

Water Planning Committee


Recommendations Report



June 2015

TABLE OF CONTENTS

Executive Summary	iv
Introduction	1
Water/Wastewater System Background	4
Current Water and Wastewater Rates	6
Phoenix Metro Area Comparisons	9
Key Factors Impacting Future Rates	11
Rate Recommendations	17
Non-Rate Fees and Charges	25
Additional Recommendation	26
Appendix	
i. Alternative 1	27
ii. Public Outreach	29
iii. Citizen Comments	30
iv. Glossary of Terms	31
v. Acronyms	32
vi. Water Service Area Map	33
vii. Wastewater Service Area Map	34
List of Illustrations:	
Chart 1. Goodyear Residential Winter Average Usage per Meter – 2013	6
Table 1. 2015 Water Rates	7
Table 2. 2015 Wastewater Rates	8
Chart 2. Average Residential Monthly Charges	9
Table 3. Five-Year CIP Projects and Costs	16
Table 4. Water Rate Recommendations	19
Table 5. Wastewater Rate Recommendations	20
Table 6. Rate Recommendation Impacts	21
Table 7. Alternative 2 and Uniform Water Rate Analysis	23
Table 8. Impacts of Uniform Water Rate for Commercial Customers	23
Table 9. Non-Rate Fees and Charges	25
Chart 3. Historical and Forecast Water Consumption	26
Table 10. Alternative 1 Water Rates	27
Table 11. Alternative 1 Wastewater Rates	28
Table 12. Impacts of Alternative 1	28



This report includes the Water Planning Committee's input regarding the City of Goodyear five-year water and wastewater rate structure and other water and wastewater initiatives. Final rate-setting authority lies with the City Council.

This report was presented to the City Council at its June 15, 2015 work session. A copy of this report has been placed at the Goodyear Branch Library and is posted on the Goodyear website at www.goodyearaz.gov/watercommittee. Goodyear water and wastewater customers are invited to provide comments.

Please send written comments to:

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City of Goodyear, Finance Department
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Goodyear, AZ 85338
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Comments must be received on or before noon on Friday, September 18, 2015. The City Council may act on the rate recommendations as early as Monday, September 28, 2015. Questions may be directed to Anna Dizack, Administrative Services Supervisor with the City of Goodyear Finance Department at 623-882-7896 or anna.dizack@goodyearaz.gov.

EXECUTIVE SUMMARY

This report presents the recommendations from the Water Planning Committee regarding the city's five-year water and wastewater rate structure and other water and wastewater initiatives. Final rate-setting authority lies with the City Council.

There are currently four service providers within Goodyear city limits: the City of Goodyear and three private utility companies. The city primarily serves those south of Interstate-10, although it does provide water and/or wastewater service to some customers north of Interstate-10. The city also provides service at higher rates to a few county islands within city limits. In 2015, the city has more than 16,000 water and 15,000 wastewater accounts.

The city's water and wastewater utilities are enterprise funds, financed solely by their rates and fees—no General Fund or tax revenue is received. This enterprise fund self-sufficiency is a City Council directive and a city Budget Policy. Water and wastewater revenues must be sufficient to meet operations and maintenance, debt service, capital requirements, and established cash reserve or fund balance targets. While enterprise funds are financed and operated similarly to those of a private business, the city's utilities are designed to operate on a breakeven basis over time, making no profit. However, weather conditions, unexpected growth or population decline, and other factors can produce an economic gain or loss in any year. To absorb these fluctuations in annual revenue, the enterprise funds include un-appropriated fund balances.

The last major modification to the city's utility rates was adopted on May 18, 2009. This four-year water and wastewater rate plan became effective on January 4, 2010 with calendar year 2013 being the last year with a rate increase. On January 1, 2015, a 5% increase in overall water/wastewater revenues became effective (an increase in water rates with no increase to wastewater rates). The average residential customer would have seen about a 2.8% (or less than \$2) increase to their total water/wastewater bill. This interim increase was not intended to be sufficient to fund all water/wastewater operating expenses in the upcoming year but to help the enterprise funds meet the rising costs of doing business and provide customers with a more gradual utility rate increase until a new water/wastewater rate plan was reviewed by the Water Planning Committee and adopted by the City Council.

EXECUTIVE SUMMARY

The Water Planning Committee was formed in October 2014 and is comprised of residents and entity representatives in the city's water and/or wastewater service area. The committee met once a month from October 2014 through May 2015 (with two meetings in May) to learn about the complex water and wastewater issues facing Goodyear and the Southwest prior to developing its recommendations. The committee toured Goodyear water and wastewater facilities in November 2014 and received presentations and information from staff in a variety of division and departments, including Water Resources, Environmental Services, Finance, Economic Development, Development Services, and the City Manager's Office. Presentations on the Five-Year Capital Improvement Program (CIP) began in March 2015 and discussion on specific rate alternatives took place in May 2015.

The Five-Year CIP, completed by Carollo Engineers, Inc. provided an assessment of the city's immediate needs for its water, wastewater, and reclaimed water systems. A condition assessment study identified additional water and wastewater capital projects needed to maintain the integrity of Goodyear's water and wastewater infrastructure. These evaluations showed that the city's water system has insufficient water production, pumping, and storage capacity with significant investment needed to increase capacity in these areas and reduce the risk of an interruption to water supply. Recommended improvements for water projects in the Five-Year CIP plus the condition assessment projects totaled about \$39 million. Estimated costs of projects for the wastewater system totaled about \$12.5 million.

City staff and the city's utility rate study consultants with Economists.com forecasted additional future needs not covered by the Five-Year CIP, including annual increases in operations and maintenance costs (insurance, gasoline, electricity, chemicals, etc.), expected one-time and ongoing budget supplementals, and estimates for funding line oversizing associated with development. These needs and costs, along with costs for the Five-Year CIP and condition assessment study, were compiled into five-year water and wastewater rate plans by Economists.com. These rate plans were reviewed and revised by the Water Planning Committee during the committee's May 12 and May 19, 2015 meetings. All Water Planning Committee meetings, presentations, and documents can be viewed on the committee's webpage at: www.goodyearaz.gov/watercommittee.

EXECUTIVE SUMMARY

The Water Planning Committee strategy involved three key elements: 1) secure and optimize existing supplies and facilities, 2) identify additional water and wastewater capital projects needed to maintain the integrity of Goodyear's water and wastewater infrastructure and 3) expand water use efficiency efforts.

Key decisions made by the Water Planning Committee to recommend to the City Council include:

- Implementation all recommendations in the Five-Year CIP
- Implementation of a Central Arizona Project (CAP) water rate and inclusion as a separate line item on customer bills
- Further examination of multi-family and commercial rate structures and cost of service in a manner that does not change the Water Planning Committee's recommendations on residential rates or structures
- Adoption of a phased-in line oversizing and impact fee funding approach as presented on May 19, 2015
- Adoption of non-rate fees and charges as presented on May 19, 2015
- Adoption of utility rates as presented and discussed with the committee in on May 19, 2015 (Alternative 2)
- Implementation of another water citizen group to continue the efforts made by the Water Planning Committee

The Water Planning Committee believed that these key decisions, while still resulting in an increase to water and wastewater rates over the next five years, presented a more palatable and balanced increase for customers than initial estimates shown. These recommendations represent investments, not expenses, in the city's utility system and water future.

The typical Goodyear residential customer uses an average of 7,000 gallons of water per month and 5,000 gallons of wastewater. Based on the Water Planning Committee's recommendations, the typical residential water and wastewater bill would increase by \$7.10 per month (or 9.9%) in 2016 under the proposed rates. The increase each following year would progress from 8.7% down to 4.0%.

Commercial water and wastewater usage varies widely, based on the type of business activity. The water and wastewater bill for a business that uses 50,000

EXECUTIVE SUMMARY

gallons of water per month would increase by \$58.52 (or 11%) in 2016 under the proposed rates.

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Residential (7,000 gallons water, 5,000 gallons wastewater per month)						
Water	\$ 21.63	\$ 27.25	\$ 32.59	\$ 36.77	\$ 39.65	\$ 42.36
Wastewater	\$ 50.02	\$ 51.50	\$ 53.05	\$ 54.10	\$ 55.21	\$ 56.33
TOTAL	\$ 71.65	\$ 78.75	\$ 85.64	\$ 90.87	\$ 94.86	\$ 98.69
% Increase	--	9.9%	8.7%	6.1%	4.4%	4.0%

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Commercial (50,000 gallons water, 40,000 gallons wastewater per month)						
Water	\$225.47	\$ 274.86	\$ 323.61	\$ 361.07	\$ 380.81	\$ 398.01
Wastewater	\$308.78	\$ 317.91	\$ 327.51	\$ 333.96	\$ 340.84	\$ 347.75
TOTAL	\$534.25	\$ 592.77	\$ 651.12	\$ 695.03	\$ 721.65	\$ 745.76
% increase	--	11.0%	9.8%	6.7%	3.8%	3.3%

This report contains the Water Planning Committee's recommendations and details that the committee received during the process to gain a full understanding of the city's water and wastewater systems and its needs to create a more sustainable future with this valuable resource.

Sincerely,

Mario Columbia, Chair
Water Planning Committee

Jason Battern, Vice Chair
Water Planning Committee

INTRODUCTION

City Council resolution 14-1612 established the Water Planning Committee on April 14, 2014 for the existence of the Goodyear utility rate study project. The committee was formed for the rate-setting process to ensure that the interests of the city's customers were represented. The Water Planning Committee is an ad-hoc committee of volunteer citizens and representatives from the city's water and wastewater service area. Members went through an application and interview process where they were selected by the Council Boards, Commissions, and Committee Appointment Subcommittee.

Committee Members

Mario Columbia, Chair
Jason Battern, Vice-Chair
Jake Hinman
Peter Minarik
Dennis Paschen
Leonard Scheid
Marge Sharp
Jerry Wilson
Bill Zednik

Alternate Members

Lynne Pancrazi
Barbara Zednik

As outlined in the Water Planning Committee By-Laws, the powers and duties of the WPC include:

- A. Review and make recommendations on various master plans, including but not limited to the City's Integrated Water Master Plan (IWMP) update.
- B. Review future water needs to support growth and development.
- C. Make recommendations on water resources for growth and development.
- D. Review the City's existing utility rate structure.
- E. Review and develop recommended draft utility rates to support operations, maintenance, capital improvements, existing debt service, and future water resource needs.
- F. Recommend a draft of the water needs analysis, utility structure, and rates to be forwarded to the City Council for review.
- G. Any other actions consistent with the provisions of these By-Laws.

INTRODUCTION

The Water Planning Committee met nine times from October 2014 through May 2015:

Date	Meeting Topic
October 14, 2014	Introduction and IWMP, rate study overviews
November 19, 2014	Water and wastewater facility tours
December 9, 2014	Staff presentations, fundamentals of utility finance
January 13, 2015	Staff presentations continued
February 10, 2015	Utility finance and ratemaking
March 10, 2015	Integrated Water Master Plan and Five-Year CIP
April 14, 2015	Integrated Water Master Plan and Five-Year CIP
May 12, 2015	Utility rate discussion
May 19, 2015	Utility rate discussion

It is important to note that the Water Planning Committee was an all-volunteer effort. Members and alternates were selected to represent their community within the City of Goodyear water/wastewater service area. This report should not be considered a substitute for skilled professional analysis of the city's operations or capital needs. Professionals with Carollo Engineers, Inc. provided their analysis as they presented the Five-Year CIP and experts with Economists.com gave the committee a rate modeling analysis. Staff also provided their professional input. This recommendations report is only one piece of the larger puzzle.

In 2014, the city hired Carollo Engineers, Inc. to complete a Five-Year CIP, one of the first tasks of the city's 2015 integrated water resources, water, wastewater, and reclaimed water master plan. The Five-Year CIP provided an assessment of the city's immediate needs for its water, wastewater, and reclaimed water systems. A condition assessment study was also completed to identify additional water and wastewater capital projects needed to maintain the integrity of the city's water and wastewater infrastructure.

Carollo's evaluation showed that the water system has insufficient water production, pumping, and storage capacity with significant investment needed to increase capacity in these areas and reduce the risk of an interruption to water supply. The focus and direction of the city's previous water and wastewater services study, completed in 2009, was to assess the capacity of the system to provide water for significantly increased volumes of people due to rapid

INTRODUCTION

population growth. The current Five-Year CIP proposed by Carollo gets the city where it needs to be for the existing population and in the near term; it is not a projected demand for the future. Although it is only for the current system, this Five-Year CIP ensures that the city is in a good position for when significant growth happens again.

Recommended improvements for water projects, including new or rehabilitated wells and storage capacity, in the Five-Year CIP plus the condition assessment projects total about \$39 million. Estimated costs of projects for the wastewater system total about \$12.5 million.

Rate analyses were completed by the city's consultants at Economists.com. An initial rate plan was presented to the Water Planning Committee at the May 12, 2015 meeting. This rate plan, or Alternative 1 (included in the Appendix of this report), was a scenario that assumed all major projects were funded almost immediately and that all needs were funded fully, completely, and within a one to two year period. After review of this Alternative 1 plan, the committee provided consultants and staff with direction on a number of items, including the desire for a steadier increase in the rates and phasing in components like line oversizing, CAP water costs, and budget supplementals.

Consultants and staff returned to the Water Planning Committee with an alternative rate plan, Alternative 2, at the May 19, 2015 meeting. This plan incorporated the committee's requests, including a more gradual, consistent rate adjustment accomplished by phasing in certain expenses while still fully funding the Five-Year CIP.

The Water Planning Committee discussed and voted on its recommendations during the May 19, 2015 meeting, arriving at general consensus on most items.

WATER/WASTEWATER SYSTEM BACKGROUND

The city operates an integrated water and wastewater system to serve the area primarily south of Interstate-10. Goodyear's existing water/wastewater system is valued at \$280 million. Current water and wastewater related facilities include the following:

- 12 active production wells
- 10 booster pump stations
- 10 reservoirs
- 2 arsenic treatment facilities
- 2 reverse osmosis treatment facilities
- 1.9 million feet of water pipe
- 8,814 valves
- 482 control valves
- 6,193 fire hydrants
- 1.2 million feet of sewer pipe
- More than 5,400 manholes
- 12 sewer lift stations
- 3 wastewater treatment facilities: the Goodyear Water Reclamation Facility (WRF) (157th Avenue Wastewater Treatment Plant) serving the city north of the Gila River, and Corgett WRF and Rainbow Valley WRF serving the city south of the Gila River.

The average annual water demand in 2013 and 2014 was 8.0 million gallons per day (mgd). Water demands are projected to increase by 2.4 mgd by year 2020.

Currently, all of the city's physical water supplies are from groundwater. Arizona groundwater rules require sustainable pumping and/or groundwater replenishment. This can be accomplished through defined pumping allowances, annual storage and recovery of CAP or reclaimed water, use of long-term storage credits, or the purchase of replenishment water through the Central Arizona Groundwater Replenishment District (CAGRD). Currently, the city recharges reclaimed water through its Soil Aquifer Transfer (SAT) site and also recharges CAP water at the West Valley CAP recharge facilities. The city can then take indirect delivery of its CAP water through the use of its recovery permits associated with each city water production well.

WATER/WASTEWATER SYSTEM BACKGROUND

The combined 2013 average annual daily flow to the city's three water reclamation facilities (WRF) was 3.95 mgd. This means that 50% of the water produced in the city is returned as wastewater flow to the three WRFs with the remaining water used outdoors in landscaping. For the 2013 average annual daily flow, approximately 0.64 mgd was conveyed to the Corgett WRF or Rainbow Valley WRF and 3.31 mgd was conveyed to the Goodyear WRF.

It is assumed that 85% of the wastewater flow to the Goodyear WRF becomes reclaimed water the city can use for aquifer recharge, storage, and future recovery or reuse (though currently the city does not sell its reclaimed water from this WRF). Under development agreements, reclaimed water generated at the Corgett WRF is committed to development lakes and reclaimed water at the Rainbow Valley WRF is committed to golf course irrigation. Therefore, no reclaimed water from the Corgett or Rainbow WRFs is available for the city to recharge.

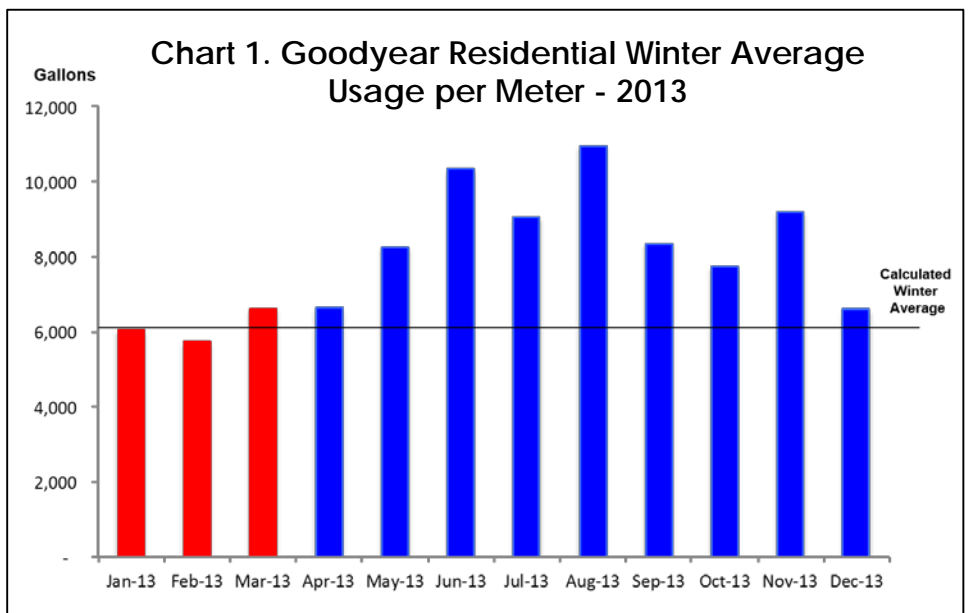
CURRENT WATER AND WASTEWATER RATES

The city's current water and wastewater rates have two components: a base charge and volume charges. Base charges are monthly charges by for service availability and are based on water meter size. Volume charges are charged per 1,000 gallons of service.

Water volume rates are based on an inverted block—the more customers use, the more they pay. Inverted blocks are intended to encourage conservation. Tier structures can vary from one city or utility to the next.

The city's current wastewater rates also have two components: a base charge and volume charges. Base charges are monthly charges for service availability and are based on water meter size. Volume charges are charged per 1,000 gallons of service for a winter quarter average (WQA). Winter average estimates are necessary because, unlike water, there are no individual meters to measure wastewater usage.

A customer's WQA is calculated annually by averaging the amount of water billed in January, February, and March, as these are the lowest consumption months (see Chart 1) and, generally, most of the water will be for indoor use. WQAs are calculated each year and reflected beginning on May bills. If there is unusual water usage



during this three-month calculation period, such as a winter lawn, filling a pool, etc., residents can appeal their WQAs. The appeal process is open from June 1 through the last business day of August. Appeal forms must be filled out annually.

CURRENT WATER AND WASTEWATER RATES

Commercial wastewater charges are calculated each month based on the water consumption for that billing period. The volume charge for commercial sewer each month is based on 80% of the water consumed for that billing period.

Sedella and Canada Village residents are charged a flat rate, which will change each May. This rate is based on the city average. Residents of these neighborhoods can provide their January, February, and March water bills for appeal.

Table 1. 2015 Water Rates:

BASE RATES – WATER	
Meter Size (inches)	2015 Rates (monthly)
3/4	\$ 11.24
1	\$ 15.54
1.5	\$ 25.12
2	\$ 40.67
3	\$ 77.67
4	\$ 126.65
6	\$ 240.36
8	\$ 240.36

RESIDENTIAL VOLUME CHARGES – WATER	
Monthly Rate Blocks	2015 Rates (per 1,000 gallons)
0 to 6,000 gallons	\$ 1.30
6,001 to 12,000 gallons	\$ 2.59
12,001 to 30,000 gallons	\$ 3.89
30,001 gallons and over	\$ 6.25

COMMERCIAL VOLUME CHARGES – WATER	
Monthly Rate Blocks	2015 Rates (per 1,000 gallons)
0 to 40,000 gallons	\$ 3.30
40,001 to 100,000 gallons	\$ 5.28
100,001 gallons and over	\$ 6.86

CURRENT WATER AND WASTEWATER RATES

IRRIGATION VOLUME CHARGES – WATER	
Monthly Rate Blocks	2015 Rates (per 1,000 gallons)
0 to 80,000 gallons	\$ 4.95
80,001 and over	\$ 5.69

RECLAIMED VOLUME CHARGES – WATER	
Monthly Rate Blocks	2015 Rates (per 1,000 gallons)
All	\$ 1.65

Table 2. 2015 Wastewater Rates:

BASE RATES – WASTEWATER	
Meter Size (inches)	2015 Rates (monthly)
3/4	\$ 21.12
1	\$ 32.41
1.5	\$ 39.94
2	\$ 77.58
3	\$ 115.22
4	\$ 152.86
6	\$ 378.70

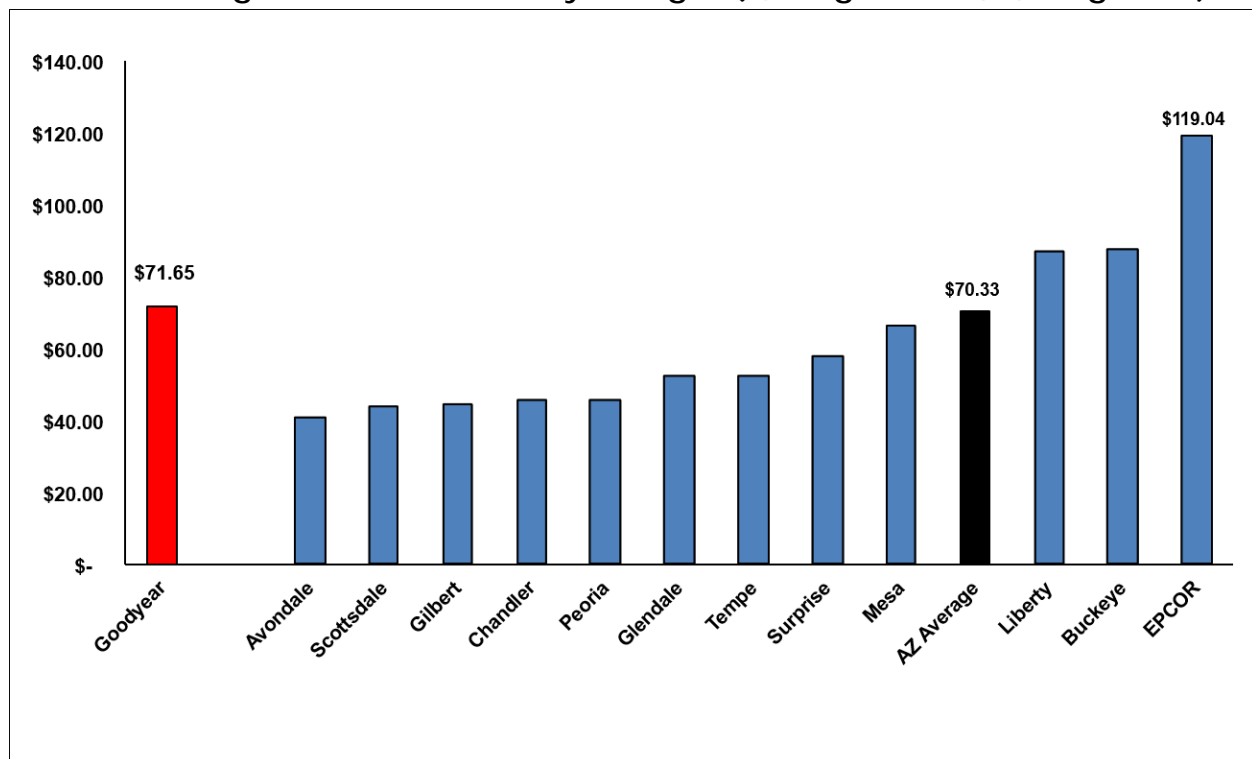
ALL VOLUME CHARGES – WASTEWATER	
Monthly Rate Blocks	2015 Rates (per 1,000 gallons)
All	\$ 5.78

Customers on the Goodyear water and/or wastewater system who are located outside of Goodyear city limits are charged a 25% higher rate. These customers are mainly those residing in county islands within city limits.

PHOENIX METRO AREA COMPARISONS

The Water Planning Committee was presented with information from city staff and consultants with Economists.com that a number of other communities in the Phoenix area are also currently undergoing utility rate studies or are preparing to do so in the near future. Chart 2 below compares Goodyear's 2015 combined residential water and wastewater rate to its neighboring utilities, both public and private.

Chart 2. Average Residential Monthly Charges (7,000 gal water, 5,000 gal ww)



It was presented to the Water Planning Committee that 30-40% of U.S. public utilities do not cover costs within their enterprise funds; other funds or sales taxes must pay for a portion of these costs. Higher costs do not necessarily mean an enterprise system is less efficient. Although the city's charges might be higher than other cities there are system characteristics that significantly impact the costs which include but are not limited to: a heavier reliance on CAP surface water supplies versus the significantly less expensive Salt River Project (SRP) water supply, larger impacts of water treatment requirements, and significant elevation changes.

PHOENIX METRO AREA COMPARISONS

Without a cost of service analysis it cannot be determined which of the utilities, if any, listed above subsidize their utilities with other funding sources. But it is an item worth noting.

The city's water and wastewater utilities are enterprise funds, financed solely by their rates and fees—no General Fund or tax revenue is received. This enterprise fund self-sufficiency is a City Council directive and a City of Goodyear Budget Policy. Water and wastewater revenues must be sufficient to meet operations and maintenance, debt service, capital requirements, and established cash reserve or fund balance targets. This is good business practice and due to the fact that a large number of Goodyear citizens are not serviced by the city's water/wastewater systems but by one of the three private utility companies operating within the city.

KEY FACTORS IMPACTING FUTURE RATES

The key factors impacting Goodyear's future water and wastewater rates, as presented to the Water Planning Committee, include:

- Existing budget expenses
- Budget supplementals
- CAP water costs (water rates only)
- Impact fee reimbursements and line oversizing
- Capital improvements (Five-Year CIP)

Existing Budget Expenses

Existing budget expenses, or operating costs, include salaries, insurance, electricity, utilities, building leases, equipment maintenance, gasoline, chemicals, etc. Most operating expenses increase with inflation about 3-5% per year; certain expenses like chemicals, electricity, and insurance, are expected to increase at higher rates. Additionally, some expenses will increase as volumes and customers increase.

In the future, as the number of customers increase and additional infrastructure needs to be maintained, the city will require additional personnel to meet current and forecasted workloads. Assumptions for these personnel and operating expenses were forecasted using estimates for inflationary increases, as well as staff estimates on additional full-time equivalent (FTE) personnel needed in the future.

Capital outlays include small ticket capital items like vehicles, pumps, computers, etc. paid for from ongoing rate revenues and not from issuing debt. Capital outlays can also serve the purpose of funding a repair/replacement reserve and/or a fund for oversizing lines. The city's rate plan contains both standard capital outlays (contained in budget) and supplemental capital outlays (additional expenditures recommended by staff in the following budget supplementals section).

Some budgeted expenses, such as the city's existing debt service, remain fairly constant, as do transfers out. Transfers out are paid to the city's general fund to reimburse for services provided to the enterprise funds such as human resources, legal counsel, finance and payroll, technology maintenance, etc. Actual numbers (not estimates) were included for these budgetary line items in the ratemaking process.

KEY FACTORS IMPACTING FUTURE RATES

Budget Supplementals

Budget supplementals are defined as anything over base budget. The city has one-time and ongoing categories. One-time are usually project-related that won't be in the city's Capital Improvement Program (CIP) such as a pilot conservation program or spare well equipment. Ongoing costs are generally related to things like power, chemicals, etc. that staff anticipates costs increasing over the current base budget year after year.

As ongoing and one-time supplemental requests cannot always be foreseen, estimates were made for these in the rate plans presented to the Water Planning Committee.

CAP Water Costs

The Central Arizona Project (CAP) is designed to bring about 1.5 million acre-feet of Colorado River water per year to Pima, Pinal, and Maricopa counties. CAP carries water from Lake Havasu near Parker, Arizona to the southern boundary of the San Xavier Indian Reservation southwest of Tucson. It is a 336-mile long system of aqueducts, tunnels, pumping plants, and pipelines and is the largest single resource of renewable water supplies in the state of Arizona.

Currently, all of the city's physical water supplies are from groundwater. Arizona groundwater rules require sustainable pumping and/or groundwater replenishment, which can be accomplished through defined pumping allowances, annual storage and recovery of CAP or reclaimed water, use of long-term storage credits, or the purchase of replenishment water through the Central Arizona Groundwater Replenishment District (CAGRD).

As CAGRD water is more expensive than CAP water, the city currently purchases CAP water for groundwater replenishment. The city can purchase CAP water but the city cannot currently treat and deliver its CAP water directly. City CAP water must be delivered to CAP-owned and operated recharge facilities with 20-year permits. The city has more than 100,000 acre-feet of annual storage capacity between five recharge facilities.

In the next ten to 15 years, the city has the opportunity to purchase CAP water to recharge and bank as long-term storage credits for drought protection and emergencies. As demands increase and CAP water is delivered directly to

KEY FACTORS IMPACTING FUTURE RATES

customers in the future, the city's opportunity to bank long-term storage credits is reduced.

Currently, CAP water is paid for in the water resources budget through ongoing supplementals each year. In calendar year 2015, the city will spend \$1.2 million for 7,228 acre-feet of CAP water. This amount is not enough to replenish the 2015 total water demands. Long-term storage credits banked by the city will need to be used to cover the difference. Long-term storage credits are an important part of the city's water resources portfolio for long-term drought protection and for emergencies. Long-term storage credits should be considered a lower priority for use in annual water supply replenishment obligations than CAP recharge in years when CAP water is available to the city.

Impact Fee Reimbursements and Line Oversizing

Landowners have rights to develop where and when they want to develop. A developer may only need a certain sized line to service his property alone. However, the line should be oversized to service other vacant land surrounding the property that is expected to be developed in the reasonably near future. The city prefers oversizing instead of the next developer constructing a second line alongside the existing one to service his property, as this would require additional maintenance and reduce efficiency.

Therefore, the city needs a way to fund the cost of oversizing lines for growth planning. The end property can't be held responsible for financing the oversizing so including these costs in the budget is a means of providing cash flow to fund a portion of the costs. The city recovers these costs when future properties are developed. Additionally, if the other vacant properties are not reasonably expected to develop in the near future, city staff may make a conscious decision not to oversize as the costs would not be recovered.

Capital Improvements (Five-Year CIP)

The Five-Year CIP completed by Carollo Engineers, Inc. showed that the city's water system has insufficient water production, pumping, and storage capacity. Significant investment is needed to increase capacity in these areas to reduce the risk of an interruption to water supply, particularly in the summer months with peak demand times.

KEY FACTORS IMPACTING FUTURE RATES

The Five-Year CIP identifies that the top priority for the water system is to ensure a water supply that:

1. Is adequate for maximum demand days with sufficient redundancy that the water supply is not interrupted by equipment failures. This means backup water supplies need to be available at all times so that the largest well supply can be taken offline and the city can still supply maximum day water demands.
2. Provides a water quality that meets water quality standards and does not place health and safety at risk. This priority ensures adequate treatment for water wherever the water source does not satisfy standards.

Improvements for the water system recommended in the Five-Year CIP include:

- Construct three new wells – Providing additional water supplies is an essential part of the city's near term strategy for delivering water to customers. If the city's largest system well (Well 22) is taken out of service for some reason, Well 20 cannot be used on its own because of water quality issues with blending requirements. This situation would result in a shortage to the water supply. Additional wells will improve water supply reliability.
- Replacement of three wells – These wells are 55 to 75 years old (with an expected life of 40 to 50 years) and are producing water at reduced flowrates of a third or less of some newer wells.
- Rehabilitation of three wells – Capacity of wells often decreases with rehabilitation and age. If one of the wells reaches the end of its useful life, re-drilling the well in close proximity may not be an option. The three wells Carollo has identified for rehabilitation are 17 to 27 years old and are producing water at reduced flowrates of half or less of some newer wells.
- Pumps – The city's pumping capacity is deficient north of the Gila River. Solutions to the pumping capability in the near term can be addressed by adding booster pump stations. Additional booster pumping capacity is recommended at two sites, one north and one south of the Gila River.
- A storage reservoir – A water storage deficit currently exists and the Five-Year CIP has recommended a 1.5 MG storage reservoir. Estimates for this facility include both the storage and land acquisition costs.
- Replacing pipe – The Sarival Estates development located at the northwest corner of Sarival Road and Lower Buckeye Road is experiencing main

KEY FACTORS IMPACTING FUTURE RATES

failures, primarily because the development water lines were constructed with non-standard pipe materials. This development experiences several main breaks per year. Additionally, the quality of the pipe uncovered during the main break repairs has deteriorated.

- Distribution Management, Operations, and Maintenance (DMOM) program – This program assists in maintaining and managing the water distribution system to provide desired levels of service.

Estimated costs for these water projects total approximately \$39 million. Further detail for each project can be found in the Five-Year CIP document. These expenses would be paid for with bonds.

The wastewater collection system was evaluated primarily on asset condition. A condition assessment study was completed to identify additional water and wastewater capital projects needed to maintain the integrity of the city's water and wastewater infrastructure.

The priorities for new or rehabilitated wastewater infrastructure are:

1. Safely convey wastewater away from customers to avoid spills that expose customers to unsanitary conditions
2. Treat wastewater to eliminate exposure to unsanitary conditions
3. Provide a reliable water resource from reclaimed water
4. Comply with regulations

Improvements for the wastewater system recommended in the Five-Year CIP include:

- Lift Stations – Lift stations appear to have sufficient capacity to convey current wastewater flows but the manholes where the force mains discharge are all in poor condition due to hydrogen sulfide corrosion. Improvements to lift stations and rehabilitation of severely corroded manholes is included each year in the Five-Year CIP. The condition of one lift station will require that the force main be extended so that it can discharge into a larger interceptor (with further study required).

KEY FACTORS IMPACTING FUTURE RATES

- Perryville Prison Pump Station Screen – Wastewater flows from Perryville prison passes through a lift station that needs to handle large amounts of cloth and other debris. An improved screen with finer openings is needed.
- Interceptor Capacity – Interceptors going into the Goodyear WRF are undersized for the full capacity of the plant. A model is needed to evaluate the capacity of this pipeline.
- Capacity, Management, Operations, and Maintenance (CMOM) program – Program provides the framework for effectively managing the collection system to provide the required maintenance to keep the collection system in good condition, to provide capacity where needed, and to avoid spills.

The estimated cost of these projects is approximately \$12.5 million. Further detail for each project can be found in the Five-Year CIP. These expenses would be funded through current cash balances in the wastewater fund and bonds.

The Five-Year CIP project costs as presented to the Water Planning Committee is outlined below in Table 3:

Table 3. Five-Year CIP Projects and Costs

Water Projects	Estimated Cost, \$M
Water supply	\$ 27.90
Pumping	\$ 1.70
Water storage	\$ 4.80
CAP capital (already in CIP)	\$ 1.40
Bullard campus treatment rehabilitation	\$ 0.14
Water main replacements	\$ 2.90
DMOM	\$ 0.10
Subtotal	\$ 38.94
Wastewater Projects	Estimated Cost, \$M
Rainbow Valley WRF improvements	\$ 1.30
Corgett WRF improvements	\$ 1.00
Goodyear WRF improvements	\$ 2.90
Lift station and force main improvements	\$ 2.50
Collection system improvements	\$ 4.80
Subtotal	\$ 12.50
City-identified wastewater projects	\$ 5.90
TOTAL FOR CIP	\$ 57.34

RATE RECOMMENDATIONS

After eight months and nine meetings, the Water Planning Committee formulated recommendations on the city's utility rates and rate structure. Rate analyses were completed by the city's consultants at Economists.com. An initial rate plan was presented to the Water Planning Committee at the May 12, 2015 meeting. This rate plan, or Alternative 1 (included in Appendix), was a scenario that assumed all major projects were funded almost immediately and that all needs were funded fully, completely, and within a one to two year period. After review of this Alternative 1 plan, the committee provided consultants and staff with direction on a number of items, including the desire for a steadier increase in the rates and phasing components like line oversizing, CAP water costs, and budget supplementals.

Consultants and staff returned to the Water Planning Committee with an alternative rate plan, Alternative 2, at the May 19, 2015 meeting. This plan incorporated the committee's requests, including a more gradual, consistent rate adjustment accomplished by phasing in certain expenses while still fully funding the Five-Year CIP.

The committee recommends the following:

- To address the issue of insufficient water production, pumping, and storage capacity and to reduce the risk of an interruption to water supply, implement all of the capital recommendations identified in the Five-Year CIP.
- To support sustainability and growth and to continue to protect Goodyear's water supply, implement a Central Arizona Project (CAP) rate and include it as a separate line item on customer bills.
- To plan for growth and development, include line oversizing and impact fees funding.
- To adopt non-rate fees and charges as presented by the city's utility rate study consultants.
- To support operations, maintenance, capital improvements, debt service, and future water resource needs, adopt water and wastewater rates as presented in the Alternative 2 plan after reconciliation with the recently adopted fiscal year 2016 tentative budget.

These Water Planning Committee recommendations are reflected in the following (Alternative 2) plan presented by the utility rate study consultants. Members of the

RATE RECOMMENDATIONS

Water Planning Committee stated that these rates were more palatable than what was presented with Alternative 1 (included in the Appendix).

The revisions to the Key Factors Impacting Rates from the Alternative 1 to Alternative 2 plans include:

- **Existing budget expenses** – Wastewater capital outlays were revised in Alternate 2 to provide less of an impact in the first few years.
- **Budget supplementals** – In Alternative 1, ongoing supplementals were estimated to increase at 5% each year from the base amount in 2015, while one-time supplementals were held constant in 2017 forward. As requested by the Water Planning Committee, supplementals were kept at the 2016 levels and higher amounts were phased-in throughout the five years with Alternative 2.
- **CAP water costs** – The Water Planning Committee viewed CAP water as an important source of water for the long-term sustainability and growth of Goodyear. However, initial costs of service provided in the consultant's Alternative 1 plan was seen as not as palatable for customers and this rate was revised to provide for a more gradual increase by lowering the expense in earlier years when the percentage increase to customers' bills was higher. This means that the city will need to draw from its long-term storage bank credits to fulfill recharge requirements until the CAP water orders meet the annual total water demands in the later years of the proposed five-year plan.
- **Impact fee reimbursements and line oversizing** – This expense line item was also phased-in with the Alternative 2 plan. However, these expenses do not reach the levels of funding in year 2020 as they were presented in Alternative 1.
- **Five-Year CIP** – Planned debt service expenses for projects in the Five-Year CIP do not begin until 2017. As the Water Planning Committee agreed that the projects outlined in the Five-Year CIP were critical to the water production, pumping, and storage and to reducing the risk of interruption in Goodyear's water supply, the Water Planning Committee supported keeping this line item fully funded. The Water Planning Committee noted that these projects should be seen as an investment in the city's system, not an expense and that staff should keep a close eye on the costs as they proceed.

RATE RECOMMENDATIONS

Table 4. Water Rate Recommendations

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Base Charge – Per month (meter size)						
3/4"	\$ 11.24	\$ 12.70	\$ 14.73	\$ 16.35	\$ 17.49	\$ 18.54
1"	\$ 15.54	\$ 17.56	\$ 20.37	\$ 22.61	\$ 24.19	\$ 25.64
1 1/2"	\$ 25.12	\$ 28.39	\$ 32.93	\$ 36.55	\$ 39.11	\$ 41.46
2"	\$ 40.67	\$ 45.96	\$ 53.31	\$ 59.17	\$ 63.31	\$ 67.11

CAP Water Charge – Per 1,000 gallons						
	--	\$ 0.40	\$ 0.60	\$ 0.75	\$ 0.85	\$ 0.95

Volume Charge per 1,000 gallons – Residential						
0 to 6,000	\$ 1.30	\$ 1.47	\$ 1.71	\$ 1.90	\$ 2.03	\$ 2.15
6,001 to 12,000	\$ 2.59	\$ 2.93	\$ 3.40	\$ 3.77	\$ 4.03	\$ 4.27
12,001 to 30,000	\$ 3.89	\$ 4.40	\$ 5.10	\$ 5.66	\$ 6.06	\$ 6.42
30,001 and above	\$ 6.25	\$ 7.06	\$ 8.19	\$ 9.09	\$ 9.73	\$ 10.31

Volume Charge per 1,000 gallons – Non-Residential/School						
0 to 40,000	\$ 3.30	\$ 3.73	\$ 4.29	\$ 4.72	\$ 4.91	\$ 5.06
40,001 to 100,000	\$ 5.28	\$ 5.97	\$ 6.87	\$ 7.56	\$ 7.86	\$ 8.10
100,001 and above	\$ 6.86	\$ 7.75	\$ 8.91	\$ 9.80	\$ 10.19	\$ 10.50

Volume Charge per 1,000 gallons – Irrigation						
0 to 80,000	\$ 4.95	\$ 5.59	\$ 6.43	\$ 7.07	\$ 7.35	\$ 7.57
80,001 and above	\$ 5.69	\$ 6.43	\$ 7.39	\$ 8.13	\$ 8.46	\$ 8.71

*Residential customers will also see sanitation charges on their monthly utility bills

**Current sales taxes of 8.8% and a state surcharge of 0.65% will also be reflected on customers' bills. These are only billed on the volume of water used (not billed against base fee or wastewater charges).

RATE RECOMMENDATIONS

Table 5. Wastewater Rate Recommendations

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Base Charge – Per month (meter size)						
3/4"	\$ 21.12	\$ 21.75	\$ 22.40	\$ 22.85	\$ 23.31	\$ 23.78
1"	\$ 32.41	\$ 33.38	\$ 34.38	\$ 35.07	\$ 35.77	\$ 36.49
1 1/2"	\$ 39.94	\$ 41.14	\$ 42.37	\$ 43.22	\$ 44.08	\$ 44.96
2"	\$ 77.58	\$ 79.91	\$ 82.31	\$ 83.96	\$ 85.64	\$ 87.35

Volume Charge per 1,000 gallons – All classes						
All classes	\$ 5.78	\$ 5.95	\$ 6.13	\$ 6.25	\$ 6.38	\$ 6.51

**Residential customers will also see sanitation charges on their monthly utility bills*

***Current sales taxes of 8.8% and a state surcharge of 0.65% will also be reflected on customers' bills. These are only billed on the volume of water used (not billed against base fee or wastewater charges).*

As is typical for the city, it is recommended that rate increases be adopted in the winter months when customers' bills are lower. Rate adjustments would be automatic and effective on January 1 of each year between 2016 and 2020.

Impacts of Recommendations on Rates

The typical Goodyear residential customer uses an average of 7,000 gallons of water per month and 5,000 gallons of wastewater. Based on the Water Planning Committee's recommendations, the typical residential water and wastewater bill would increase by \$7.10 per month (or 9.9%) in 2016 under the proposed rates. The increase each following year would progress from 8.7% down to 4.0%.

Commercial water and wastewater usage varies widely, based on the type of business activity. The water and wastewater bill for a business that uses 50,000 gallons of water per month would increase by \$58.52 (or 11%) in 2016 under the proposed rates.

The following Table 6 shows the recommended rate increases carried out throughout the five-year rate study and their associated impacts:

RATE RECOMMENDATIONS

Table 6. Rate Recommendation Impacts

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Residential (7,000 gallons water, 5,000 gallons wastewater per month)						
Water	\$ 21.63	\$ 27.25	\$ 32.59	\$ 36.77	\$ 39.65	\$ 42.36
Wastewater	\$ 50.02	\$ 51.50	\$ 53.05	\$ 54.10	\$ 55.21	\$ 56.33
TOTAL	\$ 71.65	\$ 78.75	\$ 85.64	\$ 90.87	\$ 94.86	\$ 98.69
% Increase	--	9.9%	8.7%	6.1%	4.4%	4.0%

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Commercial (50,000 gallons water, 40,000 gallons wastewater per month)						
Water	\$225.47	\$ 274.86	\$ 323.61	\$ 361.07	\$ 380.81	\$ 398.01
Wastewater	\$308.78	\$ 317.91	\$ 327.51	\$ 333.96	\$ 340.84	\$ 347.75
TOTAL	\$534.25	\$ 592.77	\$ 651.12	\$ 695.03	\$ 721.65	\$ 745.76
% increase	--	11.0%	9.8%	6.7%	3.8%	3.3%

RATE RECOMMENDATIONS

Uniform Non-Residential Rate

Due to time constraints, complexity, and need for further analysis, the Water Planning Committee voted to direct city staff to analyze and examine multi-family and commercial rate structures and cost of service and report to the City Council in a manner that does not change committee recommendations on residential rates or rate structures. This vote took place in regards to a non-residential/commercial uniform block rate structure presented by consultants on May 19, 2015 as a further option to address questions about alternative multi-family rates.

The Water Planning Committee By-Laws allowed for up to 25% of members to be non-residents of the city if they met one of the following criteria:

- Own and operate, or represent a corporate entity that owns and operates, a business located within the city water and/or sewer service area
- Own property with the city water and/or sewer service area
- Represent a public entity that operates with the city water and/or sewer service area

One member of the committee, a consultant with the Arizona Multihousing Association (AMA), served as a representative for apartment complexes within the city. Participation on the Water Planning Committee was a suggestion by staff after a meeting on multi-family water rates in 2014. This member expressed concerns throughout the Water Planning Committee process on the equity between single-family residential and multi-family residential water and wastewater rates. Currently, multi-family properties are on included under the commercial rate structure.

At the May 19, 2015 meeting, in addition to the Alternative 2 proposal, the Water Planning Committee was presented with a rate plan to potentially further alter multi-family and commercial water rates. This plan included revising non-residential/commercial water rates from the current tiered rate structure to a uniform rate structure for all non-residential usage. Alternative 2 proposed rates are shown in comparison to the uniform charge plan in the following Table 7:

RATE RECOMMENDATIONS

Table 7. Alternative 2 and Uniform Water Rate Analysis

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Volume Charge per 1,000 gallons – Non-Residential/School (Alternative 2)						
0 to 40,000	\$ 3.30	\$ 3.73	\$ 4.29	\$ 4.72	\$ 4.91	\$ 5.06
40,001 to 100,000	\$ 5.28	\$ 5.97	\$ 6.87	\$ 7.56	\$ 7.86	\$ 8.10
100,001 and above	\$ 6.86	\$ 7.75	\$ 8.91	\$ 9.80	\$ 10.19	\$ 10.50
Uniform Charge per 1,000 gallons – Non-Residential/School						
All usage	--	\$ 6.20	\$ 7.13	\$ 7.84	\$ 8.15	\$ 8.39

A uniform water rate in lieu of a tiered non-residential/commercial rate would have different impacts to different businesses. Table 8 shows an analysis of how commercial customers would be impacted, with the “Difference” rows illustrating the difference between what these customers would pay under the recommended Alternative 2 structure and what they might pay under the uniform rate structure previously outlined.

Comparisons below show the differences in water rates only (as wastewater rates would not be altered in the uniform rate option):

Table 8. Impacts of Uniform Water Rate for Commercial Customers

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
50,000 gallon customer – Impacts to monthly charges						
Tiered rate (Alt. 2)	\$ 225.47	\$ 274.86	\$ 323.61	\$ 361.07	\$ 380.81	\$ 398.01
Uniform rate	--	\$ 375.96	\$ 439.81	\$ 488.67	\$ 513.31	\$ 534.11
DIFFERENCE	--	\$ 101.10	\$ 116.20	\$ 127.60	\$ 132.50	\$ 136.10
250,000 gallon customer – Impacts to monthly charges						
Tiered rate (Alt. 2)	\$ 1,518.47	\$ 1,815.86	\$ 2,123.61	\$ 2,359.07	\$ 2,472.31	\$ 2,568.01
Uniform rate	--	\$ 1,695.96	\$ 1,985.81	\$ 2,206.67	\$ 2,313.31	\$ 2,402.11
DIFFERENCE	--	\$ (119.90)	\$ (137.80)	\$ (152.40)	\$ (159.00)	\$ (165.90)
500,000 gallon customer – Impacts to monthly charges						
Tiered rate (Alt. 2)	\$ 3,233.47	\$ 3,763.36	\$ 4,366.11	\$ 4,827.82	\$ 5,041.06	\$ 5,216.76
Uniform rate	--	\$ 3,255.96	\$ 3,783.31	\$ 4,185.42	\$ 4,372.06	\$ 4,523.36
DIFFERENCE	--	\$ (507.04)	\$ (582.80)	\$ (642.40)	\$ (669.00)	\$ (693.40)

RATE RECOMMENDATIONS

Discussion was held on the uniform rate analysis at the May 19, 2015 Water Planning Committee meeting. However, many on the committee felt that they did not know enough about a separate or different multi-family rate to make an informed decision on the topic. Additionally, some members didn't agree with the uniform commercial rate plan.

Thus, the direction recommended by the Water Planning Committee was for staff to work with the consultants to analyze multi-family and commercial rates and cost of service. This information should be reported to the City Council. There was strong agreement from a majority of the committee that altering the non-residential/commercial water rate structure should not impact residential rates or rate structures.

NON-RATE FEES AND CHARGES

Non-rate revenues are one-time charges for specific services provided to individual ratepayers. These include but are not limited to: connection fees, meter tests, disconnect notices, special meter reads, meter tampering fines, etc. The fees are generally based on the cost the utility incurs in providing service though some, such as late payment penalties, are intended to provide a disincentive. Cost of each service is composed of labor, materials, vehicle usage, and other/miscellaneous costs.

The city's non-rate fees and charges were last updated in 2007.

To address cost recovery, several increases to charges are being proposed to recover direct and indirect costs of service. These specific service costs are assessed to users of the service so that the general rate payers do not bear the burden.

After consideration of the plans and information from city staff and consultants, the Water Planning Committee recommended the city's non-rate fees and charges be adopted as proposed:

Table 9. Non-Rate Fees and Charges

Non-Rate Fees and Charges	Current Fee	Recommended Fee
Late Payment Fee	1.50%	1.50%
Non-Sufficient Funds (NSF) Fee	\$35	\$50
Security Deposit – Residential	\$200	\$200
Security Deposit – Non-Residential	\$250	\$650
Cross Connection – Backflow	\$9	\$9
Same Day New Account Activation Fee (in addition to Next Day New Account Activation Fee)	\$50	\$50
Next Day New Account Activation	\$50	\$60
Disconnect Notice – Water	\$18	\$18
Admin Fee (Shut-Off)	\$50	\$50
Same Day Reinstatement	\$50	\$50
Water Audit Fee (if cancelled less than 24 hours prior)	\$54	\$75
Field Visit	\$55	\$85
Hydrant Connection	\$100	\$150
Meter Tampering	\$65	\$100

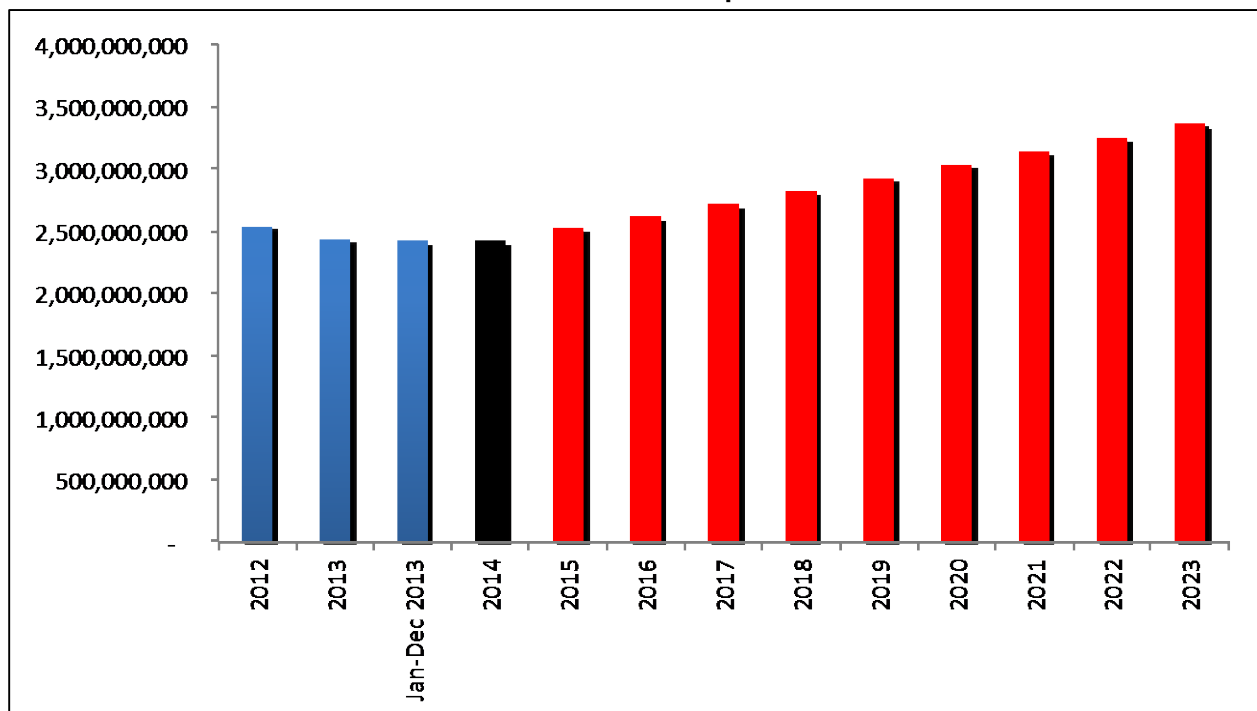
ADDITIONAL RECOMMENDATION

Sustainability and water conservation were important topics for the Water Planning Committee. The committee presented ideas and suggestions on these topics ranging from implementing new programs and initiatives to revising city policies and employing fines or limitations.

While the Water Planning Committee discussed many sustainability and conservation ideas, with limited time and the large task at hand of deciding on future water and wastewater rates, the committee was not able to discuss most of these ideas in-depth. Many on the committee felt that some of these ideas were valid and should be passed on for staff to evaluate and the City Council to review. However, the majority of the Water Planning Committee was not comfortable voting on these items at the May 19, 2015 meeting.

The Water Planning Committee voted to recommend directing staff to consider implementation of another water citizen group to continue the efforts made by the Water Planning Committee on the issues of sustainability and conservation.

Chart 3. Historical and Forecast Water Consumption



APPENDIX

Alternative 1

An initial rate plan was presented to the Water Planning Committee at the May 12, 2015 meeting. This rate plan, or Alternative 1, was a scenario that assumed all major projects were funded almost immediately and that all needs were funded fully, completely, and within a one to two year period. After review of this Alternative 1 plan, the committee provided consultants and staff with direction on a number of items, including the desire for a steadier increase in the rates and phasing components like line oversizing, CAP water costs, and budget supplementals. Alternative 1 as presented to the Water Planning Committee at the May 12, 2015 meeting is presented in the following Tables 10-12.

Table 10. Alternative 1 Water Rates

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Base Charge – Per month (meter size)						
3/4"	\$ 11.24	\$ 15.74	\$ 17.71	\$ 18.06	\$ 18.42	\$ 18.79
1"	\$ 15.54	\$ 21.76	\$ 24.48	\$ 24.97	\$ 25.47	\$ 25.98
1 1/2"	\$ 25.12	\$ 35.17	\$ 39.57	\$ 40.36	\$ 41.17	\$ 41.99
2"	\$ 40.67	\$ 56.94	\$ 64.06	\$ 65.34	\$ 66.65	\$ 67.98

CAP Water Charge – Per 1,000 gallons						
	--	\$ 0.80	\$ 0.90	\$ 0.95	\$ 1.00	\$ 1.10

Volume Charge per 1,000 gallons – Residential						
0 to 6,000	\$ 1.30	\$ 1.82	\$ 2.05	\$ 2.09	\$ 2.13	\$ 2.17
6,001 to 12,000	\$ 2.59	\$ 3.63	\$ 4.08	\$ 4.16	\$ 4.24	\$ 4.32
12,001 to 30,000	\$ 3.89	\$ 5.45	\$ 6.13	\$ 6.25	\$ 6.38	\$ 6.51
30,001 and above	\$ 6.25	\$ 8.75	\$ 9.84	\$ 10.04	\$ 10.24	\$ 10.44

Volume Charge per 1,000 gallons – Non-Residential/School						
0 to 40,000	\$ 3.30	\$ 4.62	\$ 5.20	\$ 5.30	\$ 5.41	\$ 5.52
40,001 to 100,000	\$ 5.28	\$ 7.39	\$ 8.31	\$ 8.48	\$ 8.65	\$ 8.82
100,001 and above	\$ 6.86	\$ 9.60	\$ 10.80	\$ 11.02	\$ 11.24	\$ 11.46

Volume Charge per 1,000 gallons – Irrigation						
0 to 80,000	\$ 4.95	\$ 6.93	\$ 7.80	\$ 7.96	\$ 8.12	\$ 8.28
80,001 and above	\$ 5.69	\$ 7.97	\$ 8.97	\$ 9.15	\$ 9.33	\$ 9.52

APPENDIX

Table 11. Alternative 1 Wastewater Rates

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Base Charge – Per month (meter size)						
3/4"	\$ 21.12	\$ 22.60	\$ 24.18	\$ 25.87	\$ 26.39	\$ 26.92
1"	\$ 32.41	\$ 34.68	\$ 37.11	\$ 39.71	\$ 40.50	\$ 41.31
1 1/2"	\$ 39.94	\$ 42.74	\$ 45.73	\$ 48.93	\$ 49.91	\$ 50.91
2"	\$ 77.58	\$ 83.01	\$ 88.82	\$ 95.04	\$ 96.94	\$ 98.88
Volume Charge per 1,000 gallons – All classes						
All classes	\$ 5.78	\$ 6.18	\$ 6.61	\$ 7.07	\$ 7.21	\$ 7.35

Impacts of Alternative 1

The typical Goodyear residential customer uses an average of 7,000 gallons of water per month and 5,000 gallons of wastewater. Commercial water and wastewater usage varies widely, based on the type of business activity. The water and wastewater bill for a business that uses 50,000 gallons of water per month is outlined in Table 12 below. Table 12 shows the impacts of Alternative 1 reviewed by the Water Planning Committee on May 12, 2015:

Table 12. Impacts of Alternative 1

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Residential (7,000 gallons water, 5,000 gallons wastewater per month)						
Water	\$ 21.63	\$ 35.89	\$ 40.39	\$ 41.41	\$ 42.44	\$ 43.83
Wastewater	\$ 50.02	\$ 53.50	\$ 57.23	\$ 61.22	\$ 62.44	\$ 63.67
TOTAL	\$ 71.65	\$ 89.39	\$ 97.62	\$ 102.63	\$ 104.88	\$ 107.50
% Increase	--	24.8%	9.2%	5.1%	2.2%	2.5%

	Current	Effective Jan 2016	Effective Jan 2017	Effective Jan 2018	Effective Jan 2019	Effective Jan 2020
Commercial (50,000 gallons water, 40,000 gallons wastewater per month)						
Water	\$225.47	\$ 355.64	\$ 400.16	\$ 409.64	\$ 419.55	\$ 431.98
Wastewater	\$308.78	\$ 330.21	\$ 353.22	\$ 377.84	\$ 385.34	\$ 392.88
TOTAL	\$534.25	\$ 685.85	\$ 753.38	\$ 787.48	\$ 804.89	\$ 824.86
% increase	--	28.4%	9.8%	4.5%	2.2%	2.5%

APPENDIX

Public Outreach

	Press Releases	E-Notify - News, Neighbor Alerts	InFocus	Social Media – Facebook, Twitter, Instagram	Paid Ad – AZ Rep, SW Valley Section	Website – homepage, committee page	Utility Bill Insert	Video
Solicitation- committee members	May 21, 2014	May 21, 2014 May 29, 2014 June 9, 2014 June 11, 2014	May 2014 Aug. 2014	May 22, 2014 May 28, 2014	May 14, 2014 May 27, 2014	May 21, 2014	May 2014	
Members announced, sworn in	Sept. 14, 2014 Oct. 14, 2014	Sept. 14, 2014 Oct. 14, 2014	Oct. 2014	Oct. 6, 2014		Sept. 14, 2014 Oct. 14, 2014		Oct. 6, 2014
Committee meetings	Oct. 28, 2014 Nov. 6, 2014 Jan. 15, 2015 Feb. 13, 2015 March 17, 2015 April 16, 2015 May 15, 2015 May 21, 2015	Oct. 28, 2014 Nov. 6, 2014 Jan. 15, 2015 Feb. 13, 2015 Mar. 17, 2015 April 14, 2015 May 15, 2015 May 21, 2015	Dec. 2014 Feb. 2015 April 2015 June 2015	Nov. 6, 2014 Dec. 8, 2014 Dec. 11, 2014 Jan. 16, 2015 March 17, 2015 April 14, 2015 April 17, 2015 May 19, 2015		Oct. 28, 2014 Jan. 15, 2015 Feb. 13, 2015 March 17, 2015 April 16, 2015 May 15, 2015 May 21, 2015		Oct. 2014 Dec. 2014 Feb. 2015 March 2015 May 12, 2015 May 19, 2015

APPENDIX

Citizen Comments

Three members of the public spoke or provided comments during the Water Planning Committee meetings. These comments are summarized below:

- December 9, 2014 – Jeff Gibbs, a Litchfield Park resident, spoke on a water consciousness initiative proposition to organize a team to participate in the Arizona Water Consciousness Challenge. Gibbs asked the Water Planning Committee to provide him with an agreement to work with his group in the development of their solution or an agreement to conduct one or more pilots.
 - Staff follow-up, January 13, 2015 WPC meeting – City Water Resources Manager Mark Holmes informed the Water Planning Committee that the city had decided to partner with the Arizona Water Association on this challenge as its mission and objectives fit with the city. Other Arizona cities also joined in the challenge with this association.
- February 10, 2015 – Nancy McFillin, a resident of Goodyear’s Estrella community, spoke regarding reclaimed water in the development, the Central Arizona Groundwater Replenishment District (CAGRD), and asked why Estrella is the only community in Goodyear that uses reclaimed water.
 - Staff follow-up, March 6, 2015 prior to WPC meeting – City staff provided a response as part of an ongoing list for follow-up items. This document is posted to the Water Planning Committee’s webpage at www.goodyearaz.gov/watercommittee and the response is listed as Item #1.
- May 12, 2015 – Clodina Correa, representing Desert Sage Apartments, submitted written comments read aloud by the Committee Chair. Correa asked that the committee take into consideration changing the multi-family rates from commercial to residential as they have been having issues retaining residents at Desert Sage Apartments.

APPENDIX

Glossary of Terms

Acre-Feet – The volume of one acre of surface area at a depth of one foot (43,560 cubic feet) or 325,851 gallons of water. This is enough water to serve 2.3 to 3 average residents within the City of Goodyear for one year.

Biochemical Oxygen Demand (BOD) – A characteristic of sewage that can make it more expensive to process at the wastewater treatment plant.

Brackish Water – Water containing between 1,000 mg/l and 15,000 mg/l of dissolved solids

Brine – Another term for concentrate

Capital Improvement Program (CIP) – A long-range study or plan of defined capital expenditures/projects.

Concentrate – Water that is rejected in the process of reverse osmosis which contains dissolved solids in the water being processed in more concentrated form

Fiscal Year – The annual budget period. For the City of Goodyear, the fiscal year starts July 1 and ends the following June 30.

Permeate – Water from which most of the dissolved solids have been removed by the reverse osmosis process

Total Suspended Solids (TSS) – A characteristic of sewage that can make it more expensive to process at the wastewater treatment plant.

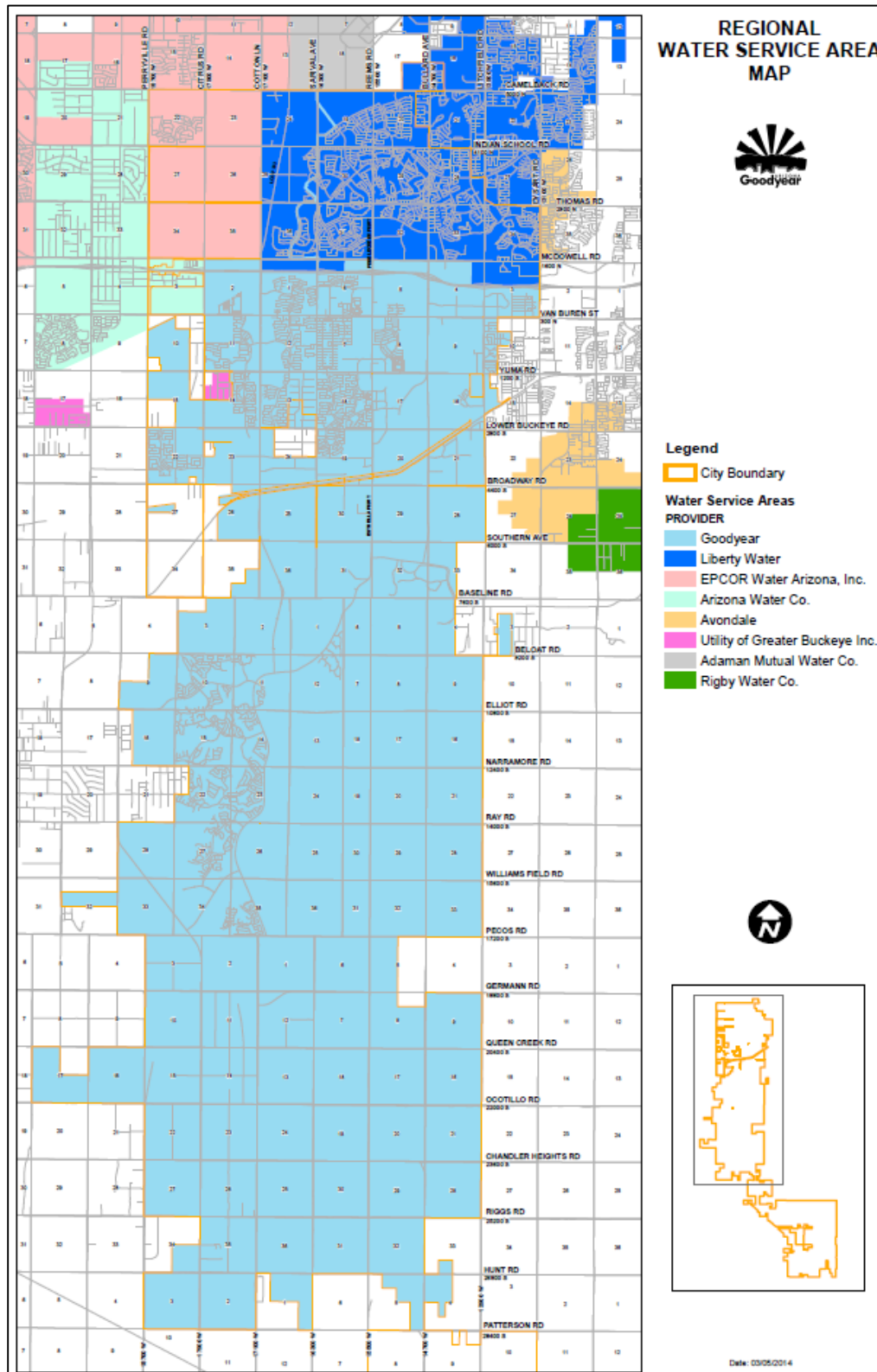
Winter Quarter Average (WQA) – The method for calculating sewer volumes for residential accounts. Three months of winter water usage (January, February, and March) are averaged to set a baseline volume for domestic service. That calculated volume is used for billing purposes for the remainder of the calendar year beginning on the May bill.

APPENDIX

Acronyms

ACC	Arizona Corporation Commission
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
BAT	Best Available Technology
BWC	Bullard Water Campus
CAGRD	Central Arizona Groundwater Replenishment District
CAP	Central Arizona Project
CIP	Capital Improvement Program
DAWS	Designation of Assured Water Supplies
IPR	Indirect Potable Reuse
IWMP	Integrated Water Master Plan
HOA	Homeowner's Association
MGD	Million Gallons per Day
PPM	Parts Per Million
RID	Roosevelt Irrigation District
RO	Reverse Osmosis
SAT site	Soil Aquifer Treatment site
SRP	Salt River Project
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
URS	Utility Rate Study
WPC	Water Planning Committee
WQA	Winter Quarter Average

WATER SERVICE AREA MAP



APPENDIX

WASTEWATER SERVICE AREA MAP

