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CREDIT OPINION

20 July 2017

New Issue

Rate this Research >>

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Austin, TX Water & Wastewater System

New Issue: Moody's Assigns Aa2 on Austin's, TX Water & Sewer Bonds, Series 2017; Outlook Stable

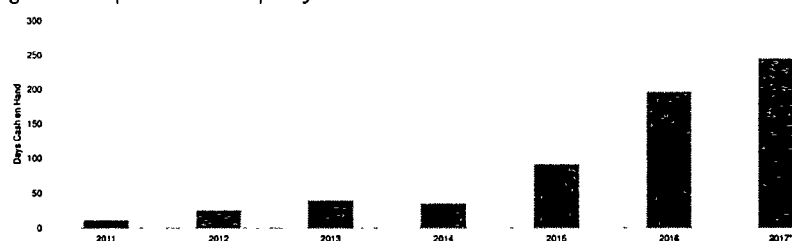
Summary Rating Rationale

Moody's Investors Service has assigned a Aa2 rating to the City of Austin's, TX \$315.1 million Water and Wastewater System Revenue Refunding Bonds, Series 2017. At the same time, we have affirmed the Aa1 rating on prior first lien debt outstanding and the Aa2 ratings on prior subordinate lien and parity separate lien debt outstanding. The system's outlook remains stable.

The Aa2 rating on the system's separate lien (open lien) reflects strong system characteristics, improving cash and financial metrics bolstered by recent rate increases, and strong rate management and capital planning. The rating also takes into consideration a manageable debt profile and adequate legal provisions for the bonds, with the lack of an established debt service reserve

The Aa1 rating on the prior lien reflects the relatively small amount of debt outstanding under the prior lien and strong debt service coverage that will continue given that the lien is closed. The Aa2 rating on the prior subordinate lien, which is also closed, is on par with the water and sewer separate liens (working lien) given that the net revenues available to the two liens are the same on the water and sewer system.

Exhibit 1
 Significant Improvement in Liquidity Position Since Fiscal 2011



*projected
 Source: City of Austin, TX CAFRs

Credit Strengths

- » Strong service area and expanding customer base
- » History of regular rate increases has afforded solid debt service coverage levels
- » Improving days cash on hand

Credit Challenges

- » Below average liquidity for rating category
- » Historically declining water consumption

Rating Outlook

The stable outlook reflects the expectation that sound coverage will continue, supported by regular rate increases and manageable future borrowing plans. The outlook also incorporates the expectation that Austin Water will prudently maintain its infrastructure and water supply.

Factors that Could Lead to an Upgrade

- » Sustained trend of healthy operating surpluses leading to improved liquidity and debt service coverage
- » Substantial decline in system's debt profile

Factors that Could Lead to a Downgrade

- » Poor operating performance leading to a decline or prolonged weakness in reserve levels and debt service coverage
- » Significant increase in debt profile

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the Issuer/Entity page on www.moodys.com for the most updated credit rating action information and rating history.

Key Indicators

Exhibit 2

Austin (City of) TX Water & Wastewater System					
System Characteristics					
Asset Condition (Net Fixed Assets/ Annual Depreciation)	31 years				
System Size - O&M (in \$000s)	217,546				
Service Area Wealth: MFI % of US median	112.0%				
Legal Provisions					
Rate Covenant (x)	1.25x				
Debt Service Reserve Requirement	None for Series 2017 Bonds				
Financial Strength					
	2012	2013	2014	2015	2016
Operating Revenue (\$000)	443,020	476,869	472,675	522,033	563,046
O&M (\$000)	190,987	216,369	226,349	208,307	217,546
Net Funded Debt (\$000)	2,316,057	2,412,152	2,566,940	2,463,824	2,337,933
Annual Debt Service Coverage (x)	1.41	1.38	1.21	1.42	1.87
Cash on Hand (not including Stability Reserve)	25 days	39 days	35 days	91 days	197 days
Debt to Operating Revenues (x)	5.2x	5.1x	5.4x	4.7x	4.2x

Debt service coverage calculations vary from the coverage calculations required under the City's bond ordinances; Debt service coverage in prior reports vary due to adjustments
Source: City of Austin, TX CAFR, Moody's Investors Service

Detailed Rating Considerations

Service Area and System Characteristics: Large & Strong Service Area with Institutional Presence

The water and wastewater system predominantly serves the City of Austin (GOLT Aaa stable) as well as additional areas in Travis (Aaa stable) and Williamson (Aa1 stable) counties. Lake Travis and Buchanan are the system's two major water supply storage reservoirs and are managed by the Lower Colorado River Authority (LCRA). Combined lake storage is nearly full, which is significant when compared to about one-third full in early 2015. Heavy rains throughout Texas in the springs months of 2015 and 2016 helped restore depleted levels. The system owns and operates three water treatment plants and storage and transportation infrastructure. The total combined treatment capacity for the water system of 335 million gallons per day (MGD) far exceeds the fiscal 2016 average daily use of 103.2 MGD. The city has two main wastewater treatment plants with a total combined permitted capacity of 150 million gallons per day, which provides sufficient capacity for ongoing operations.

Samsung Electronics Co., Ltd (A1 stable), the University of Texas System, TX (Aaa stable), NXP Semiconductors, N.V. (Ba2 RUR-Up), as well as various water and municipal utility districts (MUDs) make up the system's largest water customers. The system's major customers have not changed significantly in recent years and accounted for a modest 6.3% of the system's operating revenues in 2016. The number of customers has risen modestly in each of the last five years to 225,600 for fiscal 2016, yet water consumption has been on a general decline over the past decade, which is significantly impacted by better technology that utilizes less water, and generally more conservative consumption habits. Residential retail customers make up the majority of the customer base.

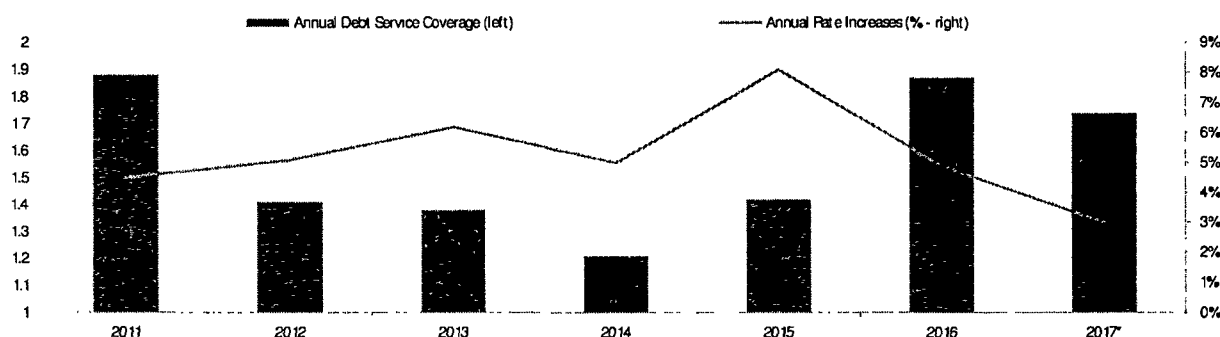
The service area continues to be a strong point for the system. According to Moody's Economy.com, the Austin-Round Rock, TX area is in an expansion business cycle status. The report also states that the metro area will grow at an above-average pace over the coming year, led by high tech and professional services. Residential construction will provide support, based on demand by incoming IT professionals. Longer term, the especially well-educated labor force, the high concentration of technology businesses, the relatively low cost of doing business compared with other high-tech centers, and fast population growth will yield above average performance (Précis U.S. Metro/South/March 2017).

As such, we anticipate the system's customer base will remain stable and diverse for years to come. Resident wealth levels indicate slightly above average wealth levels for the city, evidenced by a per capita income and median family income of 117.6% and 112% of national levels, respectively. Unemployment for the city remains low at 3.0% in April 2017 in comparison to the state (4.5%) and national (4.1%) levels, during the same time period.

Debt Service Coverage and Liquidity: Improving Coverage & Liquidity

After declining debt service coverage and liquidity levels from fiscal 2011 to 2014, annual rate increases along with strong expenditure management helped boost annual financial metrics in fiscal 2015 and 2016. Fiscal 2016 net revenues of \$345.5 million covered total annual debt service by a solid 1.87 times, which is a solid improvement over fiscal 2014 and 2015 coverage levels of 1.21 and 1.42 times, respectively. After a 3% rate increase in 2017, management projects net revenues to climb to roughly \$372 million, which is expected to cover annual debt obligations by a solid 1.74 times. Although rate increases are now projected to occur every other year, management projects debt service coverage on all obligations to be near or above the internal target of 1.85 times over the next five years.

Exhibit 3
Rate Increases Have Led to Improved Coverage Levels



*2017 coverage based on current year projections
Source: City of Austin, TX CAFRs

LIQUIDITY

Management has taken significant steps to increase its liquidity position in recent years. Given the favorable operating performance in 2015 and 2016, liquidity has improved to a satisfactory 197 days of unrestricted cash on hand at fiscal year end 2016. This level is a significant improvement since 2011, which ended with roughly 11 days cash on hand. In addition, the system created a revenue stability reserve fund in 2013 which currently has \$28 million at fiscal year-end 2016, or a solid 85 days cash on hand. The fund is restricted for water service revenue shortfalls of 10% or greater in any given year. City Council approval is required to tap the fund and if used, only 50% of the balance is available for a single year. Importantly, the reserve provides the system with additional operating flexibility.

Although the system's policy is to maintain at least 60 days cash on hand, management targets 245 days. The projected fiscal 2017 unrestricted cash position is expected to meet this target and reserves are expected to be maintained at this level until fiscal 2022. The revenue stabilization fund is anticipated to meet its target of 120 days cash on hand at fiscal year 2018 and also be maintained at that level for the near term future.

Debt and Legal Covenants: Debt Profile Expected to Remain High

The system's debt profile is high yet manageable. Post-sale the system will have a sizeable \$2.39 billion in total debt outstanding. The majority of the system's debt (\$2.25 billion) is separate lien debt (open working lien). The system also has roughly \$18.6 million in Prior First Lien debt and \$109.9 million in Prior Subordinate Lien debt outstanding. The system's debt level equates to an above average 4.24 times operating revenues.

The system's capital improvement plan calls for \$890.4 million in capital spending over the next five years. Spending is relatively balanced between the water and wastewater systems. Significant improvements in the plan include South Austin Regional Wastewater

Treatment Plant improvements (\$62.5M), Davis Water Treatment Plant improvements (\$52.3M), and infrastructure for advanced metering (\$43.4M). A healthy portion of the planned spending will be focused on upgrades to existing facilities versus construction of new facilities. Management plans to cash fund roughly 40% of the capital plan through annual operations with the remaining 60% being debt funded.

Despite the robust capital plan, the system's debt profile remains manageable given anticipated rate increases as well as early debt retirement initiatives. Management plans to dedicate the majority of capital recovery fees to debt defeasance, which is estimated at \$27.6 million and \$28.4 million over the next two years, respectively.

DEBT STRUCTURE

Debt amortization is below average with roughly 42% of the outstanding principal is retired in 10 years. All debt matures in fiscal 2047. The current debt service schedule is declining in nature, which will allow for additional debt capacity in future years without impacting projected debt service coverage levels.

The system, along with the city's electric utility, utilizes a commercial paper program through a \$400 million line of credit through the Bank of Tokyo. Management's practice is to draw upon this line of credit throughout the year for capital projects and then subsequently take the debt long with bond issuances, similar to the current offering. The line of credit expires on October 15, 2017, but a similar structure is expected to be renewed with a new liquidity provider in the coming months.

DEBT-RELATED DERIVATIVES

System exposure to interest rate risk remains low given the modest variable rate debt amount (roughly 5% of debt profile). The system has one outstanding variable rate issue (Series 2008). There is \$113.9 million outstanding and the bonds are supported by a letter of credit from Citibank N.A. (A1 stable) with an expiration date of October 15, 2018. The LOC is sized for the outstanding principal amount of the bonds plus 50 days of interest at 12%, the maximum rate applicable to the Bonds, and provides sufficient coverage while the bonds are in the weekly rate mode. In association with the 2008 bonds, the system entered into a swap agreement with Goldman Sachs Bank USA (A1 stable). The system pays a fixed rate of 3.6% and receives SIFMA. The mark to market for this swap was a negative \$16 million, as of June 30, 2017.

PENSIONS AND OPEB

Apportioned unfunded liabilities associated with the City of Austin Employees' Retirement and Pension Fund, a single employer defined benefit pension plan, is expected to remain manageable in comparison to the system's operating revenues. The system contributed 11.4% of the total plan's contributions in fiscal 2016, which generates a proportional Moody's Adjusted Net Pension Liability of \$309.1 million, or a manageable 0.55 times operating revenues. Moody's ANPL reflects certain adjustments we make to improve comparability of reported pension liabilities. The adjustments are not intended to replace the utility's reported liability information, but to improve comparability with other rated entities. For more information on Moody's insights on employee pensions and the related credit impact on companies, government, and other entities across the globe, please visit Moody's on Pensions at www.moody's.com/pensions.

LEGAL PROVISIONS

We believe legal provisions for the bonds are adequate. The rate covenant established in the prior lien ordinance requires 1.25 times for prior lien and separate lien debt, and 1.1 times coverage for outstanding prior subordinate and all other debt. The system's Series 2013A, 2014, 2015A&B, 2016 bonds, as well as the current issuance are not supported by a debt service reserve. The debt service reserve fund for the remaining debt outstanding is satisfied with a combination of cash and sureties. The additional bonds test on the current issuance is 1.25 times the average annual debt service requirements.

Management and Governance

We believe management of the city's water and wastewater system will remain stable, demonstrated by appropriate and timely rate setting measures, prudent and conservative budgeting and forecasting of revenues, as well as maintenance of multiyear planning. Moody's notes that despite the presence of a debt service reserve, the establishment of a rate stabilization reserve is a positive influencing factor. Rate increases are subject to City Council approval.

Legal Security

The Series 2017 Bonds are secured by a lien on and pledge of the net revenues of the water and wastewater system subordinate in nature to the system's prior first lien debt.

Use of Proceeds

Proceeds from the current debt issuance will refund certain maturities of the system's outstanding Series 2009 and 2009A bonds for debt service savings, as well as take out \$125 million in commercial paper.

Obligor Profile

The City owns all the facilities of the Water and Wastewater System servicing areas in Travis and Williamson Counties. As of September 30, 2016, the Water and Wastewater System had approximately 1,170 full-time regular employees.

Methodology

The principal methodology used in this rating was US Municipal Utility Revenue Debt published in December 2014. Please see the Rating Methodologies page on www.moody's.com for a copy of this methodology.

Ratings

Exhibit 4

Austin (City of) TX

Issue	Rating
Water and Wastewater System Revenue Refunding Bonds, Series 2017	Aa2
Rating Type	Underlying LT
Sale Amount	\$315,100,000
Expected Sale Date	08/01/2017
Rating Description	Revenue: Government Enterprise

Source: Moody's Investors Service

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MOODY'S INVESTORS SERVICE

CREDIT OPINION 11 December 2018



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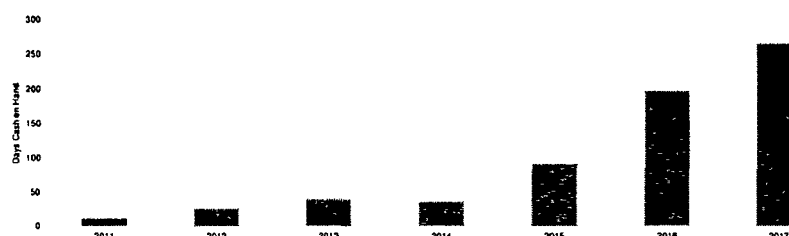
Austin (City of) TX Water & Wstwr Sys Update to credit analysis

Summary

The City of Austin (TX) Water and Sewer System's (Aa1 prior lien, Aa2 prior subordinate and separate lien; stable) credit profile benefits from a very large and diverse customer base, sufficient water resources and system capacity, as well as recent rate increases that have bolstered reserve levels. Challenges of the credit profile include an above average debt level as well as sizable capital improvement plan that calls for additional debt.

Exhibit 1

Rate increases and favorable financial operations have significantly improved liquidity levels since 2011



Source: City of Austin (TX) audited financial statements

Credit strengths

- » Strong service area and expanding customer base
- » History of regular rate increases has afforded solid debt service coverage levels
- » Improving days cash on hand

Credit challenges

- » Below average liquidity for rating category
- » Above average debt profile with plans for additional debt

Rating outlook

The stable outlook reflects the expectation that sound coverage will continue, supported by regular rate increases and manageable future borrowing plans. The outlook also incorporates the expectation that Austin Water will prudently maintain its infrastructure and water supply.

Factors that could lead to an upgrade

- » Sustained trend of healthy operating surpluses leading to improved liquidity and debt service coverage
- » Substantial decline in system's debt profile

Factors that could lead to a downgrade

- » Poor operating performance leading to a decline or prolonged weakness in reserve levels and debt service coverage
- » Significant increase in debt profile

Key indicators

Exhibit 2

Austin (City of) TX Water & Wastewater System					
System Characteristics					
Asset Condition (Net Fixed Assets/ Annual Depreciation)	30 years				
System Size - O&M (in \$000s)	259,730				
Service Area Wealth: MFR % of US median	114.6%				
Legal Provisions					
Pate Covenant (x)	1.25x				
Debt Service Reserve Requirement	None				
Financial Strength					
	2013	2014	2015	2016	2017
Operating Revenue (\$000)	476,869	472,675	522,033	563,046	602,734
O&M (\$000)	216,369	226,349	208,307	217,546	259,730
Net Funded Debt (\$000)	2,412,152	2,566,940	2,463,824	2,337,933	2,320,614
Annual Debt Service Coverage (x)	1.38	1.21	1.42	1.87	1.61
Cash on Hand (not including Stability Reserve)	39 days	35 days	91 days	197 days	265 days
Debt to Operating Revenues (x)	5.1x	5.4x	4.7x	4.2x	3.9x

Debt service coverage calculations vary from the coverage calculations required under the City's bond ordinances; Debt service coverage in prior reports vary due to adjustments
Source: City of Austin (TX) audited financial statements; Moody's Investors Service

Profile

The water and wastewater system predominantly serves the City of Austin (Aaa stable) as well as additional areas in Travis (Aaa stable) and Williamson (Aa1 stable) counties.

Detailed credit considerations

Recent developments: October 2018 system-wide water-boil

Flooding rains in mid-October caused very high levels of silt and debris in the system's reservoirs, which delayed the process of getting water into the treatment systems and extended filtration times. On October 22, management issued a city-wide boil water notice (boil tap water that was intended to be used for consumption), and asked customers to reduce water use. The water-boil lasted 6 days and ended on October 28 after the system was able to catch up on treatment and water quality was back within standards.

Management anticipates the financial impacts of the water-boil to be minimal as there was no damage to infrastructure and the event only lasted a short-period of time. Although the city is still compiling information, additional expenditures caused by the event is

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expected to be roughly \$2 million, while the revenue loss is estimated at \$3 million. The current estimated amounts combined are minimal in comparison to size of the system's total operations and reserves on hand. At fiscal year-end 2017, the system had \$188.6 million of unrestricted reserves, which gives the enterprise ample flexibility for unforeseen events like the water-boil.

The system is currently undergoing a post-event review with third party consultants to identify potential infrastructure investments of operational improvements in order to mitigate similar incidents in the future. At this time, management does not anticipate a significant impact or addition to the system's capital improvement plan that is in place.

Service area and system characteristics: large and strong service area with institutional presence

The system's large and diverse service area as well as ample supply and treatment capacity are expected to remain strengths of the credit profile for the medium term. Lake Travis and Buchanan are the system's two major water supply storage reservoirs and are managed by the Lower Colorado River Authority (LCRA). Combined lake storage is nearly full, which is significant when compared to about one-third full in early 2015. Heavy rains throughout Texas in the springs months of 2015 and 2016 helped restore depleted levels. The system owns and operates three water treatment plants and storage and transportation infrastructure. The total combined treatment capacity for the water system of 335 million gallons per day (MGD) far exceeds the fiscal 2017 average daily use of 129.8 MGD. The city has two main wastewater treatment plants with a total combined permitted capacity of 150 MGD, which provides sufficient capacity for ongoing operations given an average usage of 104 MGD.

Samsung Electronics Co., Ltd (Aa3 stable), the University of Texas System, TX (Aaa stable), NXP Semiconductors, N.V. (Ba1 stable), as well as various water and municipal utility districts (MUDs) make up the system's largest water customers. The system's major customers have not changed significantly in recent years and accounted for a modest portion (roughly 6%) of the system's operating revenues. The number of customers has risen modestly in each of the last five years to 235,174 for fiscal 2018, yet water consumption has been on a general decline over the past decade, which is significantly impacted by better technology that utilizes less water, and generally more conservative consumption habits. Residential retail customers make up the majority of the customer base.

The service area continues to be a strong point for the system. According to Moody's Economy.com, the Austin-Round Rock, TX area is in an expansion business cycle status. The report also states that the metro area will grow at a pace above the national average over the coming year. IT-related industries and housing will lead the way. Longer term, the especially well-educated labor force, the high concentration of technology businesses, the relatively low costs of doing business compared with other high-tech centers, and fast population growth will yield above average performance (Précis U.S. Metro/South/September 2018).

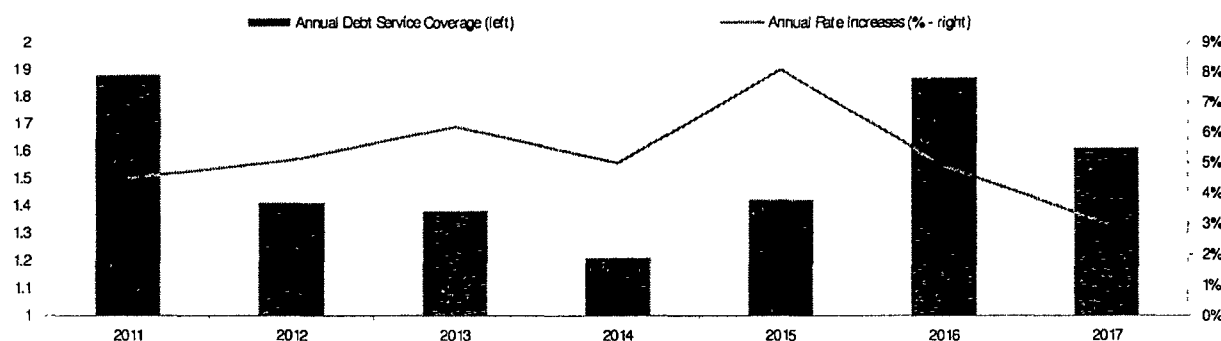
As such, we anticipate the system's customer base will remain stable and diverse for years to come. Resident wealth levels indicate slightly above average wealth levels for the city, evidenced by a per capita income and median family income of 119.6% and 114.6% of national levels, respectively. Unemployment for the city remains low at 2.8% in August 2018 in comparison to the state and national level of 3.9%, during the same time period.

Debt service coverage and liquidity: improved coverage and liquidity since 2014

After declining debt service coverage and liquidity levels from fiscal 2011 to 2014, annual rate increases along with strong expenditure management helped boost annual financial metrics in fiscal 2015 and 2016. Although net revenues remained stable in fiscal 2017 at \$343 million, increasing annual debt service requirements dropped total system coverage to a still adequate 1.61 times, which is a solid improvement over fiscal 2014 and 2015 coverage levels of 1.21 and 1.42 times, respectively. Management projects fiscal 2018 coverage to improve to 1.83 times, which is nearly aligned with the long-term internal target of 1.85 times.

Exhibit 3

Rate increases have led to improved debt service coverage levels



Source: City of Austin (TX) financial audits

In March 2018, the city council approved a budget amendment that included a rate reduction of 4.8% for water and sewer services. Despite the decrease management still projects coverage to be maintained at 1.85 times. There are no plans to increase rates in 2019 or 2020. Rates are then projected to increase roughly 2% in 2021 and another 2% in 2023.

LIQUIDITY

Management has taken significant steps to increase its liquidity position in recent years. Given the favorable operating performance in recent years, liquidity has improved to a satisfactory 265 days of unrestricted cash on hand at fiscal year end 2017. This level is a significant improvement since 2011, which ended with roughly 11 days cash on hand. In addition, the system created a water revenue stabilization fund reserve in 2013 which had \$37.7 million at fiscal year-end 2017, or a solid 100 water days cash on hand. The fund is restricted for water service revenue shortfalls of 10% or greater in any given year. City Council approval is required to tap the fund and if used, only 50% of the balance is available for a single year. Importantly, the reserve provides the system with additional operating flexibility.

Although the system's policy is to maintain at least 60 days cash on hand, management targets 245 days. The fiscal 2017 unrestricted cash position of 265 days exceeded this target and reserves are expected to be maintained at this level until fiscal 2022. The water revenue stabilization fund is anticipated to exceed its target of 120 water days cash on hand at fiscal year 2018 and also be maintained at that level for the near term future.

Debt and legal covenants: debt profile expected to remain high given robust capital plan

The system's debt profile is expected to remain high given plans for additional debt, but is still considered manageable for the system. The system has a sizeable \$2.3 billion in total debt outstanding. The majority of the system's debt (\$2.2 billion) is separate lien debt (open working lien). The system also has roughly \$5.7 million in Prior First Lien debt and \$100.5 million in Prior Subordinate Lien debt outstanding. The system's debt level equates to an above average 4.24 times operating revenues.

The system's capital improvement plan calls for \$912 million in capital spending over the next five years. Spending is relatively balanced between the water and wastewater systems. Significant improvements in the plan include South Austin Regional Wastewater Treatment Plant improvements, Davis Water Treatment Plant improvements, and infrastructure for advanced metering. A healthy portion of the planned spending will be focused on upgrades to existing facilities versus construction of new facilities. Management plans to cash fund roughly 40% of the capital plan through annual operations with the remaining 60% being debt funded.

Despite the robust capital plan, the system's debt profile remains manageable given anticipated rate increases as well as early debt retirement initiatives. Also of note, management plans to dedicate the majority of capital recovery fees to debt defeasance, which is estimated at roughly \$30 million annually.

DEBT STRUCTURE

Debt amortization is below average with roughly 45% of the outstanding principal is retired in 10 years. All debt matures in fiscal 2047. The current debt service schedule is declining in nature, which will allow for additional debt capacity in future years without impacting projected debt service coverage levels

The system, along with the city's electric utility, utilizes a tax-exempt commercial paper program through a \$400 million line of credit through the JPMorgan Bank, N.A. (Aa2 stable). Management's practice is to draw upon this line of credit throughout the year for capital projects and then subsequently take the debt long with bond issuances. The line of credit expires on October 9, 2020

DEBT-RELATED DERIVATIVES

System exposure to interest rate risk remains low given the modest variable rate debt amount (roughly 5% of debt profile). The system has one outstanding variable rate issue (Series 2008). There is \$113.9 million outstanding and the bonds are supported by a letter of credit from Barclays Bank PLC (A2 stable) with an expiration date of October 28, 2022. The LOC is sized for the outstanding principal amount of the bonds and provides sufficient coverage while the bonds are in the weekly rate mode. In association with the 2008 bonds, the system entered into a swap agreement with Goldman Sachs Bank USA (A1 negative). The system pays a fixed rate of 3.6% and receives SIFMA. The mark to market for this swap was a negative \$9.8 million, as of November 30, 2018.

PENSIONS AND OPEB

Apportioned unfunded liabilities associated with the City of Austin Employees' Retirement and Pension Fund, a single employer defined benefit pension plan, is expected to remain manageable in comparison to the system's operating revenues. The system contributed 11.1% of the total plan's contributions in fiscal 2017, which generates a proportional Moody's Adjusted Net Pension Liability of \$332.9 million, or a manageable 0.55 times operating revenues. Moody's ANPL reflects certain adjustments we make to improve comparability of reported pension liabilities. The adjustments are not intended to replace the utility's reported liability information, but to improve comparability with other rated entities. For more information on Moody's insights on employee pensions and the related credit impact on companies, government, and other entities across the globe, please visit Moody's on Pensions at www.moody.com/pensions.

Management and governance: city council has authority to set rates

We believe management of the city's water and wastewater system will remain stable, demonstrated by appropriate and timely rate setting measures, prudent and conservative budgeting and forecasting of revenues, as well as maintenance of multiyear planning. Moody's notes that despite the presence of a debt service reserve, the establishment of a rate stabilization reserve is a positive influencing factor. Rate increases are subject to City Council approval.

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Rationale

Outlook

Summary:

Austin, Texas; Water/Sewer

Credit Profile

US\$314.57 mil wtr and wastewtr sys rev rfdg bnds ser 2017 dtd 08/22/2017 due 11/15/2046

Long Term Rating

AA/Stable

New

Rationale

S&P Global Ratings assigned its 'AA' rating and stable outlook to the city of Austin, Texas' series 2017 water and wastewater system revenue refunding bonds. In addition, S&P Global Ratings affirmed its 'AA' rating on the water and wastewater system's, doing business as Austin Water Utility (AWU), separate lien water and wastewater revenue bonds outstanding, and its 'AA+' rating on the prior first-lien combined electric, water, and wastewater revenue bonds.

The water utility is also supporting two series of 2011 special assessment revenue bonds that S&P Global Ratings rated two notches below the utility's separate lien, due to both the subordination and the appropriation risk if the city has to step up to fund them. The special assessment bonds are related to developments along the eastern periphery of the Austin metropolitan statistical area (MSA), near state highway 130; we understand that infrastructure for the initial phases of both projects are in place and development has started. The outlook is stable.

The ratings reflect our opinion of the system's general creditworthiness, including its extremely strong enterprise risk profile and its very strong financial risk profile. Factors which in our view support AWU's enterprise risk profile include its:

- Service area, which has among the strongest and most diverse economies in the state and is stabilized by a number of public institutions;
- Water supply agreement with the Lower Colorado River Authority (LCRA) since 1999, effectively securing a 100-year water supply at a reasonable cost, and one which was not interrupted by LCRA even during the recent severe and prolonged drought; and
- Continued willingness to review and adjust rates, even as some of the previous commitments towards supporting operations have made the nominal cost of the monthly residential bill above-average versus peer systems.

A pledge of the water and wastewater system's net revenues secures the separate-lien system revenue bonds, which are junior to roughly \$18.6 million of prior first-lien combined electric, water, and wastewater revenue bonds; these bonds also have a pledge on par with \$110 million of prior subordinate-lien combined electric-water-wastewater utility revenue bonds outstanding as of June 2017, and roughly \$2.2 billion of previously issued separate-lien (parity) water and wastewater revenue bonds outstanding, including a small state loan executed late in 2016. We understand management plans to use proceeds mainly to convert outstanding commercial paper notes to long-term debt, as well as to refund eligible maturities of the water and wastewater utility's series 2009 and 2009A revenue bonds for savings purposes. While there is a fully funded debt service reserve available for the prior-lien debt, the city will not establish one for the 2017 refunding bonds.

Enterprise Risk Profile

AWU serves about 227,000 water customers. The customer base grew rapidly during the economic expansion's peak, prior to the Great Recession, and continues to see steady increases in the number of metered accounts because the MSA remains one of the state's most economically robust. The broad and diverse employment base is led by the city's role as the state's capital as well as being home to a number of higher education institutions, including the flagship campus of the University of Texas system which has more than 50,000 students and 23,000 employees. The vibrant technology sector includes microchip manufacturing, hardware development, and software and application companies like Dell, IBM, Oracle, and Google. The MSA has held up well even as other areas in south Texas have seen economic stagnation with the fall in oil and natural gas commodity prices and production.

The system obtains water from the Colorado River through the city's own water rights and purchases from LCRA. The system then treats the water at three plants, the latest of which became fully operational in 2014. In 1999, city officials secured a long-term water supply through an amendment to the water agreement with LCRA that put a 50-year water supply in place with an option to renew for an additional 50 years. The city is a priority customer of LCRA. During a severe drought in 2012 through 2015, the authority curtailed certain interruptible customers in favor of its obligation to Austin. Still, the city has had, for many years, aggressive water conservation and drought management programs, including inclining block rates, public education, and environmentally sensitive practices. As of July 2017, LCRA's system of reservoirs were about 90% full; Lake Travis, the system's largest, was at 89% of capacity—strong for this time of the year—after being 37% full as of May 2015.

The city has a long record of making rate adjustments, which typically happen annually, to support continued investment in the system. The most recent adjustments, a 2.9% water and 3% sewer rate increase, were implemented in November 2016. The five-year financial forecast provided to us projects smaller rate adjustments in 2019 and beyond, and is supplemented by periodic updates to the city's cost of service study. While the current average residential bill is about \$83, or 2% of median household effective buying income, is relatively high versus peer cities, the rates are not unreasonable. In addition to the prepaid water rights and related capacity reservations, other very large capital programs have been completed such as a \$400 million program related to a sewer consent decree. With recent major capital programs behind it, the magnitude of future rate increases will be much smaller than during the city's peak annual growth, and we believe it is likely that other peer systems that are dealing with capital pressures will soon have rates comparable to Austin's.

Based on our operational management assessment (OMA), we view Austin Water to be a '2' on a scale of 1-6, with '1' being the strongest. In our opinion, this indicates good alignment of operations and organizational goals. The OMA includes a 100-year firm water supply, given its contractual relationship with LCRA, a sanitary sewer system that has already completed a regulatory mandate, and a commitment to demand-side management reflected in its water conservation ordinances and public education campaigns. The city will also be phasing in a meter replacement program, replacing old meters with advanced metering infrastructure.

Financial Risk Profile

Factors which in our view support AWU's financial risk profile include its:

- All-in coverage metrics that have begun to rebound from recent years that have been pressured by both large

capital commitments as well as profound water conservation measures;

- Liquidity that while adequate now is expected to increase given management's commitment to bolster reserves and cash flow; and
- Strong financial management practices that on par with the same robust level of internal financial controls as the general fund.

Management already had a number of best practices to support the utility's financial performance, such as maintaining cash reserves equivalent to at least 60 days' of operating expenses, and targeting total debt service coverage (DSC) of all liens at least at 1.5x; internal targets are even more robust at 245 days and 1.85x, respectively. Management also maintained for years a strict allocation of all combined utility revenue requirements to either AWU or to Austin Energy, its municipally-owned electric counterpart. The cost allocation ensures that both utilities fully support its allocable share of combined utility debt service on both the prior first- and prior-subordinate liens. In fiscal 2013, those policies were strengthened, including the creation of a surcharge. The rate surcharge is for the purpose of building and maintaining a rate stabilization reserve fund in the amount of 120 days of water operating expenses, as well as increasing the ability of the system to deploy more internally generated funds towards future capital projects. The city is well on its way to fully funding this designated reserve with the intent to reduce the surcharge over time, and thus offsetting a portion of the planned future base rate adjustments.

Management expects the rate stabilization reserve to reach its targeted funding level by fiscal 2018. Similar to the strong financial management policies of the general fund, the water rate stabilization reserve—funded with what is currently a 19 cent per 1,000 gallon surcharge—can only be used in the event of a significant revenue shortfall, and no more than half of the balance can ever be used at one time. A city ordinance in place for over a decade also caps transfers to the general fund, further providing the ability to maintain liquidity in the utility fund. In addition, AWU has been gradually making largely revenue-neutral adjustments to the base rate such that it generates a much larger portion of total cash from operations. This should help better manage fixed costs out of recurring revenues, as opposed to cash on hand, thereby reducing cash flow volatility associated with seasonality and weather conditions.

Management has identified roughly \$890 million in capital expenditures through fiscal 2022, about 13% lower than the capital improvement program (CIP) for 2013-2017. While the service area remains among the most economically vibrant in the state, which could cause growth pressures to reemerge, AWU completed in the past several years two major capital-intensive programs. This includes nearly \$400 million in projects related to an administrative order on sanitary sewer overflows that was closed out in 2009. AWU also brought online a water treatment plant in December 2014, nearly meeting its original budget and construction deadline even as the final site identification was delayed to study the environmental sensitivity of the Lake Travis location. The remainder of the CIP is focused on current growth and rehabilitation projects. Management currently expects any increase in the CIP to be largely attributable to accelerated growth. The wastewater treatment plants are not facing permit renewals until the end of the decade.

We expect all-in DSC to remain steady, even if periodically affected by weather; fiscal 2016 coverage of all system obligations was about 1.55x by our calculation, and averaged 1.29x over the past three years. All-in coverage is our adjusted debt service metric that treats fixed charges (if applicable) as if they hypothetically were debt and transfers and as if they were operating expenses, since in our view they are all recurring uses of utility operating revenues. Management's forecast, which we believe is attainable, is for all-in DSC of all liens between 1.5x and 1.6x through 2022

and actual annual DSC between 1.70x and 1.86x.

Outlook

The stable outlook reflects our expectation that the ratings are unlikely to change in the next two years. We recognize management's commitment to improving AWU's financial risk profile and maintaining it at current levels. We believe, however, that the improvements will be gradual. While the rating could still be raised higher, even with a stable outlook, an upgrade would be predicated mainly on the system continuing to improve its all-in coverage and further bolstering its available reserves to a level more in line with an 'AA+' rating. Given that the system's largest projects have been completed and that the CIP is manageable despite stronger economic growth, we believe this is achievable.

Upside scenario

While we acknowledge management's accomplishments, such as building and maintaining stronger cash reserves, and the 2013 adoption of what we consider very robust financial management policies, it may still be several more years before the financial profile of the system is more in line with that of higher-rated utilities. It is important to note that we view the slip in DSC in fiscal 2014 as an anomaly from its history of strong performance, attributable to a prolonged drought that only lessened in 2015. In 2013, we revised the rating outlook to positive based on the expectation that the enhanced financial management policies adopted by the city would bolster the already-solid financial risk profile of AWU. Management had projected total DSC of all liens of at least 1.5x and available reserves—including its revenue stability reserve—equivalent to 245 days of operating expenses. We believe the system's financial profile continues to move in that direction. A higher rating would be predicated mainly on continued progress towards that end.

Downside scenario

Given that the total annual debt service requirements have plateaued and the scope of the capital commitments has greatly diminished in the past five years, and that the city appears to remain committed to an annual review of its rates and charges, we view downside risk as extremely remote, and likely predicated on a precipitous change in the system's financial risk profile, perhaps by the introduction of more risky debt instruments or an unforeseen new regulatory mandate that causes the capital plan to sharply increase.

Ratings Detail (As Of July 24, 2017)

Austin wtr and wastewtr sys rev rfdg bnds ser 2016 due 11/15/2045		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Austin WS		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Austin WS (BHAC) (SEC MKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
AustinWS		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Austin WS		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Many issues are enhanced by bond insurance.		

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.globalcreditportal.com. All ratings affected by this rating action can be found on the S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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Line No	Account No	Description	Reference Schedule	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
1	5001	Regular wages - full-time	WP/H-D-1.1	78,340,814	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745	73,745
2	5004	Shift differential	WP/H-D-1.1	82,905	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977	86,977
3	5005	Overtime	WP/H-D-1.1	1,993,676	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518	2,003,518
4	5006	Temporary employees	WP/H-D-1.1	617,671	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842	48,842
5	5010	Backcharged salary & fringes	WP/H-D-1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	5018	Holidays worked	WP/H-D-1.1	80,114	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117	82,117
7	5020	Vacation pay	WP/H-D-1.1	2,172,175	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304	54,304
8	5021	Holiday pay	WP/H-D-1.1	1,443,946	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099	36,099
9	5022	Accident pay	WP/H-D-1.1	41,228	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031
10	5023	Sick pay	WP/H-D-1.1	1,357,987	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450	31,450
11	5024	Parental leave	WP/H-D-1.1	48,720	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438	70,438
12	5025	Other paid leave	WP/H-D-1.1	101,882	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338	38,338
13	5026	Disability pay	WP/H-D-1.1	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534	38,534
14	5028	On call pay	WP/H-D-1.1	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748	18,748
15	5030	Military leave	WP/H-D-1.1	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572	283,572
16	5031	Personal holiday pay	WP/H-D-1.1	3,584	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
17	5032	Jury leave	WP/H-D-1.1	278,859	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921	6,921
18	5033	Red weather pay	WP/H-D-1.1	7,481	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187
19	5034	Administrative leave	WP/H-D-1.1	77,508	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938	1,938
20	5035	Emergency leave	WP/H-D-1.1	393,271	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807	9,807
21	5036	Administrative leave	WP/H-D-1.1	59,870	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497	1,497
22	5037	Call back time	WP/H-D-1.1	606,089	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152	15,152
23	5039	Comp time used	WP/H-D-1.1	60,757	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519	1,519
24	5040	Exception vacation	WP/H-D-1.1	9,088	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227
25	5113	Educational incentive pay	WP/H-D-1.1	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033	52,033
26	5125	Bilingual Pay	WP/H-D-1.1	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705	35,705
27	5133	Phone allowance	WP/H-D-1.1	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916	139,916
28	5140	Allowances/other pay	WP/H-D-1.1	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762	25,762
29	5150	Accrual Payroll	WP/H-D-1.1	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647	149,647
30	5185	Insurance-health/dental	WP/H-D-1.1	8,449,859	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019	769,019
31	5186	Insurance-temporary employees	WP/H-D-1.1	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139	7,139
32	5190	FICA tax	WP/H-D-1.1	2,352,033	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801	58,801
33	5191	Medicare tax	WP/H-D-1.1	353,889	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797	13,797
34	5196	Contribution to employees' ret	WP/H-D-1.1	6,457,802	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445	141,445
35	5280	Consulting employee technology	WP/H-D-1.1	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600	92,600
36	5280	Consulting employee technology	WP/H-D-1.1	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807	131,807
37	5285	Services-supplies	WP/H-D-1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	5285	Services-supplies	WP/H-D-1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	5560	Services-consulting contr	WP/H-D-1.1	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784	7,784
40	5561	Services-consulting contr	WP/H-D-1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	5565	Services-Credit Card Fees	WP/H-D-1.1	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123	110,123
42	5570	Services-court costs	WP/H-D-1.1	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988	8,988
43	5588	Services-environment assessment	WP/H-D-1.1	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014	15,014
44	5595	Services-garbage/recycling ct	WP/H-D-1.1	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219
45	5600	Services-hazardous mat disp	WP/H-D-1.1	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682	36,682
46	5605	Services-inspection	WP/H-D-1.1	317	317	317	317	317	317	317	317	317	317	317	317	317	317	317	317	317	317
47	5610	Services-laboratory	WP/H-D-1.1	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315	343,315
48	5620	Services-legal fees	WP/H-D-1.1	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900
49	5630	Services-medical/surgical	WP/H-D-1.1	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922	15,922
50	5650	Services-liquor Solid Reuse	WP/H-D-1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	5675	Services-security	WP/H-D-1.1	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745	1,000,745
52	5700	Services-survey	WP/H-D-1.1	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067	222,067
53	5725	Services-IT staffing	WP/H-D-1.1	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775	31,775
54	5730	Services-testing	WP/H-D-1.1	46,627	46,627	46,627	4														

[illegible]

Line No	Account No.	Description	Reference Schedule	Test Year 9/30/2017	E&M Adjustments	Adjusted Test Year	10/01/2016 - 09/30/2017	10/01/2016 - 09/30/2017	10/01/2016 - 09/30/2017	Test Year 9/30/2017	E&M Adjustments	Adjusted Test Year	10/01/2016 - 09/30/2017	10/01/2016 - 09/30/2017	Total	10/01/2016 - 09/30/2017
153	6498	Bad Debt Expense	WP/H/D-1.1	666,957	-	666,957	286,394	1,345,772	423,602	423,602	-	423,602	518,150	854,226	1,090,558	815,144
154	7102	Agricultural/horticultural	WP/H/D-1.1	16,321	-	16,321	17,102	29,600	10,934	10,934	-	10,934	14,331	10,082	27,255	39,143
155	7114	Cons/repair material/other	WP/H/D-1.1	5,095	-	5,095	1,738	729	336,172	336,172	-	336,172	336,172	336,172	341,267	341,267
156	7116	Asphalt	WP/H/D-1.1	146,301	-	146,301	95,338	95,788	51,953	51,953	-	51,953	115,840	94,174	198,254	189,962
157	7117	Cement/concrete	WP/H/D-1.1	4,277	-	4,277	7,821	12,387	8,791	8,791	-	8,791	11,030	13,069	13,069	18,831
158	7119	Sand/gravel/stone	WP/H/D-1.1	447,985	-	447,985	438,425	452,832	377,128	377,128	-	377,128	177,646	110,535	625,113	625,113
159	7221	Street/trail sign/mark/pos	WP/H/D-1.1	3,607	-	3,607	3,376	3,194	888	888	-	888	888	888	4,495	5,702
160	7222	Hardware/wire/fence	WP/H/D-1.1	70,794	-	70,794	47,721	37,072	40,550	40,550	-	40,550	45,716	33,173	111,345	93,436
161	7223	Building materials	WP/H/D-1.1	32,111	-	32,111	31,840	42,962	45,570	45,570	-	45,570	28,391	30,867	77,680	73,829
162	7224	Paint/painting supplies	WP/H/D-1.1	20,946	-	20,946	23,045	18,739	9,270	9,270	-	9,270	16,982	30,216	77,680	60,172
163	7226	Bridge/grate/canisters	WP/H/D-1.1	-	-	-	-	-	5,336	5,336	-	5,336	2,740	30,216	40,026	56,923
164	7227	Electrical/lighting	WP/H/D-1.1	344,105	-	344,105	279,585	304,188	472,496	472,496	-	472,496	503,442	584,438	820,600	820,600
165	7228	Welding supplies	WP/H/D-1.1	9,127	-	9,127	5,881	5,236	21,133	21,133	-	21,133	18,502	18,502	30,280	23,538
166	7229	Refrigerant components/HVAC	WP/H/D-1.1	87,473	-	87,473	50,844	55,783	143,000	143,000	-	143,000	50,481	240,873	240,873	302,873
167	7232	Pipes and fittings	WP/H/D-1.1	87,216	-	87,216	22,146	89,742	620,503	620,503	-	620,503	40,099	1,497,719	1,497,719	1,497,719
168	7234	Chimneys	WP/H/D-1.1	55,178	-	55,178	25,149	25,149	90,813	90,813	-	90,813	23,188	312,032	312,032	271,224
169	7235	Chimneys	WP/H/D-1.1	55,178	-	55,178	5,392,158	5,443,271	7,957,374	7,957,374	-	7,957,374	6,189,375	31,405,313	33,460,513	31,405,313
170	7235	Chimneys	WP/H/D-1.1	55,178	-	55,178	57,078	40,074	70,075	70,075	-	70,075	54,413	340,442	340,442	311,371
171	7241	Boiler equipment	WP/H/D-1.1	510	-	510	149	458	66	66	-	66	8,002	3,515	576	1,865
172	7144	Electrical transformers	WP/H/D-1.1	1,099	-	1,099	1,164	1,276	5,641	5,641	-	5,641	6,416	7,602	6,780	9,378
173	7145	Electrical conductors/wire/cable	WP/H/D-1.1	385	-	385	78	223	1,027	1,027	-	1,027	2,346	1,871	1,412	2,424
174	7146	Electrical conductors-hardware	WP/H/D-1.1	534	-	534	295	273	1,007	1,007	-	1,007	1,152	1,803	1,541	2,094
175	7150	Fuses and fusing apparatus	WP/H/D-1.1	101	-	101	74	265	19,120	19,120	-	19,120	4,794	1,022	19,221	4,684
176	7151	Relays and relaying equipment	WP/H/D-1.1	26	-	26	-	-	-	-	-	-	-	-	26	-
177	7154	Capacitors	WP/H/D-1.1	2,095	-	2,095	546	4,664	293	293	-	293	94	11	2,387	640
178	7155	Pull boxes, w/c boxes, manholes	WP/H/D-1.1	81	-	81	-	-	-	-	-	-	-	-	81	-
179	7156	Electrical switchgear	WP/H/D-1.1	86,828	-	86,828	55,176	3,284	2,021	2,021	-	2,021	28,720	88,848	88,848	57,392
180	7245	Radio equipment	WP/H/D-1.1	625,492	-	625,492	577,174	460,002	77,721	77,721	-	77,721	60,235	60,235	625,492	577,174
181	7249	Raw water - purchased	WP/H/D-1.1	82,489	-	82,489	126,664	162,877	580,645	580,645	-	580,645	47,781	40,255	160,200	223,132
182	7310	Gasoline/oil/grass	WP/H/D-1.1	487,257	-	487,257	557,735	509,645	580,645	580,645	-	580,645	47,781	40,255	160,200	223,132
183	7330	Parts for equipment	WP/H/D-1.1	4,768	-	4,768	4,071	2,635	3,188	3,188	-	3,188	2,709	5,186	7,956	7,823
184	7330	Medical/dental supplies	WP/H/D-1.1	7,161	-	7,161	2,268	1,565	6,156	6,156	-	6,156	1,119	1,331	13,317	3,387
185	7425	Photographic	WP/H/D-1.1	2,311	-	2,311	3,855	2,135	-	-	-	-	338	377	2,311	2,512
186	7450	Educational/promotional	WP/H/D-1.1	61,397	-	61,397	31,306	35,540	60,951	60,951	-	60,951	30,882	30,275	124,148	61,348
187	7454	Identification	WP/H/D-1.1	910	-	910	904	493	63	63	-	63	177	111	972	804
188	7458	Police supplies	WP/H/D-1.1	829,728	-	829,728	793,017	601,792	151,953	151,953	-	151,953	-	-	981,679	793,017
189	7460	Meters	WP/H/D-1.1	15,684	-	15,684	47,738	14,286	144,923	144,923	-	144,923	146,338	157,130	157,130	16,246
190	7461	Water parts	WP/H/D-1.1	150,100	-	150,100	140,842	138,480	230	230	-	230	16,402	723	255,023	294,009
191	7471	Drinking/cooking material	WP/H/D-1.1	27,812	-	27,812	20,004	21,366	20,493	20,493	-	20,493	16,740	14,302	644	2123
192	7482	Food storage for animals	WP/H/D-1.1	1,379	-	1,379	1,400	2,946	18,021	18,021	-	18,021	27,195	26,023	37,451	35,073
193	7484	Food storage for animals	WP/H/D-1.1	18,430	-	18,430	28,300	27,050	138,554	138,554	-	138,554	105,338	102,537	228,519	228,519
194	7500	Office supplies	WP/H/D-1.1	116,104	-	116,104	117,538	117,538	802	802	-	802	474	3,173	51,139	10,087
195	7510	Computer supplies	WP/H/D-1.1	50,337	-	50,337	5,843	6,873	28,341	28,341	-	28,341	79,737	208,726	52,121	181,890
196	7580	Software	WP/H/D-1.1	22,780	-	22,780	82,518	209,125	28,341	28,341	-	28,341	79,737	208,726	52,121	181,890
200	7600	Small tools/minor equipment	WP/H/D-1.1	604,478	-	604,478	486,490	498,258	666,547	666,547	-	666,547	718,651	648,727	1,271,025	1,147,981
201	7601	Safety equipment	WP/H/D-1.1	365,154	-	365,154	296,128	272,212	467,825	467,825	-	467,825	370,753	402,305	832,978	674,517
202	7603	Security equipment	WP/H/D-1.1	17,811	-	17,811	20,618	13,491	915	915	-	915	4,056	3,724	18,725	24,674
203	7605	Small electric motors-water ut	WP/H/D-1.1	15,210	-	15,210	8,905	10,727	15,005	15,005	-	15,005	28,579	30,380	31,115	41,106
204	7610	Minor computer hardware	WP/H/D-1.1	261,956	-	261,956	152,849	52,510	109,428	109,428	-	109,428	78,102	371,384	258,162	130,611
205	7611	Minor communications equipment	WP/H/D-1.1	2,329	-	2,329	552	782	6,628	6,628	-	6,628	2,329	2,329	2,329	782
206	7615	Office furnishings	WP/H/D-1.1	51,833	-	51,833	23,360	18,830	14,956	14,956	-	14,956	41,431	5,355	66,789	64,791
207	7811	Freight	WP/H/D-1.1	6,285	-	6,285	2,575	3,317	5,160	5,160	-	5,160	7,279	11,445	11,445	24,185
208	8000	Indirect costs-FAC 74-4	WP/H/D-1.1	629,669	-	629,669	598,738	540,748	328,826	328,826	-	328,826	330,735	255,071	958,495	10,596
209	8142	Commercial paper admin exp	WP/H/D-1.1	367,001	-	367,001	487,173	512,087	362,450	362,450	-	362,450	477,022	471,826	729,451	938,473
210	8312	Unl rev/bnd commission exp	WP/H/D-1.1	655	-	655	1,911	1,594	1,658	1,658	-	1,658	3,108	2,612	2,313	5,019
211	8316	Arbitrage rebate-admin exp	WP/H/D-1.1	3,710	-	3,710	7,721	5,089	2,882	2,882	-	2,882	6,270	4,694	6,692	9,783
212	8500	Ego Reimb - Public Information Requests	WP/H/D-1.1	1,369	-	1,369	-	-	90	90	-	90	-	-	1,459	-
213	8505	Expense refunds	WP/H/D-1.1	(53,465)	-	(53,465)	(62,176)	(42,206)	(87,463)	(87,463)	-	(87,463)	(36,009)	(1,450)	(141,124)	(63,656)
214	8505	Interdepartmental reimbursements	WP/H/D-1.1	(4,043,114)	-	(4,043,114)	(3,482,846)	(3,482,846)	(1,286,192)	(1,286,192)	-	(1,286,192)	(1,411,709)	(1,377,620)	(5,329,306)	(5,329,306)
215	8507	Reimbursement of CIP charge	WP/H/D-1.1	(89,321)	-	(89,321)	-	-	(84,911)	(84,911)	-	(84,911)	(330,735)	(355,071)	(958,495)	(958,495)
216	8509	Dept O&M distributed to Indire	WP/H/D-1.1	(629,669)	-	(629,669)	(598,738)	(540,748)	(328,826)	(328,826)	-	(328,826)	(330,735)	(255,071)	(958,495)	(958,495)
217	9031	Vehicle/Minor equipment	WP/H/D-1.1	-	-	-	24,450	-	-	-	-	-	68,175	52,144	30,130	26,450
218	9046	Vehicle/Minor equipment	WP/H/D-1.1	-	-	-	24,450	-	-	-	-	-	68,175	52,144	30,130	26,450
219	9046	Vehicle/Minor equipment	WP/H/D-1.1	-	-	-	24,450	-	-	-	-	-	68,175	52,144	30,130	26,450
220	9050	Other Communication Equipment	WP/H/D-1.1	-	-	-	208,549	-	-	-	-	-	810,066	510,075	598,558	598,558
221	9051	Other Communication Equipment	WP/H/D-1.1	-	-	-	208,549	-	-	-	-	-	810,066	510,075	598,558	598,558
222	9074	Electric Transformers	WP/H/D-1.1	-	-	-	37,500	-	-	-	-	-	37,500	30,544	30,544	30,544
223	9712	Tfr to P&ID Fund	WP/H/D-1.1	37,500	-	37,500	37,500	1,700,000	850,000	850,000	-	850,000	1,700,000	1,700,000	4,000,000	3,400,000
224	9739	Tfr to Economic Development	WP/H/D-1.1	2,550,000	-	2,550,000	1,700,000	1,007,301	1,007,301	1,007,301	-	1,007,301	1,700,000	1,700,000	4,000,000	3,400,000
225	9845	Total Operations and Maintenance Expenses		125,885,228	-	125,885,228	125,192,684	120,273,977	113,787,316	113,787,316	-	113,787,316	114,763,278	110,421,798	243,672,544	234,131,976
226																

Schedule II-D-1 is supported by:

WP/II-D.1.1

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
				Water			Wastewater			Total		
	Account No.	Description	Reference Schedule	Test Year 10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	Test Year 10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	Test Year 10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016
1	5001	Regular wages - full-time	WP/II-D-1.1	29,349,814	28,072,173	26,857,536	27,480,876	27,021,206	26,065,076	56,830,690	55,093,379	52,922,611
2	5004	Shift differential	WP/II-D-1.1	82,905	81,567	77,412	65,437	66,139	67,238	148,342	147,706	144,650
3	5005	Overtime	WP/II-D-1.1	1,993,676	1,799,915	1,820,639	2,162,810	2,133,632	1,882,534	4,156,486	3,933,546	3,703,713
4	5006	Temporary employees	WP/II-D-1.1	617,611	554,287	376,540	476,353	535,766	379,534	1,093,964	1,090,053	756,074
5	5010	Backcharged salary & fringes	WP/II-D-1.1	-	-	6,007	-	-	(2,106)	-	-	3,901
6	5018	Holidays worked	WP/II-D-1.1	80,114	78,851	69,390	104,401	110,903	97,046	184,515	189,754	166,436
7	5020	Vacation pay	WP/II-D-1.1	2,172,175	2,015,189	2,034,729	2,064,504	2,071,782	1,919,892	4,236,679	4,086,970	3,954,621
8	5021	Holiday pay	WP/II-D-1.1	1,443,966	1,353,591	1,300,168	1,348,878	1,335,654	1,286,843	2,792,843	2,689,244	2,587,011
9	5022	Accident pay	WP/II-D-1.1	41,226	69,198	125,403	81,547	81,069	58,911	122,773	150,267	184,314
10	5023	Sick pay	WP/II-D-1.1	1,297,987	1,244,876	1,176,871	1,226,418	1,210,239	1,124,416	2,524,405	2,455,115	2,301,287
11	5024	Parental Leave	WP/II-D-1.1	68,720	104,093	110,805	71,297	67,923	97,791	140,017	172,016	208,595
12	5025	Other paid leave	WP/II-D-1.1	101,882	53,936	49,042	49,240	24,496	21,545	151,123	78,432	70,587
13	5026	Stability pay	WP/II-D-1.1	396,516	389,038	378,228	359,921	360,850	362,794	756,437	749,888	741,022
14	5028	Terminal pay	WP/II-D-1.1	198,534	161,749	128,792	268,268	272,315	120,997	466,802	434,064	249,789
15	5030	On call hours	WP/II-D-1.1	281,572	248,712	218,024	293,792	270,031	259,121	575,364	518,743	477,145
16	5031	Military leave	WP/II-D-1.1	3,584	5,345	6,008	5,756	7,368	7,598	9,341	12,714	13,606
17	5032	Personal holiday pay	WP/II-D-1.1	276,859	262,117	238,282	255,114	259,016	237,556	531,973	521,133	475,838
18	5033	Jury leave	WP/II-D-1.1	7,481	13,015	8,192	12,112	8,962	9,495	19,593	21,978	17,686
19	5034	Bad weather pay	WP/II-D-1.1	77,508	11,185	10,723	91,285	12,839	11,719	168,794	24,025	22,442
20	5035	Administrative leave	WP/II-D-1.1	392,271	256,642	380,421	386,929	322,232	392,530	779,200	578,874	772,951
21	5036	Emergency leave	WP/II-D-1.1	59,870	45,377	42,185	49,716	50,837	48,274	109,586	96,214	90,460
22	5037	Call back time	WP/II-D-1.1	606,069	518,524	526,293	287,691	298,738	347,657	893,760	817,262	873,950
23	5039	Comp time used	WP/II-D-1.1	757	756	890	646	501	548	1,403	1,257	1,438
24	5040	Exception vacation	WP/II-D-1.1	9,088	7,469	12,367	5,662	5,170	7,792	14,751	12,638	20,159
25	5113	Educational incentive pay	WP/II-D-1.1	52,033	26,							

Austin Water
Docket No 49189
Test Year Ending 9/30/2018
Schedule II-D-1.1 Historical and Test Year O&M
Witness: Joseph Gonzales

Line No.	Account No.	Description	Reference Schedule	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
				Test Year 10/1/2017 - 9/30/2018	Water 10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	Test Year 10/1/2017 - 9/30/2018	Wastewater 10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	Test Year 10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016
51	5675	Services-security	WP/II-D-1.1	1,000,745	1,090,278	624,263	988,083	1,090,278	624,019	1,988,828	2,180,557	1,248,282
52	5700	Services-survey	WP/II-D-1.1	-	-	74,002	-	-	-	-	-	74,002
53	5725	Services-IT staffing	WP/II-D-1.1	222,067	158,033	7,680	222,067	151,905	7,680	444,133	309,938	15,360
54	5730	Services-testing	WP/II-D-1.1	37,775	10,176	800	284,051	186,638	169,200	321,826	196,814	170,000
55	5760	Services-internet/cable	WP/II-D-1.1	46,627	49,016	34,489	40,217	40,993	34,489	86,844	90,010	68,977
56	5860	Services-other	WP/II-D-1.1	2,271,903	2,151,866	1,903,653	2,494,545	2,383,550	1,564,332	4,766,448	4,535,416	3,467,985
57	5864	Services-Prepared Food and Catering	WP/II-D-1.1	9,961	5,944	7,076	-	-	-	9,961	5,944	7,076
58	5867	Services-armored courier	WP/II-D-1.1	2,504	1,964	-	2,504	1,964	-	5,008	3,928	-
59	6121	Rental-real estate-office	WP/II-D-1.1	135,829	134,608	120,610	-	-	80	135,829	134,608	120,690
60	6122	Rental-real estate-warehouse	WP/II-D-1.1	707	-	-	-	-	-	707	-	-
61	6123	Rental-real estate-other	WP/II-D-1.1	1,035	1,880	13,966	1,035	1,320	12,797	2,070	3,200	26,763
62	6124	Rental-copy machines	WP/II-D-1.1	148,360	144,285	135,583	147,164	144,285	138,268	295,524	288,570	273,852
63	6125	Rental-vehicles/buses	WP/II-D-1.1	19,479	5,895	10,023	12,473	9,054	13,605	31,952	14,949	23,629
64	6126	Rental-other equipment	WP/II-D-1.1	22,026	27,186	36,099	182,683	143,275	63,768	204,709	170,461	99,867
65	6132	Rental-heavy equipment	WP/II-D-1.1	660	544	28,917	27,524	27,061	11,849	28,184	27,605	40,766
66	6135	Rental-Uniforms	WP/II-D-1.1	-	-	32	-	3,118	3,694	-	3,118	3,726
67	6140	Rental-temporary easement	WP/II-D-1.1	-	4,700	-	-	-	-	-	4,700	-
68	6160	Electric services	WP/II-D-1.1	10,510,048	10,851,239	12,392,203	6,441,454	6,882,009	8,052,402	16,951,502	17,733,247	20,444,605
69	6162	Gas/heating fuels	WP/II-D-1.1	17,985	13,258	12,009	11,012	10,472	10,591	28,997	23,730	22,600
70	6165	Water service	WP/II-D-1.1	70,634	52,236	63,571	-	-	33	70,634	52,236	63,604
71	6174	Drainage fee expense	WP/II-D-1.1	150,324	120,032	91,962	163,116	151,624	166,398	313,440	271,656	258,359
72	6175	Garbage/refuse collection	WP/II-D-1.1	32,840	28,079	13,301	143,484	91,737	44,418	176,324	119,816	57,720
73	6179	Water Services Interlocal	WP/II-D-1.1	958,889	875,991	948,390	-	-	-	958,889	875,991	948,390
74	6180	Wastewater svcs-interlocal	WP/II-D-1.1	-	-	-	309,125	337,539	308,240	309,125	337,539	308,240
75	6190	Toll Road - Tx Tag	WP/II-D-1.1	289	714	503	578	795	-	867	1,510	503
76	6202	Intradeptl charges	WP/II-D-1.1	467	987	2,375	20,741	10,626	(2,297)	21,208	11,613	78
77	6203	Interdepartmental Charges	WP/II-D-1.1	214,183	246,654	232,837	257,025	284,409	253,477	471,208	531,063	486,314
78	6207	Intradeptl chgs-street cut rpr	WP/II-D-1.1	9,809,723	7,029,999	5,975,496	4,204,165	2,970,001	2,524,500	14,013,888	10,000,000	8,499,996
79	6225	Interdept-Services HVAC	WP/II-D-1.1	-	84	-	-	84	-	-	168	-
80	6226	Interdept-Services Carpentry	WP/II-D-1.1	2,629	11,375	-	2,628	11,949	-	5,257	23,324	-
81	6227	Interdept-Services Plumbing	WP/II-D-1.1	-	173	192	-	4,718	192	-	4,890	384
82	6228	Interdept-Services Electrical	WP/II-D-1.1	8,752	4,072	1,158	8,850	2,813	-	17,602	6,884	1,158
83	6234	CTECC Support	WP/II-D-1.1	5,887	5,311	4,962	5,887	5,311	4,963	11,774	10,622	9,925
84	6236	Interdeptl-PW CPM charges	WP/II-D-1.1	5,000	-	20,749	15,298	17,487	20,751	20,298	17,487	41,500
85	6238	Interdeptl-PW CSD charges	WP/II-D-1.1	4,079	-	-	-	-	-	4,079	-	-
86	6240	CTM Support	WP/II-D-1.1	2,034,086	2,071,106	1,935,635	1,995,862	2,053,685	1,935,636	4,029,948	4,124,791	3,871,271
87	6241	Utility Billing System Support	WP/II-D-1.1	12,953,273	11,612,187	13,466,330	7,613,674	7,202,594	4,850,890	20,566,947	18,814,781	18,317,220
88	6242	Administrative Support	WP/II-D-1.1	6,926,977	7,264,361	7,369,386	5,079,783	5,107,753	5,015,407	12,006,760	12,372,114	12,384,793
89	6243	Workers' Compensation	WP/II-D-1.1	627,283	606,619	643,105	627,283	606,618	643,104	1,254,566	1,213,237	1,286,209
90	6244	Liability Reserve	WP/II-D-1.1	-	-	200,000	-	-	200,000	-	-	400,000
91	6245	Wireless Communications-maint	WP/II-D-1.1	58,689	33,958	32,507	52,491	33,807	40,960	111,180	67,765	73,467
92	6247	Wireless Communication-towers	WP/II-D-1.1	1,649	4,887	2,377	1,649	4,988	3,297	3,297	9,875	4,755
93	6248	Wireless Communication-install	WP/II-D-1.1	34,708	65,838	24,372	33,246	27,402	24,731	67,954	93,239	49,103
94	6249	Regional Radio System	WP/II-D-1.1	146,609	126,803	283,472	146,609	126,802	-	293,218	253,605	283,472
95	6250	Fleet-equip.preventative maint	WP/II-D-1.1	1,795,715	1,711,215	1,435,523	2,244,529	2,188,032	1,861,649	4,040,244	3,899,247	3,297,172
96	6252	Fleet-equip. accident repairs	WP/II-D-1.1	-	-	-	-	-	2,578	-	-	2,578
97	6255	Transportation-city veh fuel	WP/II-D-1.1	749,874	482,050	400,180	612,592	406,623	361,704	1,362,466	888,673	761,884
98	6256	Fleet-equip. vehicle/equipment modification	WP/II-D-1.1	11,726	-	-	-	-	-	11,726	-	-
99	6324	General Liability Insurance	WP/II-D-1.1	-	-	-	-	-	3,113	-	-	3,113
100	6325	Bond/Theft/Prof Liab Insurance	WP/II-D-1.1	1,836	1,583	1,377	-	-	-	1,836	1,583	1,377

Austin Water
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Test Year Ending 9/30/2018
Schedule II-D-1.1 Historical and Test Year O&M
Witness: Joseph Gonzales

Line No	Account No.	Description	Reference Schedule	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
				Test Year 10/1/2017 - 9/30/2018	Water 10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	Test Year 10/1/2017 - 9/30/2018	Wastewater 10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	Test Year 10/1/2017 - 9/30/2018	Total 10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016
101	6327	Fire/Extend Coverage Insurance	WP/II-D-1.1	397,169	408,875	622,828	698,068	720,027	905,338	1,095,237	1,128,902	1,528,166
102	6355	Legal claims/damages	WP/II-D-1.1	1,420,870	1,571,537	429,902	851,131	846,131	268,796	2,272,001	2,417,668	698,697
103	6361	Awards and Recognition	WP/II-D-1.1	35,937	32,773	25,492	34,272	29,388	21,859	70,209	62,161	47,351
104	6363	Structured settlements	WP/II-D-1.1	-	-	-	24,544	23,829	913,837	24,544	23,829	913,837
105	6364	Claims-auto liability	WP/II-D-1.1	39,749	55,917	174	15,595	60,311	307	55,344	116,228	481
106	6365	Claims-general liability	WP/II-D-1.1	32,151	510,200	(79,862)	178	343,653	(49,350)	32,329	853,853	(129,212)
107	6366	Claims accrual - FSD only	WP/II-D-1.1	(95,500)	389,086	-	(95,500)	173,060	-	(191,000)	562,146	-
108	6372	Services - Contractual General Trades	WP/II-D-1.1	9,395	-	-	9,395	-	-	-	18,790	-
109	6381	Maintenance-electric motors	WP/II-D-1.1	32,310	14,666	36,548	37,401	23,625	21,191	69,711	38,291	57,740
110	6382	Maintenance-grounds	WP/II-D-1.1	245,166	224,075	169,710	216,288	247,991	148,803	461,454	472,067	318,513
111	6383	Maintenance-buildings	WP/II-D-1.1	78,161	39,482	51,729	158,722	124,059	126,744	236,883	163,541	178,473
112	6387	Maintenance-computer hardware	WP/II-D-1.1	72,542	81,989	53,323	72,767	82,082	91,937	145,309	164,071	145,261
113	6388	Maintenance-computer software	WP/II-D-1.1	1,182,749	1,113,101	714,618	908,653	744,351	623,152	2,091,402	1,857,452	1,337,770
114	6389	Maintenance-other equipment	WP/II-D-1.1	122,292	342,590	168,728	355,025	315,607	324,678	477,317	658,197	493,406
115	6390	Maintenance-boilers	WP/II-D-1.1	-	-	-	1,615	3,272	-	1,615	4,697	-
116	6391	Maintenance-turbine/generator	WP/II-D-1.1	-	-	-	326,244	331,864	216,222	326,244	331,864	216,222
117	6392	Maintenance-aux gen equipment	WP/II-D-1.1	-	-	-	22,196	18,150	7,707	22,196	18,150	7,707
118	6393	Maintenance-hydraulic equipment	WP/II-D-1.1	9	-	-	-	-	-	9	-	-
119	6395	Maintenance-vehicles	WP/II-D-1.1	890	-	3,538	17	-	-	907	-	3,538
120	6396	Maintenance-pipelines	WP/II-D-1.1	1,149,422	1,165,833	881,793	1,506,080	1,576,595	1,478,076	2,655,503	2,742,428	2,359,869
121	6398	Maintenance-chillers	WP/II-D-1.1	3,580	12,804	1,004	9,925	6,610	607	13,505	19,414	1,611
122	6404	Telephone-base cost	WP/II-D-1.1	176,282	195,622	158,551	120,026	124,869	104,947	296,309	320,492	263,498
123	6405	Telephone-long distance	WP/II-D-1.1	1,587	1,443	22,842	1,587	22,842	3,174	2,886	45,684	-
124	6406	Telephone equipment	WP/II-D-1.1	3,720	-	423	3,720	-	-	7,439	-	423
125	6407	Telephone-cellular phones	WP/II-D-1.1	259,709	253,055	181,071	291,135	275,692	223,782	550,845	528,748	404,854
126	6415	Postage	WP/II-D-1.1	21,769	14,333	7,037	24,257	18,955	9,665	46,026	33,288	16,702
127	6416	Priority mail/parcel services	WP/II-D-1.1	1,944	4,534	5,803	738	4,505	2,779	2,683	9,039	8,583
128	6418	Mail distribution cost	WP/II-D-1.1	-	-	5,823	-	-	5,823	-	-	11,645
129	6450	Advertising/publication	WP/II-D-1.1	671,223	665,647	1,450,645	11,562	18,739	15,216	682,785	684,386	1,465,861
130	6452	Printing/binding/photo/repr	WP/II-D-1.1	22,922	13,197	18,342	30,068	18,029	17,047	52,990	31,226	35,389
131	6520	Employee recruiting	WP/II-D-1.1	961	814	10,484	612	355	10,484	1,572	1,169	20,968
132	6530	Training-city wide	WP/II-D-1.1	4,888	4,079	6,348	5,994	7,334	6,157	10,883	11,413	12,505
133	6531	Seminar/training fees	WP/II-D-1.1	140,771	128,648	81,882	155,619	114,465	97,319	296,390	243,114	179,200
134	6532	Educational travel	WP/II-D-1.1	71,079	48,737	53,201	75,232	48,744	49,103	146,312	97,480	102,303
135	6551	Mileage reimbursements	WP/II-D-1.1	26,750	24,271	24,004	32,002	35,735	40,414	58,752	60,006	64,419
136	6558	Professional registration	WP/II-D-1.1	28,400	27,109	19,502	18,036	18,810	16,684	46,436	45,919	36,186
137	6561	Parking costs	WP/II-D-1.1	560	96	15	480	13	36	1,040	108	51
138	6632	Memberships	WP/II-D-1.1	98,348	117,533	73,644	98,907	118,797	60,007	197,255	236,330	133,651
139	6633	Subscriptions	WP/II-D-1.1	26,424	30,234	8,543	26,215	23,326	3,729	52,638	53,560	12,272
140	6811	Commercial Incentives-AWU	WP/II-D-1.1	157,642	3,600	42,834	-	-	-	157,642	3,600	42,834
141	6812	Help Program-AWU	WP/II-D-1.1	-	25,000	-	-	-	-	-	-	-
142	6813	Household Efficiency-AWU	WP/II-D-1.1	6,071	26,063	58,977	-	-	-	6,071	26,063	58,977
143	6814	Irrigation Efficiency-AWU	WP/II-D-1.1	9,229	9,903	4,803	-	-	-	9,229	9,903	4,803
144	6815	Landscape Conversion Rebate-AWU	WP/II-D-1.1	17,863	8,569	9,855	-	-	-	17,863	8,569	9,855
145	6816	Pressure Reduction Valve Rebate-AWU	WP/II-D-1.1	2,000	2,000	2,400	-	-	-	2,000	2,000	2,400
146	6817	Rainwater Harvesting Rebate-AWU	WP/II-D-1.1	84,276	101,740	108,696	-	-	-	84,276	101,740	108,696
147	6819	Wash Wise Rebate-AWU	WP/II-D-1.1	-	50	50	-	-	-	-	50	50
148	6825	Grants to others/subrecipients	WP/II-D-1.1	(0)	32	-	207,236	305,731	177,678	207,236	305,763	177,678
149	6843	Government permits and fees	WP/II-D-1.1	615,858	587,996	523,224	273,278	281,011	259,407	889,135	869,007	782,631
150	6852	Laundry expense	WP/II-D-1.1	-	-	-	13,707	12,369	6,871	13,707	12,369	6,871

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Witness: Joseph Gonzales

Line No.	Account No.	Description	Reference Schedule	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
				Test Year	Water		Test Year	Wastwater		Test Year	Total	
				10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016
151	6854	Miscellaneous expense	WP/II-D-1.1	367	5,370	1,079	148	11,544	7,172	515	16,914	8,251
152	6871	Federal unemployment tax co	WP/II-D-1.1	2,952	6,868	27,314	17,584	3,055	15,858	20,536	9,923	43,171
153	6898	Bad Debt Expense	WP/II-D-1.1	666,957	296,794	1,345,772	423,601	518,350	854,226	1,090,558	815,144	2,199,999
154	7102	Agricultural/horticultural	WP/II-D-1.1	16,321	17,102	29,060	10,934	14,831	10,082	27,255	31,934	39,143
155	7114	Const/repair material-other	WP/II-D-1.1	5,095	1,738	729	336,172	383,912	334,183	341,267	385,650	334,912
156	7116	Asphalt	WP/II-D-1.1	146,301	95,339	95,788	51,953	115,380	94,174	198,254	210,720	189,962
157	7117	Cement/concrete	WP/II-D-1.1	4,277	7,821	12,387	8,791	11,010	10,030	13,069	18,831	22,417
158	7119	Sand/gravel/stone	WP/II-D-1.1	447,985	438,425	452,832	177,128	177,846	141,515	625,113	616,271	594,347
159	7121	Street/traff signs/mkr/pos	WP/II-D-1.1	3,607	3,376	3,194	888	2,326	80	4,495	5,702	3,275
160	7122	Hardware/wire/steel	WP/II-D-1.1	70,794	47,721	37,072	40,550	45,716	33,173	111,345	93,436	70,246
161	7123	Building material	WP/II-D-1.1	32,111	31,880	42,962	45,570	28,291	30,867	77,680	60,172	73,829
162	7124	Paint/painting supplies	WP/II-D-1.1	20,946	23,045	18,739	9,270	16,982	38,182	30,216	40,026	56,921
163	7126	Bridges/carousels	WP/II-D-1.1	-	-	-	-	5,336	2,740	-	5,336	2,740
164	7127	Electrical/lighting	WP/II-D-1.1	348,105	279,565	304,188	472,496	503,642	584,418	820,600	783,206	888,606
165	7128	Welding supplies	WP/II-D-1.1	9,127	5,881	5,236	21,133	17,499	18,302	30,260	23,380	23,538
166	7129	Refrigerant components-HVAC	WP/II-D-1.1	97,873	50,844	55,783	143,000	50,884	50,481	240,873	101,728	106,265
167	7132	Pipes and fittings	WP/II-D-1.1	877,216	804,176	897,142	620,503	536,833	407,099	1,497,719	1,341,008	1,304,242
168	7133	Valves	WP/II-D-1.1	251,664	222,192	224,936	59,367	49,023	23,168	311,032	271,214	248,104
169	7134	Chemicals	WP/II-D-1.1	5,513,739	5,392,168	5,881,273	7,975,774	6,185,392	3,869,330	13,489,513	11,577,559	9,750,602
170	7135	Household/cleaning supplies	WP/II-D-1.1	70,387	57,078	50,074	70,075	54,913	63,491	140,462	111,990	113,566
171	7141	Boiler equipment	WP/II-D-1.1	510	149	458	66	8,802	3,515	576	8,951	3,973
172	7144	Electrical transformers	WP/II-D-1.1	-	-	-	-	(386)	104	-	(386)	104
173	7145	Electrical conductors-wire&cable	WP/II-D-1.1	1,099	1,164	1,776	5,681	6,416	7,602	6,780	7,580	9,378
174	7146	Electrical conductors-hardware	WP/II-D-1.1	385	78	223	1,027	2,346	1,871	1,412	2,424	2,094
175	7150	Fuses and fusing apparatus	WP/II-D-1.1	534	295	273	1,007	1,152	1,803	1,541	1,447	2,075
176	7151	Relays and relaying equipment	WP/II-D-1.1	101	74	266	19,120	4,794	1,022	19,221	4,868	1,288
177	7154	Capacitors	WP/II-D-1.1	26	-	-	-	-	-	26	-	-
178	7155	Pull boxes,svc boxes,manholes	WP/II-D-1.1	2,095	546	4,868	293	94	11	2,387	640	4,879
179	7156	Electrical switchgear	WP/II-D-1.1	81	-	367	-	-	2,184	81	-	2,551
180	7245	Radio equipment	WP/II-D-1.1	86,828	55,176	3,284	2,021	2,215	28,720	88,848	57,392	32,004
181	7269	Raw water - purchased	WP/II-D-1.1	625,492	577,174	460,002	-	-	-	625,492	577,174	460,002
182	7310	Gasoline/oil/grease	WP/II-D-1.1	82,489	126,664	162,877	77,711	47,781	60,255	160,200	174,445	223,132
183	7320	Parts for equipment	WP/II-D-1.1	487,257	557,735	509,458	580,645	610,892	609,844	1,067,902	1,168,627	1,119,302
184	7330	Parts for vehicles	WP/II-D-1.1	4,768	4,071	2,635	3,188	2,709	5,186	7,956	6,780	7,821
185	7425	Medical/dental supplies	WP/II-D-1.1	7,161	2,268	1,565	6,156	1,119	1,321	13,317	3,387	2,886
186	7450	Photographic	WP/II-D-1.1	2,311	3,855	2,135	-	138	377	2,311	3,993	2,512
187	7454	Educational/promotional	WP/II-D-1.1	63,197	31,306	35,540	60,951	30,062	30,275	124,148	61,368	65,814
188	7456	Identification	WP/II-D-1.1	910	934	493	63	(77)	111	972	857	604
189	7458	Police supplies	WP/II-D-1.1	-	804	220	-	-	-	-	804	220
190	7460	Meters	WP/II-D-1.1	829,726	793,017	601,792	151,953	-	1,940	981,679	793,017	603,732
191	7461	Meter parts	WP/II-D-1.1	19,684	47,738	16,286	-	-	-	19,684	47,738	16,286
192	7478	Clothing/clothing material	WP/II-D-1.1	150,100	140,842	136,880	144,923	146,338	157,130	295,023	287,180	294,009
193	7480	Dietary hardware	WP/II-D-1.1	125	342	400	520	310	723	644	653	1,123
194	7482	Food/ice	WP/II-D-1.1	27,816	20,004	21,366	20,643	16,740	14,302	48,459	36,744	35,668
195	7484	Food/storage for animals	WP/II-D-1.1	1,379	1,480	2,966	-	-	-	1,379	1,480	2,966
196	7486	Books-library	WP/II-D-1.1	19,430	28,280	27,050	18,021	27,195	26,023	37,451	55,474	53,073
197	7500	Office supplies	WP/II-D-1.1	110,165	116,104	117,538	118,354	105,238	102,537	228,519	221,342	220,075
198	7510	Computer supplies	WP/II-D-1.1	50,337	5,843	6,873	802	4,244	3,173	51,139	10,087	10,046
199	7580	Software	WP/II-D-1.1	22,780	82,518	209,125	29,341	79,372	208,726	52,121	161,890	417,851
200	7600	Small tools/minor equipment	WP/II-D-1.1	604,478	486,490	498,258	666,547	718,651	649,722	1,271,025	1,205,141	1,147,981

Austin Water
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Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	Account		Reference	Water			Wastewater			Total		
Line No	No.	Description	Schedule	Test Year 10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	Test Year 10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	Test Year 10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016
201	7601	Safety equipment	WP/II-D-1.1	365,154	296,128	272,212	467,825	370,752	402,305	832,978	666,880	674,517
202	7603	Security equipment	WP/II-D-1.1	17,811	20,618	13,491	915	4,056	3,724	18,725	24,674	17,215
203	7605	Small electric motors-water ut	WP/II-D-1.1	15,210	8,905	10,727	15,905	28,579	30,380	31,115	37,484	41,106
204	7610	Minor computer hardware	WP/II-D-1.1	261,956	152,849	52,510	109,428	105,313	78,102	371,384	258,162	130,611
205	7611	Minor communications equipment	WP/II-D-1.1	2,329	552	782	-	6,628	-	2,329	7,180	782
206	7615	Office furnishings	WP/II-D-1.1	51,833	23,360	18,830	14,956	41,431	5,355	66,789	64,791	24,185
207	7811	Freight	WP/II-D-1.1	6,285	2,575	3,317	5,160	7,280	7,279	11,445	9,854	10,596
208	8000	Indirect costs-FMC 74-4	WP/II-D-1.1	629,669	598,738	540,748	328,826	330,735	255,071	958,495	929,473	795,819
209	8142	Commercial paper admin exp	WP/II-D-1.1	367,001	487,173	512,087	362,450	477,022	471,626	729,451	964,195	983,713
210	8312	Util rev bnd commission exp	WP/II-D-1.1	655	1,911	1,594	1,658	3,108	2,612	2,313	5,019	4,206
211	8316	Arbitrage rebate-admin exp	WP/II-D-1.1	3,710	7,721	5,089	2,982	6,270	4,694	6,692	13,991	9,783
212	8500	Exp Reimb - Public Information Requests	WP/II-D-1.1	(1,369)	-	-	(90)	-	-	(1,459)	-	-
213	8502	Interdepartmental reimbursements	WP/II-D-1.1	(53,661)	(62,176)	(42,206)	(87,463)	(36,009)	(1,450)	(141,124)	(98,185)	(43,656)
214	8505	Expense refunds	WP/II-D-1.1	(4,043,114)	(3,682,844)	(3,893,445)	(1,286,192)	(1,411,703)	(1,377,620)	(5,329,306)	(5,094,547)	(5,271,065)
215	8507	Reimbursement of CIP charge	WP/II-D-1.1	(89,321)	-	-	(84,911)	-	-	(174,232)	-	-
216	8589	Dept OH distribtd to indire	WP/II-D-1.1	(629,669)	(598,738)	(540,748)	(328,826)	(330,735)	(255,071)	(958,495)	(929,473)	(795,819)
217	9031	Vehicle/Motored Equipment	WP/II-D-1.1	-	-	26,450	-	-	-	-	-	26,450
218	9040	Medical/lab equipment	WP/II-D-1.1	-	-	-	30,130	68,175	53,124	30,130	68,175	53,124
219	9045	Computer Hardware	WP/II-D-1.1	-	25,265	13,779	21,570	-	40,549	21,570	25,265	54,328
220	9050	Radio Communication Equipment	WP/II-D-1.1	-	5,628	-	-	-	-	-	5,628	-
221	9051	Other Equipment	WP/II-D-1.1	66,471	209,549	182,332	532,087	810,066	510,075	598,558	1,019,614	692,408
222	9074	Electric Transformers	WP/II-D-1.1	-	-	-	30,544	-	-	30,544	-	-
223	9712	Trf to PID Fund	WP/II-D-1.1	37,500	37,500	-	37,500	37,500	-	75,000	75,000	-
224	9739	Trf to Reclaimed Water Fund	WP/II-D-1.1	2,550,000	1,700,000	1,700,000	850,000	1,700,000	1,700,000	3,400,000	3,400,000	3,400,000
225	9845	Trf to Economic Development	WP/II-D-1.1	1,710,432	1,549,387	1,087,301	1,509,967	1,367,796	919,749	3,220,399	2,917,183	2,007,050
226		Total Operations and Maintenance Expenses		129,885,228	123,192,684	120,273,977	113,787,316	111,021,291	100,421,798	243,672,544	234,213,976	220,695,776

Austin Water

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Test Year Ending 9/30/2018

Schedule II-D-1.2 (W) Known & Measurable Adjustments to Test Year - Water

Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Account No.	Description	Schedule II-A-1 Reference	Workpaper Reference Schedule	Amount	Sponsoring Witness	Justification
1	5001	Regular wages - full-time	Ln 1 (f)	WP/II-D-1.1	733,745	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
2	5004	Shift differential	Ln 2 (f)	WP/II-D-1.1	2,073	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
3	5005	Overtime	Ln 3 (f)	WP/II-D-1.1	49,842	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
4	5018	Holidays worked	Ln 6 (f)	WP/II-D-1.1	2,003	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
5	5020	Vacation pay	Ln 7 (f)	WP/II-D-1.1	54,304	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
6	5021	Holiday pay	Ln 8 (f)	WP/II-D-1.1	36,099	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
7	5022	Accident pay	Ln 9 (f)	WP/II-D-1.1	1,031	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
8	5023	Sick pay	Ln 10 (f)	WP/II-D-1.1	32,450	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
9	5024	Parental Leave	Ln 11 (f)	WP/II-D-1.1	1,718	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
10	5031	Military leave	Ln 16 (f)	WP/II-D-1.1	90	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
11	5032	Personal holiday pay	Ln 17 (f)	WP/II-D-1.1	6,921	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
12	5033	Jury leave	Ln 18 (f)	WP/II-D-1.1	187	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)

Austin Water
Docket No. 49189
Test Year Ending 9/30/2018
Schedule II-D-1.2 (W) Known & Measurable Adjustments to Test Year - Water
Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Account No.	Description	Schedule II-A-1 Reference	Workpaper Reference Schedule	Amount	Sponsoring Witness	Justification
13	5034	Bad weather pay	Ln 19 (f)	WP/II-D-1.1	1,938	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
14	5035	Administrative leave	Ln 20 (f)	WP/II-D-1.1	9,807	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
15	5036	Emergency leave	Ln 21 (f)	WP/II-D-1.1	1,497	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
16	5037	Call back time	Ln 22 (f)	WP/II-D-1.1	15,152	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
17	5039	Comp time used	Ln 23 (f)	WP/II-D-1.1	19	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
18	5040	Exception vacation	Ln 24 (f)	WP/II-D-1.1	227	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
19	5185	Insurance-health/life/dental	Ln 30 (f)	WP/II-D-1.1	769,019	Gonzales	Increase in insurance cost determined by the City Budget Office. Each fiscal year, the entire insurance budget amount will be swept by the City Controller's Office during the year-end closing process
20	5190	FICA tax	Ln 32 (f)	WP/II-D-1.1	58,801	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
21	5191	Medicare tax	Ln 33 (f)	WP/II-D-1.1	13,797	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
22	5196	Contribution to employees ret	Ln 34 (f)	WP/II-D-1.1	161,445	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
23	6234	CTECC Support	Ln 83 (f)	WP/II-D-1.1	408	Gonzales	Increase in Austin Water's allocation to fund the Combined Transportation and Emergency Communications Center (CTECC), the amount is provided by the Budget Office
24	6240	CTM Support	Ln 86 (f)	WP/II-D-1.1	381,188	Gonzales	Increase in Austin Water's allocation for the Communications and Technology Management (CTM) Department Support due to increase in CTM cost drivers such as software and hardware maintenance as well as critical technology infrastructure replacing cost

Austin Water
Docket No. 49189
Test Year Ending 9/30/2018
Schedule II-D-1.2 (W) Known & Measurable Adjustments to Test Year - Water
Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Account No.	Description	Schedule II-A-1 Reference	Workpaper Reference Schedule	Amount	Sponsoring Witness	Justification
25	6241	Utility Billing System Support	Ln 87 (f)	WP/II-D-1.1	(479,902)	Gonzales	Austin Energy adopted a new allocation method in FY2018 which resulted in a decrease in Water Fund AE Customer Care Cost, and an increase in Wastewater Fund Customer Care Cost
26	6242	Administrative Support	Ln 88 (f)	WP/II-D-1.1	350,258	Gonzales	Increase in Administrative Support due to the allocation of the new City of Austin Human Capital Management System cost to all City Departments. This System will have 7 modules including Workforce Management, HR Core, Compensation, Recruitment, Talent Management, Case Management & Payroll and will be implemented over the next 5 years
27	6243	Workers' Compensation	Ln 89 (f)	WP/II-D-1.1	(59,339)	Gonzales	Worker's Compensation allocation decreased due to reduced demand on the Worker's Compensation Fund in recent years
28	6249	Regional Radio System	Ln 94 (f)	WP/II-D-1.1	80,551	Gonzales	Austin Water's allocated Regional Radio System cost increased because the City Budget Office increased the Regional Radio System maintenance cost to address the actual spending deficit experienced over the last several years
29	6355	Legal claims/damages	Ln 102 (f)	WP/II-D-1.1	(1,288,537)	Gonzales	Remove Public Utility Commission 2015 Rate Case refund cost for the four wholesale customer petitioners, the last payment was scheduled in February 2019
30	6366	Claims accrual - FSD only	Ln 107 (f)	WP/II-D-1.1	95,500	Gonzales	Remove one-time only City Controller's Office reversal entry of Austin Water claim liability accrual
31	8500	Exp Reimb - Public Information Requests	Ln 212 (f)	WP/II-D-1.1	1,369	Gonzales	Remove and zero out Public Information Requests expense refund amount since these amounts are sporadic and random
32	8505	Expense refunds	Ln 214 (f)	WP/II-D-1.1	1,371	Gonzales	Adjustment to the Balcones Canyonland Preserve and Longhorn Dam expense refund as operation costs will be fully reimbursed from the General Fund
33	9739	Trf to Reclaimed Water Fund	Ln 224 (f)	WP/II-D-1.1	1,450,000	Gonzales	Increase in amount transferred to the Reclaimed Water Fund to offset costs not covered by the reclaimed water revenue. This change also reflects transition from 75% Water Fund and 25% Wastewater Fund transfer split to 100% Water Fund transfer
34	9845	Trf to Economic Development	Ln 225 (f)	WP/II-D-1.1	335,942	Gonzales	Increase in transfer to Economic Development Fund due to Economic Development Department's increased funding in Chapter 380 agreements policy implementation, City Property Strategic Disposition, and new Business Expansion Program Portfolio
35							
36					2,820,972		

Schedule II-D-1.2 (Water) is supported by:

WP/II-D.1.1

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-1.2 (WW) Known & Measurable Adjustments to Test Year - Wastewater

Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Account No.	Description	Schedule II-A-1 Reference	Workpaper Reference Schedule	Amount	Sponsoring Witness	Justification
1	5001	Regular wages - full-time	Ln 1 (g)	WP/II-D-1.1	687,022	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
2	5004	Shift differential	Ln 2 (g)	WP/II-D-1.1	1,636	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
3	5005	Overtime	Ln 3 (g)	WP/II-D-1.1	54,070	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
4	5018	Holidays worked	Ln 6 (g)	WP/II-D-1.1	2,610	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
5	5020	Vacation pay	Ln 7 (g)	WP/II-D-1.1	51,613	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
6	5021	Holiday pay	Ln 8 (g)	WP/II-D-1.1	33,722	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
7	5022	Accident pay	Ln 9 (g)	WP/II-D-1.1	2,039	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
8	5023	Sick pay	Ln 10 (g)	WP/II-D-1.1	30,660	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
9	5024	Parental Leave	Ln 11 (g)	WP/II-D-1.1	1,782	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
10	5031	Military leave	Ln 16 (g)	WP/II-D-1.1	144	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
11	5032	Personal holiday pay	Ln 17 (g)	WP/II-D-1.1	6,378	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
12	5033	Jury leave	Ln 18 (g)	WP/II-D-1.1	303	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)

Austin Water
Docket No. 49189
Test Year Ending 9/30/2018
Schedule II-D-1.2 (WW) Known & Measurable Adjustments to Test Year - Wastewater
Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Account No.	Description	Schedule II-A-1 Reference	Workpaper Reference Schedule	Amount	Sponsoring Witness	Justification
13	5034	Bad weather pay	Ln 19 (g)	WP/II-D-1.1	2,282	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
14	5035	Administrative leave	Ln 20 (g)	WP/II-D-1.1	9,673	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
15	5036	Emergency leave	Ln 21 (g)	WP/II-D-1.1	1,243	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
16	5037	Call back time	Ln 22 (g)	WP/II-D-1.1	7,192	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
17	5039	Comp time used	Ln 23 (g)	WP/II-D-1.1	16	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
18	5040	Exception vacation	Ln 24 (g)	WP/II-D-1.1	142	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
19	5185	Insurance-health/life/dental	Ln 30 (g)	WP/II-D-1.1	530,884	Gonzales	Increase in insurance cost determined by the City Budget Office. Each fiscal year, the entire insurance budget amount will be swept by the City Controller's Office during the year-end closing process
20	5190	FICA tax	Ln 32 (g)	WP/II-D-1.1	55,193	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
21	5191	Medicare tax	Ln 33 (g)	WP/II-D-1.1	12,951	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
22	5196	Contribution to employees ret	Ln 34 (g)	WP/II-D-1.1	151,367	Gonzales	2.5% City Council approved general wage increase, and its relating payroll tax and contribution to employees retirement increase, effective Pay Period ending 10/13/2018 (Pay Date 10/19/2018)
23	5650	Services-Bio Solid Reuse	Ln 50 (g)	WP/II-D-1.1	(1,057,032)	Gonzales	Decrease in Bio-solids land application and composting cost because Austin Water negotiated a new Bio-solids contract
24	6234	CTECC Support	Ln 83 (g)	WP/II-D-1.1	408	Gonzales	Increase in Austin Water's allocation to fund the Combined Transportation and Emergency Communications Center (CTECC), the amount is provided by the Budget Office

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-1.2 (WW) Known & Measurable Adjustments to Test Year - Wastewater

Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Account No.	Description	Schedule II-A-1 Reference	Workpaper Reference Schedule	Amount	Sponsoring Witness	Justification
25	6240	CTM Support	Ln 86 (g)	WP/II-D-1.1	398,452	Gonzales	Increase in Austin Water's allocation for the Communications and Technology Management (CTM) Department Support due to increase in CTM cost drivers such as software and hardware maintenance as well as critical technology infrastructure replacing cost
26	6241	Utility Billing System Support	Ln 87 (g)	WP/II-D-1.1	475,297	Gonzales	Austin Energy adopted a new allocation method in FY2018 which resulted in a decrease in Water Fund AE Customer Care Cost, and an increase in Wastewater Fund Customer Care Cost
27	6242	Administrative Support	Ln 88 (g)	WP/II-D-1.1	842,701	Gonzales	Increase in Administrative Support due to the allocation of the new City of Austin Human Capital Management System cost to all City Departments. This System will have 7 modules including Workforce Management, HR Core, Compensation, Recruitment, Talent Management, Case Management & Payroll and will be implemented over the next 5 years
28	6243	Workers' Compensation	Ln 89 (g)	WP/II-D-1.1	(59,339)	Gonzales	Worker's Compensation allocation decreased due to reduced demand on the Worker's Compensation Fund in recent years
29	6249	Regional Radio System	Ln 94 (g)	WP/II-D-1.1	80,551	Gonzales	Austin Water's allocated Regional Radio System cost increased because the City Budget Office increased the Regional Radio System maintenance cost to address the actual spending deficit experienced over the last several years
30	6355	Legal claims/damages	Ln 102 (g)	WP/II-D-1.1	(846,131)	Gonzales	Remove Public Utility Commission 2015 Rate Case refund cost for the four wholesale customer petitioners, the last payment was scheduled in February 2019
31	6366	Claims accrual - FSD only	Ln 107 (g)	WP/II-D-1.1	95,500	Gonzales	Remove one-time only City Controller's Office reversal entry of Austin Water claim liability accrual
32	8500	Exp Reimb - Public Information Requests	Ln 212 (g)	WP/II-D-1.1	90	Gonzales	Remove and zero out Public Information Requests expense refund amount since these amounts are sporadic and random
33	9739	Trf to Reclaimed Water Fund	Ln 224 (g)	WP/II-D-1.1	(850,000)	Gonzales	Change in amount transferred to the Reclaimed Water Fund to offset costs not covered by the reclaimed water revenue. This change also reflects transition from 75% Water Fund and 25% Wastewater Fund transfer split to 100% Water Fund transfer
34	9845	Trf to Economic Development	Ln 225 (g)	WP/II-D-1.1	252,541	Gonzales	Increase in transfer to Economic Development Fund due to Economic Development Department's increased funding in Chapter 380 agreements policy implementation, City Property Strategic Disposition, and new Business Expansion Program Portfolio
35							
36					975,962		

Schedule II-D-1.2 (Wastewater) is supported by:

WP/II-D.1.1

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-2 Bad Debt Expense

Witness: Joseph Gonzales

Line No	(a) Workpaper Reference	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	The change in Accounts Receivable Allowance each month is booked as bad debt expense.							
2								
3	Accounts Receivable Allowance is determined from the below criteria:							
4	1) 1/2 of the "181 to 365 days old" aging bucket (for Active Service Agreements, not including Payment Arrangements)							
5	2) "> 365 days old" aging bucket (for Active Service Agreements, not including Payment Arrangements)							
6	3) GL Balance minus "1-30 days" aging bucket (for Inactive Service Agreements in Accounts Receivable)							
7	4) GL Balance (for Inactive Service Agreements in Accounts Receivable Allowance)							
8								
9			Account No.	Description	Test Year			
					10/1/2017 - 9/30/2018	10/01/2016 - 09/30/2017	10/01/2015 - 09/30/2016	
10	No workpaper		6898 -	Bad Debt Expense Total	1,090,558	815,144	2,199,999	
11								
12	No workpaper		6898 -	Bad Debt Expense Water	666,957	296,794	1,345,772	
13	No workpaper		6898 -	Bad Debt Expense Wastewater	423,601	518,350	854,226	

Austin Water
Docket No. 49189
Test Year Ending 9/30/2018
Schedule II-D-3.1 Advertising
Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
				10/1/2017 - 9/30/2018			10/01/2016 - 09/30/2017			10/01/2015 - 09/30/2016		
Line No	Account No	Description	Reference Schedule	Test Year Water	Test Year Wastewater	Test Year Total	FY 2017 Water	FY 2017 Wastewater	FY 2017 Total	FY 2016 Water	FY 2016 Wastewater	FY 2016 Total
1	6450	Public Health and Safety	II-D-1	413,525	7,781	421,306	11,058	17,580	28,638	14,110	15,216	29,326
2	6450	Conservation of Water	II-D-1	230,432	0	230,432	648,784		648,784	1,430,869	0	1,430,869
3	6450	Explanation of billing practices, rates rules and regulation	II-D-1	0	0	0	963	951	1,914	0	0	0
4	6450	Other Advertising programs	II-D-1	27,271	3,776	31,047	4,842	207	5,050	5,667	0	5,666
5												
6		Total Advertising Expense		671,228	11,557	682,785	665,647	18,738	684,386	1,450,646	15,216	1,465,861

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-3.2 Contribution and Donation Expense

Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)
				10/1/2017 - 9/30/2018		
Line No	Account No	Name/Type of Organization	Workpaper Reference	Test Year Water	Test Year Wastewater	Total
1	5860	American Youthworks	No workpaper	14,400	0	14,400
2	5860	Central Texas Food Bank Inc	No workpaper	2,400	0	2,400
3	6389	Colorado River Alliance Mobile Classroom Cleaning	No workpaper	63	63	126
4	6632	Texas Section - AWWA Water for People Charity	No workpaper	200	200	400
5	7454	Austin Area Urban League Inc	No workpaper	1,500	1,500	3,000
6	7454	Austin Community Foundation for the Capital Area	No workpaper	0	1,250	1,250
7	7454	Austin Police Community Liaison Corporation	No workpaper	3,750	3,750	7,500
8	7454	Austin Water Sponsorship of Barton Springs University Event	No workpaper	250	250	500
9	7454	Austin Water Sponsorship of Austin Asian Chamber of Commerce	No workpaper	1,000	1,000	2,000
10	7454	Austin Water Sponsorship of Chuy's Children Parade	No workpaper	1,250	1,250	2,500
11	7454	Friends of the Colorado River Foundation Inc	No workpaper	1,250	1,250	2,500
12	7454	Sponsorship of 2018 Austin Earth Day Festival	No workpaper	1,250	1,250	2,500
13	7454	Sponsorship of A Living Springs Series Film Screening of the Wildlands	No workpaper	500	0	500
14	7454	Sponsorship of Kent Butler Summit	No workpaper	500	500	1,000
15	7454	Sponsorship of the 2018 First Tee of Austin 9 Core Values Luncheon	No workpaper	1,500	1,500	3,000
16	7454	Wateruse Association Sponsorship for annual Wateruse Symposium	No workpaper	250	250	500
17						
18		Total Contribution and Donation Expense		30,063	14,013	44,076

Austin Water
Docket No. 49189
Test Year Ending 9/30/2018
Schedule II-D-3.3 Industry Organization Membership Dues
Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)
				10/1/2017 - 9/30/2018		
Line No	Account No	Name/Type of Organization	Reference Schedule	Test Year Water	Test Year Wastewater	Total
1	6632	Alliance for Water Efficiency	II-D-1	1,750	1,750	3,500
2	6632	American Backflow Prevention Association	II-D-1	300	0	300
3	6632	American Geographical Society	II-D-1	0	100	100
4	6632	American Society of Industrial Security	II-D-1	97	98	195
5	6632	American Society of Sanitary Engineering	II-D-1	180	0	180
6	6632	American Waterworks Association	II-D-1	16,086	14,335	30,421
7	6632	Association of American Geographers	II-D-1	0	148	148
8	6632	Association of Metropolitan Water Agencies	II-D-1	5,043	5,043	10,086
9	6632	Compressed Gas Association	II-D-1	89	0	89
10	6632	International Association of plumbing Mechanical Officials	II-D-1	300	0	300
11	6632	National Association of Sewer Service Companies	II-D-1	295	0	295
12	6632	National Environmental Laboratory	II-D-1	175	275	450
13	6632	National Speleological Association	II-D-1	50	0	50
14	6632	Plumbing, Heating, Cooling Contractors of Texas	II-D-1	0	225	225
15	6632	Texas Association of Clean Water Agencies	II-D-1	2,000	2,000	4,000
16	6632	Texas Cave Management Association	II-D-1	100	0	100
17	6632	Texas Water Conservation Association	II-D-1	2,860	2,860	5,720
18	6632	The Ecological Society of America	II-D-1	0	130	130
19	6632	The Metropolitan Water District of Sothern California	II-D-1	5,740	5,740	11,480
20	6632	Underground Construction Technology Assn	II-D-1	0	100	100
21	6632	US Water Alliance	II-D-1	2,500	2,500	5,000
22	6632	Water Environment and Reuse Foundation	II-D-1	18,289	18,289	36,577
23	6632	Water Environment Association of Texas	II-D-1	0	50	50
24	6632	Water Environment Federation	II-D-1	129	480	609

Austin Water
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Test Year Ending 9/30/2018
Schedule II-D-3.3 Industry Organization Membership Dues
Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)
				10/1/2017 - 9/30/2018		
Line No	Account No	Name/Type of Organization	Reference Schedule	Test Year Water	Test Year Wastewater	Total
25	6632	Water Research Foundation	II-D-1	25,000	26,845	51,845
26	6632	Wateruse Association	II-D-1	4,500	4,500	9,000
27	6632	Isle Utilities	II-D-1	6,000	6,000	12,000
28						
29		Total Industry Organization Membership Dues		91,483	91,468	182,950

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-3.4 Business and Economic Membership Dues

Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)
				10/1/2017 - 9/30/2018		
Line No	Account No	Name/Type of Organization	Reference Schedule	Test Year Water	Test Year Wastewater	Total
1	6632	Amazon Prime	II-D-1	54	53	107
2	6632	Austin Women in Technology	II-D-1	30	30	60
3	6632	GoToMeeting membership for Water Forward Workshop	II-D-1	327	0	327
4	6632	Greater Austin Hispanic Chamber of Commerce	II-D-1	250	250	500
5	6632	Institute of Internal Auditors	II-D-1	277	278	555
6	6632	Opex Consortium Level 1	II-D-1	2,495	2,495	4,990
7	6632	Western Data Systems	II-D-1	125	125	250
8						
9		Total Business and Economic Membership Dues		3,558	3,231	6,789

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-3.5 Professional Membership Dues

Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)
				10/1/2017 - 9/30/2018		
Line No	Account No	Name/Type of Organization	Reference Schedule	Test Year Water	Test Year Wastewater	Total
1	6632	American Association of Notaries	II-D-1	134	105	239
2	6632	American Social Civil Engineer	II-D-1	354	1,064	1,418
3	6632	American Water Works Association	II-D-1	342	443	785
4	6632	Association of Certified Fraud Examiners	II-D-1	200	200	400
5	6632	Capital City African American Chamber of Commerce	II-D-1	37	38	75
6	6632	CFE Annual Renewal	II-D-1	88	88	176
7	6632	CPA Continuing Education	II-D-1	99	0	99
8	6632	Executive Women in Texas	II-D-1	65	0	65
9	6632	International Association of Hydrogeological	II-D-1	95	0	95
10	6632	International Society of Automation (ISA)	II-D-1	185	185	370
11	6632	Professional Engineer license renewal	II-D-1	20	20	40
12	6632	Project Management Institute	II-D-1	1,154	1,024	2,178
13	6632	Professional License Reimbursement	II-D-1	221	60	281
14	6632	Society for Ecological Restoration	II-D-1	120	0	120
15	6632	Texas State Board of Public Accountancy	II-D-1	66	0	66
16	6632	Texas Board of Professional Engineers	II-D-1	40	0	40
17	6632	Water Environment Federation	II-D-1	87	982	1,069
18						
19		Total Professional Membership Dues		3,307	4,209	7,516

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-3.6 Social Organizations

Witness: Joseph Gonzales

Austin Water had no expenditures for social organization memberships during the test year.

Austin Water
Docket No. 49189
Test Year Ending 9/30/2018
Schedule II-D-4 Summary of Outside Services Employed
Witness: Joseph Gonzales

Line No	(a) Account No	(b) Vendor	(c) Outside Service	(d) Reference Schedule	(e) Test Year 10/01/2017-09/30/2018			(h) Known & Measurable			(l) Adjusted Test Year		
					(f) Water			(g) Wastewater			(j) Total		
					Water	Wastewater	Total	Water	Wastewater	Total	Water	Wastewater	Total
1	5260	Various	Consulting-information technology	WP/II-D-4	92,600	92,600	185,200	-	-	-	92,600	92,600	185,200
2	5280	Various	Consultant-others	WP/II-D-4	133,687	18,550	152,237	-	-	-	133,687	18,550	152,237
3	5560	Various	Services-construction contr	WP/II-D-4	7,784	25,375	33,159	-	-	-	7,784	25,375	33,159
4	5570	Various	Services-court costs	WP/II-D-4	9,898	3	9,901	-	-	-	9,898	3	9,901
5	5588	Various	Services-environmnt assessment	WP/II-D-4	15,014	5,917	20,931	-	-	-	15,014	5,917	20,931
6	5595	Various	Services-garbage/recycling clt	WP/II-D-4	219	200,111	200,330	-	-	-	219	200,111	200,330
7	5600	Various	Services-hazardous mat disp	WP/II-D-4	36,682	22,678	59,360	-	-	-	36,682	22,678	59,360
8	5605	Various	Services-inspection	WP/II-D-4	275	245	520	-	-	-	275	245	520
9	5610	Various	Services-janitorial	WP/II-D-4	364,177	364,177	728,354	-	-	-	364,177	364,177	728,354
10	5620	Various	Services-legal fees	WP/II-D-4	5,900	-	5,900	-	-	-	5,900	-	5,900
11	5630	Various	Services-medical/surgical	WP/II-D-4	15,922	15,922	31,845	-	-	-	15,922	15,922	31,845
12	5650	Various	Services-Bio Solid Reuse	WP/II-D-4	-	2,987,032	2,987,032	-	(1,057,032)	(1,057,032)	-	1,930,000	1,930,000
13	5675	Various	Services-security	WP/II-D-4	1,000,745	988,083	1,988,828	-	-	-	1,000,745	988,083	1,988,828
14	5725	Various	Services-IT staffing	WP/II-D-4	232,256	232,256	464,511	-	-	-	232,256	232,256	464,511
15	5730	Various	Services-testing	WP/II-D-4	37,775	280,499	318,274	-	-	-	37,775	280,499	318,274
16	5760	Various	Services-internet/cable	WP/II-D-4	44,967	38,558	83,525	-	-	-	44,967	38,558	83,525
17	5860	Various	Services-other	WP/II-D-4	2,342,209	2,581,075	4,923,284	-	-	-	2,342,209	2,581,075	4,923,284
18	5864	Various	Services, Prepared Food and Catering	WP/II-D-4	9,961	-	9,961	-	-	-	9,961	-	9,961
19	5867	Various	Services-armored courier	WP/II-D-4	2,504	2,504	5,008	-	-	-	2,504	2,504	5,008
20	6162	Various	Gas/heating fuels	WP/II-D-4	18,008	11,012	29,020	-	-	-	18,008	11,012	29,020
21	6175	Various	Garbage/refuse collection	WP/II-D-4	23,070	124,641	147,711	-	-	-	23,070	124,641	147,711
22	6190	Various	Toll Road - Tx Tag	WP/II-D-4	380	561	941	-	-	-	380	561	941
23	6327	Various	Insurance-fire/ec	WP/II-D-4	397,169	698,068	1,095,237	-	-	-	397,169	698,068	1,095,237
24	6372	Various	Services-Contractual General Trades	WP/II-D-4	9,395	9,395	18,790	-	-	-	9,395	9,395	18,790
25	6381	Various	Maintenance-electric motors	WP/II-D-4	32,310	37,401	69,711	-	-	-	32,310	37,401	69,711
26	6382	Various	Maintenance-grounds	WP/II-D-4	256,664	229,186	485,851	-	-	-	256,664	229,186	485,851
27	6383	Various	Maintenance-buildings	WP/II-D-4	75,336	156,021	231,356	-	-	-	75,336	156,021	231,356
28	6387	Various	Maintenance-computer hardware	WP/II-D-4	62,952	63,176	126,128	-	-	-	62,952	63,176	126,128
29	6388	Various	Maintenance-computer software	WP/II-D-4	1,234,880	900,636	2,135,516	-	-	-	1,234,880	900,636	2,135,516
30	6389	Various	Maintenance-other equipment	WP/II-D-4	121,897	340,490	462,387	-	-	-	121,897	340,490	462,387
31	6390	Various	Maintenance-boilers	WP/II-D-4	-	1,615	1,615	-	-	-	-	1,615	1,615
32	6391	Various	Maintenance-turbine/generator	WP/II-D-4	-	326,244	326,244	-	-	-	-	326,244	326,244
33	6392	Various	Maintenance-aux gen equipment	WP/II-D-4	-	22,196	22,196	-	-	-	-	22,196	22,196
34	6393	Various	Maintenance-hydraulic equipmnt	WP/II-D-4	9	-	9	-	-	-	9	-	9
35	6395	Various	Maintenance-vehicles	WP/II-D-4	890	17	907	-	-	-	890	17	907
36	6396	Various	Maintenance-pipelines	WP/II-D-4	1,149,422	1,623,178	2,772,601	-	-	-	1,149,422	1,623,178	2,772,601
37	6398	Various	Maintenance-chillers	WP/II-D-4	3,580	9,925	13,505	-	-	-	3,580	9,925	13,505
38	6404	Various	Telephone-base cost	WP/II-D-4	143,267	87,011	230,278	-	-	-	143,267	87,011	230,278
39	6406	Various	Telephone equipment	WP/II-D-4	3,720	3,720	7,439	-	-	-	3,720	3,720	7,439
40	6407	Various	Telephone-cellular phones	WP/II-D-4	259,709	291,135	550,845	-	-	-	259,709	291,135	550,845
41	6415	Various	Postage	WP/II-D-4	11,123	13,611	24,733	-	-	-	11,123	13,611	24,733
42	6416	Various	Priority mail/parcel services	WP/II-D-4	1,987	738	2,726	-	-	-	1,987	738	2,726
43	6452	Various	Printing/binding/photo/repr	WP/II-D-4	22,862	30,068	52,930	-	-	-	22,862	30,068	52,930
44	6520	Various	Employee recruiting	WP/II-D-4	861	512	1,372	-	-	-	861	512	1,372
45	6852	Various	Laundry expense	WP/II-D-4	-	13,707	13,707	-	-	-	-	13,707	13,707
46		Total			8,182,066	12,849,847	21,031,913	-	(1,057,032)	(1,057,032)	8,182,066	11,792,815	19,974,881

See WP/II-D-4 for details of Outside Services and whether or not they are continuing in nature.

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-5 Summary of Research and Development Expenditures

Witness: Joseph Gonzales

Austin Water had no research and development costs during the test year.

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-6 Rents and Leases

Witness: Joseph Gonzales

Line No	(a) Account No	(b) Description/Lessor	(c) Type of Lease	(d) Term		(f) Billing Method	(g) Test Year		
				From	To		Total	Water	Wastewater
1	6121	Rental-real estate-office							
2		2017 SUMMIT PARK LP	Annual rent for lab lease space at summit park for drinking water lab	06/01/2015	05/31/2025	Monthly Rate	135,828	135,828	
3	6122	Rental-real estate-warehouse							
4		PAC VAN, INC.	Warehouse rental for Davis Water Treatment Plant			Monthly Rate	707	707	
5	6123	Rental-real estate-other							
6		705 E 10TH LTD	Lease of two handicap parking spaces for Waller Creek Center			Annual Rate	2,070	1,035	1,035
7	6124	Rental-copy machines							
8		RETHINK PRINTING PROJECT	Department wide Copier Machine rental costs	12/05/2018	12/04/2019	Quarterly/ Monthly Rate	294,327	147,164	147,164
9		HEWLETT PACKARD FINANCIAL SERVICES	Rental costs for a Graphic Plotter	02/13/2017	05/31/2018	Monthly Rate	1,197	1,197	
10	6125	Rental-vehicles/buses							
11		FLEET RENTAL POOL	Rental of vehicles for business purpose, including other fleet charges			Per Vehicle/ Unit	29,857	17,384	12,473
12		AUSTIN CHART	Charter bus Rental charges			Per Vehicle	1,495	1,495	
13		CAPITAL PRECAT INC	Boom truck rental fees			Per Unit	600	600	

Austin Water
Docket No. 49189
Test Year Ending 9/30/2018
Schedule II-D-6 Rents and Leases
Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Line No	Account No	Description/Lessor	Type of Lease	Term		Billing Method	Test Year		
				From	To		Total	Water	Wastewater
14	6126	Rental-other equipment							
15		Various	Chippers, rollers, and trenchers Rental			Per Unit	25,362	18,103	7,259
16		AIRGAS INC	Rental services for acetylene and argon for Ullrich Water Treatment Plant			Per Unit	339	339	
17		FORSYTHE BROTHERS INFRASTRUCTURE, LLC.	Equipment rental for chemical corrosion and odor treatment			Per Unit	142,893		142,893
18		FREEMAN DECORATING CO	Equipment rental for special events			Per Unit	6,060	3,030	3,030
19		MCEACHERN ENTERPRISES INC	N Line Traffic Control Rental			Per Unit	100	50	50
20		PRUDENTIAL OVERALL SUPPLY	Crane rental services for yearly cleaning upflow clarifiers			Per Unit	504	504	

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-6 Rents and Leases

Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Line No	Account No	Description/Lessor	Type of Lease	Term		Billing Method	Test Year		
				From	To		Total	Water	Wastewater
21		US PEROXIDE, LLC	Equipment rental for chemical corrosion and odor treatment	10/01/2018	09/30/2020	Per Unit	29,450		29,450
22	6132	Rental-heavy equipment							
23		Various	Crane, Concrete, and Pressure Washer Rentals			Per Unit	8,809	660	8,149
24		ASSOCIATED SUPPLY CO INC	Boom lift rental and crane rental for Hornsby Bend			Per Unit	19,375		19,375

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

Schedule II-D-7 (W) Purchased Water

Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Line No	Account No	Reference Schedule	Supplier (B)	Test Year 10/01/2017 - 9/30/2018		10/01/2016 - 09/30/2017		10/01/2015 - 09/30/2016	
				Gallons	Expense	Gallons	Expense	Gallons	Expense
1	6165	II-D-1	Travis County WCID #17	10,758,500	67,821	8,025,500	49,461	7,988,700	57,566
2	7269	II-D-1	Lower Colorado River Authority	10,139,441,977	622,336	9,371,580,957	575,207	7,451,285,642	457,343
3	7269	II-D-1	Loop 360 Water Supply (A)	789,000	5,440	819,000	5,721	1,221,000	5,965
4									
5			Total	10,150,989,477	\$ 695,597	9,380,425,457	\$ 630,389	7,460,495,342	\$ 520,875

Note:

(A) Expenses include purchased water cost charged to a different object code

(B) Copies of contracts and agreements between Lower Colorado River Authority, Loop 360 Water Supply, and Austin Water are attached.

Austin Water

Docket No. 49189

Test Year Ending 9/30/2018

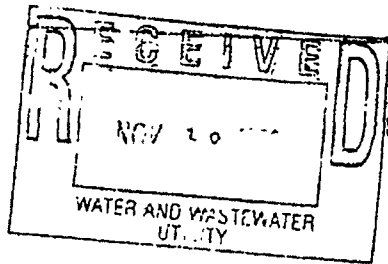
Schedule II-D-7 (WW) Purchased Wastewater

Witness: Joseph Gonzales

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Line No	Account No	Reference Schedule	Supplier (C)	Test Year 10/01/2017 - 9/30/2018		10/01/2016 - 09/30/2017		10/01/2015 - 09/30/2016	
				Gallons	Expense	Gallons	Expense	Gallons	Expense
1	6180	II-D-1	Brazos River Authority (A)	-	233,184	-	288,128	-	308,240
2	6180	II-D-1	City of Round Rock (B)	-	75,941	-	49,412	-	-
3									
4			Total	-	\$ 309,125	-	\$ 337,539	-	\$ 308,240

Note:

- (A) Operation, maintenance and management fee for Brushy Creek Regional Wastewater System to Brazos River Authority
 (B) Payments to the City of Round Rock relating to the Brushy Creek Regional Wastewater System based on a cost allocation agreement
 (C) A copy of the contract between Brushy Creek Regional Wastewater System and Austin Water is attached.



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**FIRST AMENDMENT TO DECEMBER 10, 1987
COMPREHENSIVE WATER SETTLEMENT AGREEMENT**

BETWEEN

CITY OF AUSTIN

AND

LOWER COLORADO RIVER AUTHORITY

OCTOBER 7, 1999

**FIRST AMENDMENT TO DECEMBER 10, 1987
COMPREHENSIVE WATER SETTLEMENT AGREEMENT
BETWEEN CITY OF AUSTIN AND LOWER COLORADO
RIVER AUTHORITY**

This First Amendment to the December 10, 1987 Comprehensive Water Settlement Agreement (this "First Amendment") is made and entered into as of this _____ day of _____, 1999, "Effective Date," by and between the LOWER COLORADO RIVER AUTHORITY ("LCRA") and the CITY OF AUSTIN (the "City").

RECITALS

WHEREAS, the City and LCRA are parties to a set of agreements including a Comprehensive Water Settlement Agreement Between City of Austin and Lower Colorado River Authority dated as of December 10, 1987 (the "1987 Agreement") and an Agreement dated December 15, 1966 (the "1966 Agreement") concerning various water-related matters of mutual concern to the City and LCRA;

WHEREAS, the 1987 Agreement is in full force and effect to and including December 31, 2020, and thereafter until terminated at any time by either party giving to the other not less than three (3) years' prior written notice, and the 1987 Agreement amends the terms of the 1966 Agreement to extend to and including December 31, 2020, until terminated at any time thereafter by either party giving to the other not less than three (3) years' prior written notice, provided, however, the provisions in Section 1.2 of the 1987 Agreement concerning the priority date of the City's rights concerning Lake Austin under Certified Filing No. 330 shall survive the termination of the 1987 Agreement;

WHEREAS, in the 1966 Agreement as amended by the 1987 Agreement, LCRA agreed to make available to the City 250,000 acre-feet per year of stored water from Lakes Travis and

Buchanan to firm up and/or supplement the water available under the City's independent water rights for the City's diversion and use for municipal water supply;

WHEREAS, in the 1966 Agreement as amended by the 1987 Agreement, the LCRA agreed to impose no charge upon the City for any calendar year during which the water diverted by the City is less than or equal to 150,000 acre-feet, regardless whether the water is diverted by the City pursuant to the City's run-of-river water rights or is from dependable water supplied by LCRA pursuant to LCRA's water right, and to charge no reservation fee for all use up to 250,000 acre-feet per year;

WHEREAS, in the 1966 Agreement as amended by the 1987 Agreement, the City agreed to pay LCRA, in addition to the other consideration given by the City to LCRA pursuant to the 1966 Agreement and the 1987 Agreement, for all municipal, industrial and/or irrigation use described in pp. 67-70 of the 1987 Agreement, amending Paragraphs A through C, Article IV of the 1966 Agreement, above 150,000 acre feet per year at LCRA's then current water rate, up to 250,000 acre-feet, regardless whether the water is diverted by the City pursuant to the City's run-of-river water rights or is firm dependable water supplied by LCRA pursuant to LCRA's water rights;

WHEREAS, in the 1987 Agreement the City granted to LCRA an option to purchase from the City an ownership interest in Water Treatment Plant 4 to be built within a reasonable time by the City, near the intersection of RR 2222 and State Highway 620; however, the option will lapse without Water Treatment Plant 4 being built and will be of no further force and effect on January 1, 2000, pursuant to the terms of the 1987 Agreement, and the LCRA believes that it may have certain claims or causes of action related thereto;

WHEREAS, on September 17, 1998, the City and LCRA entered into another agreement concerning water issues entitled "City of Austin-LCRA Agreement", the terms of which will remain in full force and effect;

WHEREAS, the City and LCRA both agree that it is desirable to resolve certain matters regarding the 1966 Agreement and 1987 Agreement (collectively, the "Agreements") by modifying the Agreements; and

WHEREAS, in addition, the City and LCRA both desire that an additional 75,000 acre-feet of firm dependable water annually ("First Amendment Additional Amount") be made available to help satisfy the City's projected municipal water supply demands to January 1, 2051;

NOW, THEREFORE, in consideration of the foregoing recitals and of the mutual benefits, covenants, and provisions hereinafter contained in this First Amendment, the City and LCRA hereby agree that the 1987 Agreement is amended as follows:

- (1) The phrase "and that LCRA be given a reasonable opportunity to acquire an undivided interest in the plant" is hereby deleted from the fourth sentence in Paragraph 2, Page 1.
- (2) All of Sections 2.1, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, and 2.17 of Article II are hereby deleted.
- (3) Section 2.2 of the 1987 Agreement is stricken and this new Section 2.2 is substituted to read as follows:

"LCRA Permit. LCRA issued to the City the permit concerning Lake Travis intake facility attached hereto as Exhibit "C" on December 10, 1987. Acceptance of the permit by the City is not to be construed as an agreement or admission by the City that the permit was required prior to establishment of the Lake Travis intake facility. LCRA agrees that no further authorizations are required to be obtained by the City from LCRA prior to the establishment of such Lake Travis intake facility as contemplated herein. Should the City desire, subsequent to the Effective Date of this First Amendment, to construct, operate, and maintain a water treatment plant with a Lake Travis intake facility other than that contemplated in Exhibit C, the City agrees to request a new permit from LCRA

prior to the construction of a Lake Travis intake facility, and the LCRA agrees that such permit will not be unreasonably withheld.

- (4) Section 2.18 of the 1987 Agreement is stricken and this new Section 2.18 is substituted to read as follows:

“ No Inferences Regarding Additional Water. The right of the City to expand or modify the Lake Travis intake structure or any other intake facility located on Lake Travis does not create, directly or inferentially, any right in the City to divert water from Lake Travis beyond the amount which LCRA agrees to make available to the City under Paragraph A of Article IV of the 1966 Agreement, as amended by Subsection 3.2(c) of this Agreement.”

- (5) Section 3.2 of the 1987 Agreement is stricken and this new Section 3.2 is substituted to read as follows:

“3.2(a) LCRA and the City agree that the term of the 1966 Agreement, as set forth in Article III of the 1966 Agreement and as it pertains to the several contracts and agreements between the parties set forth and amended therein, is amended to extend to January 1, 2051. The City is granted an option to renew and extend appropriate sections of the 1966 Agreement regarding LCRA making available a firm water supply to the City for an additional fifty-year period to January 1, 2101. If the City elects to exercise this option, LCRA shall have an option to renew and extend appropriate sections of the 1966 Agreement regarding electric power, use of City property, Tom Miller Dam, and the use of water for the generation of hydroelectric power at Tom Miller Dam for an additional fifty-year period to January 1, 2101.

3.2(b) The City and LCRA agree that the first two sentences of Paragraph A of Article III of the 1966 Agreement are stricken and the following is substituted:

The 1938 Agreement, 1940 Lease, the 1944 Modifying Agreement, the 1947 Land Lease Agreement, the 1954 Agreement, this 1966 Agreement, the March 6, 1981 Letter Agreement, and the 1990 Amendment to Leases shall be in full force and effect until January 1, 2051 , with an option by the City to renew appropriate sections of the 1966 Agreement relating to LCRA making available a firm water supply to the City for an additional fifty-year period until January 1, 2101 and, if the City elects to exercise this option, LCRA shall have an option to renew appropriate sections of the 1966 Agreement relating to electric power, use of City property, Tom Miller Dam, and the use of water for the generation of hydroelectric power at Tom Miller Dam for an additional fifty-year period until January 1, 2101 .

Section 3.2(c) The City and LCRA agree that Article IV of the 1966 Agreement is stricken and the following is substituted:

ARTICLE IV

WATER

- A. Lake Travis Diversions. The "Lake Travis Point of Diversion" is that point of diversion on Lake Travis, such point being within a segment bordering on Lake Travis described

and depicted in Exhibit "E" attached hereto, said Exhibit depicting the segment by reference to a corner of an original land survey and/or other survey point, giving both course and distance. LCRA agrees to make available to the City for diversion by the City at the Lake Travis Point of Diversion or some other point of diversion on Lake Travis subsequently identified by the City not to exceed 170,000 acre-feet per year of stored water under Certificate Nos. 14-5482, as amended, and 14-5478, as amended, from Lakes Travis and Buchanan respectively, for municipal use. The City may divert such water at a maximum daily peak day diversion rate of 150 MGD; provided, however, that the City may divert such water at higher rates in light of fluctuations in the level of Lake Travis, utilizing pumping facilities that have a rated capacity, with one pump not pumping, of 150 MGD with Lake Travis at 667 feet MSL; and, provided further, however, if the City desires to increase its diversion rate hereunder, the City may demonstrate its need for the higher diversion rate and how the Lake Travis Point of Diversion will be operated in relation thereto, and LCRA may allow the higher diversion rate without amending this First Amendment. LCRA presently believes that the maximum amount of water that can be supplied on a dependable basis from Lakes Travis and Buchanan to the City for the City's use at the Lake Travis Point of Diversion or some other point of diversion on Lake Travis subsequently identified by the City without impeding LCRA's overall water management responsibilities, is 170,000 acre-feet per year, at the diversion rate set forth above in this Paragraph A. LCRA hereby commits to make available up to 170,000 acre-feet per year to the City for the City's use, but LCRA makes no commitment, expressed or implied, to make available additional water above 170,000 acre-feet to the City for the City's use. Notwithstanding any other provisions of this 1966 Agreement, both LCRA and the City may seek additional water or rights to water from Lakes Travis and Buchanan under the laws of Texas that then exist, and each party reserves its right to

oppose any such effort by the other. LCRA shall bear all transportation and evapotranspiration losses in the delivery of the stored water to the Lake Travis Point of Diversion or some other point of diversion on Lake Travis subsequently identified by the City and permitted by LCRA as provided herein.

- B. Downstream Municipal Water Supply. The "Downstream Points of Diversion" are: (1) those three points of diversion presently designated by the Texas Natural Resource Conservation Commission as D-0160 (Davis WTP), D-0180 (Ullrich WTP), and D-0320 (Green WTP) at which the City currently diverts water from Lake Austin and Town Lake for municipal use; (2) such other points of diversion on Lake Austin and Town Lake which the City may so designate from time to time; and (3) such other points of diversion on the Colorado River downstream of Longhorn Dam that the City may so designate from time to time, provided that any such point downstream of Longhorn Dam must be either approved by LCRA, or authorized under independent water rights that are held by the City at such time. LCRA agrees to make available to the City at the Downstream Points of Diversion sufficient firm and/or stored water lawfully available under LCRA's independent adjudicated water rights, Certificates 14-5482, as amended, and Certificate 14-5478, as amended, for Lakes Travis and Buchanan respectively, or from any other source made available in the Colorado River and its tributaries to LCRA, as may be required from time to time to firm up and/or supplement the water available under the City's independent water rights (regardless of what those rights may be), to allow the City to divert at the Downstream Points of Diversion and use for municipal use each year the Downstream Firm Amount (hereinafter defined). The "Downstream Firm Amount" for any year is the difference between 325,000 acre-feet of water, consisting of 250,000 acre-feet plus the First Amendment Additional Amount of 75,000 acre-feet, and the amount of water, if any, actually diverted from Lake Travis by the City during that year

at the Lake Travis Point of Diversion. LCRA and the City agree that the firm and/or stored water to be made available by LCRA below Mansfield Dam hereunder for municipal use is to be made available by LCRA only when there is insufficient water available for the City to divert for such use under independent water rights that are held by the City at such time. LCRA and the City further agree that the aggregate amount of water diverted by the City in any year at the Downstream Points of Diversion and used for municipal use may exceed the Downstream Firm Amount for that year because of additional diversions by the City for such use under independent water rights that are held by the City at such time; provided, however, LCRA does not make any commitment under this Agreement, except pursuant to Paragraphs D, E and F, below, to make available any additional firm and/or stored water during any year after the City has diverted 325,000 acre-feet of water for municipal use from the Colorado River under any water right during that year. LCRA shall bear all transportation and evapotranspiration losses in the delivery of firm and/or stored water to the Downstream Points of Diversion.

- C. Other Uses. The "Other Use Points of Diversion" are (1) any Point of Diversion used by the City for municipal use (as defined above) which the City may so designate from time to time; (2) such other points of diversion on Lake Austin and Town Lake which the City may so designate from time to time; and (3) except for the points of diversion designated by the City to supply the City's share of water to the Fayette Power Project, such other points of diversion on the Colorado River downstream of Longhorn Dam that the City may so designate from time to time provided that any such point downstream of Longhorn Dam must be either approved by LCRA or authorized under independent water rights that are held by the City at such time. LCRA agrees to make available to the City for diversion by the City at the Other Use Points of Diversion the Remaining Amount (hereinafter defined) of firm and/or stored water each year under LCRA's independent

adjudicated water rights, Certificates 14-5482, as amended, and 15-5478, as amended, for Lakes Travis and Buchanan, respectively, or from any other source made available in the Colorado River and its tributaries to LCRA for industrial and irrigation use. The "Remaining Amount" for any year is the difference between 325,000 acre-feet and the total amount of water which was diverted by the City during that year at the Lake Travis Point of Diversion or another point of diversion on Lake Travis pursuant to Paragraph A above and the Downstream Points of Diversion (together, the "Points of Diversion") and used by the City for municipal use. LCRA and the City specifically agree that the aggregate amount of water diverted by the City in any year at the Other Use Points of Diversion for industrial use and irrigation may exceed the Remaining Amount for that year because of additional diversions for such uses by the City under its independent water rights, as such rights exist at the time. LCRA shall bear all transportation and evapotranspiration losses in the delivery of firm and/or stored water to the Other Use Points of Diversion.

- D. Lake Austin Level. LCRA agrees to pass through such inflows and release such stored water from Lake Travis as necessary to maintain the level of water in Lake Austin at not lower than three (3) feet below the crest of the dam, except in cases of emergency when the water level may be five (5) feet below the crest of the dam as currently constructed; provided, however, that the City shall not divert water from Lake Austin at any time in excess of the amounts set forth in this Agreement and the amounts that the City is authorized to divert pursuant to independent water rights that are held by the City at such time. The stored water made available by LCRA under this Paragraph D is in addition to the amounts made available under Paragraphs A, B, and C, above. The parties recognize that the City will need periodically to have the level of Lake Austin lowered for periods of time for various purposes including, without limitation, for maintenance of docks and

other structures and for control of aquatic vegetation. LCRA and the City agree to cooperate with each other to establish reasonable guidelines for any such lowering of Lake Austin.

- E. Town Lake Cooling Water. During periods when LCRA is releasing stored water from Lake Travis for any reason and such stored water flows into Town Lake, the City may divert, circulate, and recirculate such water from Town Lake for industrial (cooling) purposes, with no limitation as to amount or rate of diversion or the number or location of points of diversion on Town Lake, provided that not more than 24,000 acre-feet of water may be consumptively used by such use in any year. The City agrees that it will call on the inflow of the Colorado River and its tributaries to be passed through the Highland Lakes to honor the City's industrial (cooling) rights under Certified Filing No. 330, only to the extent that such inflow is needed to be impounded in Town Lake, and/or to the extent that it is necessary to pass such flow through Town Lake to reduce the temperature of the water in Town Lake, to allow the City to divert and use such water for industrial (cooling) purposes at all times to the full extent authorized under Certified Filing No. 330. LCRA agrees that during periods when it is not otherwise releasing sufficient stored water from Lake Travis, it will release such additional amounts of stored water requested by the City and deliver such water to Town Lake, in addition to releases of inflows and other stored water, to the extent that such additional stored water is needed to be impounded in Town Lake, and/or to the extent that it is necessary to pass such additional flow through Town Lake to reduce the temperature of the water in Town Lake, to allow the City to divert and use such water for industrial (cooling) purposes at all times to the full extent authorized under Certified Filing No. 330. The stored water made available by LCRA under this Paragraph E is in addition to the amounts made available under Paragraphs A, B, and C, above.

- F. Decker Lake Makeup. LCRA agrees to make available to the City for diversion by the City at the City's diversion point D-0470 (Decker Lake) on the Colorado River, up to 16,156 acre-feet of such water per year to the extent needed to firm up and/or supplement the City's independent water rights, and impound such water in Decker Lake for subsequent use therefrom for industrial (cooling) purposes. The City agrees to give LCRA prior notice of the duration and rate of the City's projected diversions of such water. The stored water made available under this Paragraph F is in addition to the amounts made available under Paragraphs A, B, and C, above, and is not subject to charges of the Water Rate by LCRA pursuant to Paragraph H(3).
- G. City's Service Area and Interbasin Transfers. The City agrees that all firm and/or stored water made available by LCRA to the City for municipal use, industrial use, and/or irrigation use pursuant to Paragraphs A, B, and C hereof shall only be used within the area described/depicted in Exhibit F, attached hereto and incorporated by reference, which includes (1) those areas on the Effective Date located within the City's municipal boundaries and the City's extraterritorial jurisdiction; (2) those areas outside the City's extraterritorial jurisdiction receiving retail service; and (3) those areas served by all customers having the right to water from the City under wholesale contracts in existence on the Effective Date. LCRA agrees that the City may, without prior written consent of LCRA, revise Exhibit F from time to time to reflect expansion of the City's municipal boundaries by annexation and changes in the City's extraterritorial jurisdiction. The City agrees that, if it intends subsequent to the Effective Date to provide retail service to additional areas outside the City's extraterritorial jurisdiction not described/depicted in Exhibit F, the City shall provide notice to LCRA of the City's intention to use the firm and/or stored water made available by LCRA to the City for municipal use, industrial use, and/or irrigation use pursuant to paragraphs A, B, and C hereof to provide retail service

to such areas. LCRA agrees that it will take no action to prevent the City from taking such action. The City agrees that, if it intends to provide treated water outside the City's extraterritorial jurisdiction under a wholesale contract to be entered into subsequent to the Effective Date, it may require the customer party to the contract to provide its own raw water purchased by the customer from the LCRA or some other source, and the City will revise Exhibit F to reflect the additional customer. Unless otherwise required by law, the City agrees to provide reasonable notice to LCRA if the City intends to take action subsequent to the Effective Date, whether by annexation, changes to the City's extraterritorial jurisdiction, or by entering into a wholesale contract to provide treated water under a wholesale contract, that will affect the City's service area described/depicted in Exhibit F and the City will revise Exhibit F and shall submit to LCRA the revised Exhibit F within thirty (30) days of such action. Failure by the City to notify LCRA of an annexation shall not (1) invalidate that annexation or (2) breach this First Amendment, the 1987 Agreement, or the 1966 Agreement. The City can cure failure to notify by providing a revised Exhibit F. The City may not extend its service area in accordance with that annexation until the City provides notice to LCRA of the annexation and submits a revised Exhibit F. To the extent allowed by the Texas Natural Resource Conservation Commission, all water transferred and used by the City outside of the Colorado River Basin or outside of the boundaries of LCRA's ten-county statutory district shall be deemed to be transferred and used under the City's independent water rights and so reported by the City, in which case no approval by LCRA shall be required.

- H. Additional Consideration. In addition to the other consideration given by the City to LCRA pursuant to the terms of this Agreement and pursuant to the terms of the 1987 Comprehensive Water Settlement Agreement by and between the City and LCRA, the

City shall pay LCRA for firm and/or stored water made available by LCRA to the City pursuant to the terms of this Agreement as follows:

- (1) As shown in Exhibit G attached hereto, LCRA agrees to impose no charge upon the City during the term of this Agreement and during the following fifty-year period, should the City elect to exercise its option to extend the 1987 Agreement to January 1, 2101, for the first 150,000 acre-feet of water diverted by the City in any calendar year for municipal use, industrial use, and/or irrigation pursuant to Paragraphs A, B, and C hereof, regardless whether the water is diverted by the City pursuant to the City's run-of-river water rights or is firm dependable water made available by LCRA under this Agreement.
- (2) As shown in Exhibit G attached hereto, LCRA agrees to impose no reservation fee during the term of this Agreement and during the following fifty-year period should the City elect to exercise its option to renew and extend appropriate sections of the 1966 Agreement for any portion of the first 250,000 acre-feet of firm and/or stored water made available by the LCRA to firm up and/or supplement the water diverted under the City's independent water rights by the City for municipal use, industrial use, and/or irrigation pursuant to Paragraphs A, B, and C hereof. LCRA agrees to require no additional payment as reservation fee for any portion of the First Amendment Additional Amount during the term of the Agreement and during the following fifty-year period should the City elect to exercise its option to renew and extend appropriate sections of the 1966 Agreement.

- (3) Except as otherwise provided in Paragraph H(4) below, the City agrees to pay LCRA an amount of money equal to the Water Rate (hereinafter defined) applicable for the previous year multiplied by the amount of water, if any, by which the Payment Amount (hereinafter defined) for the previous year exceeds 150,000 acre-feet regardless of whether the water is diverted by the City pursuant to the City's run-of-river water rights or is firm dependable water made available by LCRA under this Agreement. The "Water Rate" applicable for any year is that rate determined by the Board of Directors of LCRA to be in effect on January 1 of that year for LCRA's sales of firm and/or stored water under this Agreement for municipal use, which rate shall be just and reasonable as required by law. The Water Rate currently in effect for such sales is \$105.00 per acre-foot of water diverted. The "Payment Amount" for any year is the sum of the following:
- (a) the total amount of water diverted by the City during that year at the Points of Diversion for municipal use pursuant to Paragraphs A and B hereof; plus
 - (b) the net amount of water diverted by the City during that year at the Other Use Points of Diversion for industrial use and irrigation pursuant to Paragraph C hereof, such amount specifically not to include any water diverted by the City for such purposes of use under independent water rights that are held by the City at such time.

The Payment Amount shall not include any firm and/or stored water diverted or used by the City or otherwise made available by LCRA pursuant to Paragraphs D, E, and F hereof.

- (4) To postpone the date when the City will be required to make payments to LCRA in accordance with Paragraph H(3) above, the City in accordance with Paragraph H(5) below, agrees to make to LCRA, and LCRA agrees to accept, a payment for the right to divert in any calendar year amounts of water in excess of the 150,000 acre-feet and up to and including 201,000 acre-feet for municipal use, industrial use, and/or irrigation pursuant to Paragraphs A, B, and C hereof. The parties agree that when the annual average amount of water diverted by the City during any calendar period of two consecutive years exceeds 201,000 acre-feet per year for municipal use, industrial use, and/or irrigation pursuant to Paragraphs A, B, and C hereof, the City will pay LCRA for all of the water in excess of 150,000 acre-feet diverted by the City in all subsequent calendar years for municipal use, industrial use, and/or irrigation pursuant to Paragraphs A, B, and C hereof with said amount of money to be determined by LCRA in accordance with Paragraph H(3) above, regardless of whether the water is diverted by the City pursuant to the City's run-of-river water rights or is firm dependable water made available by LCRA under this Agreement. Should the City decide to exercise its option to extend the term of the 1987 Agreement to January 1, 2101, the rate charged by the LCRA for any and all amounts of water in excess of 150,000 acre-feet will be the Water Rate as defined in Paragraph H(3), above, in effect at that time and as may be amended from time to time.

- (5) The parties recognize that simultaneously with the execution of this First Amendment, the City has paid the LCRA \$100 million. The payment of \$100 million made by the City in accordance with this Paragraph H(5) is as follows: \$27,337,448 for the right to divert and use for municipal use, industrial uses, and/or irrigation pursuant to Paragraphs A, B, and C hereof, the amounts of water above 150,000 acre-feet and up to and including 201,000 acre-feet for the period beginning on the Effective Date and ending at the end of any calendar period of two consecutive years during which the City's use for municipal, industrial and irrigation purposes pursuant to Paragraphs A, B and C hereof exceeds 201,000 acre-feet per year, as discussed in Paragraph H(4), above, and \$72,662,552 in payment of a reservation fee for the First Amendment Additional Amount.

Subject to the provisions of the LCRA Act and any other applicable law and the Master Resolution authorizing the LCRA financing program adopted by the LCRA Board of Directors on September 22, 1999, and any future changes, supplements, additions or replacements of same, the LCRA intends to utilize the \$100 million received from the City in accordance with this Paragraph H(5) for improvements to dams and hydroelectric facilities on the Colorado River; for the purchase of water rights; for expansion of LCRA's Hydromet system; for flood management projects; for water quality management and other river management costs; and for other general and administrative costs of the LCRA's WaterCo line of business related to river management functions and the repayment of any debt associated with any such purposes. The LCRA will not

dedicate any of the \$100 million received from the City in accordance with this Paragraph H(5) for purposes of funding the costs of the water transmission line expansion of the West Travis County Regional Water System into western Travis and northern Hays counties. LCRA agrees to separately account for the \$100 million paid by the City to LCRA pursuant to this Paragraph H(5). The LCRA further agrees that such separate accounting will be audited on an annual basis and a copy of the auditor's annual report will be provided to the City showing the use of the funds pursuant to this Paragraph H(5).

- (6) The City agrees to pay LCRA an amount of money equal to the Additional Charge (hereinafter defined), if any, multiplied by the number of acre-feet of water diverted by the City at the Lake Travis Point of Diversion or some other point of diversion on Lake Travis subsequently identified by the City during the immediately preceding calendar year up to a maximum payment of \$1,000,000 in any year. The "Additional Charge" is a fixed rate of \$20.00 per acre-foot. LCRA agrees that the Additional Charge shall not be increased and that the maximum charge upon the City under this Paragraph H(6) shall not exceed \$1,000,000 in any year. There shall be no charge imposed upon the City under this Paragraph H(6) for any calendar year during which no water was diverted by the City at the Lake Travis Point of Diversion or some other point of diversion on Lake Travis subsequently identified by the City. In each year that the City is obligated to make payments to LCRA pursuant to the requirements of Paragraph H(3) and H(4) above and pursuant to this Paragraph H(6), the City shall pay LCRA the greater of the amounts owed as determined under

Paragraphs H(3) and H(4) as compared to the payments owed under this Paragraph H(6).

- I. Appeal of LCRA's Water Rate. At any time, the City has the right to appeal or otherwise challenge in a legal or regulatory proceeding the Water Rate as defined in Paragraph H(3).
- J. Reduction of First Amendment Additional Amount by City. After the tenth (10th) anniversary of the Effective Date of this First Amendment, and every ten (10) years thereafter throughout the term of the Agreement, the City may notify LCRA that the City intends to permanently reduce the First Amendment Additional Amount by up to 25,000 acre-feet a year. Provided, however, the aggregate amount by which the City may permanently reduce the First Amendment Additional Amount shall not exceed 25,000 acre-feet. After the City gives LCRA one (1) year's written notification of the City's intent to reduce the First Amendment Additional Amount, LCRA and the City agree to negotiate such a reduction in the First Amendment Additional Amount and (1) any related offsetting credit based upon the value of the water at the time of such reduction, to the City of a prorated portion of any future payments otherwise due to LCRA with the credit to be applied to future payment otherwise due to LCRA by the City pursuant to Paragraph H(4) and/or (2) an increase above 201,000 acre-feet in the amount of water for which the City has paid pursuant to Paragraph H(4).
- K. Water Rights. Nothing in this Agreement shall in any way be construed as a waiver or abandonment by the City or by LCRA of any of their respective water rights, or as a reduction, limitation or restriction of those rights. Nothing in this 1966 Agreement shall be construed as constituting an undertaking by LCRA to furnish water to the City except pursuant to the terms of this Agreement. Nothing in this Agreement shall in any way be construed to limit the City or LCRA in hereafter seeking the grant of amendments to their

respective water rights, the grant of additional rights to water from any source or at any location, or the acquisition of existing rights from third parties, or to limit the parties in opposing the grant of any such amendments or additional rights.

- L. Billing and Payment. In addition to the payment requirement set forth in Paragraph H(5) above, LCRA shall submit one bill for the amount, if any, due under Paragraphs H(3), H(4), and H(6) hereof for each year, on or before January 15 of the following year. Each such bill shall be paid by the City at LCRA's office in Austin, Texas, by check or bankwire on or before sixty (60) days from the date of receipt of the bill. Without limiting LCRA's rights in such event, if the City fails to pay the full amount due LCRA when the same is due, as herein provided, interest on the unpaid amount shall accrue at the maximum rate of interest allowed by law, such interest to apply from the date when such payment was due until such payment is made. In addition, the City shall be required to reimburse LCRA for all costs incurred by LCRA in seeking to collect any such payment, including, without limitation, reasonable attorneys fees. If the City should dispute its obligation to pay all or any part of the amount stated in any bill, in addition to all other rights that the City may have under law, the City may pay such amount under protest, in which case the amount in dispute shall be deposited by LCRA in an interest bearing account acceptable to both the LCRA and the City pending final resolution of such dispute.
- M. Metering of Diverted Water. To measure the amount of water withdrawn from each Point of Diversion for municipal use, and to measure the amount of firm and/or stored water withdrawn from each Other Use Point of Diversion for industrial use or irrigation, the City agrees at the City's expense to install (if such facilities are not already installed)

such flow meters and recording devices as are approved by LCRA, such meters to permit, within five percent (5%) accuracy, determination of quantities of water withdrawn in units of 1,000 gallons at such points of diversion for such purposes of use; provided, however, that the City shall not be obligated hereunder to install or maintain any flow meter to measure any water diverted pursuant to Paragraph E above. Such meters may be calibrated at any reasonable time by either party to this agreement, provided that the party making the calibration shall notify the other party at least two (2) weeks in advance and allow the other party to witness the calibration. LCRA may install, at its expense, check meters in or to any of the City's metering equipment at any time and may leave such check meters installed for such periods as is reasonably necessary to determine the accuracy of the City's metering equipment. On or before the first day of each month, LCRA shall have the right to make a reading of the meters installed by the City at each Point of Diversion. The City shall provide reasonable means of access to the meters for the representatives of LCRA.

Further, such meters shall be tested for accuracy by and at the expense of the City at least once each calendar year at intervals of approximately twelve (12) months and a report of such tests shall be furnished to LCRA. However, in the event any question arises at any time as to the accuracy of any such meter, such meter shall be tested promptly upon the demand of LCRA, the expense of such test to be borne by LCRA if the meter is found to be correct and by the City if it is found to be incorrect. Readings within five percent (5%) of accuracy shall be considered correct. If, as a result of any test, any meter is found to be registering inaccurately (i.e., in excess of five percent (5%) of accuracy), the readings of such meter shall be corrected at the rate of its inaccuracy for any period

which is definitely known and agreed upon or, if no such period is known and agreed upon, the shorter of the following periods shall be used as the basis for correction:

- (1) a period extended back either sixty (60) days from the date of demand for the test, or if no demand for the test was made, sixty (60) days from the date of the test; and
- (2) a period extending back half of the time elapsed since the last previous test; and the records of readings shall be adjusted accordingly.

Following each test of a meter, the same shall be adjusted by the City to register accurately. The City shall notify LCRA prior to making each test of any of the City's meters and LCRA shall have the right to have a representative present at each test to observe the same and any meter adjustments found to be necessary.

If the records of meter readings are adjusted pursuant to this Paragraph M, LCRA shall correct any bill submitted pursuant to Paragraph L above that includes charges for the period for which records of readings were adjusted, LCRA shall issue a corrected statement ("Corrected Statement"). If the City was charged and paid to LCRA more than the amounts shown on the Corrected Statement, the LCRA shall refund to the City the difference between the amount shown on the Corrected Statement and the amount paid by the City, or at LCRA's option credit the difference to the City's next annual statement submitted pursuant to Paragraph L above. If the City was charged and paid to LCRA less than the amounts shown on the Corrected Statement, the City shall pay to the LCRA the difference between the amount shown on the Corrected Statement and the amount previously paid by the City. Such refund or payment shall be paid or credited by one

party to the other by check or bankwire on or before ninety (90) days from the date of mailing of the Corrected Statement.

- N. Availability of Water. Notwithstanding any other provisions herein, LCRA does not represent or warrant that water will be available at any particular time or place or that Lakes Buchanan and Travis will be retained at any specific level at any particular time. It is fully understood by the parties hereto that the level of said lakes will vary as a result of LCRA's operation of its dams on the Colorado River and that this instrument is merely an agreement to require LCRA to make water available when and if water is present in said lakes or other sources made available in the Colorado River and its tributaries to LCRA, and to allow the City to make withdrawals of such water subject to applicable laws respecting the distribution and allocation of water during shortages of supply. If LCRA is unable to make water available at any time during the calendar period when the City is exercising its right to divert amounts of water in excess of 150,000 acre-feet and up to and including 201,000 acre-feet and for which the City has paid LCRA pursuant to Paragraph H(5) above, LCRA shall refund to the City a portion of the payment proportional to the amount of water not available.
- O. Pumping Facilities. The City's pumping and related facilities shall be installed, operated and maintained by the City at the City's sole expense and risk.
- P. Quality. LCRA makes no representation as to the quality of the water in Lakes Travis and Buchanan or from any other sources made available in the Colorado River and its tributaries to LCRA.
- Q. Impact Committee. The City and LCRA agree to establish, commencing within six (6) months after the Effective Date of this Agreement, a joint committee to discuss the

impact on the environment of water supply decisions by the City and the LCRA regarding the provision of water and wastewater services within Bastrop, Hays, Travis and Williamson Counties that affect the quality of water of the City or LCRA. The committee shall consist of three (3) members appointed by the City Council of the City and three (3) members appointed by the Board of the LCRA. The committee shall submit regular reports to the City Council and the Board of the LCRA for so long as the parties hereto deem it appropriate. After five (5) years, the committee is dissolved unless the parties mutually agree otherwise.

- R. Notice. Each notice under this agreement shall be mailed by certified mail, return receipt requested, and shall be effective on the date actually received. All notices and bills to the City shall be addressed to:
- Director, Water and Wastewater Utility
City of Austin, Texas
P.O. Box 1088
Austin, Texas 78767

and all notices and payment to LCRA shall be addressed to:

General Manager
Attention: WaterCo
Lower Colorado River Authority
P.O. Box 220
Austin, Texas 78767

Either party may change its address by giving written notice of such change to the other party.

- S. No Third Party Beneficiary. The parties are entering into this agreement solely for the benefit of themselves and agree that nothing herein is intended to confer nor shall be

construed to confer any right, privilege or benefit on any person or entity other than the parties hereto.

- T. Captions. The captions and headings appearing in this Agreement are inserted merely to facilitate reference and shall have no bearing upon the interpretation thereof.
 - U. Severability. In the event that any clause or provision of this Agreement shall be held to be invalid by any court of competent jurisdiction, the invalidity of such clause or provision shall not affect any of the remaining provisions hereof.
 - V. Waiver. Any waiver at any time by either party with respect to a default or any other matter arising in connection with this Agreement shall not be deemed a waiver with respect to any subsequent default or matter.
- (6) Section 3.3 of the 1987 Agreement is stricken and this new Section 3.3 is substituted to read as follows:

“Continued Effectiveness. Except and to the extent that the 1966 Agreement and the contracts and agreements referred to in Section 3.2(b) above are modified, amended, and/or changed herein, said in full force and effect in accordance with the provisions contained therein until terminated as provided therein and as may be amended herein.”

- (7) Section 6.2 of the 1987 Agreement is stricken and this new Section 6.2 is substituted to read as follows:

“Term. This Agreement shall be in full force and effect to January 1, 2051. In the event that the City exercises its option pursuant to Section 3.2 to renew applicable sections of the 1966 Agreement relating to LCRA making available a firm water supply to the City

for an additional fifty-year period or if LCRA elects to exercise its option to renew applicable sections of the 1966 Agreement relating to electric power, use of City property, Tom Miller Dam, and the use of water for the generation of hydroelectric power at Tom Miller Dam for an additional fifty-year period, then this Agreement shall be in full force and effect until January 1, 2101."

- (8) New Section 6.11 is hereby added to read as follows:

"Force Majeure. In the event that either the City or LCRA shall be prevented from performing any of its obligations due under the terms of the First Amendment as a result of some act, decision, or order of the Legislature or a court of the State of Texas, which by the exercise of due diligence neither the City nor LCRA was able to prevent or overcome, the City and LCRA shall each be excused from any further performance of the obligations and undertakings to make payments and to provide the First Amendment Additional Amount, and the LCRA shall refund a proportional amount of the monies by the City previously paid by the City as a reservation fee for the First Amendment Additional Amount and for any amount of water above 150,000 acre-feet and up to and including 201,000 acre-feet not yet used, nor to be used in the future, by the City."

- (9) New Section 6.12 is hereby added to read as follows:

"Short Term Sales of Firm Water to Third Parties. In accordance with applicable LCRA Board Policies as amended from time to time, and consistent with the intent of the parties expressed in the

Memorandum of Understanding (MOU), dated June 8, 1999, LCRA agrees to adopt procedures to implement such policies as well as the parties' intent expressed in the June 8, 1999 MOU. LCRA agrees that the City shall be a party to any agreement with a third party for purchase on a short-term basis of any portion of the water reserved by the City pursuant to this First Amendment."


(10) New Section 6.13 is hereby added to read as follows:

"Mutual Release. The parties hereby mutually release each other from any claims or causes of action, if any, accruing prior to the Effective Date and arising out of, and directly related to, the provisions of Section 2 of the 1987 Agreement related to proposed construction of Water Treatment Plant No. 4 by the City."

All Sections of the 1987 Agreement not amended hereby shall remain in full force and effect.

IN WITNESS WHEREOF, this First Amendment to the December 10, 1987 Comprehensive Water Settlement Agreement Between the City of Austin and the Lower Colorado River Authority is executed as of the date first written above on behalf of the City and LCRA by their respective authorized officers, in multiple counterparts, each of which shall constitute an original.

CITY OF AUSTIN, TEXAS

By: 
Jesus Garza, City Manager

ATTEST: 

LOWER COLORADO RIVER AUTHORITY

By: 
Mark Rose, General Manager

ATTEST: 

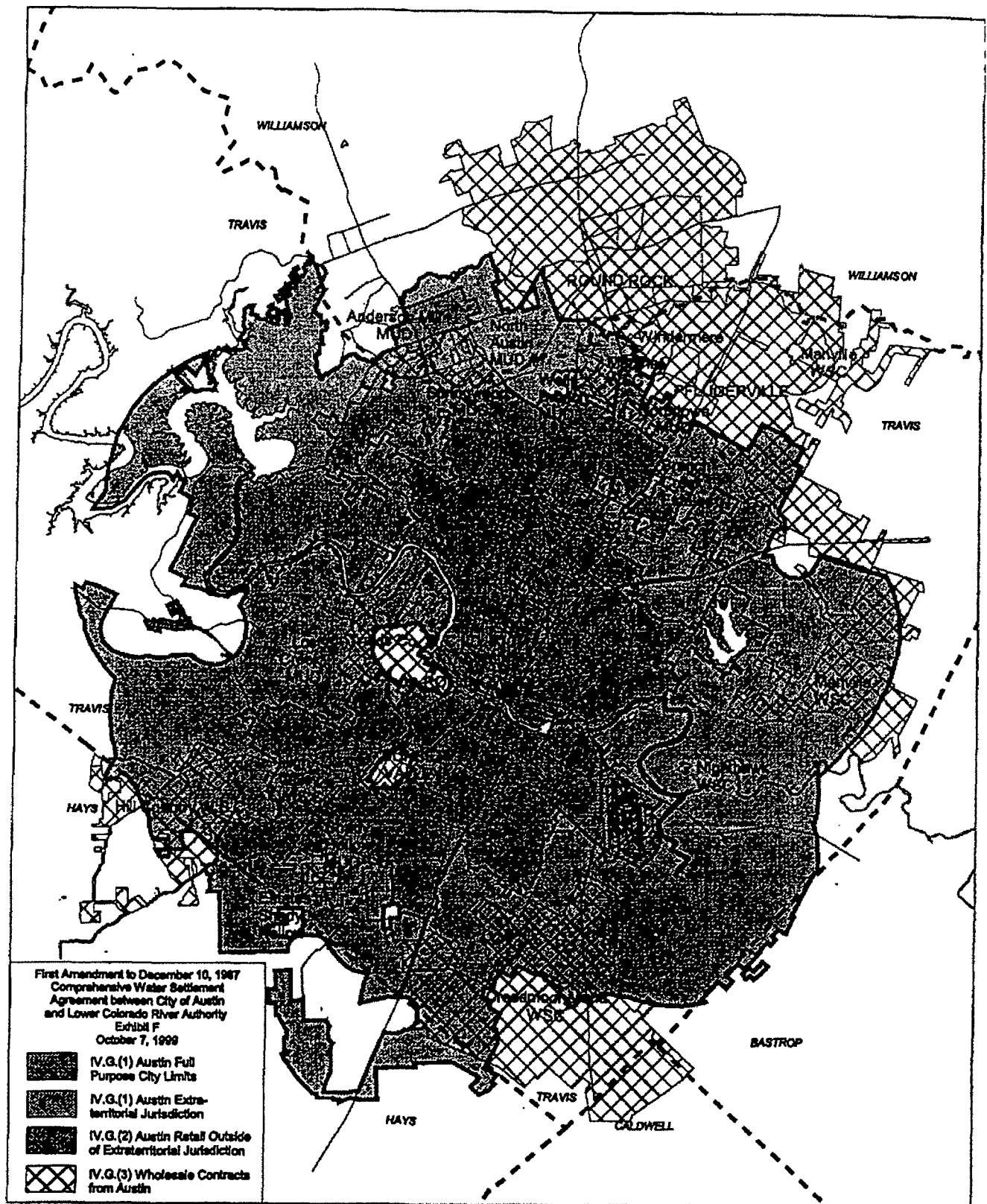
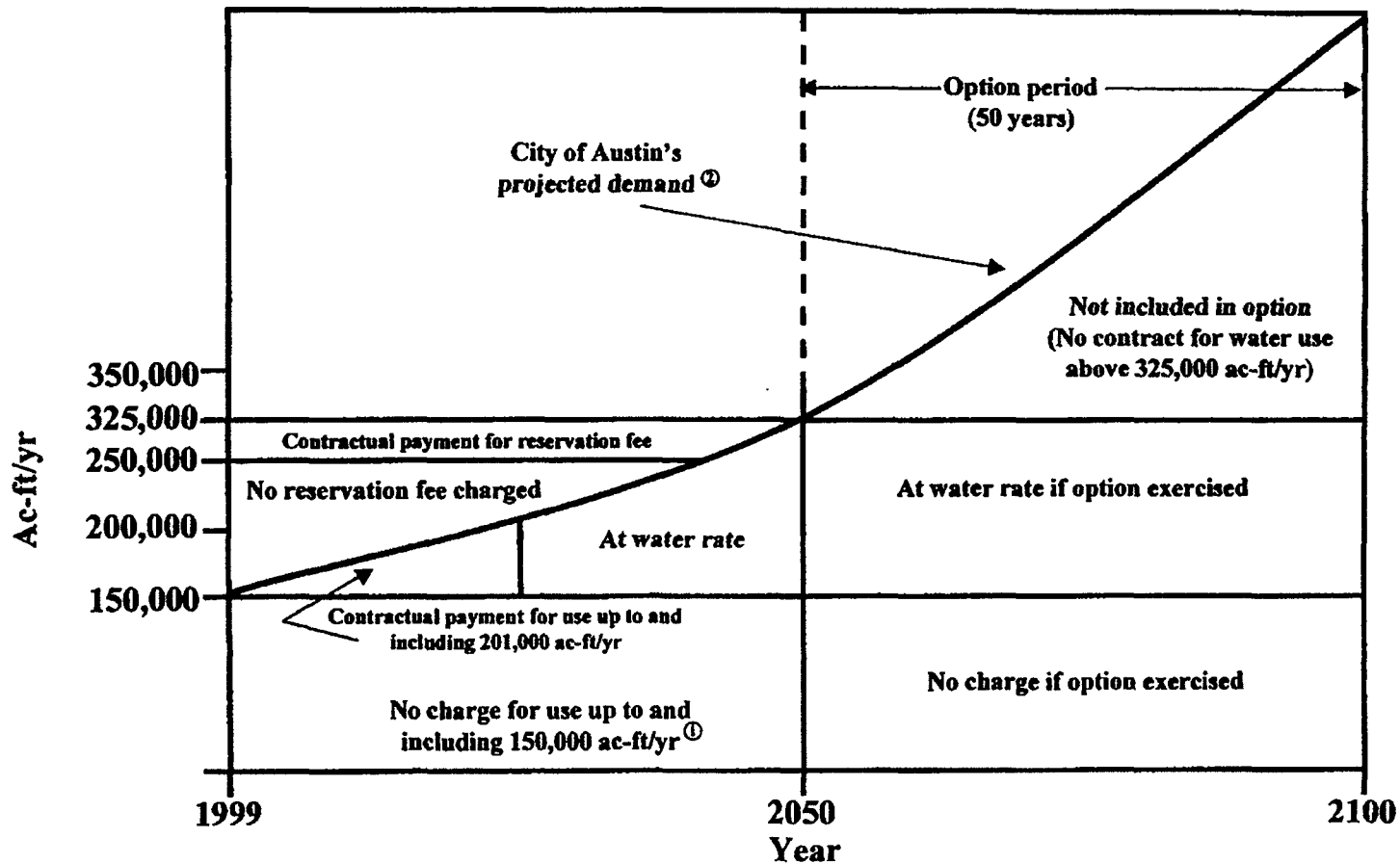


EXHIBIT F

Exhibit G

(Illustrative purposes only)



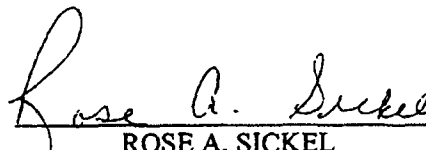
① Consists of City of Austin's independent run-of-river water rights firmed up and/or supplemented with water from the LCRA.

② Based on 1999 projections. Actual demand curve may vary. Dates are approximate. Annual water use volumes, not dates, control changes in payment requirements.

THE STATE OF TEXAS §

COUNTY OF TRAVIS §

I, Rose A. Sickel, Associate City Clerk of the City of Austin, do hereby certify that the foregoing instrument is a true and correct copy of the First Amendment to December 10, 1987 Comprehensive Water Settlement Agreement between the City of Austin and Lower Colorado River Authority, executed the 7th day of October, 1999, consisting of 30 pages, as on file in the City Clerk's Office, this 17th day of November, 1999.


ROSE A. SICKEL
ASSOCIATE CITY CLERK
CITY OF AUSTIN



**SETTLEMENT AGREEMENT BY AND BETWEEN
THE CITY OF AUSTIN
AND THE
LOWER COLORADO RIVER AUTHORITY
REGARDING JOINT WATER RESOURCE MANAGEMENT
AND THE RESOLUTION OF CERTAIN REGULATORY
MATTERS PENDING AT THE
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

EFFECTIVE DATE: JUNE 18, 2007

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The City of Austin ("Austin") and the Lower Colorado River Authority ("LCRA") enter into this Settlement Agreement Regarding Joint Water Resource Management and the Resolution of Certain Regulatory Matters Pending at the Texas Commission on Environmental Quality ("Settlement Agreement").

I. RECITALS

A. General Recitals

(1) Austin and LCRA (the "Parties") enter into this Settlement Agreement to carry out a new, collaborative management structure to jointly administer each entity's individual water rights as an integrated management system so as to optimize the utilization of available water supplies for both organizations and the Lower Colorado Basin (the "Basin").

(2) The Parties also wish to resolve disagreements over certain regulatory matters now pending at the Texas Commission on Environmental Quality ("TCEQ"), and to establish how the Parties will share the Beneficial Use of Return Flows discharged from Austin's current and future wastewater treatment plants.

(3) The Parties also wish to clarify the Parties' existing contractual commitments related to water supply to resolve uncertainty and reduce the potential for future disputes regarding such commitments.

(4) The Parties believe that optimizing the utilization of the Parties' available water supplies will also work to benefit other interests in the Basin, especially downstream water users and the environmental flow needs of the Colorado River and the Matagorda Bay system.

B. Recitals Regarding the Parties

(1) Austin holds water rights to the Colorado River totaling approximately 330,000 acre-feet of water per year (AFY). These include Certificates of Adjudication (COA) Nos. 14-5471, as amended, and 14-5489, as amended (collectively, "Austin's Existing Water Rights.").

(2) The Austin Water Utility currently serves a population of approximately 830,000 people and associated businesses; currently diverts from the Colorado River approximately 165,000 AFY under Austin's Existing Water Rights and LCRA's Existing Water Rights for treatment at three separate water treatment plants; and currently discharges approximately 100,000 AFY of Return Flows to the Colorado River from two separate wastewater treatment plants.

(3) Austin is currently planning and designing a fourth water treatment plant ("WTP 4") that will draw its water directly from Lake Travis.

(4) Austin Energy currently owns all or part of five power plants that rely in whole or in part on water drawn from the Colorado River for steam electric purposes. These include the steam electric needs for generating facilities located on Town Lake and Decker Lake; and at the Sand Hill Energy Center; the Fayette Power Project; and the South Texas Project nuclear operating plant. Depending on climate and plant operations, Austin's water demands for these existing facilities can reach about 40,000 AFY.

(5) Austin also uses raw water diverted from the Colorado River for purposes of irrigating certain city-owned recreational facilities, such as the sports fields located at Zilker Park in central Austin. Diversion and use of 150 acre-feet raw water is authorized to be used for these purposes on a perpetual basis by Certificate of Adjudication No. 14-

5471, with an additional amount of 1000 acre-feet authorized for use only through December 31, 2011, under COA No. 14-5471A.

(6) LCRA holds water rights to the Colorado River totaling more than 2.1 million AFY. These include the right to divert and use up to 1.5 million AFY from lakes Buchanan and Travis (COA Nos. 14-5478 & 14-5482), and another 636,750 AFY under downstream run-of-river water rights associated with the Gulf Coast (COA No. 14-5476, as amended), Lakeside (COA No. 14-5475, as amended), Garwood (COA No. 14-5434, as amended), and Pierce Ranch (COA No. 14-5477, as amended) operations. LCRA also holds several smaller water rights for Lakes Marble Falls, LBJ (including Ferguson Power Plant), and Inks (COA Nos. 14-5479, 14-5480, & 14-5481), the Lometa Reservoir (Permit No. 5715), interbasin transfer of water to the City of Leander (Permit No. 5677), and for its downstream power plant operations (COA Nos. 14-5474 & 14-5473) (collectively, "LCRA's Existing Water Rights").

(7) As a conservation and reclamation district created under Section 59, Article XVI of the Texas Constitution, LCRA is charged with the control, storing, preservation, and distribution of the waters of the Colorado River and its tributaries within its boundaries for any useful purpose, and may use, distribute and sell such water for any such purpose, as authorized by state law. Currently, LCRA has existing contractual commitments and Board resolutions committing about 510,000 AFY on a firm basis and has supplied approximately 118,500 AFY of stored water and 244,178 AFY of run-of-river water on an average interruptible basis to irrigation customers within the Gulf Coast, Lakeside, and Garwood operations and Pierce Ranch over the last eleven years. These commitments include 63,900 AFY reserved for steam electric purposes at LCRA's own power plants (Ferguson Power Plant, Sim Gideon, Lost Pines, and the Fayette Power Project). From

LCRA's Lake Buchanan and Lake Travis rights, LCRA has dedicated approximately 33,400 AFY to providing water for instream flows and freshwater inflow needs on a firm basis and has provided an average of 71,100 AFY of interruptible water supply for such purposes over the past eleven years. Further, LCRA is currently studying the feasibility of developing up to 150,000 AFY of firm water supply for the San Antonio Water System ("SAWS"). LCRA is a party to a number of agreements that also affect LCRA's management and operation of its water rights, including agreements with Austin (as identified in this Agreement), the Federal Emergency Management Agency, the Colorado River Municipal Water District, Brown County Water Improvement District No. 1, the City of San Angelo, and the STP Nuclear Operating Company.

(8) LCRA is also charged with managing the waters of the lower Colorado River basin to prevent or aid in the prevention of damage to person or property from flooding of the Colorado River and its tributaries, and may provide for the study, correcting, and control of both artificial and natural pollution of all groundwater or surface water of the Colorado River and its tributaries within its boundaries.

C. Recitals Regarding Water Rights and Collaborative Water Supply Management

(1) Austin and Central Texas continue to experience rapid population growth and development, therefore the Parties anticipate that water supply demands will continue to increase in the coming decades.

(2) Although the Parties have contractual relationships related to water supply and water management dating back to the 1930s, LCRA and Austin have more recently sought to employ independent water management strategies to meet their respective projected water supply needs. These recent efforts have given rise to a number of disputes between the Parties concerning the existing contractual relationships, the scope

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and magnitude of the Parties' Existing Water Rights and new water rights being requested by the Parties.

(3) Recent studies indicate that collaborative management of LCRA's and Austin's water rights as part of an integrated system offers the Parties the opportunity to optimize the availability of the Parties' water supplies for meeting the water needs of the Parties' customers and the environment, while honoring others' existing water rights. The Parties believe this approach will, in the long-term, maximize the available water supplies and offer cost savings for the Parties' customers by increasing the flexibility available to the Parties in managing water supplies.

(4) Austin and LCRA agree that the best method for pursuing collaborative management of the Parties' water rights is to establish a formal water resource management partnership ("Water Partnership") that will evaluate and implement strategies that will optimize water supplies to meet water needs of the Parties' customers and the environment.

(5) While collaboratively managing these rights in the manner contemplated by this Settlement Agreement, the Parties shall retain full legal ownership of their respective water rights.

D. Recitals Regarding Resolution of Certain Regulatory Matters

(1) Recent regulatory activities concerning water rights have led to legal conflicts between the Parties, primarily regarding ownership and control of Return Flows.

(2) Austin and LCRA wish to resolve these pending legal conflicts so that the Parties will no longer pursue competing objectives, but will instead work in cooperation with each other to the benefit of both Parties and the Basin as a whole.

(3) The Parties agree that the measures identified in this Settlement Agreement will allow the Parties to resolve these legal conflicts.

E. Recitals Regarding Existing and Future Contracts Between the Parties

(1) Austin and the LCRA have entered into various contracts and agreements related to water supply and water management, including but not limited to the agreements dated February 5, 1938, December 15, 1966, December 10, 1987, September 17, 1998, as amended February 3, 2000, and October 7, 1999 (the "1999 Agreement") and January 1, 2000, as amended on November 17, 2004 ("FPP/SHEC Agreement"), (collectively, the "Existing Water Sale Agreements").

(2) The 1999 Agreement is intended to provide up to 325,000 AFY from a combination of Austin's and LCRA's water rights for Austin's municipal water supply needs and other beneficial purposes, and additional supplies for steam electric purposes at Town Lake and Decker Lake.

(3) The Parties agree that clarification of the obligations set forth in the Existing Water Sale Agreements is needed to ensure the success of the Water Partnership and to avoid future disputes.

(4) Except as clarified by this Settlement Agreement, this Settlement Agreement is not intended to amend any of the Existing Water Sale Agreements.

(5) Austin will need supplemental water supplies above those contemplated by the Existing Water Sale Agreements, beginning in approximately 2050. An important component of this Settlement Agreement is securing future water supplies to meet Austin's projected needs of up to 250,000 AFY over and above the water supply contemplated by the Existing Water Sale Agreements, as set forth in Section IV.B.

II. ELEMENTS OF SETTLEMENT AGREEMENT

In consideration of the foregoing recitals and of the mutual benefits, covenants and provisions contained in this Settlement Agreement, and to resolve their existing legal conflicts and address their mutual interest in optimizing the available water supplies and addressing future water supply needs by, the Parties agree to:

- (1) establish the Water Partnership;
- (2) develop a means to share the Beneficial Use of Return Flows;
- (3) take certain actions at the Texas Commission on Environmental Quality;
- (4) clarify the Parties' existing contractual commitments related to water supply; and
- (5) enter into a water supply agreement for supplemental water for the City of Austin.

III. DEFINITIONS

- A. Acre- Foot: The volume of water necessary to cover one acre of surface area to a depth of one foot, which is approximately 325,851 U.S. gallons.
- B. AFY: Acre-feet per year or acre-foot per year.
- C. Austin's Existing Water Rights: Defined at Paragraph I.B(1).
- D. Austin's Service Area: Encompasses: 1) the area within the Impact Fee Service Area Boundary as amended from time to time by the Austin City Council; and 2) the area within the City of Austin Extraterritorial Jurisdiction and Municipal Boundaries as amended from time to time; and 3) all retail and wholesale service areas in which service is provided by the Austin Water Utility within Travis County or any County contiguous to Travis County; and 4) other facilities such as power plants, that are owned in whole or in part by the City of Austin and for which Austin is providing only its share of the water required for the facility wherever located within the Colorado River Basin.

- E. Beneficial Use: Use of the amount of water that is economically necessary for a purpose authorized by law, when reasonable intelligence and reasonable diligence are used in applying the water to that purpose, and shall include conserved water and water provided for instream flows or freshwater inflows to the bays and estuaries.
- F. Carriage Losses: That amount of water that is reasonably expected to be lost due to evaporation, transpiration, recharge, seepage, leakage or other similar losses in the transportation of the water from the point of discharge or release to a point downstream where diversion for Beneficial Use occurs.
- G. Conservation: Those practices, techniques, and technologies that will reduce the consumption of water, reduce the loss or waste of water, or improve the efficiency in the use of water so that a water supply is made available for future or alternative uses. For purposes of this Settlement Agreement, the term "Conservation" does not, however, include Direct Reuse or Indirect Reuse.
- H. Demand Schedule: The projected schedule of Austin's 100-year water demands, as agreed upon under Section IV.B(2)(a)(iii) of this Settlement Agreement.
- I. Direct Reuse: The Beneficial Use of: (a) municipal wastewater or industrial wastewater or process water that is under the direct control of a treatment plant owner or operator or industrial facility; or (b) agricultural tailwater, before such wastewater, process water or agricultural tailwater is either disposed of, discharged, or otherwise allowed to flow into a watercourse, lake, or other body of state water.
- J. Effective Date: As specified in Section IX.K.

- K. Existing Water Sale Agreements: Collective name for all previously established contracts and agreements entered into by the Parties and relating to water supply and management, as identified in Section I.E(1) of this Settlement Agreement.
- L. FPP/SHEC Agreement: The water sale contract between the City of Austin and LCRA dated February 3, 2000, and amended November 17, 2004, wherein Austin has purchased from LCRA a firm water supply to use for steam electric purposes at the Fayette Power Project (FPP) and Sand Hill Energy Center (SHEC).
- M. Indirect Reuse: The diversion of water from a watercourse, lake, or other body of state water, for Beneficial Use, including diversion into storage facilities, of a quantity of water that can be attributed to a specific quantity of Return Flows originating upstream of the diversion point.
- N. LCRA's Existing Water Rights: Defined at Paragraph I.B(6).
- O. Parties: The City of Austin ("Austin") and the Lower Colorado River Authority ("LCRA").
- P. Return Flows: Municipal wastewater or industrial wastewater or process water, or agricultural tailwater, that has been disposed of, discharged, or otherwise allowed to flow into a watercourse, lake, or other body of state water.
- Q. Supplemental Water Supply Agreement: The agreement described by Section IV.B.
- R. Water Partnership: The partnership created by Paragraph IV.A. of this Settlement Agreement.
- S. 1999 Agreement: An agreement between the Parties dated October 7, 1999, and entitled "First Amendment to December 10, 1987 Comprehensive Water

Settlement Agreement Between City of Austin and Lower Colorado River Authority.”

IV. WATER RESOURCE MANAGEMENT PARTNERSHIP AND SUPPLEMENTAL WATER SUPPLY AGREEMENT.

A. Water Partnership

(1) LCRA and Austin, as the two largest water right holders in the lower Colorado River basin, have agreed to develop a cooperative management structure, as outlined in **Exhibit A** of this Settlement Agreement. Through this new approach, the Parties will jointly evaluate and implement strategies to optimize water supplies to meet the long-term water needs of all of their customers and the environment.

(2) The Water Partnership will be organized and carried out under the terms of **Exhibit A** of this Settlement Agreement. The Water Partnership will engage in joint water supply planning and management of both entities' individual raw water supplies as an integrated system, including all existing raw surface water supplies, including Return Flows, of each party and any future water supplies the Water Partnership approves for inclusion. When developing future water supplies, the Parties will consider the needs of their customers and the environment.

(3) The Parties acknowledge and agree that day-to-day management and coordination of the river system will remain LCRA's responsibility. Day-to-day water/wastewater utility planning and operations will remain the responsibility of each party.

(4) The Parties agree that **Exhibit A** may be amended from time to time by written agreement of the Parties without the need to amend this Settlement Agreement.

(5) The Parties shall retain full legal ownership of their respective water rights while collaboratively managing these rights in the manner contemplated by this Settlement Agreement.

B. Supplemental Water Supply Agreement

(1) To address Austin's future water supply needs while also considering other anticipated long-term water supply needs of LCRA's customers, the Parties agree to negotiate a more detailed Supplemental Water Supply Agreement for up to 250,000 acre-feet per year wherein LCRA would agree to develop and make available to Austin and Austin would agree to pay for a supplemental firm water supply. The Parties acknowledge that such detailed agreement is subject to final approval by the Austin City Council and LCRA Board, which shall be sought on or before August 31, 2007, or at such later date if the LCRA General Manager and Austin City Manager agree in writing to a later time period for obtaining such approval.

(2) The Supplemental Water Supply Agreement must contain specific language reflecting the following general concepts, which the Parties may modify by mutual agreement prior to presenting such agreement to their respective governing bodies:

(a) Quantity, Purpose, and Location of Use

(i) LCRA agrees to work within the Water Partnership to make available to Austin an additional firm water supply for municipal, steam electric, and other beneficial purposes to supplement the water supply provided under the Existing Water Sale Agreements. Use of this supply for steam electric and other power plant purposes shall first be considered by the Water Partnership consistent with Section VI of this Agreement.

(ii) Unless otherwise agreed to by the Parties, Austin may not use the supplemental water to be made available under the Supplemental Water Supply Agreement until its firm water demand exceeds 325,000 AFY.

(iii) The timing and quantity of supplemental water that LCRA will