemical, radiological, and bacteriological standards set by the Federal Government and the State of Arizona. The Federal regulations are the responsibility of the U.S. Environmental Protection Agency and serve as guidelines for the State agencies to use as minimum drinking water quality standards. State water quality standards are promulgated by the Arizona Department of Environmental Quality and must be at least as stringent as the Federal regulations. The System is in compliance with all current regulations. Many future regulatory guidelines that are currently proposed but not finalized will require additional studies, design efforts and construction of new facilities. The Department has planned adequately to monitor and develop a means to comply with these future regulations.

SOURCES OF WATER SUPPLY

The City's sources of water supply include: surface water from the Salt River and Verde River watersheds and groundwater delivered through the Salt River Project ("*SRP*"), Colorado River water delivered through the Central Arizona Project ("*CAP*") and groundwater from City wells located within the System's service area. The City operates the System to maximize the use of the least expensive supply sources.

Surface Supply from the Salt River Project

The SRP was organized in 1903 to supply irrigation water to approximately 240,000 acres of farmland in and around the City. Water supply is obtained from the runoff of 13,000 square miles of mountain watershed, the collection and storage of which is provided for by six major reservoirs having a combined capacity of over 2.3 million AF (749 billion gallons). The reservoirs are contained behind the Theodore Roosevelt, Horse Mesa, Mormon Flat and Stewart Mountain Dams on the Salt River and the Bartlett and Horseshoe Dams on the Verde River.

Most of the water obtained from the SRP system can be delivered by Phoenix only to lands with legal rights to that water. Under the Kent Decree of 1910, lands located within the area of the SRP have rights to the surface flow water of the Salt and Verde Rivers ("*On-Project*"). Arizona water rights within the Salt River Project area are held to be appurtenant to such lands. As a result, landholders in the City and the surrounding areas that are located within the boundaries of the Salt River Project are provided with a stable water supply from this source. Lands outside the SRP area do not have access to SRP water rights and are referred to as ("*Off-Project*").

The City presently obtains approximately 60% of its water supply through agreements with the SRP. These agreements provide for delivery to the City of water rights for land converted from agricultural to urban uses. As land located in the System's service area of the SRP is converted to urban use, the water supply formerly used for agricultural irrigation of the converted land becomes available to the City to supply domestic and industrial uses. The City pays the SRP for water assessments of urbanized lands and takes delivery of the water at its water treatment plants. The Salt River Valley Water Users' Association determines rates for all types of water supplied to the City by the SRP. The original contract was signed in 1952 for a 25-year term and a second 25-year term was negotiated in 1977. A new 100-year contract that provides substantially the same provisions as the previous contract was approved by the City Council in 2001.

During periods when the dams cannot contain flows from the Salt and Verde Rivers, "spill water" results. Spill water is free to the City. Spillway gates installed on Horseshoe Dam and financed by the City, in accordance with an agreement with the SRP, resulted in additional storage water in the Horseshoe Reservoir.

The water stored behind these gates is known as "gate water" and provides an additional supply of water to the City at nominal cost. Both gate water and spill water can be used in the Off-Project areas resulting in significant cost savings over the more expensive supply alternatives. The City also participated in financing modifications to Roosevelt Dam as part of the 1986 Plan Six Funding Agreement (see "Plan Six Funding Agreement" on page A-15 for further details), which were completed in 1995. Because of these modifications, the City receives a supply of water known as New Conservation Space (*"NCS*") gate water that can also be used Off Project. Historically, the amount of gate water and spill water available to the City of Phoenix has varied considerably from year to year.

The following table shows AF and payments for Salt River Project water obtained for the ten-year period ending December 31, 2021:

Water Obtained From Salt River Project

Year	Total Water Obtain From Salt River Project (Acre-Feet)	Amount Paid	Paid Per Acre-Foot
2012	152,458	3,621,872	23.76
2013	145,720	4,056,793	26.28
2014	144,610	3,800,941	22.28
2015	144,183	2,896,986	20.09
2016	148,100	3,064,910	20.69
2017	150,000	3,315,436	22.10
2018	148,741	3,356,709	22.57
2019	134,314	3,623,382	26.98
2020	145,405	4,309,882	31.69
2021 (1)	150,000	5,337,610	35.58

(1) Preliminary and subject to change based on final reporting from SRP.

Agricultural Exchange for Reclaimed Wastewater

In 1995, the City began to take advantage of an additional water supply, which is the result of an agricultural exchange of treated wastewater for surface water. The 23rd Avenue Wastewater Treatment Plant treats wastewater to standards suitable for use on edible crops and delivers up to 30,000 AF per year ("*AF/Y*") to the Roosevelt Irrigation District ("*RID*"). In turn, RID delivers an equivalent amount of groundwater to the Salt River Project, which then provides surface water to the City for use anywhere within the System. Additional exchanges occur with the Salt River Pima Maricopa Indian Community ("*SRPMIC*") as part of a water rights settlement as described below. This additional water supply resulting from the agricultural exchange of treated wastewater for surface water is dependent on the annual SRP surface water allocated deliveries to the City. The net result of all the exchange agreements is an increase in the City's water supply of up to 30,000 AF/Y. From 2017 to 2021, Phoenix has received an average of 22,362 AF of exchange water at $50.78 per AF, reimbursing RID for their cost of operations, maintenance, and repair of leased SRP wells.

Surface Supply from Central Arizona Project

Beginning in fiscal year 1986-87, Colorado River water became available from the CAP. This was the result of construction of the Colorado River following the June 1963 United States Supreme Court decision which ended 11 years of litigation among the states of Arizona, California, and Nevada over Colorado River water rights: and the passage of the Colorado River Basin Project Act of September 30, 1968, authorizing the construction of the CAP. In the late 1970s the City requested an allocation of Colorado River water from the Secretary of Interior to provide a reliable water supply for Off Project lands that did not have SRP water rights other than gate water and spill water. This water is delivered from Lake Havasu through the Hayden-Rhodes Aqueduct section of the CAP, a distance of approximately 190 miles. The City's allocation of Colorado River water is used primarily for its Off-Project service area.

The City's current long-term subcontract for Colorado River Municipal and Industrial ("*M&I*") water is for 122,204 AF/Y. The City has access to additional Colorado River water through 100-year leases with several Indian Communities. Beginning in 2000, the SRPMIC Water Rights Settlement provides the City access to 3,023 AF/Y of leased Colorado River water. The Fort McDowell Indian Community Water Rights Settlement lease, effective in 2001, grants the City access to 4,300 AF/Y of Colorado River water, and the Gila River Indian Community ("*GRIC*") Water Rights Settlement Agreement provides access to an additional 15,000 AF/Y. The SRPMIC settlement also provides the City with 1,136 AF/Y of agricultural-priority Colorado River water and 4,751 AF/Y of high-priority mainstem Colorado River water delivered through the CAP system. Lastly, the City has access to an additional 36,144 AF/Y of agricultural priority Colorado River water which was transferred from the Hohokam Irrigation District in place of water the City would have received from the Cliff Dam storage, which was not constructed. Under the 2004 Arizona Water Rights Settlement Act, this water is converted to the higher M&I priority status in 2044 and beyond.

On February 11, 2009, the City Council authorized the City Manager to enter into the White Mountain Apache Tribe Water Quantification Agreement (the "*Quantification Agreement*"). Under the terms of the Quantification Agreement, the City will lease 3,505 AF/Y of the White Mountain Apache Tribe's Colorado River water for a 100-year term. The one-time cost to the City will be approximately $10.6 million from the Water Resource Acquisition Fund, part of the Water Capital Improvement Plan, and due within 30 days of the enforceability date of the lease, which is expected to be late 2023. The City will pay CAP the annual delivery rate at the time of delivery of the water.

Colorado River water is treated primarily at the Union Hills Water Treatment Plant, which was completed in June 1986. The initial maximum capacity of 80 mgd was expanded to 160 mgd in 1992. The City has since completed construction on the Lake Pleasant Water Treatment Plant. In April 2007, the facility started treating Colorado River water at an initial maximum capacity of 80 mgd. Colorado River water also can be treated at other water treatment plants through the Interconnect Facility. The Interconnect Facility connects the CAP canal with the SRP canals, which allows the City to use more Colorado River water during SRP shortages.

The Central Arizona Water Conservation District ("*CAWCD*"), the controlling agent for the CAP system in Arizona, sets the rates, collects the revenue from the users and pays the CAP expenses. All M&I users pay for operation and maintenance, and replacement costs based on the water ordered each year. In addition, users pay an energy component on all water received through CAP. The M&I rate for 2021 was $160/AF. The rate increased to $165/AF for 2022 and is forecasted to be $171/AF for 2023.

The CAWCD has an obligation to the United States, Department of the Interior for repayment of capital costs of construction of the CAP. The CAWCD repayment obligation is $1.65 billion and will take place over a period of 50 years with the final payment in 2046. The repayment amount was offset through 2019 by revenue collected from power generation before calculating the net capital charge rate to the users, such as the City. Beginning in 2020, there is no offset. The charge to the City of Phoenix averaged $1.8 million per year for years 2009 through 2014. The charge was $2.7 million in 2015, $2.8 million in 2016, 3.8 million in 2017,

$5.5 million in 2018, $5.0 million in 2019, $8.6 million in 2020, and $9.1 million in 2021. The charge is estimated to be $8.4 million in 2022.

On October 1, 2014, the City Council authorized the City Manager to enter into Intergovernmental Agreements ("*IGAs*") between the City, the City of Tucson ("*Tucson*") and the Metropolitan Domestic Water Improvement District ("*Metro Water*") to develop a pilot program for storage, recovery, and exchange of Colorado River water.

Under the terms of the IGAs, the City, which relies heavily on surface water supplies, will store a portion of its unused Colorado River water in recharge facilities owned by Tucson and Metro Water located in the Tucson Active Management Area, which is primarily dependent on wells and groundwater. In the future, Tucson and Metro Water will recover the stored water on behalf of the City and use it in exchange for ordering a like amount of their Colorado River water for direct delivery to the City's water treatment plants adjacent to the CAP aqueduct. The IGAs provided for a short-term pilot program under which the City stored 1,000 AF in 2015 (850 AF in Tucson's Southern Avra Valley Storage and Recovery Project and 150 AF in Metro Water's Avra Valley Recharge Project) to determine the administrative and institutional feasibility of developing a large-scale program in the future. In early 2016, the two cities amended the agreement to increase the amount of storage allowed during the pilot. Following the pilot, the agreement was further amended in September 2016 to increase the amount of water stored in 2017 to 40,000 AF. The City stored 40,000 AF in 2017 and 2018, 34,970 AF in 2019, and 43,000 AF in 2020. The amount of water stored in 2021 was 45,000 AF. The City expects to store 29,523 AF in 2022.

The agreement with the City of Avondale functions in a similar way. Phoenix will store a portion of its unused entitlement of Colorado River water in the Avondale Wetlands USF and obtain long-term storage credits. Avondale is entitled to a certain volume of Colorado River water through a Subcontract among the United States, the Central Arizona Water Conservation District, and the City of Avondale. Under the IGA, Avondale will take delivery of recovered Phoenix water from the Avondale Wetlands USF in exchange for the delivery to Phoenix of a like amount of Avondale's Colorado River water. Phoenix stored approximately 5,221 AF in Avondale in 2021 and intends to store a similar amount in 2022.

On March 7, 2018, the City Council authorized the City Manager to enter into an intergovernmental agreement with the Salt River Valley Water Users' Association for the use of its wells during Colorado River shortage conditions. Through the agreement, Phoenix purchased a right-of-first-refusal to 20,000 AF of the Association's well pumping capacity. The Association's wells can be used to recover long-term storage credits that could then be delivered through the SRP canal system to Phoenix's surface water treatment plants.

The following table shows the AF and payments for CAP water obtained for the ten-year period ending December 31, 2021**:**

Water Obtained From Central Arizona Project

Year	Total Water Obtain From CAP (Acre-Feet)	Amount Paid	Paid Per Acre-Foot
2012	132,227	17,964,128	135.86
2013	124,613	17,937,549	143.95
2014	122,069	20,418,710	167.27
2015	142,571	23,332,157	163.65
2016	137,300	24,915,992	181.47
2017	184,381	32,974,685	178.84
2018	186,924	33,698,113	180.63
2019	181,677	35,042,835	192.89
2020	184,914	34,269,112	185.32
2021 (1)	184,861	32,720,397	177.00

(1) Preliminary and subject to change based on final reporting from CAP.

Colorado River Supply

Based on current hydrological conditions, there is a significant probability of an official declaration of shortage in the Colorado River water supply as early as 2022. A shortage declaration on the Colorado River will not affect Phoenix's ability to meet its customers' demands for many years to come due to substantial entitlements, Phoenix's high priority rights, alternative supply, and banked water.

Arizona Entitlement. Under guidelines adopted by the Secretary of the Interior in 2007 and congressional action on the Drought Contingency Plan in 2019, the reservoir elevation at Lake Mead is the determining factor in the timing and magnitude of an official declaration of water supply shortage on the Colorado River system. There are multiple tiers of shortage that would be shared by Arizona, Nevada, California, and Mexico. Arizona's annual entitlement to Colorado River water in non-shortage years is 2.8 million AF. Of the 2.8 million AF, about 1.5 million AF is delivered through the CAP. Arizona's Colorado River entitlement under the eight tiers of shortage would be reduced by between 192,000 AF and 720,000 AF. Therefore, even under the strictest shortage declaration, approximately 780,000 AF of Colorado River water would be available for delivery to CAP contractors and subcontractors. These reductions are subject to change following multi-state negotiations to reach a Lower Basin Drought Contingency Plan that could be in effect through 2026.

City of Phoenix Supply and Demand. The City holds rights to an annual volume of 186,557 AF of Colorado River water delivered through the CAP. Of this volume, 149,277 AF is made up of high priority supply within the CAP. The City's entitlement to Colorado River water could be cut in the coming years under the Drought Contingency Plan; however, the City only uses approximately two-thirds of its Colorado River water entitlement to meet current demands, meaning that a generous buffer exists between supply and demand. City's annual use of Colorado River water to meet its customers' demands has not exceeded 132,000 AF in recent years, and water conservation efficiencies are expected to continue. Even under high-growth projections, City's need for Colorado River water to meet its customers' annual demands is not expected to exceed 150,000 AF until at least 2060. A shortage declaration on the Colorado River will not affect City's ability to meet its customers' demands for many years to come due to substantial entitlements, City's high priority rights, alternative supplies, banked water, and the development of infrastructure that allows the city to move alternative Salt and Verde River water into areas of northern portion of the City that are currently dependent on Colorado River supplies.

Alternative Supply and Banked Water. If shortages extend beyond 2023, the available Colorado River water, coupled with City's alternative supply (gate water, new conservation space water and recoverable long-term storage credits) are expected to be sufficient to meet all of its customers' needs through 2040, even under a high- growth scenario with a shortage declaration in every year. Should drought conditions worsen, causing the elevation at Lake Mead to fall below 1,025 feet, it may be necessary for the Secretary of the Interior to declare a shortage that exceeds the shortages described above. The City is preparing for this contingency by developing transmission mains and pump stations that allow the City to pump alternative water supplies from the Salt and Verde River system as well as recovered long-term storage credits to areas in the northern portion of the City that are currently dependent on Colorado River supplies. These improvements and other related infrastructure is expected to be in place and operational by the end of 2023. With this infrastructure in place, the City can withstand worst-case scenarios on the Colorado River.

Plan Six Funding Agreement

The 1986 Plan Six Funding Agreement provided for a cost-sharing arrangement for the Plan Six water storage facilities for surplus water from the CAP. The parties to the Plan Six Funding Agreement included the United States Government, the State of Arizona, the CAWCD, the Maricopa County Flood Control District, the SRP, the City and the cities of Chandler, Glendale, Mesa, Scottsdale, Tempe, and Tucson. The main elements of Plan Six Funding Agreement included the construction of the new Waddell Dam on the Agua Fria River, modifications to Roosevelt Dam and Stewart Mountain Dam and construction of the Cliff Dam on the Salt River. In 1987, the Cliff Dam project was removed from the plan. In 1993, the Hohokam Irrigation District transferred to the City Colorado River water rights of 36,144 AF/Y to replace the loss associated with the Cliff Dam. The City contributed a total of $32 million for improvements to the facilities.

Groundwater Supply

The City has 22 active groundwater wells located throughout the service area. These wells meet federal Ground Water Rule standards that took effect in 2006.

The following table compares by source of the average calendar-year daily delivery to the distribution system and the daily production capacity of the System. The maximum daily peak demand made on the System each year is compared to total capacity

available. All units are in million gallons per day (mgd).

Source of Supply	2015	2016	2017	2018	2019	2020	2021	Daily Treatment Capacity
Surface Water:								
Salt River Project:								
24th Street Plant	39.25	31.69	48.55	54.12	54.12	57.65	57.65	140
Deer Valley Plant	44.19	45.09	61.29	57.49	57.49	54.95	54.95	100
Val Vista Plant (1)	64.92	86.78	53.38	77.18	77.18	65.17	65.17	130
Central Arizona Project:								
Union Hills Plant	81.28	77.89	83.52	68.74	68.74	74.51	74.51	160
Lake Pleasant Plant	28.08	25.63	26.07	25.00	25.00	25.00	26.73	80
Total Surface Water	257.72	267.08	272.81	282.53	282.53	277.28	279.01	610
Groundwater (2)	3.66	4.71	4.01	4.00	4.00	4.00	4.00	36
Total Average Daily Deliveries	261.38	271.79	276.82	286.53	286.53	281.58	283.01	
Total Daily Capacity								646
Total Maximum Day Demand (3)	381.42	384.52	387.17	384.32	384.32	400.15	400.15	

(1) The Val Vista Water Treatment Plant is jointly owned by the cities of Phoenix and Mesa with a total treatment capacity of 220 mgd of which the City owns 130 mgd.

(2) There are 22 active wells that are in compliance with Federal standards that became effective in 2006.

(3) Maximum day demand is defined as the water delivered during the highest water demand day in a given year. Maximum day demand is a critical consideration in designing many water facilities.

OUTSTANDING WATER SYSTEM OBLIGATIONS

City of Phoenix Civic Improvement Corporation Junior Lien Water System Revenue Debt

The City entered into purchase agreements with the City of Phoenix Civic Improvement Corporation (the "*Corporation*") for certain modifications and expansion at various water treatment plants throughout the City. The Corporation issued bonds for the water treatment plant modifications and expansions, and the City made a junior lien pledge of net operating revenues of the System for the payment of principal and interest on the bonds. Amounts due on the bonds and pursuant to the purchase agreements are as follows:

City of Phoenix Civic Improvement Corporation
Junior Lien Water System Revenue Bonded Debt Outstanding

Issue Date	Original Issuance	Purpose	Maturity Dates	Average Interest Rate	Debt Outstanding As of 1-1-22
08-11-01	$ 99,980,000	Water System Refunding	7-1-02/24	5.24%	$20,180,000
12-17-14	152,830,000	Water System Improvements	7-1-19/44	4.85	10,920,000
12-17-14	445,085,000	Water System Refunding	7-1-16/29	4.67	332,525,000
01-10-17	375,780,000	Water System Refunding	7-1-17/39	4.99	358,255,000
04-09-20	165,115,000	Water System Improvements	7-1-30/44	5.00	165,115,000
04-09-20	228,015,000	Water System Improvements	7-1-30/44	5.00	228,015,000
06-09-21	250,000,000	Water System Improvements	7-1-26/45	4.77	250,000,000
06-09-21	67,345,000	Water System Refunding	7-1-22/26	5.00	67,345,000
06-09-21	151,280,000	Water System Refunding	7-1-26/44	2.60	151,280,000
Total City of Phoenix Civic Improvement Corporation Junior Lien Water Revenue Bonded Debt					$1,583,635,000

City of Phoenix Civic Improvement Corporation
Schedule of Annual Debt Service Requirements
Junior Lien Water System Revenue Bonded Debt Outstanding

Fiscal Year	Principal	Interest	Total
2021-22	$57,765,000	$73,878,974	$131,643,974
2022-23	71,225,000	70,958,874	142,183,874
2023-24	74,830,000	67,364,024	142,194,024
2024-25	71,725,000	63,587,074	135,312,074
2025-26	85,840,000	60,000,824	145,840,824
2026-27	75,980,000	55,904,560	131,884,560
2027-28	79,530,000	52,353,393	131,883,393
2028-29	82,725,000	49,078,352	131,803,352
2029-30	46,075,000	45,655,560	91,730,560
2030-31	48,165,000	43,571,743	91,736,743
2031-32	50,350,000	41,380,386	91,730,386
2032-33	52,660,000	39,075,856	91,735,856
2033-34	55,080,000	36,652,895	91,732,895
2034-35	57,630,000	34,105,805	91,735,805
2035-36	60,300,000	31,428,130	91,728,130
2036-37	63,120,000	28,613,622	91,733,622
2037-38	66,070,000	25,656,130	91,726,130
2038-39	69,175,000	22,552,037	91,727,037
2039-40	72,435,000	19,293,715	91,728,715
2040-41	75,705,000	16,024,188	91,729,188
2041-42	79,135,000	12,598,085	91,733,085
2042-43	82,730,000	8,999,132	91,729,132
2043-44	86,670,000	5,063,003	91,733,003
2044-45	18,715,000	935,750	19,650,750
	$1,583,635,000	$904,732,112	$2,488,367,112

City of Phoenix Outstanding Junior Subordinate Lien Obligations

The City entered into a Revolving Credit Agreement dated June 28, 2019 (the "*Revolving Credit Agreement*") with Wells Fargo, N.A (the "*Revolving Credit Agreement Provider*") for a three-year loan period ending on June 27, 2022, during which the City may borrow, repay, and re-borrow amounts, but not exceeding $200,000,000 outstanding in the aggregate at any one time (each a "*Loan*"). Loans made under the Water Revolving Credit Agreement (such loans, together with any obligations on a parity therewith, the "*Junior Subordinate Lien Obligations*") are payable from Designated Revenues pledged to the City of Phoenix Civic Improvement Corporation Junior Lien Water System Revenue Bonds ("*Junior Lien Obligations*") but are junior and subordinate to the Junior Lien Obligations. If any loans under the Water Revolving Credit Agreement are outstanding on June 27, 2022, the City can, subject to certain conditions, convert the borrowing to a three-year term loan payable in twelve equal quarterly principal installments ending on June 27, 2025.

City of Phoenix
Junior Subordinate Lien
Water Revolving Loan Outstanding

Issue Date	Original Issuance	Purpose	Prepayment Date	Notes Outstanding As of 1-1-22
06-28-2019	$200,000,000	Water Revolving Credit Facility	04-09-2020	$ -

As of January 1, 2022, there is no Water Revolving Loan outstanding.

Upon an event of default under the Water Revolving Credit Agreement, Water Credit Agreement Provider may declare all amounts due (collectively, "*Payment Obligations*") immediately due and payable. Events of default include, but are not limited to, failure to pay amounts to the Water Credit Agreement Provider by the applicable grace period, failure to perform certain covenants such as issuance of obligations in violation of additional bonds test, sale of the City Water System property in violation of applicable covenants, acceleration of other obligations payable from Water System revenues on any lien in an amount of at least $5,000,000, certain litigation, bankruptcy and insolvency events related to the Water System and certain downgrades of Junior Lien Obligations. If Payment Obligations were to be accelerated, Designated Revenues would continue to be transferred to the extent available from the Revenue Fund to the Junior Lien Bond Fund on a monthly basis prior to payment of Payment Obligations.

City of Phoenix Junior Lien Water System Revenue Debt

The City entered into a loan agreement with the Water Infrastructure Finance Authority of Arizona (*WIFA*) to finance certain improvements to the water distribution system and to install automated meters in certain areas of the City. WIFA loaned the City funds derived in whole or in part from the United States Environmental Protection Agency pursuant to the federal American Recovery and Reinvestment Act of 2009. The City made a junior lien pledge of the net operating revenues of the System for the payment of principal and interest on the loans. Amounts due on the loans pursuant to the loan agreement are as follows:

City of Phoenix
Junior Lien Water System Revenue Debt Outstanding

Issue Date	Original Issuance	Purpose	Maturity Dates	Average Interest Rate	Debt Outstanding as of 1-1-22
04-12-11	$2,093,435	Water System Improvements	7-1-16/24	2.97%	$755,914
09-14-11	1,496,737	Water System Improvements	7-1-24/29	2.97	1,496,737
Total City of Phoenix Junior Lien Water Revenue Debt					$2,252,651

City of Phoenix
Schedule of Annual Debt Service Requirements
Junior Lien Water System Revenue Debt Outstanding

Fiscal Year	Principal	Interest	Total
2021-22	$254,571	$66,859	$321,430
2022-23	262,126	59,303	321,429
2023-24	269,906	51,523	321,429
2024-25	277,917	43,512	321,429
2025-26	286,165	35,264	321,429
2026-27	294,659	26,770	321,429
2027-28	303,404	18,025	321,429
2028-29	303,903	9,020	312,923
	$2,252,651	$310,276	$2,562,927

WATER FINANCIAL PLANNING PROCESS AND CAPITAL IMPROVEMENT PROGRAM

The City has a long-standing practice of updating the five-year Water Capital Improvement Program (the "*Water CIP*") and financial forecast each year for review by the City Council as part of the financial planning process. The Water CIP, financial forecast and associated proposed water rates are updated through a coordinated process between the Water Services Department and the Finance Department. The two departments recommend rates necessary to maintain water revenue bond debt service coverage of 2.0 times or greater, a minimum available fund balance equal to annual total revenue bond debt service and long-term sustainability of the System. The most recent CIP was approved by the City Council per the adopted budget in June 2021. The City Council recently approved a 6.5% increase over a two-year period with 3.0% effective October 2021 and 3.5% effective March 2022.

The Water CIP for fiscal years 2022-23 through 2025-26 totals $1.34 billion. In addition, $403.2 million was programmed in fiscal year 2021-22 for a total Water CIP of $1.742 billion. In general, the Water CIP includes projects for improvements to the water treatment plants' processes; improvements to storage facilities; rehabilitation and replacement of water mains and other water infrastructure; modifications to meet regulatory mandates; and upgrades to automation and environmental systems. The total Water CIP for fiscal years 2021-22 through 2025-26 is shown on the following page.

City of Phoenix Water System
Capital Improvement Program Summary

	2021 - 22	2022 - 23	2023 - 24	2024 - 25	2025 - 26	5 - Year Total
Uses of Funds						
Production:						
Deer Valley Treatment Plant	$ 39,180,000	$ 24,730,000	$ 7,565,000	$ 2,855,000	$ 38,065,000	$ 112,395,000
24th Street Treatment Plant	20,015,000	20,080,000	35,975,000	3,935,000	10,355,000	90,360,000
Union Hills Treatment Plant.....	3,320,000	32,455,000	4,290,000	8,605,000	32,820,000	81,490,000
Val Vista Treatment Plant.....	7,980,440	11,260,000	3,323,000	5,073,200	74,669,000	102,305,640
Wells	1,380,000	24,680,000	1,310,000	1,065,000	1,165,000	29,600,000
Production Replacement.....	8,035,000	15,390,000	9,884,650	10,995,000	14,355,000	58,659,650
Water Resource Acquisition	12,577,211	-	-	-	-	12,577,211
Subtotal Production	92,487,651	128,595,000	62,347,650	32,528,200	171,429,000	487,387,501
Distribution:						
East Phoenix Mains	5,032,781	23,096,443	4,771,686	6,943,756	29,880,244	69,724,910
West Phoenix Mains	4,402,442	21,933,824	8,336,199	1,059,729	36,938,971	72,671,165
North Phoenix Mains.....	62,270,699	17,109,677	13,179,677	13,169,677	25,368,317	131,098,047
South Phoenix Mains	28,724,025	47,916,954	16,869,789	472,782	23,698,780	117,682,330
Mains/Valves Replacement	15,571,600	16,220,000	10,700,000	20,361,600	20,550,000	83,403,200
Water Storage	20,985,000	19,165,000	16,645,000	6,020,000	9,525,000	72,340,000
Booster Stations and PRV.....	24,175,856	30,701,375	48,273,665	444,550	21,680,000	125,275,446
Fire Hydrants New/Replace	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	20,750,000
Service Connect/Replace	92,117,207	72,824,460	33,206,566	20,458,470	90,905,862	309,512,565
Subtotal Distribution.....	257,429,610	253,117,733	156,132,582	73,080,564	262,697,174	1,002,457,663
Other:						
Automation	24,514,887	11,743,776	8,864,361	7,600,576	20,179,776	72,903,376
Facilities.....	4,800,000	5,087,500	4,361,000	3,111,000	6,111,000	23,470,500
Percent for Arts	5,605,573	-	-	-	-	5,605,573
Security	280,000	280,000	280,000	280,000	280,000	1,400,000
System Studies	2,000,000	5,000,000	4,500,000	3,000,000	24,000,000	38,500,000
Water Resiliency Program.....	16,090,075	16,445,726	16,982,650	17,520,721	17,818,909	84,858,081
Power Redundancy.....	-	-	2,282,080	-	23,496,940	25,779,020
Subtotal Other.....	53,290,535	38,557,002	37,270,091	31,512,297	91,886,625	252,516,550
Total Uses	$ 403,207,796	$ 420,269,735	$ 255,750,323	$ 137,121,061	$ 526,012,799	$ 1,742,361,714
Sources of Funds						
Operating Funds:						
Development Occupation Fees.....	$ 2,300,000	$ 6,900,000	$ 1,650,000	$ 500,000	$ 500,000	$ 11,850,000
Water Revenue (1)	110,002,729	146,626,071	64,038,217	56,029,453	78,318,479	455,014,949
Water Resource Acquisition.....	12,597,211	6,460,000	20,000	-	-	19,077,211
Subtotal Operating Funds	124,899,940	159,986,071	65,708,217	56,529,453	78,818,479	485,942,160
Other Financing:						
Mesa Participation (2).....	1,505,343	3,468,910	305,699	1,365,347	29,493,387	36,138,686
Developer Contributions.....	56,086,000	-	-	-	-	56,086,000
Bond Funds/Commerical Paper.....	217,516,513	253,614,754	189,736,407	79,226,261	417,700,933	1,157,794,868
Other Sources.....	3,200,000	3,200,000	-	-	-	6,400,000
Subtotal Other Financing.....	278,307,856	260,283,664	190,042,106	80,591,608	447,194,320	1,256,419,554
Total Sources.....	$ 403,207,796	$ 420,269,735	$ 255,750,323	$ 137,121,061	$ 526,012,799	$ 1,742,361,714

(1) Includes revenue from Water Se Includes revenue from Water Service charges as well as other miscellaneous fees and charges not included in other categories.

(2) Represents the city of Mesa's share of costs for capital projects related to the Val Vista Water Treatment Plant which is a joint venture between the City and Mesa.

Revised January 2022

City of Phoenix Water System
Comparative Statement of Revenues, Expenditures, Encumbrances, Debt Service, Debt Service Coverage and Changes in Fund Balance (Non-GAAP Budgetary Basis)

	2016-17	2017-18	2018-19	2019-20	2020-21
Revenues: (1)					
Metered Water Sales (2)	$ 323,051,056	$ 337,063,478	$ 298,509,027	$ 310,092,051	$ 344,551,030
Environmental Charge	33,357,793	34,426,690	42,845,845	68,718,520	78,588,787
Raw Water Charge	25,425,034	26,451,616	26,394,518	34,426,970	39,559,906
Wholesale Water Sales	3,920,015	3,505,977	3,278,051	3,569,175	3,809,077
Customer Service Fees	5,055,730	5,914,670	5,335,411	4,202,743	2,540,139
Development Occupational Fees	3,754,680	3,916,414	4,221,225	5,536,482	6,171,264
Water Resource Acquisition Fees	2,226,949	2,110,513	2,528,958	2,335,568	1,892,318
Connection Fees	4,809,501	5,242,333	5,231,687	5,438,372	6,111,720
Interest Income	2,804,075	3,622,943	3,828,398	5,166,869	1,564,945
Other	16,065,930	19,212,378	14,038,699	19,274,509	11,903,579
Total Revenues	420,470,763	441,467,012	406,211,819	458,761,258	496,692,765
Operation & Maintenance Expenditures and Encumbrances:					
Administration and Engineering	21,930,453	24,985,838	20,375,812	21,669,985	20,362,714
Customer Service	6,690,465	7,073,640	7,431,838	8,644,816	8,772,443
Production and Treatment (3)	97,364,327	111,300,487	111,825,420	121,451,302	123,782,424
Distribution and Centralized Functions (3)	42,132,567	49,657,847	65,647,912	59,760,498	68,726,339
Total O&M Expenditures and Encumbrances	168,117,812	193,017,812	205,280,982	211,526,601	221,643,920
Net Revenues Available for Junior Lien Revenue Bond Debt Service (Designated Revenues)	252,352,951	248,449,200	200,930,837	247,234,657	275,048,845
Junior Lien Revenue Bond Debt Service	107,028,754	109,837,329	113,002,767	120,761,467	133,822,875
Junior Lien Debt Service Coverage	2.36	2.26	1.78	2.05	2.06
Revenues Available After Junior Lien Revenue Bond Debt Service	145,324,197	138,611,871	87,928,070	126,473,190	141,225,970
Other Expenditures and Encumbrances and Transfers:					
Capital Outlay	3,786,412	2,978,430	3,382,312	6,777,319	1,705,700
Plant Additions and Improvements	152,429,954	106,954,588	63,135,916	65,435,348	62,310,994
G.O. Bond Debt Service	6,311,188	196,500	196,500	6,931,500	-
Transfer from Other Funds:					
Water Capital Project Fund	-	(25,000,000)	-	-	-
Other	(351,653)	-	-	-	(66,146)
Transfer to Other Funds:					
Staff and Administrative Charges	8,103,000	8,574,000	8,843,000	8,511,004	10,014,004
In-Lieu Property Tax Payments	14,484,772	14,729,891	14,950,550	15,584,651	16,367,380
Water Capital Project Fund	-	-	-	-	17,591,068
Other	3,440,793	-	-	-	85,000.00
Total Other Expenditures, Encumbrances and Transfers	188,204,466	108,433,409	90,508,278	103,239,822	108,008,000
Net Increase (Decrease) in Fund Balance	(42,880,269)	30,178,462	(2,580,208)	23,233,368	33,217,970
Fund Balance, Beginning of Year	105,473,157	62,592,888	92,771,350	90,191,142	113,424,510
Fund Balance, End of Year	62,592,888	92,771,350	90,191,142	113,424,510	146,642,480
Reserved for:					
Water Resource Acquisition Fees	18,866,416	21,352,386	23,732,986	20,522,177	22,623,847
Development Occupational Fees	21,028,426	20,160,717	19,857,749	24,515,056	30,139,156
Reserved Fund Balance, End of Year	39,894,842	41,513,103	43,590,735	45,037,233	52,763,003
Unreserved Fund Balance, End of Year	22,698,046	51,258,247	46,600,407	68,387,277	93,879,477
Water Reserve Fund	100,007,614	100,007,614	100,009,180	100,009,180	100,009,391
Available Fund Balance, End of Year	$ 122,705,660	$ 151,265,861	$ 146,609,587	$ 168,396,457	$ 193,888,868

(1) Revenues and related expenditures include the City of Mesa's share of the Val Vista Water Treatment Plant (WTP) and grant activity.
(2) In March 2016, 2017, 2019 and February 2020 water rates increased. In FY19 water consumption sales decreased due to heavy rainfall.
(3) In 2016-17, remote facilities costs were re-allocated from distribution and centralized functions to production and treatment.

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