COLUMBIA CAPITAL
MUNICIPAL ADVISORS

2292 Faraday Ave, Suite 100
Carlsbad, CA 92008
818.385.4900

MEMORANDUM

TO: Buffy Bullis, Administrative Services Director

FROM: Jeff White and Jim Prichard
Columbia Capital Management, LLC ("Columbia")

DATE: September 22, 2022

RE: Review of Monrovia's Water and Sewer Credits

The primary purpose of a credit rating (or bond rating) is for a rating agency to provide its opinion of the likelihood that the issuer of the debt will repay its principal and interest in full and on time. In doing so, rating agencies review certain factors they deem most important when evaluating credit, such as economic, fiscal and debt metrics. Though they can be helpful when formulating policies, rating methodologies are not guidelines or suggestions for municipal policies; they only represent a framework that a rating agency uses when evaluating a credit. Ratings are also relative, as the agencies compare similar issuers to each other before making a final rating determination. The goal of this memorandum is to help the City better understand its credit rating and overall credit position with respect to its water and sewer revenue bond rating.

The City's Current Water/Sewer Rating

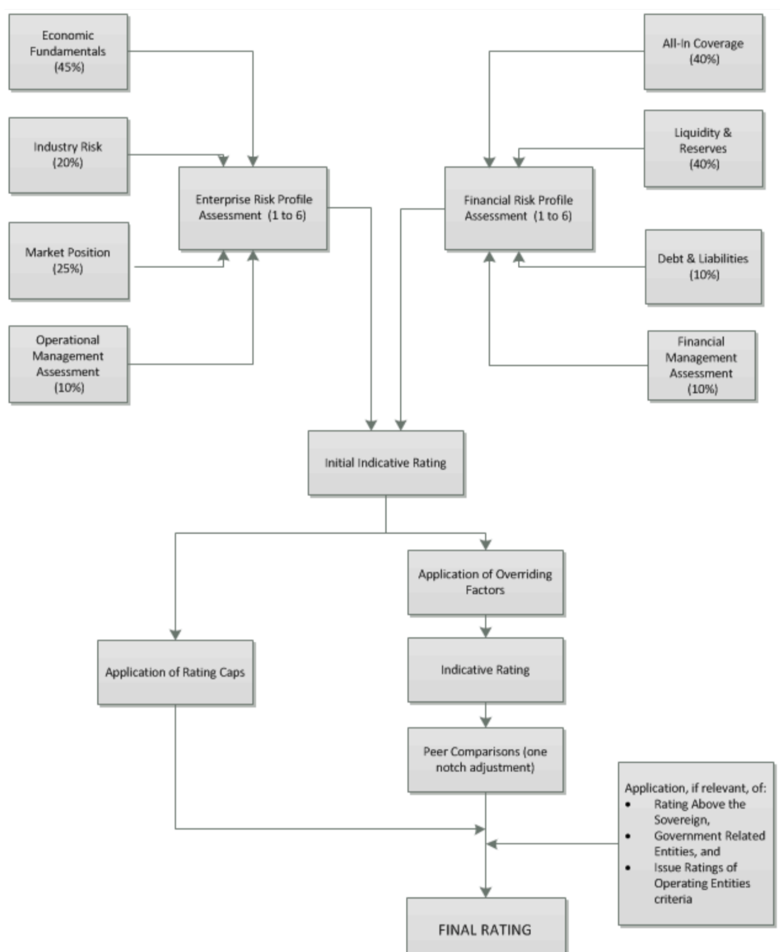
The City's water and sewer revenue bond rating is currently 'A-' from S&P Global ("S&P"). The table below illustrates S&P's rating scale. The City's credit rating is good, four "notches" above the investment grade cutoff.

S&P Rating Scale	
AAA	
AA+	
AA	
AA-	
A+	
A	
A-	City's Current W&S Rating
BBB+	
BBB	
BBB-	Investment Grade
BB+	Non-Investment Grade
BB	
BB-	
B+	

Current Rating Factors

Like its general obligation rating criteria, S&P uses a “scorecard” to help determine a utility revenue bond rating. Each factor is given a score based on certain calculated metrics. Those metrics are then subject to several potential qualitative adjustments. Though S&P’s scorecard is comprehensive and usually is an accurate indicator of the actual assigned rating, S&P reserves the right to consider other factors or information not explicitly included in the scorecard and to make so-called “below-the-line” adjustments to its rating. The actual assigned rating is determined by a majority vote of a credit committee, comprised of senior officials at the agency. Sometimes the actual rating can vary by one or more notches from the scorecard result.

When assessing a utility revenue bonds rating, S&P will perform an Enterprise Risk Profile and Financial Risk Profile, with the results of that analysis mapped to a ratings grid that determines the indicative rating. Enterprise Risk includes things like economic fundamentals, markets position and operations management. Financial Risk refers to metrics like debt service coverage, liquidity and debt.



Because credit assessment for a utility is more involved than a general obligation rating, we have included a graphic to the right from S&P’s criteria. It provides the broad overview of their approach when rating a utility.

Generally, some of the factors S&P reviews include:

Economy. This is an evaluation of the depth, breadth, concentration and growth of the city’s economy using metrics such as per capita market value and income, employment concentration and unemployment rates.

Market Position. This predominantly focuses on the affordability of monthly utility bills to the customers the utility serves.

Management. This involves management of the utility from both an operations standpoint (e.g. drought planning, rate-setting practices, etc.) and a financial standpoint (e.g. budgeting, CIP practices, etc.).

Coverage. One of the more important financial metrics, this is an assessment of the ratio of pledged revenues to scheduled debt service including both bond debt service coverage and "all-in" coverage which includes any other obligations in addition to debt service. S&P looks at both annual coverage and maximum annual debt service coverage, which for the City is one in the same as the system has one series of bonds with level annual debt service. This factor also assesses the potential for future dilution of coverage through the issuance of new debt and the minimum coverage required to issue that debt (the "additional bonds test").

Liquidity. This metric evaluates the amount of cash the utility has access to at various points in the year. The criteria focus heavily on "days-cash-on-hand," which represents the numbers of days the utility can operate without bringing in new cash.

Debt/Contingent Liabilities. This factor looks at the scope of fixed charges for bonds, pensions and contingent liabilities to the scope of the system.

The exhibits below provide our opinion of the City's S&P scorecard result, illustrating the credit factors under both the Enterprise Profile Score and Financial Profile Score, the indicative rating grading matrix used to map out the indicative rating, the potential overriding factors / adjustments S&P considers and our estimated rating. Please note that it is significantly more difficult to review a utility credit than a general obligation credit and we had to make various assumptions and estimates in our review. Many of the data points that go into the scorecard are not readily available in financial statements, continuing disclosure or other publicly available sources, and often times S&P makes adjustments to the metrics that are not always readily apparent. That being said, our scorecard results matches the current rating for the system.

Step 1: Enterprise Profile Score

Factor	Weight	Score
Factor 1: Economic Fundamentals	**45.0%**	**0.45**
Subfactor 1: GDP Growth and Income Assessment		1
Factor 2: Industry Risk	**20.0%**	**0.2**
Subfactor 1: Industry Risk Score Assigned by S&P		1
Factor 3: Market Position	**25.0%**	**0.5**
Subfactor 1: Poverty Rate and Utility Bill Assessment		2
Factor 4: Operational Risk Management	**10.0%**	**0.3**
Subfactor 1: Asset Adequacy and Identification of Operational Risk	4.0%	3
Subfactor 2: Organizational Effectiveness, Expertise, Drought Planning	2.0%	3
Subfactor 3: Rate-setting practices	4.0%	3
Total Score	**100.0%**	**1.5**

Step 3: Indicative Rating Grading Matrix

Enterprise Profile		Financial Profile: Extremely Strong 1	Very Strong 2	Strong 3	Adequate 4	Vulnerable 5	Highly Vulnerable 6
Extremely Strong	1	aaa	aa+	aa-	a	bbb+/bbb	bb+/bb
Very Strong	2	aa+	aa/aa-	a+	a-	bbb/bbb-	bb/bb-
Strong	3	aa-	a+	a	bbb+/bbb	bbb-bb+	bb-
Adequate	4	a	a/a-	a-/bbb+	bbb/bbb-	bb	b+
Vulnerable	5	bbb+	bbb/bbb-	bbb-/bb+	bb	bb-	b
Highly Vulnerable	6	bbb-	bb	bb-	b+	b	b-

Projected Indicative Rating Before Overidding Factors:	**A-**
Projected Rating After Overidding Factors:	**Same**

Step 2: Financial Profile Score

Factor	Weight	Score
Factor 1: Financial Policies	**40.0%**	**2.4**
Subfactor 1: All-In Coverage		6
Factor 2: Liquidity and Reserves	**40.0%**	**0.8**
Subfactor 1: Cash Postion Assessment	20.0%	2
Subfactor 2: Contingent Liability Assessment	20.0%	2
Factor 3: Debt and Liabilities	**10.0%**	**0.5**
Subfactor 1: Debt and Liability Assessment		5
Factor 4: Financial Management Assessment	**10.0%**	**0.4**
Subfactor 1: Revenue and Expense Assumption	1.0%	4
Subfactor 2: Budget Monitoring and Interim Reporting	1.0%	4
Subfactor 3: Long-term Financial Planning	1.5%	4
Subfactor 4: Long-term Capital Planning and Asset Manageme	2.0%	4
Subfactor 5: Investment and Liquidity Policies	2.0%	4
Subfactor 6: Debt Management Policies	1.0%	4
Subfactor 7: Transparency and Accountability	1.5%	4
Total Score	**100.0%**	**4.1**

Step 4: Overriding Factors

Overiding Factor	Result
Weak management scores	1 to 2 notches lower and cap of 'A' or 'BBB-'
Negative extraordinary intervention	Cap at the lower of 'BBB' or GO rating
Lack of willingness to support a debt or contingent liability	Cap of 'B'
Recovering from a financial crisis	Cap of 'BBB+'
Both coverage metrics and reserve assessments at '5'	Cap of 'BB+'
Coverage metrics and reserve assessments at '6'	Cap of 'B+'
Median houshold income in top quintile	One notch higher
Median household income in top 10%	Two notches higher
Medain household income in lowest quintile	One notch lower
All-in coverage at or above 3.0x and cash at 24 months	One notch higher
Indebtedness likely to increase substantially	Posible one notch down

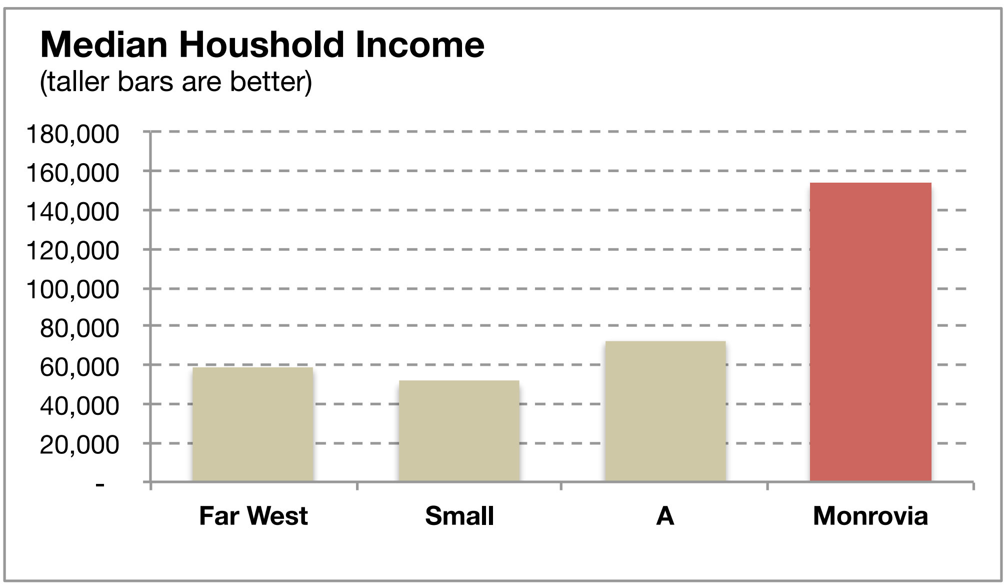
Median Comparison

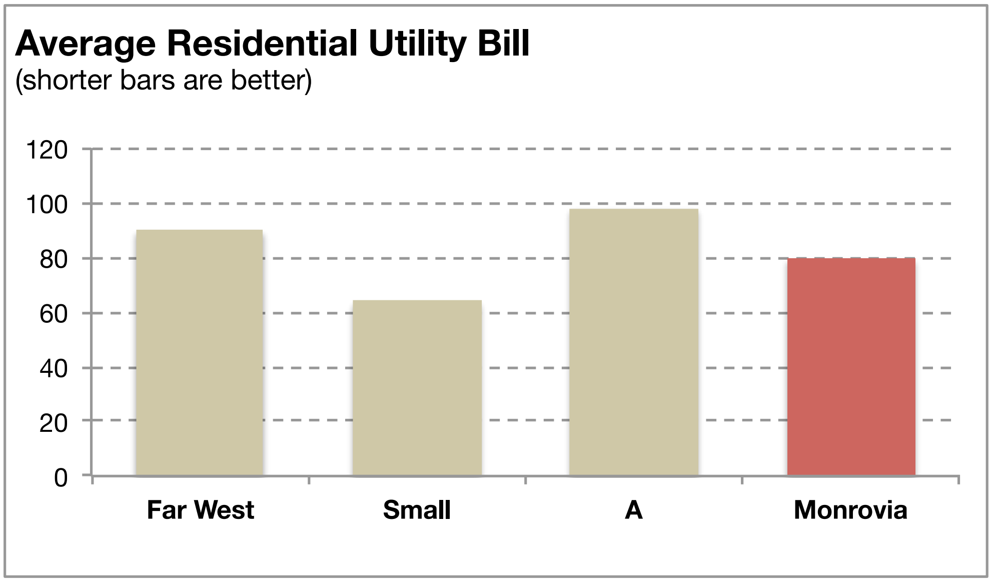
Some rating agencies publish median characteristics for utility systems in each of their rating categories. Reviewing median data for utility systems can be a useful guide to understanding a system's strengths and weaknesses from a credit analysis perspective.

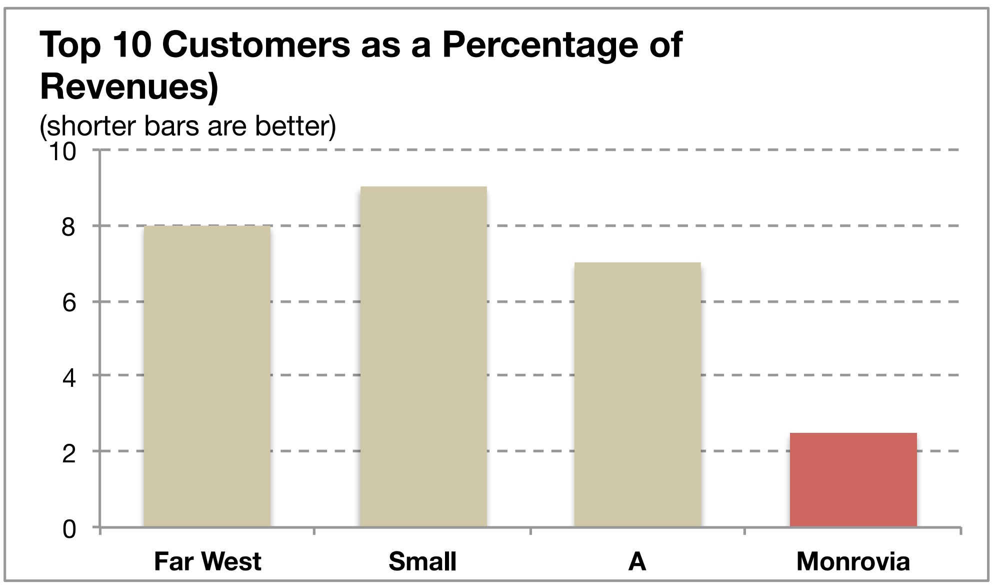
Because of the diversity of utility systems around the country, median data can be more difficult to access and more complex to review. To our knowledge, S&P does not regularly publish median data on utility systems, but Fitch Ratings ("Fitch") does. We have relied on that information to support the analytics below.

For utility systems, we think it is more useful to show median data not solely by rating category, but by system size and region. For instance, comparing metrics for a large Midwest utility to a small California city utility may not provide a useful comparison. Because of that, we show median data compared to our estimates of the City's metrics to other (1) utilities classified as small systems, (2) utilities located in the far west and (3) those utilities rated single-A by Fitch.

Key metrics that would fall under the Enterprise Profile category would include the following:

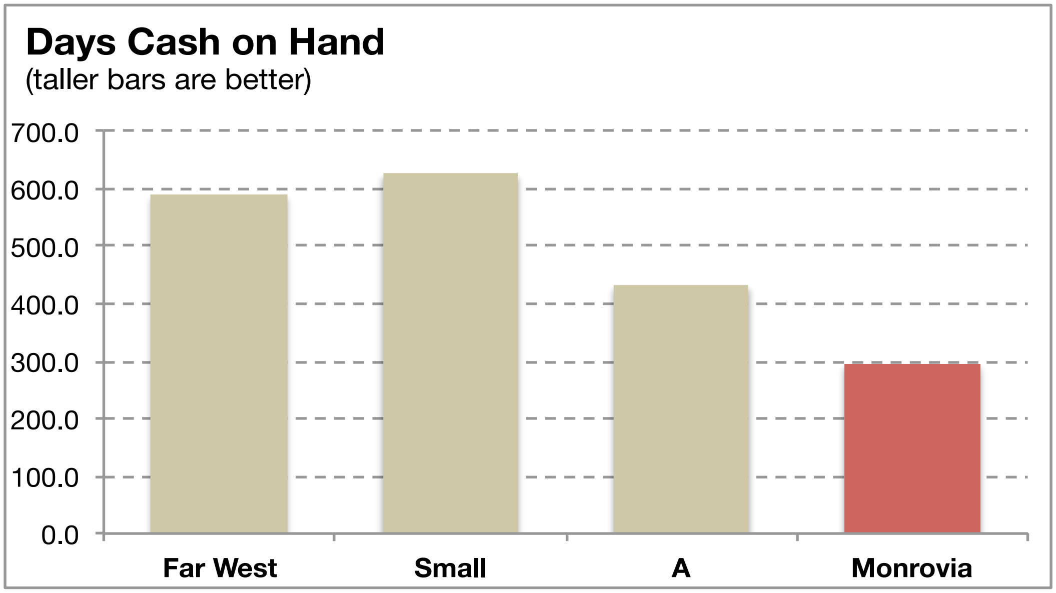


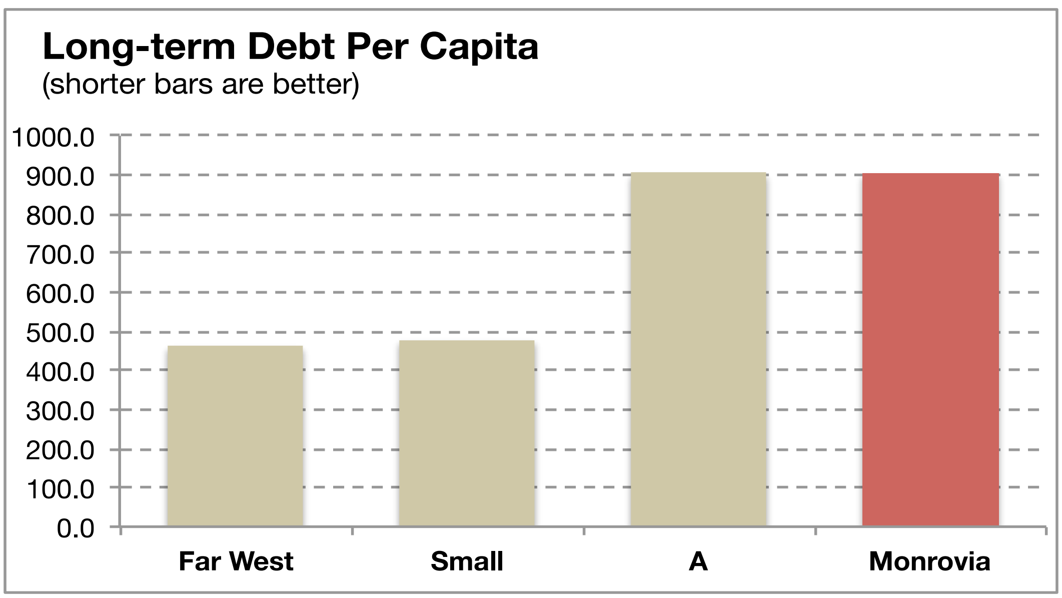


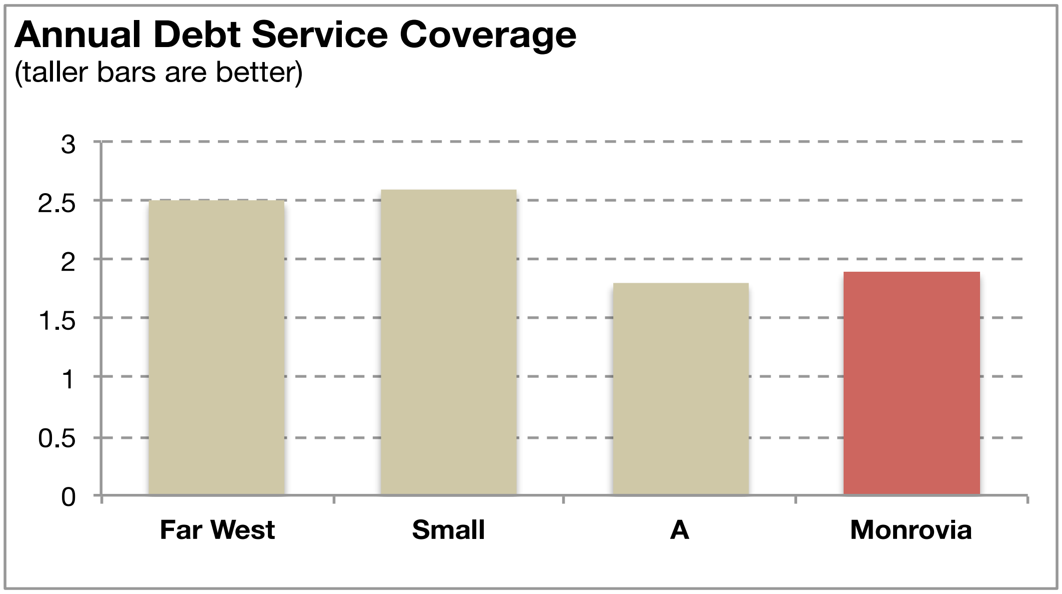


It is no surprise that economic metrics like income are very high due to the City's location; S&P's rating assessment reflects that. Though the City has undergone very large utility rate increases in recent years, its combined residential bill still compares well to other similar systems. And, as reported by S&P, the City's water and sewer customer base is very diverse producing a revenue stream that is not heavily concentrated among a small handful of large users.

Key metrics that would fall under the Financial Profile category would include the following:


Days Cash on Hand
(taller bars are better)
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
Far West
Small
A
Monrovia


Long-term Debt Per Capita
(shorter bars are better)
1000.0
900.0
800.0
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
Far West
Small
A
Monrovia



As noted by S&P in its most recent report on the City's utility credit, liquidity, as represented by days-cash-on-hand, has been healthy over the years, but cash balances have been drawn down over the last couple years to a level that now compares unfavorably to the other metrics. Long-term debt per capita, just accounting for the City's bonded debt is in-line with other single-A rated entities but high compared to other small and western utilities. Our projected combined system debt service coverage, the most important financial metric, lags the far west and small system categories. Note, to aid in comparison, the coverage above aggregates the water and sewer figures even though under the City's specific credit structure water revenues cannot pay sewer debt service, and vice versa. It is also important to note that this particular coverage ratio only incorporates debt service; S&P looks at "all-in coverage" which also incorporates other obligations like the system transfers out to the general fund. When including those transfers, the City's debt service coverage drops slightly below 1.0x, which is a concern for S&P. We also understand based on the City's prior continuing disclosure filings that coverage under its water system was significantly below 1.0x in 2017 and 2018 but was 1.8x in 2019 after implementation of water rate increases with further improvements in 2020 and 2021.

Rating and Policy Discussion

Based on our review of S&P's website, the City was last reviewed on March 16, 2020. We think the primary driver of any future rating action would derive from debt service coverage. **The City's actions to drive coverage back above its 1.2x continuing covenants minimum is positive, but all-in coverage which accounts for transfers out to the general fund still indicates less than 1.0x coverage. The most important thing the City could do to protect or improve its rating is to generate all-in coverage levels above 1.2x.** Other less challenging actions to help protect the current rating level would be focusing on the Financial Management Assessment (Factor 4 under Financial Risk Profile) that deals with long-term planning, debt management and other similar types of policies. We are happy to work with the City to tackle these items to boost this score.

Lastly, we note that when the City structured its utility revenue credit in 2016, instead of combining the water and sewer systems into one credit, it created bifurcated standalone credits where each system is only responsible for its pro rata portion of debt service. This forces S&P to rate the bonds via the "weakest link" approach. Here, S&P assesses the credit quality of each system independently, and bases the credit assessment on the weaker of the two. **There is no doubt that combined, the credit would be deemed stronger. It may not result in a higher rating, but at a minimum their assessment on various measures would be more favorable and investors would find a combined credit more attractive.** Meeting coverage requirements might also be easier when combined.

We have worked with a number of clients on combining utility credits for purposes of bond financings, even if day-to-day accounting for the systems remains separate (as likely would be required for the City to comport with requirements to match user fees to actual costs of service). These combinations include a combined water and electric credit (a highly unique combination) and a credit that combines water, wastewater and stormwater utilities.

The best time to effectuate this change in credit would be in conjunction with a refunding of the City's existing Series 2016 Bonds, callable in 2025, or sooner if the City plans new money utility revenue bond issuances before that time.