Memorandum



DATE October 14, 2016

To Honorable Mayor and Members of the City Council

Moody's Investors Service Affirms City of Dallas Waterworks and Sewer System Revenue Bond Rating on Outstanding Debt; Outlook Revised

Moody's Investors Service (Moody's) has affirmed the Aa1 rating of the City of Dallas' \$1.6 billion outstanding Moody's-rated utility revenue bonds. However, Moody's changed the rating outlook from "stable" to "negative." Despite language in the City Charter stating that all receipts and revenues from the water utilities department constitute a "separate and sacred fund," Moody's cited the system's direct and possibly indirect exposure to unfunded pension liabilities as the reason for the outlook change.

A copy of the complete report is attached. Please let me know if you have any questions.

M. Elizabeth Reich Chief Financial Officer

M. Elifabeth Reich

Attachment

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Larry Casto, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
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MOODY'S

CREDIT OPINION

14 October 2016

Update

Rate this Research



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City of Dallas, TX Waterworks and Sewer Enterprise

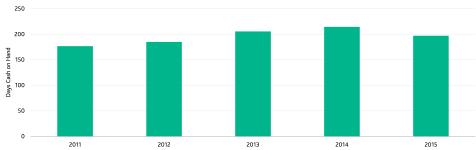
Rating Update - Moody's Affirms Aa1 on Dallas, TX's Utility Revenue Bonds; Outlook Revised to Negative

Summary Rating Rationale

Moody's Investor Service has affirmed the Aa1 rating on the City of Dallas, TX's outstanding Waterworks and Sewer System Revenue Bonds. The rating action affects approximately \$1.6 billion of Moody's rated utility revenue bonds. The rating outlook has revised to negative from stable.

The Aa1 rating reflects the system's large and healthy asset condition, ample water supply and system capacity, strong financial performance, and a manageable debt burden. The Aa1 system revenue rating reflects a two notch rating differential from the city's current Aa3/ negative general obligation limited tax rating, due to the system's role as a regional water supplier, and the fact that the city's rating is pressured by public safety pension obligations, not specifically the financial management of the city's operations or the city's economic base.

Exhibit 1
System's Days Cash on Hand has Remained Healthy Despite Large Ongoing Capital Projects



Source: City of Dallas audited financial reports

Credit Strengths

- » Large and diverse service area that extends well beyond city limits
- » Healthy system liquidity
- » Long history of rate increases to support capital needs

Credit Challenges

- » Elevated ratio of debt to operating revenues; exposure to ERF unfunded pension liability
- » Narrow debt service coverage for the rating category

Rating Outlook

The negative outlook reflects the system's exposure to unfunded pension liabilities relative to the city's Employees' Retirement Fund, which is large relative to operating revenues and expected to increase absent benefit reforms and/or increases to maximum annual pension contributions. The negative outlook also reflects the general concerns that the pension burden on the city's finances will place pressure on the entire entity and although the city maintains a charter to keep system surplus within the enterprise, we believe tough choices will need to be made by the shared city management which could preclude or delay investment or rate adjustments of the system.

Factors that Could Lead to an Upgrade

- » Reduced ratio of debt to operating revenues
- » Significant improvement to debt service coverage level

Factors that Could Lead to a Downgrade

- » Trend of declining system liquidity
- » Trend of narrowing debt service coverage levels
- » Rating downgrade of the city's general obligation bonds coupled with clear linkage between the financial stress of the city related to pension funding with the financial health of the system

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

System Characteristics										
Asset Condition (Net Fixed Assets / Annual Depreciation)	41 years									
System Size - O&M (in \$000s)	310,857									
Service Area Wealth: MFI % of US median	106.%									
Legal Provisions										
Rate Covenant (x)	1.25									
Debt Service Reserve Requirement	DSRF funded at less than 3-prong test OR springing DSRF									
Financial Strength										
	2011	2012	2013	2014	2015					
Operating Revenue (\$000)	527,357	529,883	552,625	566,481	577,362					
O&M (\$000)	251,295	256,095	259,556	251,181	310,857					
Long-Term Debt (\$000)	1,939,736	2,179,708	2,234,622	2,331,887	2,469,024					
Annual Debt Service Coverage (x)	1.81	1.68	1.69	1.70	1.58					
Cash on Hand	176 days	185 days	205 days	214 days	197 days					
Debt to Operating Revenues (x)	3.7x	4.1x	4.0x	4.1x	4.3x					

Service area wealth is estimated based on the median family income of the Dallas-Fort Worth metro area. Source: Moody's Investors Service, City of Dallas audited financial reports

Detailed Rating Considerations

Service Area and Customer Base: Large Wholesale and Retail Service Base; Planning for Long-Term Water Resources

The Dallas waterworks and sewer system serves a growing area of residential, commercial and retail development. Management of the system is provided by departmental administration within the framework of the city's council-manager form of government. Subject to the direction and supervision of the Office of the City Manager, the Director of Water Utilities is charged with management of the system.

The system has 291,000 water accounts and provides water on a wholesale basis to 23 local governments in the metro area. Water supply is available from six surface water impoundments and from water in the Elm Fork of the Trinity River. All of the sources are located in north central and east Texas. The city's dependable connected water supply yield is 431 million gallons per day (MGD) from current connections. Currently, the average demand on the system is 374 MGD and the peak is 619 MGD. Future surface water impoundments are anticipated, including an important connection to Lake Palestine which is under construction and expected to be available after 2020. The city's current water supply is estimated to be adequate until about the year 2027 which increases to 2045 upon completion of the connection to Lake Palestine. Long-term affordable water supply options continue to be identified – the city updated their long range water supply plan in fiscal 2014 in order to secure water through 2070.

The system also includes wastewater collection and treatment, and serves the City of Dallas on a retail basis, and provides treatment services to 11 local governments in the area. Wastewater infrastructure includes over 4,020 miles of pipe and two treatment plants. The plants are permitted to treat 260 MGD on an average daily basis. As of 2015, the average daily usage was 181 MGD.

Debt Service Coverage and Net Working Capital: Historically Adequate Coverage and Regular Rate Increases

The city's trend of annually raising rates is prudent and a favorable credit factor given the utility's increasing expenditure requirements. The City Council, who approves water and sewer rates, has demonstrated willingness to increase rates as needed. Both water and sewer rates for retail service (which represents the majority of system revenues) increased by 4.5% in 2014 and 3.5% in 2015. Retail revenue increase for FY17 are proposed to be 2.6%; FY18 – 3.4%; FY19 – 3.6%; and 3.9% in FY20; rate increases are adopted annually. Retail rates have been increased every year since 2003. Wholesale rates have also increased, as rates were increased by 2.8% in 2014 and 2.2% in 2015.

In fiscal 2015, net revenues available for debt service totaled \$281 million, which covered annual debt service requirements of \$178 million by 1.58x, while the maximum annual debt service (MADS), anticipated in 2017, coverage is a narrower 1.35 times. Over the past three years, net revenues have provided adequate annual debt service coverage of between 1.58 – 1.7 times. City officials have a goal to maintain fiscal year-end maximum debt service coverage of 1.5 times. Prudently, the target is used for budgeting purposes in order to account for any reductions in water revenues and still sufficiently meet the rate covenant and additional bonds test. In 2015, MADS debt service coverage dipped below 1.5 times due to a spike in operating expenses which was not entirely off-set by a corresponding increase in revenues. In fiscal 2015, the system was required to pay \$24.1 million to the Sabine River Authority Escrow Account related to a legal ruling on DWU's Lake Fork Contract. The legal ruling was due to a rate dispute over compensation for untreated water from Lake Fork. The system expects to pass through any ongoing costs related to this ruling to ratepayers, and we expect coverage levels to rebound to historic norms.

Despite a city charter to maintain system revenue in the enterprise, the system is allowed to provide a payment in lieu of taxes (PILOT) to the general fund which was \$21,725,000 in fiscal 2015, \$22,594,000 for 2016, and for 2017 is proposed at \$24,554,000. As of the June 2016 the fiscal 2016-17 budget document indicated Dallas Water Utilities revenues and expenses were estimated to be \$30.9M or 4.8% under budget. Wholesale untreated water revenues were reduced for fiscal 2016 by \$5.1M due to the bankruptcy of Energy Future Holdings, and a nonrenewal of a water transport contract with the North Texas Municipal Water District, and \$25.8M due to lower than budgeted sales.

LIQUIDITY

The system's liquidity has improved, with cash increasing from \$121 million in 2011 to \$167 million in fiscal 2015, representing a healthy 197 days of operating expenditures. Net working capital as of fiscal 2015 was \$242 million, or 81.8% of operating expenses. The city has also adopted a financial policy to maintain an unreserved cash balance such that provides a minimum quick ratio of 1.50 times and 30 days of budgeted expenditures.

Debt and Legal Covenants: Capital Expenditures Bolstered by Replacing Aging System Infrastructure; Adequate Legal Structure

The systems' debt ratio will likely remain elevated in the near term given additional borrowing plans. The fiscal 2015 debt ratio remains elevated at 49% or 4.3 times 2015 operating revenues, which is in line with similarly sized enterprises with substantial capital needs. The system has undertaken a robust capital improvement plan for the system to replace aging infrastructure and expand to accommodate growth. The current annual CIP investment requires \$290-\$395 million annually through 2026. The city uses a combination of commercial paper, revenue bonds and cash contributions from current revenues to fund annual capital needs. The current city council authorization for the CP program is \$600 million. The system's total debt is approximately \$2.1 billion, \$1.6 billion is rated by Moody's.

Legal provisions provide adequate bondholder security. The rate covenant requires net revenues to produce 1.25 times peak debt service, and the additional bonds test is 1.25 times average annual debt service. A reserve fund is required to be maintained at 100% of average annual debt service funded over 60 months. All of the debt service reserves have been cash funded. As of September 2015 the balance in the DSRF was \$101.1 million. Outstanding CP notes have a subordinate lien on system net revenues. Finally, the Bond Ordinance requires equal monthly installments for the next payment of principal and interest due.

DEBT STRUCTURE

The system issues 30 year, fixed rate, revenue bonds to take out the outstanding CP. Overall revenue bond debt structure descends over time. As of July 2016, MADS of approximately \$181 million occurs in 2017, while average annual debt service is about \$107 million. Approximately 42% of principal will amortize within 10 years with a final maturity in 2046.

DEBT-RELATED DERIVATIVES

The city is not a party to any derivative agreements.

PENSIONS AND OPEB

The system funds a portion of the city's single-employer Employee Retirement Fund ("ERF"). As of fiscal 2015, the system was allocated \$17 million of the \$49.1 million in total city contributions to the plan, or about 35% of contributions and 5.8% of system operating expenses. The Moody's Adjusted Net Pension Liability of ERF as of fiscal 2015 was \$2.9 billion, \$1.9 billion of which Moody's has

allocated to the General Fund and the remaining \$1 billion of associated with the system based on contributions. An ANPL of \$1 billion represents 3.4 times 2015 operating revenues.

Management and Governance

Management of the Dallas Waterworks and Sewer System provide departmental administration within the framework of the city's council-manager form of government. Subject to the direction and supervision of the Office of the City Manager, the Director of Water Utilities is charged with management of the system.

The system demonstrates good governance through annual adoption of rate increases to support system needs, and maintenance of policies for debt service coverage and liquidity.

Legal Security

The bonds are secured by a first lien on the net revenues of the system.

Use of Proceeds

Not applicable.

Obligor Profile

The City of Dallas Waterworks and Sewer Enterprise is a large water and sewer utility serving 291,000 retail accounts within the city of Dallas. The system also provides wholesale water and wastewater treatment to numerous local governments in the Dallas - Fort Worth metroplex.

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.moodys.com for a copy of this methodology.

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Memorandum



DATE October 14, 2016

TO Honorable Mayor and Members of the City Council

Moody's Investors Service Rating Downgrade of City of Dallas General Obligation Outstanding Debt; Outlook Revised

Moody's Investors Service (Moody's) has downgraded the rating of the City of Dallas' \$1.6 billion outstanding Moody's-rated general obligation bonds from Aa2 to Aa3. Moody's also changed the rating outlook from "stable" to "negative." Moody's based its actions on concerns about the Dallas Police and Fire Pension System's unfunded liabilities, threats of insolvency due to significant write-downs in its investment portfolio, and increased employee withdrawals from Deferred Retirement Option Plan account. The downgrade only affects the City's general obligation debt.

A copy of the complete report is attached. Please let me know if you have any questions.

M. Elizabeth Reich

Chief Financial Officer

Attachment

c: A.C. Gonzalez, City Manager
Larry Casto, City Attorney
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CREDIT OPINION

14 October 2016

Update

Rate this Research



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City of Dallas, TX

Rating Update - Moody's Downgrades to Aa3 Dallas, TX's GOLT; Outlook Revised to Negative

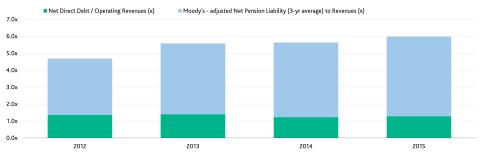
Summary Rating Rationale

Moody's Investors Service has downgraded to Aa3 the city of Dallas, TX's outstanding general obligation limited tax debt. The rating action affects \$1.6 billion of Moody's rated debt. Additionally, we have affirmed the P-1 enhanced ratings on Series 2010A and 2010C Commercial Paper Notes supported by conditional liquidity facilities in the form of Credit Agreements (Liquidity Facilities) from JPMorgan Chase Bank, N.A. for 2010A and Wells Fargo Bank, N.A. for 2010C (collectively, the Banks).

The downgrade to Aa3 from Aa2 is primarily based on the city's exposure to increasing unfunded pension liabilities. Ongoing economic growth and healthy revenue trends, plus the legal ability to implement pension benefit changes that reduce accrued liabilities, continue to support a high investment-grade rating. The downgrade recognizes that despite legal ability to make changes, a number of steps are required to achieve needed pension reforms.

The P-1 ratings are based upon (i) Moody's short-term counterparty risk assessments (CR Assessment) of the Banks which are each currently P-1(cr); and (ii) Moody's assessment of the likelihood of termination of the applicable Liquidity Facility without payment at maturity of the applicable Notes. Events which could cause the Liquidity Facilities to terminate without payment at maturity of the Notes, are directly related to the credit quality of the city.

Exhibit 1
City's ANPL for Combined Pension Plans Continues to Increase with Poor Asset Performance and Caps to Annual Contributions



Source: Moody's Investor Service; City of Dallas audited financial reports

Credit Strengths

- » Large, growing and diverse tax base that anchors the Dallas/Fort Worth metroplex
- » Population and employment growth that surpass national averages
- » Five consecutive years of operating surpluses and growth in operating reserves
- » Ample legal flexibility to raise revenues or cut expenditures

Credit Challenges

- » Outsized unfunded pension liability expected to translate to significant budgetary pressure over the near to medium term
- » Infrastructure needs of the city along with the growing unfunded pension liability may lead to an increase in the debt burden

Rating Outlook

The negative outlook reflects the challenging and complex landscape that the city must navigate to reign-in its growing pension predicament. In order to reduce liabilities in its severely underfunded public safety pension system, the city, employees, the pension system and the state legislature must all reach an agreement on benefit changes. At the same time, the system faces a severe threat of insolvency due to significant write-downs in its investment portfolio, expected negative cash flow in the coming years even if investment returns are relatively cooperative, and an increase in employee withdrawals from Deferred Retirement Option Plan (DROP) accounts.

Factors that Could Lead to an Upgrade

- » Material improvement to annual pension funding; reduction in the Moody's Adjusted Net Pension Liability ("ANPL")
- » Significant increase to operating reserves and liquidity
- » Demonstration of balanced operations inclusive of pension funding at actuarially determined contribution levels

Factors that Could Lead to a Downgrade

- » Lack of progress with respect to proposed solutions to bring the Police and Fire pension fund to a healthy funding level; further material increases to the city's Moody's ANPL
- » Significant increase to the city's debt as a percent of the tax base
- » Reduction in operating reserves to a level inconsistent with the rating category
- » Protracted trend of significant tax base contraction without offsetting rate adjustment

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

Dallas (City of) TX	2011	2012	2013	2014	2015
Economy/Tax Base					
Total Full Value (\$000)	\$ 83,425,479	\$ 81,993,746	\$ 83,681,722	\$ 87,251,522	\$ 93,138,211
Full Value Per Capita	\$ 69,739	\$ 67,920	\$ 68,470	\$ 70,308	\$ 74,854
Median Family Income (% of US Median)	71.2%	70.2%	70.8%	71.0%	71.0%
Finances					
Operating Revenue (\$000)	\$ 1,235,180	\$ 1,237,309	\$ 1,250,319	\$ 1,327,996	\$ 1,377,442
Fund Balance as a % of Revenues	9.0%	10.9%	11.6%	12.3%	14.2%
Cash Balance as a % of Revenues	7.5%	10.5%	11.3%	11.7%	14.4%
Debt/Pensions					
Net Direct Debt (\$000)	\$ 1,801,999	\$ 1,666,932	\$ 1,738,519	\$ 1,617,834	\$ 1,755,435
Net Direct Debt / Operating Revenues (x)	1.5x	1.3x	1.4x	1.2x	1.3x
Net Direct Debt / Full Value (%)	2.2%	2.0%	2.1%	1.9%	1.9%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	N/A	3.3x	4.2x	4.4x	4.7x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	N/A	5.0%	6.2%	6.7%	7.0%

Source: Moody's Investors Service; City of Dallas audited financial reports

Detailed Rating Considerations

Economy and Tax Base: Strong Economic Indicators and Tax Base Growth to Continue Over Near to Medium Term

Dallas, and the broader metro area, have been characterized by positive employment, demographic, and other economic trends over the past several years which will continue through the near to medium term due to continued job and population growth, and points to a stable to growing tax base for the city. Located in north Texas, Dallas is the ninth largest city in the United States, and third largest in Texas after Houston (Aa3 negative) and San Antonio (Aaa stable). Residents in the metropolitan area enjoy a diverse economic base with employment opportunities in the information technology (IT), banking, commerce, medical, transportation, government and logistics sectors, among many others. The city's population is large, and stood at 1.3 million as of 2015. Population growth is among the highest relative to other large cities nationally, and has increased by approximately 8.5% since the 2010 census. Dallas retains its position as having the largest job base in the metropolitan area, serving as home to several fortune 500 companies. As such, Dallas is a regional economic center for the metro area with thousands of people commuting to the city for work. With strong job growth in the city that continues to outpace the nation, the labor force has continued to increase while unemployment remains low. As of July 2016, unemployment in the city was 4.2%, below the state and national rates of 5.1% at the same period.

A strong regional economy in the DFW metroplex has resulted in positive taxable value growth for the city, driven by property value appreciation and construction. Taxable values have shown four years of growth through fiscal 2016, with an increase of approximately 10% for fiscal 2017, bringing the city's tax base to over \$110 billion. Major taxpayer concentration is minimal with the top ten accounting for 5.3% of AV as of fiscal 2016.

Total Full Value (\$000) Annual Percent Change \$120 12% 10% \$100 8% Full Value (\$Billions) \$80 6% 4% \$60 2% \$40 -2% \$20 -4% -6% 2011 2012 2013 2014 2015 2016 2017

Exhibit 3

Dallas' Tax Base Demonstrates Accelerating Growth Coming Out of Recession

Source: City of Dallas; Municipal Advisory Council of Texas

Given the urban nature of the city, Dallas demonstrates wealth levels that are below national medians. Per the 2014 American Communities Survey, the median and per capita family incomes were 71.0% and 97.8%, respectively. Poverty in the city is also elevated and similar to other large cities in the state. As of the 2014 ACS, the percent of the population below the poverty level was 24% and has increased steadily over the past few decades. Other economic indicators in the city are strong. Moody's Analytics reported in July that the metropolitan area continues its above-average expansion which will continue over the coming year supported by corporate relocation underway, as well as retail, healthcare and construction. The metro area's favorable demographic trends and employment mix points to a continuation of above-average performance over the medium term horizon.

Financial Operations: Operating Funds Trend Marked by Reported Positive Operating Performance; Tempered by Pension Funding Shortfalls Driven by Statutory Limitations

The city's financial profile will be challenged to maintain structural balance over the near to medium term largely due to the necessitated increases to pension funding which exceed the growth in projected revenues. Positively the city has posted five consecutive years of General Fund surpluses, though these results are on the back of severe pension underfunding, which has been constrained by statutory caps to contributions and exacerbated by asset losses. Pension funding aside, past General Fund surpluses were generated through management's willingness and ability to make expenditure cuts and increase the property tax levy post-recession. Prudent financial management over the last five years has annually added to General Fund reserves over this period, growing the available balance from a relatively low \$64.7 million (6.5% of General Fund revenues) in fiscal 2010 to \$181.7 million in fiscal 2015, representing a more healthy 15.6% of General Fund revenues. Inclusive of the Debt Service Fund, available operating funds balance totaled \$195.5 million as of fiscal 2015, or 14.2% of operating revenues. While the operating fund balance is relatively low on a percentage basis for the Aa rating category, it is nominally high. Similar to past years, fiscal 2016 General Fund unaudited actuals at year-end indicate a surplus of just under \$5 million. The fiscal 2017 budget was passed in September and contemplates the use of a modest \$2.6 million of reserves for mosquito abatement and election expenses. Positively, the 2017 budget includes a preemptive increase to the city's contribution to the police and fire fund (from 27.5% of payroll to 28.5%) in the hopes that the legislature will adopt proposed reforms to employee pension plans and allow the city to contribute at a higher rate than has statutorily been allowed in the past.

While reported results have been positive, the results are tempered by annual pension underfunding. The maximum allowable pension contribution (aggregate to all three pension plans) in fiscal 2015 was \$147 million net of contributions from the utility system, which was \$12.4 million below the actuarially determined contribution (net of utility support) and nearly \$78 million shy of covering a tread water amount on the combined unfunded pension liability. The "tread water" cost is a calculation of the amount an employer must contribute that, when combined with employee contributions, is equal to current year service cost plus interest on the unfunded pension liability as of the beginning of the year, using each plan's assumed discount rate as the interest rate.

The city's fixed costs for debt, pensions and retiree health care benefits relative to operating revenues are elevated at 30% as of fiscal 2015. Due to the maximum contribution rates of the city's pension plans, however, the city's contributions fall well below the "tread water" benchmark of covering current year benefit accruals plus interest on reported unfunded liabilities. If the city were to contribute at tread water (based on actuarial valuation assumptions rather than GASB), fixed costs would increase to 35% of operating revenues. Fixed costs are inclusive of the city's Other Post-Employment Benefits (OPEB) offered to retirees, which the city funds on a pay as you go basis. In fiscal 2015, the city's OPEB cost was \$14.4 million.

The majority of 2015 operating revenues (General and Debt Service Funds) were derived from property taxes at 51.2%, followed by sales taxes at 20% and service to others at 14%. The city remains well under the statutory maximum for property taxes (\$25/\$1000 of AV) and has levied a combined rate of \$7.97/\$1000 since 2011, when it increased the rate from \$7.48/\$1000 amid declining assessed values. In fiscal 2017, the city is decreasing the levy to \$7.81/\$1000, primarily due to the fact that taxable value growth has been so strong that maintenance of the \$7.97/\$1000 tax rate would have exceeded the effective 8% yield control and trigger rollback tax rate elections. The city does not have the ability currently to seek voter approval for additional sales taxes, though it does maintain the ability to adjust various fees for services.

LIQUIDITY

As of fiscal 2015, the city's General Fund maintained a healthy cash position of \$185.4 million, 15.9% of General Fund revenues. Inclusive of the Debt Service Fund, total operating funds cash was \$198.8 million, or 14.4% of operating revenues.

Debt and Pensions: Slightly Elevated Debt Burden Relative to Peers Typical for High Growth City; Outsized Pension Liability

With considerable infrastructure needs, we expect the city's debt burden to increase in the near term. The city maintains a debt policy which stipulates a maximum debt burden of 4% of the estimated market value of taxable property in the city. The city has typically had a debt burden consistent with the nation and around 2% of the full assessed valuation. Based on the needs of the pension systems as well as other general capital plans, the debt burden may increase the next few years, though no official debt plans have been determined. Presently, the city's outstanding general obligation debt totals \$1.77 billion. This includes \$198 million in pension obligation bonds which are invested in the Employee Retirement Fund (ERF) assets. The city has \$437.3 million of authorized but unissued debt, and may seek voter approval for another bond package in the \$600-\$700 million range within the next 12 months.

In addition to the general obligation debt, the city has moral obligations related to debt issued by the Dallas Convention Center Hotel Development Corporation and the Downtown Dallas Development Authority. The total par amount of debt outstanding related to moral obligation is approximately \$543 million. The 2009 convention center bonds are largely supported by operating revenues, and city and state hotel occupancy tax revenues, among others. Debt service coverage is nearly 1.4 times based on MADS. The 2006 and 2007 tax increment contract revenue bonds issued by the Development Authority are completely supported by incremental property tax revenues generated from the Downtown Connection TIF. The TIF currently carries out further economic development activity via a grant structure for developers with approved projects within the TIF district. TIF revenues provide healthy revenue coverage to bondholders at 2.0 times MADS. Excess revenues then cascade to approved grant projects for developers with ongoing projects (and developer agreements with the city) in the TIF. The city has not forwarded funds to support corporation or authority debt as both are self-supporting, is not required to do so, but legally may in the future in the form of loans or grants, and has in the past stated their support for the projects in the respective official statements.

DEBT STRUCTURE

All of the city's debt is fixed rate. Principal repayment is comparable to national medians with approximately 75% retired within ten years. The city is not a party to any derivative agreements. Debt service costs as of fiscal 2015 were \$250 million, representing a hefty 18.2% of 2015 operating revenues. Debt service as a percent of revenues has been decreasing slightly over the past five years from 22.4% in fiscal 2010, but could increase again depending on future debt plans as discussed. With the growth in the tax base and the strong likelihood of the city to issue additional debt for ongoing capital needs, we believe the annual debt service costs as a percent of operating revenues would remain in line with historic levels.

DEBT-RELATED DERIVATIVES

The city is not a party to any derivative agreements.

PENSIONS AND OPEB

The city's growing unfunded pension liabilities and potential plan insolvency over the medium term, particularly associated with the Police and Fire Pension Plan, represent the primary driver behind the downgrade of the city's GOLT rating. In addition to multiple years of underfunding the actuarially determined contribution due to statutory maximums, poor investment returns and asset write-downs in the city's public safety pension system, and additional pension system liquidity challenges rooted in the Deferred Retirement Option Plan ("DROP") have exacerbated the city's pension challenge. The city participates in three single-employer systems: the Employees' Retirement Fund (ERF), the Police and Fire Pension Fund (P&FF) and the Supplemental Police and Fire Pension Plan. Contribution rates for the systems are set by ordinances or statutes. The ERF and the P&FF are managed by separate boards, both of which have minority representation from the city. Absent major reforms, cash, or both, the P&FF's actuaries project the plan will be insolvent by 2030; sooner if investment returns are not cooperative. If the P&FF were to become insolvent, the impact to the budget would be significant. The ERF maintains a better funded position, but contribution caps and poor returns mean the unfunded liability is not being amortized, and voter approval in November for benefit changes applied to new employees is required in order to reverse a projection of asset insolvency in that fund under new pension accounting standards.

Moody's Adjusted Net Pension Liability ("ANPL") for the city's combined plans, net of support from the water utility, is \$7.6 billion, or 5.5 times 2015 operating revenues, and 6.8% of the most recent fiscal 2017 assessed value. Nearly 75% of the ANPL is associated with the public safety plan. The ANPL of the city is significantly elevated relative to peers. Moody's ANPL reflects certain adjustments we make to improve the comparability of reported pension liabilities. The adjustments are not intended to replace the city's reported contribution information, or the reported liability information of the plans, but to improve comparability with other rated entities.

The unfunded liability of the P&FF has increased dramatically in the past several years due to the write down of illiquid real estate investments that represented a significant portion of the plan's overall investment portfolio. As of the P&FF's most recent actuarial valuation, the fund's assets fell to \$2.7 billion versus reported liabilities of \$5.9 billion, using a 7.25% discount rate. Liabilities under new public pension accounting standards, based on a 3.95% discount rate, were \$9.5 billion. The fund currently exhibits negative cash flows, with benefit payments and expenses exceeding contributions by \$159 million in 2015, roughly 5% of assets at the beginning of the year. In the current year, approximately \$300 million, roughly 10% of the assets, is estimated to have been withdrawn by retired officers from DROP accounts. While withdrawals also reduce long term liabilities by a commensurate amount, well over a third of the plan's assets are currently illiquid, and a little over half may legally be withdrawn on demand by DROP members. DROP allows employees to stop accruing additional pension benefits while deferring retirement and continuing to work. Employees in the program receive their normal salary while also receiving pension checks, which are placed into a DROP account. Employees are guaranteed a specific rate of return on their DROP balance, regardless of the fund's investment performance.

The Supplemental P&FF is not subject to statutory caps and is much more narrow in scope, covering a small 124 retired members/ beneficiaries and 45 active members. For both the P&FF and the ERF, the city is contributing up to the maximums allowed under state law or city ordinance, respectively. However, P&FF is subject to a rolling cap on the city's contribution (currently at 27.5% of payroll) which is correlated to the rate for employee contributions, currently at 8.5%, or 4% for those participating in the DROP program. Based on the most recent valuation report, the actuary recommends an increase to combined employee and employer contributions to 72.7% of computational pay just to meet a 40 year amortization of the unfunded liability. Amortizing unfunded liabilities over such a long-term period as a level percentage of payroll far exceeds average expected working lifetimes of active employees and produces years of negative amortization, growing the unfunded liability even if all assumptions are met, for the foreseeable future. The ERF contribution is shared between the city and its employees, which contribute 37% and 63%, respectively, of the total annual contribution amount. The total shared contribution to ERF is capped at 36% of payroll and includes the contribution rate associated with the debt service payments on the outstanding pension obligation bonds. The actuary recommends an increase to contributions to 42.54% just to meet a 30 year amortization of this unfunded liability.

Significant benefit reforms and adjustments to caps on contributions for the city's three plans, particularly for the city's police and fire pension fund, are required to avoid insolvency of the funds. Favorably, judicial precedent in Texas suggests that issuers have legal flexibility to implement reforms, specifically with respect to future benefits of current employees and cost-of-living adjustments. The P&FF board has already made some changes, and the most impactful include reductions to the guaranteed DROP interest rate. The P&FF plan as of September 8, 2016 includes a reduction in the guaranteed earnings rate on DROP accounts to 6% effective October 2016, then 5% beginning October 2017, and after October 2018 earnings will be tied to the reported funded ratio of the plan, with a

rate of 0% if the funded ratio is less than 55%. Additional proposals include increasing contributions, bringing COLAs in line with CPI, adjusting the DROP program, adjustments to the accrual rates and final salary determination. Plan changes require 65% vote of the members in addition to the board approval and possible legislative action. The P&FF board has also adjusted the target asset mix to include more liquid investments and less exposure to real estate and natural resources, which represent over 42% of the assets as of the 2015 valuation report. The board-approved goal, as of March 2016, is to reduce this exposure to 25% by the end of 2018, however, they estimate it will take more than three years to fully adjust the asset mix.

In terms of the ERF, the city has placed benefit changes for new employees participating in the ERF on the November ballot. If approved, such changes would not have an impact on the ANPL. The proposal includes lower benefit multipliers (2.5% vs. 2.75% per year of service), higher retirement ages, the elimination of health benefit supplement, and no change to city or employee contribution levels. For employees hired after January 1, 2017 the normal cost would be 12.96% of payroll vs. the current rate of 20.36%. Based on 2015 financial reporting, ERF plan would pass the GASB depletion test if changes were already in place. Based on the 2015 valuation report, in the absence of greater contributions, the unfunded liability cannot be amortized over the goal of 30 years.

Management and Governance

Texas cities have an institutional framework score of "Aa," or strong. Cities rely on stable property taxes for 30% -40% of their operating revenues, while 25%-35% comes from economically sensitive sales taxes, resulting in moderate predictability overall. Cities maintain moderate flexibility under the state-mandated cap (\$25 per \$1,000 of AV, with no more than \$15 for debt) to raise property taxes as most cities are well below the cap. Expenditures primarily consist of personnel costs, which are highly predictable. Cities have high flexibility to reduce expenditures given no union presence.

Dallas is managed by a sophisticated team that has produced strong operating results for the city within legal limitations, most notably as it relates to caps to contributions to the city's pension plans The city has been, and continues to, experience senior level management changes, including a new Chief Financial Officer and expected retirement of the City Manager in early 2017. Dallas is among few large cities operated under a council-manager form of government, as oppose to a strong-mayor format as seen in many large cities nationally.

Legal Security

The general obligation limited tax bonds constitute direct and general obligations of the city, payable from the levy and collection of a direct and continuing annual ad valorem tax, within the limits prescribed by law, on all taxable property located within the city.

Use of Proceeds

Not applicable

Obligor Profile

The city of Dallas is the ninth largest city in the US and third largest in Texas behind Houston and San Antonio. The city serves as the anchor city to the DFW metroplex. The current population in Dallas is approximately 1.3 million.

Methodology

The principal methodology used in the long term rating was US Local Government General Obligation Debt published in January 2014. The methodologies used in the short term rating were US Local Government General Obligation Debt published in January 2014 and Variable Rate Instruments Supported by Conditional Liquidity Facilities March 2015. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

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Memorandum



DATE October 14, 2016

TO Honorable Mayor and Members of the City Council

SUBJECT October 26, 2016 Agenda Item - City Memberships

The October 26, 2016 City Council agenda includes an item that authorizes payment of annual membership fees (in amounts of \$50,000 or more) and continuation of arrangements for receiving specialized municipal-related services.

Attached for your information is a brief synopsis describing the purpose of each of the memberships included in the agenda item.

Please let me know if you need additional information.

M. Elfaboth Reich
M. Elizabeth Reich

Chief Financial Officer

Attachment

A.C. Gonzalez, City Manager
 Larry Casto, City Attorney
 Craig D. Kinton, City Auditor
 Rosa A. Rios, City Secretary
 Daniel F. Solls, Administrative Judge
 Ryan S. Evans, First Assistant City Manager
 Eric D. Campbell, Assistant City Manager

Jill A. Jordan, P.E., Assistant City Manager Mark McDaniel, Assistant City Manager Joey Zapata, Assistant City Manager Sana Syed, Public Information Officer Elsa Cantu, Assistant to the City Manager – Mayor & Council

Description of City Memberships

<u>Gartner, Incorporated (\$116,687 – Current Funds)</u>

Gartner is a subscription program that provides access to leading technology analysts and research that provides insight and interpretation into continuous improvement strategies for IT organizations. This membership serves as an advisor that works closely with CIS management about IT initiatives, best practices, latest industry trends, emerging technologies, IT metrics for measuring alignment with peers, staffing and investment levels, IT governance, and support with strategic planning. Gartner, Inc. provides unlimited access to over 1,200 IT analysts, research data, peer connections, workshops for strategic IT planning, briefings, events, and access to Gartner's Compensation Study, which reviews IT positions reported by approximately 2,000 organizations. For fiscal year 2015-16, CIS engaged 10 analyst inquires, leveraged 140 toolkits/templates and accessed 824 research documents.

North Central Texas Council of Governments (\$125,773 – Current Funds)

North Central Texas Council of Governments (COG) services its member governments and the region in a variety of ways, including comprehensive regional planning in transportation, environmental resources and human services. The COG aggressively works to strengthen ties with state and federal agencies and has become an information resource for regional and local economic development efforts. Members of the Dallas City Council serve in leadership roles on the NCTGOC executive board and committees.

The Steering Committee of Cities Served by Oncor (\$168,178 – Current Funds)

The Steering Committee was created to provide a means for cities in the Oncor service area to pool their resources and prevent duplication of effort while participating in electric utility rate proceedings before the Public Utility Commission. The City of Dallas participated with this committee in the 1990, 1993, 2008 and 2011 rate cases. The City also participated with this Committee in the various regulatory proceedings relating to SB 7 and electric deregulation. As a result of the Steering Committee's activities, Oncor agreed to make settlement payments to the cities beginning in 2005 and to fund "beneficial public use" payments through the cities for the benefit of the city's ratepayers. The City of Dallas received in excess of \$17.1 million as a result of that settlement agreement. The Steering Committee is actively involved in rate cases, appeals, rulemakings, and legislative efforts impacting the rates charged by Oncor Electric Delivery (formerly known as TXU Electric Delivery) within the City. The Steering Committee is actively pursuing the appeal of Oncor's previous rate case, Docket #35717, in which the Commission reduced franchise fees paid to cities.

<u>Texas Coalition of Cities For Utility Issues (\$52,004 – Current Funds)</u>

The Texas Coalition of Cities on Franchised Utility Issues was organized in 1996 to (a) collect, analyze, discuss and distribute information on utility related matters; (b) participate and develop positions in utility regulatory body rulemaking dockets and on bills proposed in the legislature relating to utility matters; and (c) work cooperatively on matters relating to utility franchises and fee issues.

<u>Texas Municipal League (\$51,194 – Current Funds)</u>

The purpose of the Texas Municipal League is "to render services which individual cities have neither time, money or strength to do alone." In practice, this objective translates into several functions that specifically benefit Texas cities. These functions include: representing cities' interests at the state and federal levels; conducting a wide variety of training sessions and conferences; maintaining the most comprehensive file of city government information in the state; publishing a wide variety of documents; providing legal and technical information on all aspects of city government; serving as the forum for molding the diverse views of the city officials into coherent statewide policies; and operating two group risk pool programs that produce dollar savings for TML members cities.

Water Environment Research Foundation (WERF) (\$82,800 – Water Utilities Current Funds) WERF is dedicated to advancing science and technology, addressing water quality issues as they impact water resources, the atmosphere, the land, and the quality of life. Being a member of WERF allows DWU to participate in water research projects and have access to research findings from other WERF subscribers regarding new technologies and strategies for improved management of DWU's water resources.

<u>Water Research Foundation (formerly American Water Works Association Research Foundation) (\$288,644 – Water Utilities Current Funds)</u>

Water Research Foundation (WRF) is an international nonprofit scientific and educational society dedicated to the improvement of drinking water quality and supply. The Research Foundation conducts numerous research studies to enhance the improvement of drinking water and then provides the results to its members. Dallas Water Utilities (DWU) is required annually to submit a water quality report to its customers. WRF is recognized as the authoritative resource for knowledge, information, and advocacy to improve the quality and supply of drinking water in North America and beyond. WRF provides research information to help DWU maintain the high quality of water provided to the citizens of Dallas and surrounding communities.

Memorandum



DATE

October 14, 2016

то Honorable Mayor and Members of the City Council

SUBJECT

Changes to 311 Caller Experience

This morning, the 311 Customer Service Center began the pilot implementation of the EasySpeak project, the conversational Interactive Voice Response (IVR) system for the 311 Customer Service Center.

EasySpeak enables many of our information-only calls to be handled more quickly without waiting to speak to an agent. Callers can say what they want in their own words to get the information that they need. This system will replace the complex menu maze of information options that currently exists on the 311 greeting. Calls for information or services that are handled by another agency (for example: DART, Oncor, Atmos) can be directly transferred to the proper organization. Residents will always be able to request a live agent, but there are many callers that prefer the self-service options that the new software allows.

For the next week, approximately 25% of callers will hear the new interactive IVR message ("Tell me briefly what you're calling about"), and remaining callers will hear the current message. We will monitor the performance of the software and expect to go live with all calls on Thursday, October 20.

The goal of this implementation is to improve customer hold times and reduce the number of calls that must be handled by an agent.

Please contact me or Margaret Wright should you have any questions. Thank you.

Mark McDaniel, Assistant City Manager

c: A.C. Gonzalez, City Manager
Larry Casto, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, First Assistant City Manager

Eric D. Campbell, Assistant City Manager Jill A. Jordan, P.E., Assistant City Manager Joey Zapata, Assistant City Manager M. Elizabeth Reich, Chief Financial Officer Sana Syed, Public Information Officer Elsa Cantu, Assistant to the City Manager – Mayor & Council