



December 3, 2018

Mayor and City Council
City of Phoenix
200 West Washington Street
Phoenix, Arizona 85003

Subject: Water Financial Plan Review

Dear Ladies and Gentlemen:

Raftelis Financial Consultants, Inc. ("Raftelis") was retained as an Independent Rate Consultant ("Consultant") to review and evaluate projected near- and longer-term financial projections as prepared by the City of Phoenix ("City") for the City's Water Department ("Department").

FINANCIAL PLAN

Introduction

The Department's fiscal year (FY) 2019-2023¹ Water System Financial Plan ("Financial Plan") estimates the cash-based costs expected to be incurred during a five-year planning or forecast period, the revenues projected to be received based on existing rates during the period, and additional revenues resulting from forecasted revenue/rate increases to balance costs and revenues and conform with or achieve the financial policies of the Department and the City. The Department prepares a rolling five-year plan – when prepared in subsequent years, the first year in the prior plan is removed and a new year is added. The Department's financial planning process is aligned with the City's budget process; the Mayor and City Council are provided with the Financial Plan information, including forecasted revenue increases, to support the Department's capital improvements and operations, prior to the City Council's review of the Department's budgets.

Financial Inputs and Policies

The Department utilized the following data inputs in developing the FY 2019-2023 Financial Plan:

- Forecasts of projected revenues at existing rates and other revenue sources.
- Forecasts of projected operating requirements.
- Estimated Capital Improvement Program (CIP) outlay.

The Financial Plan developed from these inputs reveals if, and in what years, water sales revenue increases (rate adjustments) are needed to meet the Department's annual cash requirements and to conform to the following financial policies:

- All costs associated with the operation of the Water System shall be funded from revenues derived from water rates and other water-related income sources.
- Annual debt service coverage goal at a minimum level of 2.00 times the annual debt service requirement.

¹ The City's fiscal year is from July 1 to June 30. "FY 2019" refers to the 12 months ending June 30, 2019.

- The Department shall maintain available cash reserves at a minimum level of 1.00 times the annual debt service requirement.

Adherence to these policies helps ensure that the Department has ready access to low cost capital and allows them to respond to unforeseen circumstances in a timely manner. These policies are consistent with rating agencies standards and are comparable to other highly rated water utilities.

The Financial Plan developed from these inputs reveals if, and in what years, water sales revenue increases (i.e., rate adjustments) are required to meet the Department's annual cash requirements and achieve established financial planning/performance policies.

Financial Plan Summary

Table 1 presents the Financial Plan and provides some detail of the revenue and cost estimates. A discussion of the key Financial Plan components follows.

FY 2019 – FY 2023 Revenue Forecast

Potable water sales revenues (i.e., revenues generated from the Metered Water Charge and Environmental Charge) are the largest source of projected operating revenues contained in the Financial Plan. Water sales revenue projections are based on estimated customer accounts and water sales during the five-year planning period.

The Department expects to experience an annual increase in the rate of new accounts connected as the economy continues to grow in Phoenix. Additionally, the Department monitors historical temperature and rainfall patterns in the Phoenix service area that drive future consumption per account forecasts. FY 2018 was unusually hot and dry resulting in higher than normal per account consumption. The Department projects the higher use per account to continue into the FY 2019 summer months (July and August of 2018), and then to fall to more "normal" levels for the balance of FY 2019 and FY 2020. As a result, the average use per account experienced in FY 2018 on an annual basis is projected to decrease by 1.14 percent in FY 2019, decrease another 1.54 percent in FY 2020, and decrease again at an annual average of 0.44 percent from the FY 2021-2023 period. These two factors – growth in the number of new accounts and metered water usage per account – are expected to result in a modest increase in revenue under existing rates of 0.77 percent for FY 2019, a decrease of 1.85 percent in FY 2020, and modest annual increases averaging 0.77 percent in the last three years of the five-year planning period.

Additional water sales revenues will be needed to meet annual operating and maintenance (O&M) expenses and capital costs and to ensure compliance with the Department's financial policies. Revenues are expected to be generated through a series of annual water revenue/rate increases of 6.0 percent in February 2019 and February 2020, followed by 3.5 percent increases in each of the remaining three years (March 2021, March 2022, March 2023).

FY 2019 – FY 2023 Operating Requirements

O&M expenses comprise a significant portion of total Department costs or revenue requirements. Total O&M expenses are projected to increase at an annual average rate of approximately 4.7 percent over the forecast period. Increases in O&M are based on customer growth, the rate of inflation, and individualized projections for major line items including electricity, chemicals, raw water, and granular activated carbon.

Table 1
City of Phoenix Water System
FY 2019-2023 Financial Plan
(millions of dollars)

	2018-19	2019-20	2020-21	2021-22	2022-23
	Forecast	Forecast	Forecast	Forecast	Forecast
REVENUES					
Metered Water Charge	\$ 340.00	\$ 333.56	\$ 336.37	\$ 338.64	\$ 340.46
Environmental Charge	34.36	33.91	34.33	34.76	35.20
Raw Water Charge	26.66	26.13	26.46	26.79	27.12
Rate Revenue	401.02	393.60	397.16	400.19	402.78
Rate Revenue Adjustments	9.28	33.27	54.40	70.74	87.79
Total Rate Revenue	410.30	426.87	451.56	470.93	490.57
Water Resource Acquisition Fee	2.33	2.26	2.18	2.19	2.19
Development Occupation Fee	4.12	4.12	4.09	4.11	4.14
Other Revenue	27.89	26.94	29.38	27.86	28.44
TOTAL OPERATING REVENUE	444.64	460.19	487.21	505.08	525.34
EXPENDITURES					
Operating & Maintenance	214.49	221.73	230.86	238.36	245.76
Operating Capital (PAYGO)	90.32	113.58	81.70	103.72	83.63
Other Expenses and Transfers	24.29	25.46	26.48	27.79	28.80
Total Operating Expenses	329.10	360.77	339.04	369.87	358.19
Debt Service - Existing	113.20	120.57	113.63	113.64	113.64
Debt Service - Commercial Paper	2.00	5.00	-	3.75	8.00
Debt Service - Future \$ 600 m	-	-	27.00	27.00	27.00
Total Debt Service	115.20	125.57	140.63	144.39	148.64
Net Transfers to/(from) Capital Funds	-	-	-	-	-
TOTAL EXPENDITURES	444.30	486.34	479.67	514.26	506.83
Net Increase/(Decrease)	0.34	(26.15)	7.54	(9.18)	18.51
BEGINNING FUND BALANCE	92.77	93.11	66.96	74.50	65.32
ENDING FUND BALANCE	93.11	66.96	74.50	65.32	83.83
Less: Restricted Funds					
Development Occupation Fund	19.89	19.24	20.48	21.91	25.00
Water Resource Acquisition Fund	23.67	11.76	13.40	12.34	14.44
Total Restricted Funds	43.56	31.00	33.88	34.25	39.44
OPERATING FUND BALANCE	49.55	35.96	40.62	31.07	44.39
Add: Water Reserve Fund	100.00	100.00	100.00	100.00	100.00
AVAILABLE FUND BALANCE	\$ 149.55	\$ 135.96	\$ 140.62	\$ 131.07	\$ 144.39
Month of Projected Increase	Feb	Feb	Mar	Mar	Mar
Percent Revenue Impact	6.00%	6.00%	3.50%	3.50%	3.50%
Junior Lien Debt Coverage	2.04	2.10	1.82	1.90	1.99
Available Fund Balance to Debt Service	1.3	1.1	1.0	0.9	1.0

FY 2019 – FY 2023 Capital Requirements

The Department's FY 2019-2023 CIP is largely focused on rehabilitation of the various components of the water system. The FY 2019-2023 CIP ("Uses") along with proposed funding ("Sources") is shown in Table 2.

Table 2
City of Phoenix Water System
Capital Improvement Program Summary
FY 2019-2023
(millions of dollars)

	2018-19	2019-20	2020-21	2021-22	2022-23	Total
	Forecast	Forecast	Forecast	Forecast	Forecast	
Uses of Funds						
Pipelines	\$ 104.75	\$ 117.86	\$ 89.41	\$ 114.23	\$ 98.59	\$ 524.84
Pumps	37.72	32.40	35.98	13.44	35.62	155.15
Resiliency	81.37	57.08	298.62	20.60	34.80	492.48
Treatment	43.55	34.83	18.36	40.52	46.69	183.95
Water Storage	6.03	14.71	11.52	12.98	7.62	52.85
Other	28.31	43.51	7.54	17.82	6.50	103.68
Total Uses	<u>\$ 301.73</u>	<u>\$ 300.39</u>	<u>\$ 461.43</u>	<u>\$ 219.59</u>	<u>\$ 229.82</u>	<u>\$1,512.95</u>
Sources of Funds						
Water Resource Acquisition Fee	\$ 0.01	\$ 14.17	\$ 0.54	\$ 3.25	\$ 0.10	\$ 18.06
Water Revenue	82.89	92.16	75.34	95.12	79.25	424.77
Water Maintenance and Operation	0.44	-	-	-	-	0.44
Development Occupation Fee	4.40	4.77	2.85	2.67	1.05	15.73
Mesa Participation	2.58	2.48	2.98	2.68	3.24	13.94
CIC - Water Bonds	211.42	186.82	379.73	115.87	146.18	1,040.01
Total Sources	<u>\$ 301.74</u>	<u>\$ 300.40</u>	<u>\$ 461.44</u>	<u>\$ 219.59</u>	<u>\$ 229.82</u>	<u>\$1,512.95</u>

As shown in the Uses and Sources Table 2, the Department anticipates using the proceeds from revenue bonds (CIC – Bonds) to fund most of its CIP over the forecast period with the next largest funding source being annual rate revenues. Given the magnitude of the CIP, this approach of funding ongoing repair, replacement and rehabilitation of existing assets with revenue bonds is consistent with industry best practices, i.e., the use of debt to fund longer lived, large dollar amount, capital projects.

Principal Assumptions and Considerations

The Financial Plan projections represent an assessment by the Department of projected operating results for the period FY 2019 to FY 2023. Raftelis has reviewed the projections at a summary level and we believe that these projected operating results are reasonable for the Department's financial planning purposes. The Department's revision of the Financial Plan in the future may result in changes to its projected operating results. We cannot predict what changes, if any, will be made or what impact these changes may have on the Department's projected operating results.

In analyzing the Financial Plan, Raftelis relied on certain assumptions related to future Water System conditions. There will usually be differences between assumed and actual conditions because events and circumstances frequently do not occur as expected, and those differences may be significant. The Department's principal assumptions as used in the Financial Plan are:

- The number of customer accounts will increase by approximately 0.75 percent in FY 2019, 1.00 percent in FY 2020, followed by approximately 1.25 percent annual increases over the next three years.
- Water consumption per account is expected to decrease at an annual rate of 1.14 percent in FY 2019 and 1.54 in FY 2020. Per account water consumption increased significantly in FY 2018 due to unusually high temperatures and low rainfall, however the Department expects consumption to return to more typical levels by FY 2020. Water consumption per account is projected to decrease at an average annual rate of 0.44 percent the remaining three years, FY 2021 through FY 2023. Projections of water consumption per account are based on average weather conditions. Actual water sales are subject to significant year-to-year variations due to fluctuations in weather conditions and will likely vary from the projections in the Financial Plan.
- Water sales under existing rate projections, which consider both the number of customer accounts and the consumption per account, are projected to increase by approximately 0.77 percent in FY 2019 and decrease by 1.85 percent in FY 2020. Water sales in the remaining years of the forecast are projected to increase at a rate of approximately 0.77 percent annually.
- Future O&M expenses are projected to change annually based on the rate of inflation and customer growth, as well as new recurring programs or initiatives. Future year costs, apart from treatment costs and costs associated with implementation of new treatment processes, which are forecasted separately, include an inflation adjustment of 4.0 percent annually. Overall, O&M expenses are projected to increase at an annual average rate of approximately 4.7 percent.
- The CIP prepared by the Department is expected to meet current environmental standards and projected customer growth requirements over the study period. Costs associated with any possible changes in current EPA drinking water standards cannot be estimated until the new standard levels are established.
- Interest rates and issuance costs of future debt are expected to be comparable with current market conditions and credit rating.
- It is expected that the Mayor and City Council will continue to have full control over the establishment of rates for water service and will adjust rates as necessary to meet the financial needs of the Department, including compliance with the Department's financial policies.

Reliance on Department Data

The purpose of this letter is to provide the City with an independent review of the Department-prepared Financial Plan. To accomplish these objectives, Raftelis did not conduct an independent financial audit or an in-depth evaluation of the Department's operations or financial planning initiatives or processes.

During this project the Department provided Raftelis with a variety of data and information relevant to the Water System. We have relied on this data and information in completing our review of the Department-prepared Financial Plan. However, we have not independently verified the data and information as provided and, accordingly, take no responsibility for its accuracy. Furthermore, during our review and analysis, and the preparation of this letter, nothing has come to our attention that would cause us to believe that the assumptions used by the Department are unreasonable. Nevertheless, there will usually be differences between forecasted and actual results, because events and circumstances frequently do not occur as expected and those differences may be material. Changed conditions that occur or become evident after the date of this letter could affect the analysis presented. As such, we have no responsibility to update this letter for events and circumstances occurring after the date of this letter.

Conclusions

Based on our review of the Department's Financial Plan and the considerations and assumptions set forth herein, Raftelis offers the following opinions:

- The Department's Financial Plan, calling for annual revenue increases of 6.0 percent in February 2019 and February 2020, followed by subsequent annual increases of 3.5 percent in March 2021, March 2022, and March 2023, is expected to provide the funding necessary to meet O&M expenses, implement the CIP as currently proposed and generally meet the Department's financial goals, targets and policies. In our professional opinion, the proposed rate increases are reasonable for the estimated rate revenue required. To the extent that each of the rate adjustments anticipated in the Financial Plan are not approved, it is likely that revenues will not be sufficient to cover the Department's O&M expenses and the Department will be required to draw on available cash reserves, likely depleting these reserves to levels below those established by the Department's financial policies. Doing so could severely limit the Department's ability to respond to unforeseen problems and, more importantly, could lead to a downgrade in the credit rating of the Department's debt, thereby increasing, in the future, the Department's cost of capital.
- The Department has developed several financial policies relating to the funding of the Water System and outstanding debt. Adherence to these policies helps ensure that the Department has ready access to capital at a reasonable cost and allows the Department to respond to unforeseen circumstances in a timely manner. These policies are consistent with rating agencies standards and are comparable to other highly-rated water utilities.
- In certain years of the Financial Plan the financial targets are not met; however, in years subsequent they trend back towards the target. For instance, in FY 2021 the annual debt service coverage falls to 1.82, but trends up in subsequent years towards the 2.00 target, reaching 1.99 by FY 2023. Similarly, the available cash reserves fall below the 1.0 target to 0.9 in FY 2022 but rebound to 1.0 in FY 2023. These financial policies are self-imposed and therefore it is acceptable to fall below targets in a given year assuming that they trend back towards the targets in subsequent years.

Raftelis appreciates the opportunity to assist the City with this matter. If you have questions regarding the contents of this letter or if you require additional information, please contact me at (303) 305-1136.

Sincerely,
RAFTELIS



Richard D. Giardina
Executive Vice President