

Memorandum

To: Mr. James Fisher and Ms. Linda Truitt

From: Mr. Chris Ekrut

Date: July 20, 2015

Re: Recommended Water Rate Action for FY 2016

Introduction

In February 2014, our Firm was engaged by the City to conduct a Water and Sewer Rate Study which encompassed a five (5) year forecast of projected water and sewer rates. Due to the recent changes in weather experienced by the Metroplex, our Project Team has undertaken a review of our original study assumptions as compared to actual performance to determine what adjustments, if any, may be warranted to our original study conclusions. This memorandum briefly details this comparison and provides our recommendations on potential rate action the City Council may wish to consider for FY 2016.

Background

In our Final Report regarding the Water and Sewer Rate Study, dated July 2014, we noted the following in the report's introduction:

"The analysis performed by NewGen is designed to take into account the foreseeable changes from the current fiscal year (FY 2014) through FY 2019. The goal is to construct a planning tool with which the City can gain an understanding of the issues that need to be addressed during the Study's planning horizon. A critical benefit is the quantification of the long-range impact of decisions being made today. As with any forecast, assumptions must be made and the City should be aware that the actual rates required may be different from the projected rates outlined in this report due to unforeseen changes such as system growth, inflation, etc. In addition, it should be noted that this analysis is based on data provided by the City. While this data has been reviewed and tested for accuracy to the extent possible, if the data relied on by the Project Team to produce this analysis is inaccurate and not reflective of the actual operation and/or financial condition of the City's water and sewer system, then the results of this analysis may merit revision."

Further, it was noted in a presentation to the City Council on May 20th, 2014 that the City "must monitor rate performance on a monthly basis" and that "if operational performance varies from assumptions, then immediate action should be contemplated, particularly if consumption is reduced."

As part of our conclusions from the 2014 Study, our Project Team projected that no change to the "City" portion of the water rates, after initial adjustment in FY 2015, would be needed through the study period ending in FY 2019. The Project Team did recommend annual adjustment of the pass-through portion of the rate which recovers the cost of water charged by North Texas Municipal Water District ("NTMWD") to the City.

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Review of Assumptions

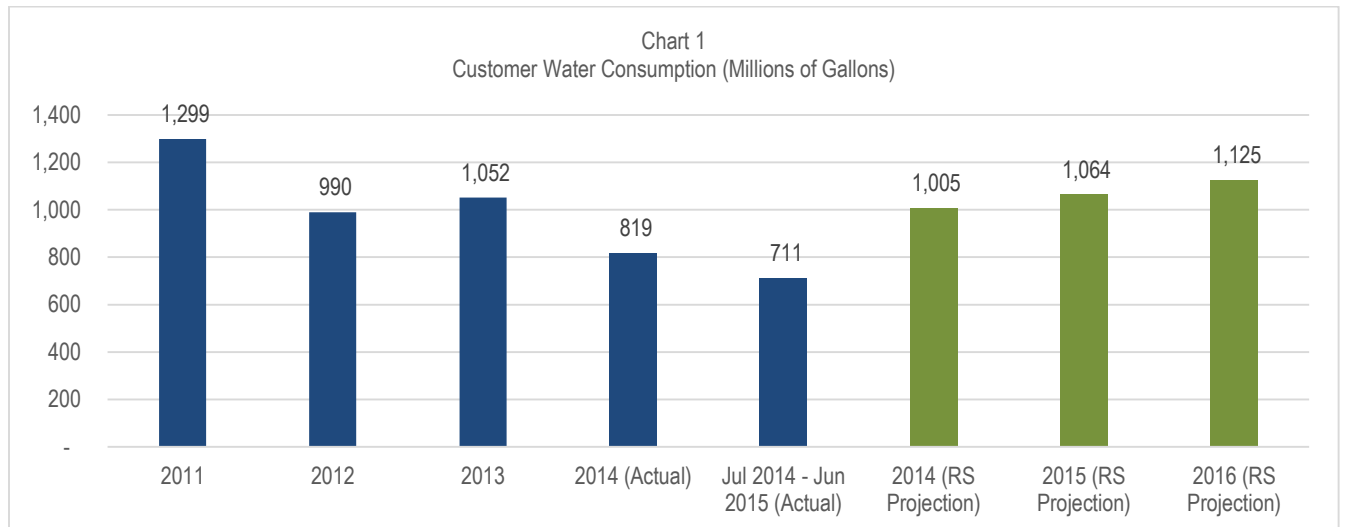
Our Project Team's original projections and recommendations were predicated on an assumed customer consumption level of just over 1 billion gallons annually. This projected consumption amount was arrived at by reviewing monthly per customer consumption levels from FY 2011 through FY 2013 in which recorded precipitation levels were closest to normal according to National Weather Service figures. When setting water rates, it is a common practice to project customer consumption under "normal" precipitation conditions. In doing so, it is understood that in wetter years, when consumption is less than anticipated, the City's revenue would likely be insufficient to fully cover costs. Conversely, in drier years, revenues would be greater than anticipated and the utility's financial position would recover. However, for this variation in the utility's revenue stream to work, we note that the City must have sufficient operating reserves to financially sustain itself during these wetter periods.

As the City Council is well aware, the majority of the State of Texas has been under varying levels of drought conditions since approximately 2011. The implementation of watering restrictions to sustain water supply levels through this drought resulted in reduced customer consumption levels beginning in approximately FY 2012, with significantly reduced customer consumption occurring in Fiscal Year 2014. The recent significant rainfall, while beneficial to dampening and in some cases ending the on-going drought conditions, has led to further reductions in customer consumption due to a lack of outdoor watering.

Chart 1 below illustrates the City's actual consumption from FY 2011 to FY 2014 and provides the Project Team's original projection of billed consumption for FY 2014 through FY 2016 (originally prepared during the conduct of the rate study from February 2014 to April 2014). As seen below, the Project Team's projected consumption in FY 2014 through FY 2016 is an accurate, if not slightly conservative projection based on the utility's historical performance from FY 2011 to FY 2013, particularly given that the projection for FY 2014 to FY 2016 assumed a 6% annual increase in Residential population from FY 2014 through FY 2017. However, the Project Team's conclusions were prepared prior to the summer of FY 2014 and did not anticipate the over 22% reduction in customer use between FY 2013 and FY 2014. Further, when compared against the latest available 12-months of data, the Project Team is concerned that customer consumption, and the utility's revenue stream based on this level of consumption, will not rebound adequately enough in FY 2016 to continue to hold current rates constant without jeopardizing the financial condition of the utility.

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Assuming customer consumption does not rebound to anticipated levels in FY 2016, then the Project Team's original recommendation of not making adjustments to the City Portion of the rate in FY 2016 may result in insufficient rate revenues during the coming fiscal year. While watering restrictions have been lifted at this time, there is a potential that consumers have permanently changed their water consumption behavior and consumption will not rebound to historic levels. Further, the continued implementation of more efficient appliances will only result in further reductions in customer consumption.

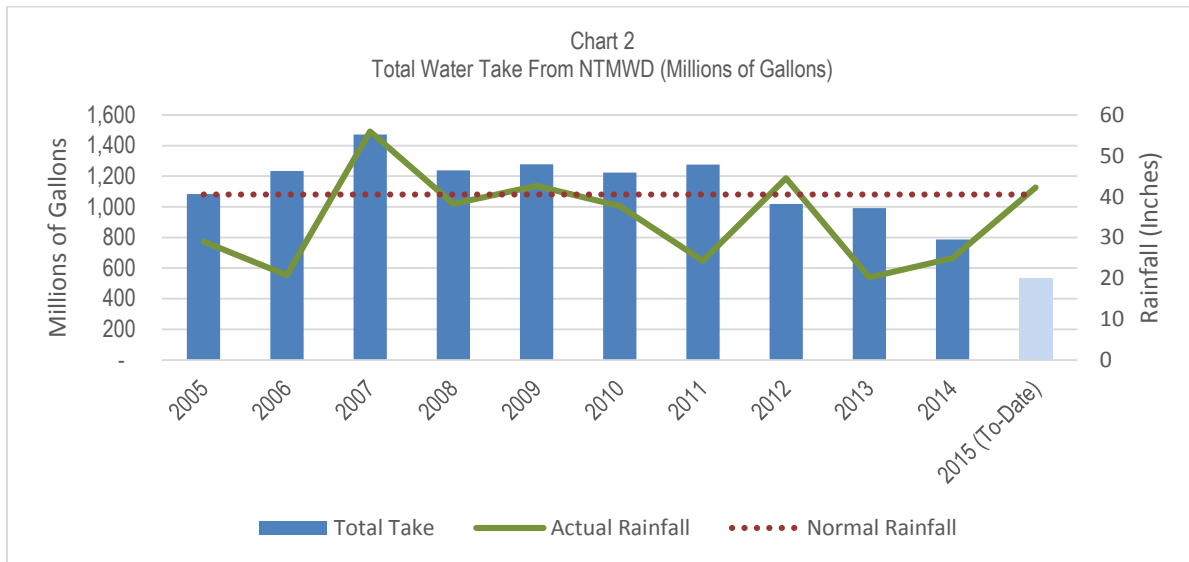
In an effort to derive a more accurate projection of customer consumption for FY 2016, the Project Team has reviewed the City's historic water take from NTMWD as compared to historical precipitation. Chart 2 below presents this comparison. As seen below, the City has experienced a reduced level of water use from NTMWD since 2012 and has not recovered to pre-2012 levels. Given this, the Project Team believes that only actual data recorded from 2012 to the present should be used in developing an assumed level of customer consumption for FY 2016.

In looking at the actual consumption data in Chart 1 from FY 2012 to FY 2014, the Project Team believes that data from October 2013 to the present does represent an anomaly based on the imposition of significant outdoor watering restrictions followed by above normal rainfall. FY 2012, while still during the drought, was a time of increased rainfall, similar to what is currently being experienced. As such, the Project Team recommends that the consumption recorded in FY 2012 be used as a conservative measure of anticipated per connection consumption in FY 2016.

Assuming FY 2012 is used as the basis for projecting FY 2016 consumption, total anticipated water revenues from the City component of the rate structure are anticipated to be approximately \$3.29 million as compared to the original FY 2016 projected City component revenues of \$3.82 million, a variance of approximately \$0.53 million.

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In determining a recommended rate action for FY 2016, consumption is just one variable to consider. The other variable that must be considered is the anticipated cost of the utility. Table 1 below provides a comparison of the projected water utility rate revenue requirement from the original study as compared to the latest figures provided by the City.

Table 1
 Comparison of Original and Amended FY 2016 Rate Revenue Requirement

	Original Projection	Amended Projection	Variance
City Cost	\$ 2,934,330	\$ 2,553,008	(\$ 381,321)
NTMWD Cost	3,238,714	3,238,714	0
Total Cost	\$ 6,173,044	\$ 5,791,723	(\$ 381,321)
Less: NTMWD Pass-Through Revenues	(2,555,516)	(2,140,209)	415,307
Less: Other Revenues	(149,956)	(124,273)	25,683
Rate Revenues Needed	\$ 3,467,572	\$ 3,527,241	\$ 59,669

As evidenced above, the City's budgeted cost is approximately 13% below what was anticipated in the original rate study, while other revenue sources are also anticipated to be less. Also, because of the reduction in consumption, the pass-through revenues from the NTMWD portion of the rate structure are anticipated to be less, which further offsets any gains achieved by the reductions in the City's budget. The overall net effect of these changes in costs and offsetting revenues results in an increase in rate revenue need for the City above what was anticipated for FY 2016.

Table 2 below summarizes the overall impact of these changes in customer consumption as well as cost.

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Table 2
 Overall Summary of Impacts

	<u>Original Projection</u>	<u>Amended Projection</u>
Anticipated Rate Revenues	\$ 3,816,355	\$ 3,288,251
Rate Revenues Needed	3,467,572	3,527,241
Over / (Under) Recovery (\$)	\$ 348,783	(\$ 238,989)
Over / (Under) Recovery (%)	9.14%	(7.3%)

Conclusion and Recommendation

In conclusion, the Project Team recommends the City Council consider some type of increase in the City portion of the rate structure for FY 2016. This is in addition to the increase in the NTMWD portion of the rate from \$2.11 to \$2.34. Based on the assumptions discussed herein, we recommend the Council consider increasing the City component of the volumetric rate by approximately 7.3%. Table 3 below outlines the recommended changes and presents the incremental impact these changes would have on a variety of customer water bills:

Table 3
 Incremental Impact of Recommendations

	<u>Current Rate</u>	<u>Amended Rate</u>	<u>Variance</u>
City Volumetric Rate (per 000 gal):			
0 – 15,000 gallons	\$ 1.69	\$ 1.81	\$ 0.12
15,001 – 30,000 gallons	1.95	2.09	0.14
30,001 – 45,000 gallons	2.24	2.40	0.16
45,001 – 60,000 gallons	2.57	2.76	0.19
60,000 gallons +	2.96	3.18	0.22
NTMWD Rate (per 000 gal):			
All Volumes	\$ 2.11	\$ 2.34	0.23
Sample Monthly Residential Water Bills: (Assumes a 3/4-inch meter charge of \$20)			
5,000 gallons	\$ 39.00	\$ 40.75	\$ 1.75
10,000 gallons	58.00	61.50	3.50
13,200 gallons	70.16	74.78	4.62

Should the Council decide not to increase rates at this time, or determine that a lesser adjustment is needed, we highly recommend that customer revenues continue to be monitored on a monthly basis and

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that the Council take immediate rate action as needed to ensure the long-term financial stability of the utility. We appreciate the opportunity to address the City Council and for the Council's consideration of the recommendations contained herein and stand ready to answer any questions City staff and/or the City Council may have regarding the information presented.