INFORMAL REPORT TO CITY COUNCIL MEMBERS No. 20-10502

To the Mayor and Members of the City Council

October 27, 2020

SUBJECT: UPDATE ON STORMWATER BOND SALE AND CAPITAL IMPROVEMENT PROGRAM

This Informal Report is submitted to update the City Council on the recent Stormwater revenue bond sale and associated Capital Improvement Program.

Supported by the 6.5% increase in the Stormwater Utility Fee approved by City Council as a part of the FY20 budget process, the City received bids on October 15, 2020 for $53 million in new stormwater revenue bonds to support expediting critical capital projects. The debt sale also included the refinancing of $55.3 million in outstanding debt. The bonds were rated by S&P Global and Fitch Ratings. Both agencies assigned and affirmed the Stormwater System's AA+/Stable credit rating. A copy of the rating reports accompany this informal report.

The attached PowerPoint provides details on the bids received for the revenue bonds and the Stormwater Program's plan for use of the funds. Highlights include:

- The low bid for the debt was an extremely attractive 1.95% interest rate.
- The refinancing of outstanding debt resulted in a savings of almost $12 million in debt service payments through 2037.
- The low interest rate on the new debt plus the savings in debt service on the outstanding debt will allow the program to sell an additional $34 million in revenue bonds in 2023, increasing the total program amount from the original estimate of $70 million to $87 million.
- The planned use of the $87 million in revenue bonds through 2025, which prioritizes the mitigation of life safety hazards, is as follows:
  - $30.5 million to mitigate hazardous road overtopping locations
  - $26.1 million to prevent hazardous road collapses and maintain the flow capacity of the existing drainage system through the rehabilitation of aging, deteriorated pipes
  - $17.4 million to mitigate the risk of chronic structure flooding
    - The plan is to focus the bulk of these funds on the design and construction of the next phase of the Lebow Channel flood mitigation project.
  - $13 million to protect public infrastructure and private property from severe channel erosion through channel restoration

The attachment includes lists for the top priority projects that are expected to be executed with these funds over the next three years. Project development and prioritization is ongoing to refine those lists as needed to determine the highest priority projects to be executed in 2024 and 2025 with the next revenue bond sale.

Questions about this can be directed to Jennifer Dyke, TPW Stormwater Program Manager, at 817-392-2714.

David Cooke
City Manager

Attachments

Stormwater Bond Program Update

City Council Work Session
October 27, 2020

Greg Simmons, Assistant TPW Director, Streets/Stormwater/ROW Management
Reginald Zeno, Director, Financial Management Services
Jennifer Dyke, TPW Stormwater Program Manager

Drainage Bond Sale Results

- Bonds funded:
  - $53mm for new projects in alignment with Stormwater CIP
  - $55.33mm refinanced Series 2011 Bonds for savings
- Both Fitch and S&P, assigned and affirmed the City's Drainage Utility rating at AA+/Stable
- Competitive bids were received on October 15th with 5 bidders participating
- Winning bid was provided by Wells Fargo
- Bond sale results:

SUMMARY OF FINANCING RESULTS	COUNCIL M&C ON SEPT 22	FINAL RESULTS
Total Par Amount:	$ 103,695,000	**$ 103,210,000**
True Interest Cost:	2.25%	**1.95%**
New Project Funds:	$ 53,000,000	**$ 53,000,000**
Total Debt Service Savings:	$ 9,140,885	**$ 11,897,452**
Net Present Value (PV) Savings:	$ 7,810,150	**$ 10,558,381**
PV Savings as % of Refunded Principal:	14.1%	**19.1%**

Note that savings shown are after all transaction costs are paid.

Briefing Points

- Background
- Debt Capacity
  - Delivery Capacity
  - Funding Allocation
- Project Prioritization
  - Potential Projects
- FY21 Focus / Next Steps

Stormwater Program Mission

Protect people and property from harmful stormwater runoff

Background

- 6.5% fee increase approved by City Council in October 2019
- Fee increase took effect January 1, 2020
- FY 20 revenue increase ~ $1.7 million
- Capacity for $70 million in bonds
- Focus on increasing delivery of high priority capital improvements
  - ✓ Mitigating hazardous road overtopping
  - ✓ Rehabilitating aging storm drain pipes
  - ✓ Restoring highly eroded channels
  - ✓ Mitigating flooding to homes and businesses

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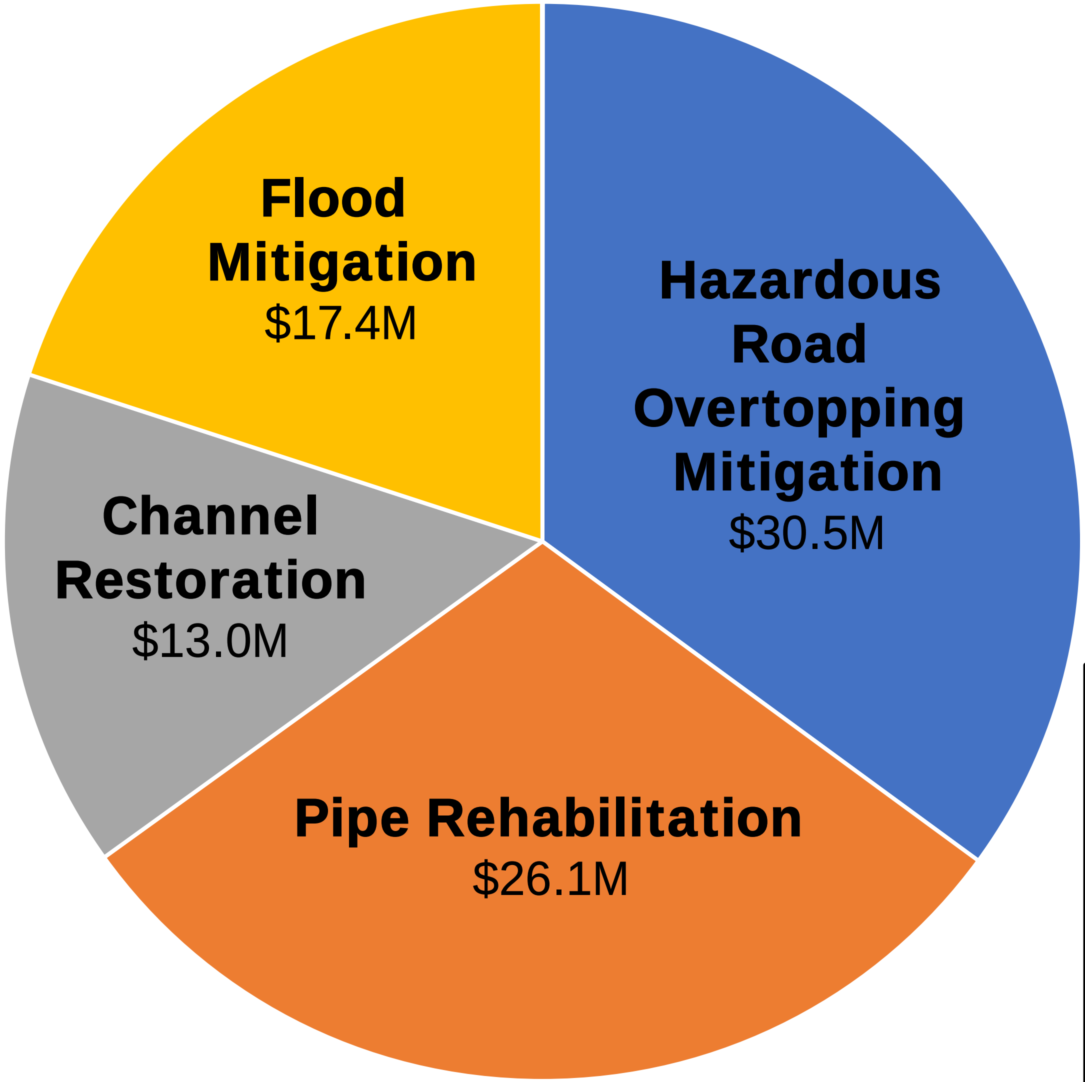
Debt Capacity

- November issuance of $53M
- Historically low interest rates
    - Expected ~2.1 - 2.4%; actual pricing at **1.95%**
- Structured issuance so debt service payments are lower in the early years, allowing for more debt capacity for the Nov. 2023 sale
- Nov. 2023 issuance projected to be ~$34M vs. ~$17M initially estimated, for a total 5-year bond program of **$87M** (vs. $70M)

FY21-25 Capital Delivery Capacity

Project Type	Critical Needs	No Fee Increase Delivery (No New Debt)	6.5% Fee Increase Total Delivery ($70M Debt) *Sell Nov. 2020*	6.5% Fee Increase Total Delivery ($87M Debt) *Sell Nov. 2023*
Hazardous Road Overtopping Mitigation (HROM) *(Major Mitigation or Safety Improvement)*	~100 locations *~$3-4M major* *~$150k minor*	3-5 major locations 10-12 safety locations	10-12 major locations 30-35 safety locations	12-14 major locations 35-40 safety locations
Pipe Rehabilitation	~80 miles *~$2.5M/mile*	6 to 8 miles	14 to 16 miles	15 to 17 miles
Channel Restoration	~22 miles known *~$2.6M/mile*	0	3 to 4 miles	4 to 5 miles
Flood Mitigation	~45-50 project phases *~$10-15M/phase*	0	1	1

$87 Million Revenue Bond Allocation



Goal: Award/Commit $87M by end of FY25

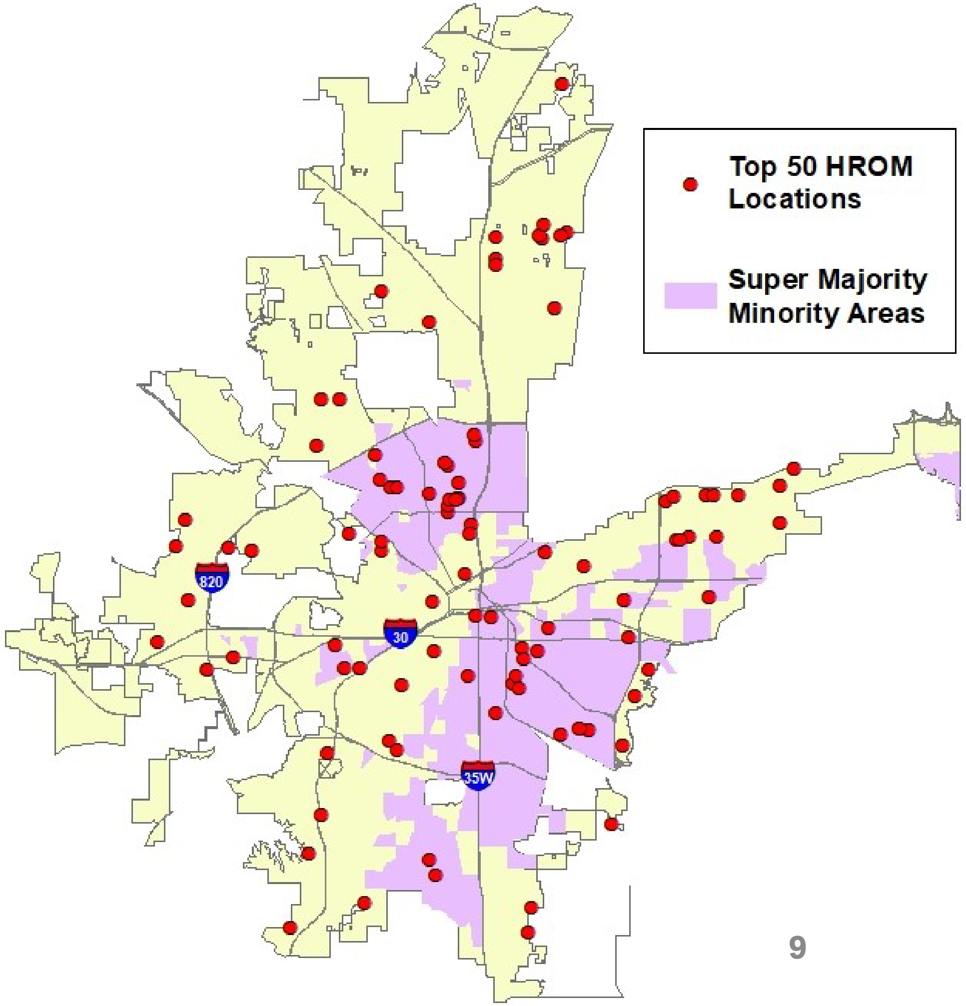
Prioritization Criteria

- Primary Criteria
  - Hazard / risk based
- Secondary Criteria
  - Partnership/leveraging opportunities
  - Coordination with City bond program
  - Racial/cultural equity
  - Economic development
  - Contribution to other City plans/initiatives such as open space

Hazardous Roadway Overtopping Priorities

- Identified the <u>most hazardous</u> locations based on:
  - Depth of flow over road
  - History of fatalities & high water rescues
  - Citizen complaints
  - Risk of fatality

- Other considerations
  - Ease of project implementation
  - Flow velocity
  - Traffic volume & detour length



HROM Project Types

Major Mitigation

- Raise road profile
- Bridge
- Upsized culverts
- Significantly reduce frequency and magnitude of overtopping
- Road closure

- Projects > $4 to 6 million are candidates for safety upgrades
  - Major mitigation not affordable at this scale of capital program

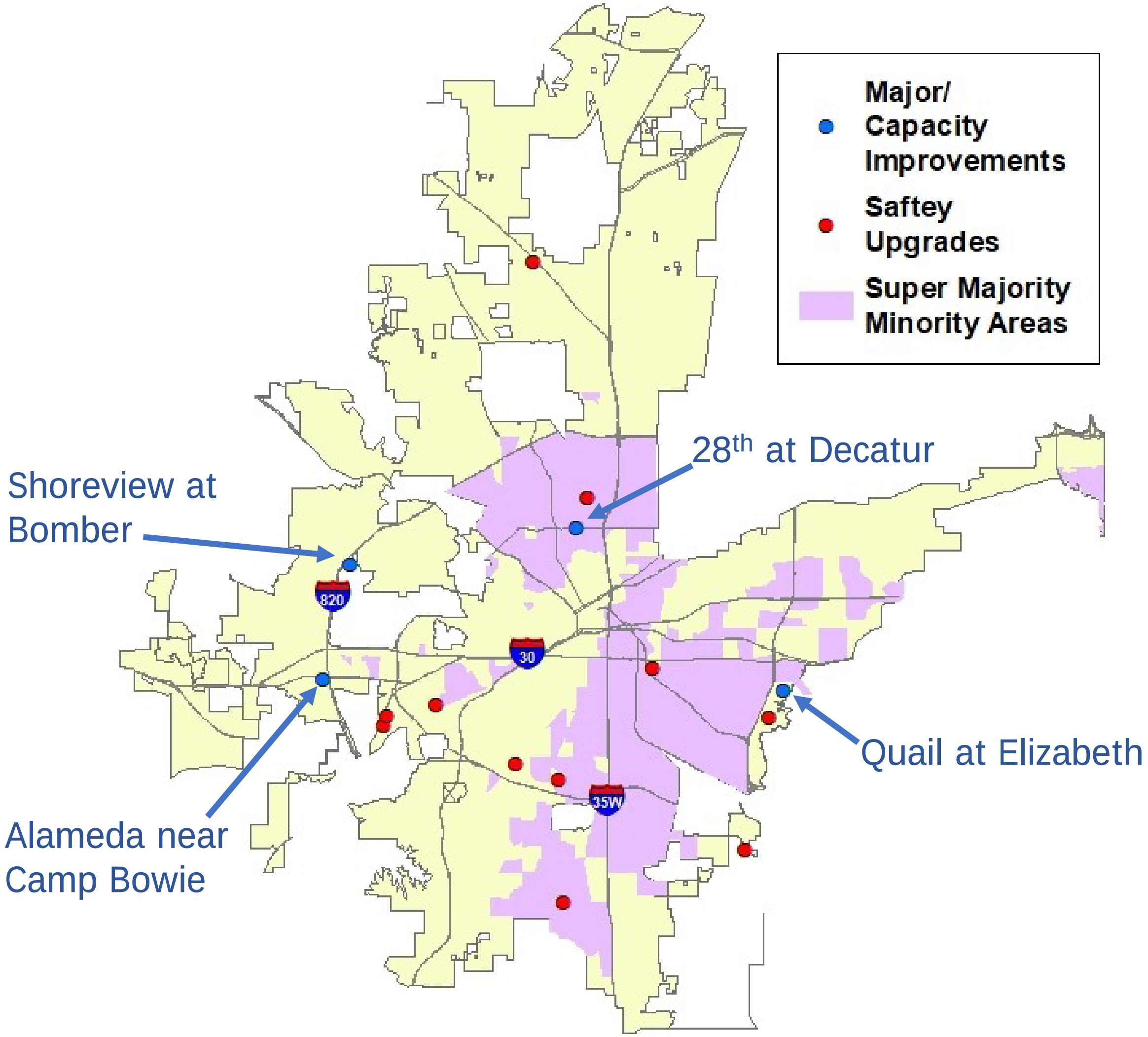
Safety Upgrades

Road still subject to flooding

- Guardrails or other physical barrier
- Signage
- Warning beacons
- Lighting

Oak Grove Safety Improvements

Hazardous Road Overtopping Mitigation FY21-23 Current Priorities



Location	SMMA	CD
Major/Capacity Improvements		
28th Street West of Decatur Ave.	Yes	2
3420 Alemeda at MSC-1	No	3
Quail at Elizabeth (Trib. to Lake Arlington)	No	5
Shoreview at Bomber Road	No	7
Safety Improvements		
2000 N.E. 36th Street @ Lebow Channel	Yes	2
4000 Edgehill at CF-4A	No	3
7600 Willis at Royal Channel	No	3
7801 Wycliff at Royal Channel	No	3
4201 Cravens Rd @ VC-1	No	5
100 Bonds Ranch Road West	No	7
Maddox Ave @ Sycamore Creek	Yes	8
1800 Risinger Road West	Yes	8
5400 Everman-Kennedale-Burleson Rd at Village Creek	No	8
Trail Lake at Granbury Road-Wabash Ave @ CF-3	No	9
1900 Yates Avenue	No	9

FY21-23 HROM Allocation $17.5M

Pipe Rehab Priorities

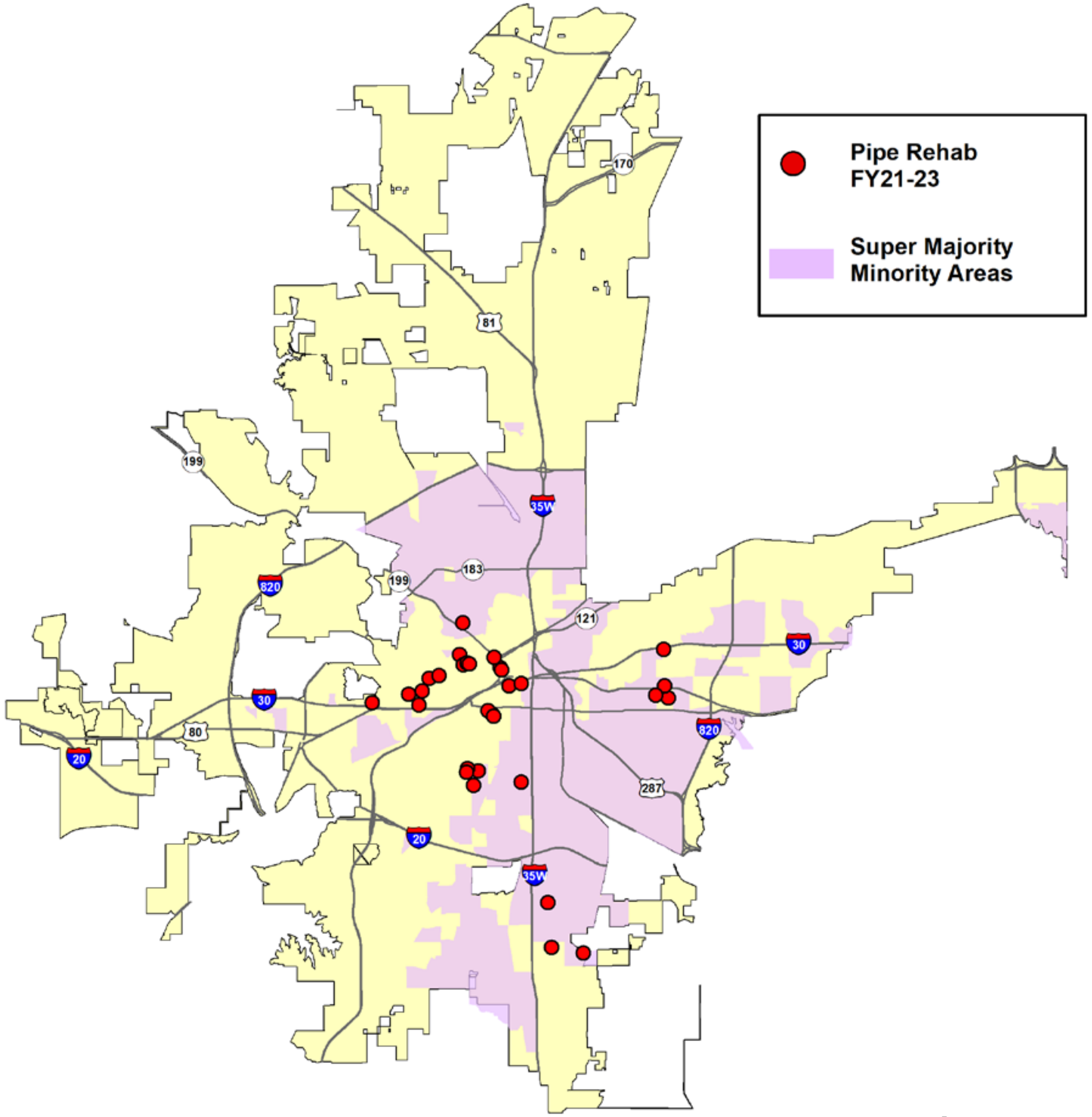
- Identify hazardous pipes based on condition
  - Follow industry standard pipe condition rating system
    - Broken, cracks, fractures, collapsed, holes, deformed
    - Reasons for defect- roots, sediment/rocks
    - Length & severity of problem

- Factor in consequence of failure

Note: Citywide infrastructure is ~1,000 miles. Ramping up Closed Circuit Television (CCTV) inspection program to 25 miles/year to better understand needs and inform priorities.

Pipe Rehab FY21-23 Current Priorities

Location		SMMA	Council District
NW 14th	Homan to Harrington	Yes	2
House	Hampshire to Vinson	No	5
Roseland St	E Lancaster to 200 ft North of E Lancaster	Yes	5
Clover	Lafayette to Dexter	No	7
Pershing	El Campo to Pershing	No	7
Thomas	Calmont to Pershing	No	7
Madeline	Belle to Madeline	No	7
Bryce	Western to Carleton	No	7
Birchman	Pershing to Birchman	No	7
Camp Bowie	Montgomery St to 200 ft E. of Montgomery St	No	7
Judy	Panola to Judy	Yes	8
Beacon	Everman to Beacon	Yes	8
Forum	Barron to Forum	No	8
Brentwood Stair	Shilling to Hollowbrook	No	8
S Will Rogers Blvd	Joel East Rd to 200 ft South of Joel East Rd	Yes	8



FY21-23 Pipe Rehab Allocation $14.4M

Pipe Rehab FY21-23 Current Priorities, cont.

Location		SMMA	Council District
Fairmount	Morphy to Magnolia	No	9
8th St	Oleander to Mistletoe	No	9
5th St	Carroll St to Burlington Northern Santa Fe RR	No	9
W Berry	Merida to Sandage	No	9
Merida	W Devitt to Merida	No	9
Foch	6th St to 5th St	No	9
Carroll	5th to Merrimac	No	9
South Main	St Louis to S Main St	Yes	9
Cleburne	Cleburne to Townsend	Yes	9

Location		SMMA	Council District
Wayside	W Biddison to Monda	Yes	9
Jarvis	Lipscomb to Hemphill	No	9
Main	W Vickery to Industrial	No	9
N Henderson	W Peach to W Bluff	No	9
W 10th St	Florence to Macon	No	9
W Morphy	Fairmount to 6th Ave	No	9
Weisenberger	Currie to Wimberly	No	9
7th St	Burnett to Collier	No	9
Magnolia	Hurley to Fairmount	No	9

Channel Restoration Priorities

Metrics Include

- Property Damage
- Sedimentation
- Erosion
- Vegetation
- Channel Type
- Location

Note: Citywide channel assessment underway to better understand needs and inform priorities

TPW STORMWATER CHANNEL RATING FORM

Channel Name:
Address:

Council District: Date: 01/24/2017
Mapsco: Inspected By: Karla Morales

CATEGORY	SCORING LOW 1 2 3 4 5 HIGH
SEDIMENTATION	
Sedimentation condition	2
Sediment movement	2
Blockage/Clogging	2
Trash/Debris	3
EROSION	
Erosion Bank & Channel stability	3
Bank cutting	4
VEGETATION	
Vegetation condition	2
Vegetative Bank protection	1
PROPERTY DAMAGE	
Flooding roads	1
Flooding of Private structures	1
Utility Asset Damage	4
Structural Components (Channel concrete condition)	1
Scoring Total	26
CHANNEL TYPE	
Earthen Maintained 1.1	√
Concrete 1.25	
Earthen Unmaintained 1.6	
	1.1
LOCATION	(adjacent property)
Undeveloped 0.5	
Service Road 1.25	
Commercial 1.5	
Residential 2.0	√

Notes:

Total Score 57.20

Formula:

Scoring Total*Channel Type*Location=Total Score

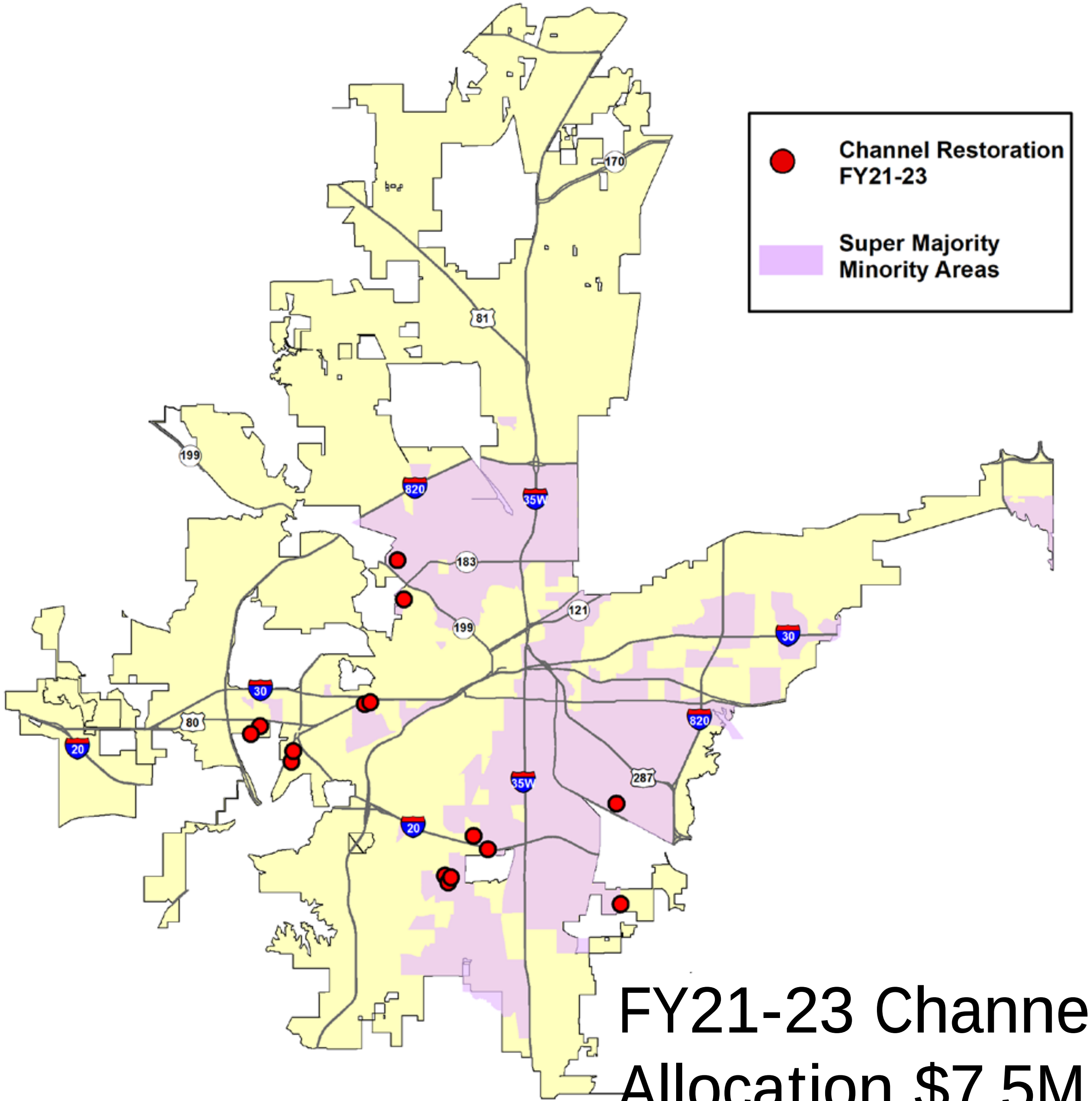
Priority Level Scale	
> 50	High Priority Work Order
>30 and <50	Low Priority Work Order
>28 and <30	Reactive Maintenance
<27	Routine Maintenance

Condition Rating Scale

1 = Good
2 = Okay
3 = Fair/Degrading Condition
4 = Poor/In need of Attention
5 = Failure/Worst Condition

Channel Restoration FY21-23 Current Priorities

Location	SMMA	Council District
3007 20th St	Yes	2
1170 Sleepy Hollow	Yes	2
3516 Brandon Ln	No	3
3600 Bandera Rd	No	3
5617 Lovell Ave	No	3
4700 Old Benbrook	No	3
4200 Old Benbrook	No	3
2901 Lake Como	No	3
6301 McCart Ave	Yes	6
3150 Altamesa Blvd	Yes	6
6313 Westcreek	Yes	6
7925 Forest Hill Dr	No	8
5124 Shackleford St	Yes	8
5701 6th Ave	Yes	9
5183 Townsend Dr	No	9



FY21-23 Channel Allocation $7.5M

Large Flood Mitigation Priorities - Examples

A phase of one of these could be feasible

Example Priorities	Flood Mitigation	HRO Mitigation	Pipe Rehab	Economic Dev	Race and Equity	Open space ATP	Partners?
Lebow	✓	✓		✓	✓	✓	✓
Near Westside	✓		?	✓			✓
TCU/Berry	✓		?				✓

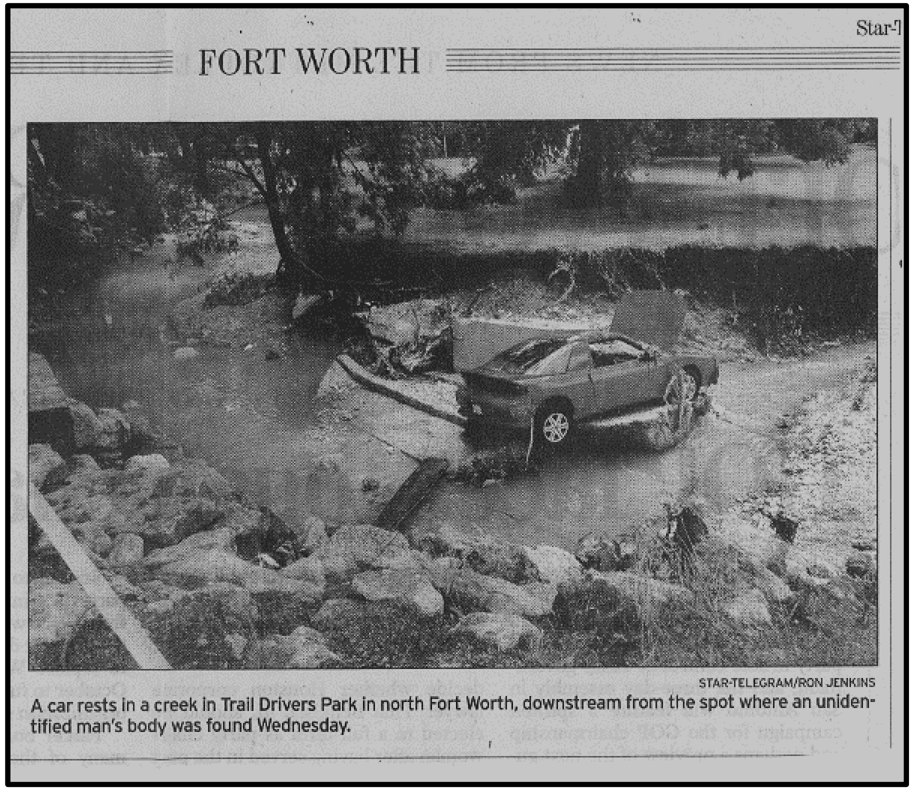
Lebow Channel Flood Mitigation History

- Flooding helped lead to the creation of the Stormwater Utility
  - 5 fatalities in 2 events (1988 & 2004)
  - 200+ homes in floodplain (pre-projects)
  - 15 hazardous crossings (pre-projects)

- 2007 Concept Plan
  - Remove roadway flooding & flooding from structures
  - Enhance environment & aesthetics along the channel
  - Extensive community engagement

- How?
  - Channel improvements & detention
  - Buyouts
  - Roadway improvements
  - Multiple phases over time


Lebow, Beaumont Street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STAR-TELEGRAM/RON JENKINS

A car rests in a creek in Trail Drivers Park in north Fort Worth, downstream from the spot where an unidentified man's body was found Wednesday.

Lebow Channel Flood Mitigation

- ~$20M spent to date on improvements
- Remaining needs:
  - Lower Lebow channel restoration
  - Upper Lebow detention & channel improvements
  - Hazardous Road Overtopping mitigation
- Remaining project cost ~$40M
- FY21-23 Allocation $13.6M
- Opportunities for recreational elements, open space, and trail connectivity

Brennan Avenue at Lebow Channel
Completed 11/2019

Detention Potential Concept

FY21 Focus / Next Steps

- **Project Development for future FY design & construction**
  - HROM, pipe rehab, channel restoration & Lebow flood mitigation
  - Construction will be ramped up over the 5-year delivery period
- **HROM Design**
  - Alemeda
  - 28th at Decatur
- **HROM Construction**
  - Shoreview at Bomber
  - Safety improvements
- **Pipe Rehab** - design and construction
- **Channel Restoration -** design

Questions & Discussion

S&P Global
Ratings

RatingsDirect®

Summary:

Fort Worth, Texas; Water/Sewer

Primary Credit Analyst:
Omid Rahmani, Farmers Branch + 1 (214) 765 5880; omid.rahmani@spglobal.com

Secondary Contact:
John Schulz, Centennial (1) 303-721-4385; john.schulz@spglobal.com

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Summary:

Fort Worth, Texas; Water/Sewer

Credit Profile		
US$103.695 mil dr util sys rev rfdg & imp bnds ser 2020A due 02/15/2045		
Long Term Rating	AA+/Stable	New
Fort Worth drainage		
Long Term Rating	AA+/Stable	Affirmed

Rating Action

S&P Global Ratings assigned its 'AA+' rating to Fort Worth, Texas' series 2020 drainage utility system revenue refunding bonds. At the same time, we affirmed our 'AA+' rating on the city's parity senior-lien drainage system revenue debt. The outlook is stable.

Credit overview

The system's first-lien pledge of gross revenues generated from stormwater system operations secures the approximately $103.695 million series 2020 bonds. After the issuance, Fort Worth will have just over $151.12 million in outstanding drainage debt. Officials intend to use the series 2020 bond proceeds to refund a portion of the system's debt for savings to finance various drainage improvements and erosion projects. They indicate they have not entered into any direct-purchase bank debt. We consider bond provisions credit neutral. The rating reflects our opinion of the system's general creditworthiness, including the city's extremely strong enterprise risk profile and very strong financial risk profile. Management has to date been successful in maintaining a multiyear capital plan, extremely strong historic all-in coverage levels, and a very strong liquidity position.

The enterprise risk profile reflects our view of the system's:

- Robust and stable area economy despite some slowdowns as a result of the economic downturn that serves as an anchor in the broad and diverse Dallas-Fort Worth-Arlington metropolitan statistical area (MSA);
- Very low industry risk as a monopolistic service provider of an essential public utility;
- Affordable rates based on very strong income levels,
- Good operational management practices.

The financial risk profile reflects our opinion of system's:

- All-in debt service coverage (DSC) which has trended at levels which we consider extremely strong in the previous three fiscal years;
- Very strong unrestricted liquidity, which has trended down from 297 to 103 days' cash on hand during the past three audited fiscal years;
- Weak debt position with a debt-to-capitalization ratio of just under 64% when including the series 2020 revenue

bonds; and

- Good financial management practices and policies under our Financial Management Assessment (FMA) methodology.

Environmental, social, and governance factors

Overall, we believe that management has mitigated most of its environmental and governance-related risk by adopting, adhering to, and adjusting operating and financial policies and procedures. We believe that Fort Worth is exposed to elevated social risk resulting from the COVID-19 pandemic. While we believe it's possible the city's revenues could experience some declines for fiscal 2020, ultimately, our expectation is that management will continue to manage the system to maintain sound financial metrics. The utility also has 103 days' cash on hand, which we believe provides a modest cushion against short-term disruptions. While we continue to monitor events related to COVID-19, we do not currently expect it to affect the utility's ability to maintain budgetary balance and pay debt service costs. For more information, see our article "The U.S. Economy Reboots, With Obstacles Ahead" (published Sept. 24, 2020, on RatingsDirect).

Stable Outlook

The stable outlook reflects our opinion that the modest monthly fees and strong collections from a broad and diverse customer base will sustain the city's enterprise risk profile over our two-year outlook horizon, and that the system's financial capacity will be preserved given the current lack of additional debt plans and manageable capital needs.

Downside scenario

The rating could come under pressure should there be a sustained drop in the system's all-in coverage metrics below recent levels or further drawdowns on liquidity. Other sources of rating pressure include if the economic fundamentals of the service area deteriorate as a result of the economic slowdown or an over-reliance on utility surplus net revenues by other major operating funds.

Upside scenario

While the city's commitment to pay-as-you-go funding allows it to keep total system indebtedness manageable and overall cash flow strong, a higher rating, in our opinion, is precluded by the totality of system needs, even if they can be achieved at the discretion of the city's prioritization.

Credit Opinion

Bonds provisions are credit neutral and include:

- Our understanding that no reserve fund will be included for this issuance;
- A rate covenant that stipulates maintaining rates at a minimum of 1.25x maximum annual debt service (MADS); and
- The city's additional bonds test calls for net revenues to cover MADS of all debt, including proposed debt, by at least 1.5x.

Enterprise risk

The system serves a stable, deep, and diverse customer base with a total population estimate of slightly under 1 million in Tarrant County. The Fort Worth MSA remains one of the more robust in the state, led by health care, professional services, and construction, which have more than offset the energy sector's weakness since the drop in commodity prices. The city is also home to Texas Christian University, Texas Wesleyan University, a robust community college system, and numerous other institutions of higher learning. Thus, the residents benefit from the city's position as an anchor in the broad and diverse Dallas-Fort Worth-Arlington MSA. Income indicators are what we consider good, with median household effective buying income (MHHEBI) equal to 99% of the national average. Current unemployment levels are about 8%, which has over doubled in past year as a result of the economic downturn.

Currently, the average drainage bill for city residents is very affordable. The most recent adjustment was in January 2020, with a monthly utility fee per equivalent residential unit (ERU; one household, or tier 2 in the city's fee schedule) of $5.75 per month. Management has a goal to review rates regularly and adjust the base rate as necessary, depending on the priority of planned system improvements, currently funded from internally generated funds as well as remaining unspent bond proceeds. We believe this is a strength that lends itself to future credit stability.

Based on our operational management assessment, we view the stormwater system as a '2' on a six-point scale with '1' being the strongest. An assessment of good, in our view, implies that the system's operational practices and policies are good and primarily comprehensive. The system maintenance and expansion priorities reflect the level of life safety and structural risk. The priorities are addressed in detail in the city's capital improvement plan (CIP). The city benefits from well tenured and experienced staff with robust mentoring initiatives paving the way for continuity. The most recent adjustment was in 2020, with a monthly fee per ERU. Management has a goal to review rates regularly and adjust the base rate as necessary.

Financial risk

All-in coverage is S&P Global Ratings' adjusted DSC metric that treats certain recurring financial obligations as if they were debt. In Fort Worth's case, we incorporate transfer payments to the general fund for administrative costs and payment-in-lieu-of taxes (PILOT) payments since we view them as a recurring use of utility revenues and exclude the transfers to a capital fund. All-in coverage for the system has ranged from about 1.4x in fiscal 2017 to over 1.6x in fiscal 2018, ending at just under 2.4x in fiscal 2019; the rise in coverage in fiscal 2019 was due to reduced costs associated with some contractual obligations. Based on the system's five-year financial projections, we expect the coverage levels to remain stable within the outlook period.

The city has a very strong liquidity position, with unrestricted cash and investments ranging from about $21 million in fiscal 2017 to $16.9 million in fiscal 2018 and finishing fiscal 2019 with slightly over $6.4 million, amounting to roughly 103 days' cash on hand. The drop in liquidity was associated with increased capital investment in the city's drainage system. Management maintains a 25% reserve in the stormwater utility fund. It indicated that it is expecting some further drawdowns of cash, but it also communicated that despite those drawdowns, the available reserves will still comply with the city's formal liquidity policies. The city's five-year CIP has no single flagship project, but is instead a mix of rehabilitation of and improvements to existing infrastructure, both in neighborhoods and along major roadways. The total identified list of projects, however, is large simply because of the size of Fort Worth and the age of some of the infrastructure relative to the growth in the city since it was put in place.

The system has just over $151.1 million in debt outstanding when including this issuance. We consider the debt-to-capitalization ratio of the system high at just under 64% leveraged. The city has a five-year CIP for the system amounting to roughly $127.1 million for the period 2021-2025. The funding for the program will be a combination of capital reserves and revenues. Management indicated that the city does anticipate the issuance of additional debt of roughly $70 million in revenue bonds through 2023. This amount includes the $53 million being issued by the series 2020 bonds. Fort Worth administers a citywide plan with separate funds for police, fire, and nonuniformed employees that as of Sept. 30, 2019, was 50.6% funded. We have incorporated into our analysis the city's increasing pension liability and history of not fully funding the actuarially determined contribution. We understand that it has adopted a plan that would bolster contributions from both the city and plan participants, and is predicated on more conservative assumptions, as well as limiting a cost-of-living adjustment to certain recipients. The city's current pension position is viewed as a credit weakness.

Based on our FMA, we view the stormwater system as a '2' on a six- point scale, with '1' being the strongest. An FMA of good indicates our view that practices are strong, well embedded, and likely sustainable. Management prepares informal reports of financial activities, which are made available to the City Council, on request, to advise them of the city's financial condition and needs in accordance with the city charter. A five-year financial forecast is updated annually as a part of the budget development process. The city prepares a five-year CIP, which is updated on an annual basis. There is an investment policy in place, and the city maintains a 25% reserve in the stormwater utility fund. It also maintains detailed and codified debt management and investment policies. In addition, management produces annual audited financial statements that comply with generally accepted accounting principles (GAAP).

Related Research

- Through The ESG Lens 2.0: A Deeper Dive Into U.S. Public Finance Credit Factors, April 28, 2020

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FitchRatings

RATING ACTION COMMENTARY

Fitch Rates Fort Worth, TX's Drainage Rev Bonds 'AA+'; Outlook Stable

Thu 01 Oct, 2020 - 12:49 PM ET

Fitch Ratings - Austin - 01 Oct 2020: Fitch Ratings has assigned an 'AA+' rating to the following Fort Worth, TX (the city) bonds:

--Approximately $100 million drainage utility system (the system) revenue refunding and improvement bonds, series 2020.

The bonds will be sold via competitive bid on Oct. 20. Proceeds will be used for various drainage and erosion projects, to refund a portion of the system's outstanding bonds for debt service savings, and pay costs of issuance.

In addition, Fitch has affirmed the rating on the following outstanding obligations at 'AA+':

--$91.5 million outstanding drainage utility system revenue bonds, series 2011 (prerefunding) and 2019;

--$15.1 million outstanding drainage utility system revenue refunding bonds, series 2016.

Fitch has also assessed the Stand-alone Credit Profile (SCP) of the system at 'aa+'.

The Rating Outlook is Stable.

ANALYTICAL CONCLUSION

The affirmation of the 'AA+' bond rating and assessment of the SCP at 'aa+' reflects the system's stable and very low net leverage, as measured by net adjusted debt-to-adjusted funds available for debt service (FADS), in the context of very strong revenue defensibility and very low operating risk, both assessed at 'aa'. Net leverage registered 5.3x in fiscal 2019. Although the ratio is expected to grow slightly over the next few years as the system increases debt issuance and capital spending, Fitch expects leverage to remain between 6.6x and 6.4x - levels supportive of the rating - through 2024.

Coronavirus Considerations

The recent outbreak of coronavirus and related government containment measures worldwide creates an uncertain global environment for the Water and Sewer sector. While the system's performance through most recently available data has not indicated significant impairment, material changes in revenue and cost profiles are occurring across the sector and are likely to worsen in the coming months. Fitch will monitor developments in the sector as a result of the virus outbreak as it relates to severity and duration. Any revised expectations for future performance and assessment of key risks will be incorporated in future analyses

CREDIT PROFILE

The system is an enterprise fund of the city of Fort Worth, Texas (IDR, 'AA'; Stable) established in fiscal 2006 in response to flash flood problems and federally mandated storm water-runoff and treatment requirements. All owners of developed property in Fort Worth are charged a user fee for drainage service, except those exempted by state law. This includes residential property owners, businesses, apartment complexes, public facilities, city owned facilities and churches. As of fiscal 2020, the system has over 640,000 billable storm water units.

The city mayor declared an emergency stay at home order effective March 18, 2020 in response to the outbreak of coronavirus. City management expected to see significant declines in various city revenue streams, particularly sales tax revenues and anticipated a revenue shortfall for fiscal 2020. The stormwater system charges are included with the water and sewer monthly billings. Management has seen some uptick in delinquencies, higher than historical averages. The city has resumed standard practices for billing collections and expect the delinquencies to return to historical levels.

For the fiscal 2021 budget, the system has conservatively budgeted lower revenue growth compared to its historical returns. Potential revenue shortfalls would likely be addressed with expenditure reductions before capital project spending would be deferred.

KEY RATING DRIVERS

Revenue Defensibility 'aa'

Very Favorable Service Area Characteristics, Predictable Revenue Stream.

Revenues are received entirely from the system's exclusive right to provide drainage services within its service area. The storm water fee, which in nominal dollars is very low, is fixed and provides a very stable and predictable revenue stream. The city has independent rate-setting authority and system charges are deemed affordable for the vast majority of the population. Wealth levels and area unemployment is on par with the national averages.

Operating Risks 'aa'

Very Low Operating Risk.

The storm water system costs are very low and the drainage system generally has limited operations and lacks measured flows. Consequently, Fitch has assessed operating risks at 'aa'.

Financial Profile 'aa'

Very Strong Financial Profile; Low Leverage.

The system's very strong financial profile reflects its very low leverage ratio of 5.3x in fiscal 2019. Planned capital spending and associated debt issuances are expected to be sufficiently supported, resulting in stable leverage. Additionally, Fitch-calculated coverage of full obligations (COFO) and the liquidity cushion ratio are both neutral to the financial profile assessment, at 2.7x and 127 days, respectively.

ASYMMETRIC ADDITIVE RISK CONSIDERATIONS

No asymmetric additive risk considerations affected this rating determination.

RATING SENSITIVITIES

Factors that could, individually or collectively, lead to a positive rating action/upgrade:

--Decrease in leverage to a sustained level under 5x through Fitch's base and stress case.

Factors that could, individually or collectively, lead to a negative rating action/downgrade:

--Significant increase in debt issuance to address capital spending, that increases leverage to a sustained level above 8x through Fitch's base and stress case.

BEST/WORST CASE RATING SCENARIO

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit [https://www.fitchratings.com/site/re/10111579].

SECURITY

The bonds are secured by a first lien on and pledge of the gross revenues of the city's drainage utility system (the system).

REVENUE DEFENSIBILITY

Revenue defensibility is considered very strong, reflected by the 'aa' assessment. All system revenues are derived from monopolistic sources and the system's service area reflects very favorable demographic underpinnings. The service territory is stable with annual population growth of over 1.5% since 2015.

The city bills and collects the drainage utility fee monthly with the water and sewer utility charges. Collections are strong, and mirror collections by the water and sewer utility (revenue bonds rated AA/Stable) since the city is authorized to disconnect water service for nonpayment or partial bill payment. Drainage rates were recently increased to $5.75 per equivalent residential unit (ERU) or the equivalent of 6.5%, after remaining at $5.40 since 2011. No additional rate adjustments are expected over the coming five-year period. At the current monthly rate ($5.75), rates are low and remain affordable for a vast portion of the population (about 90%).

The system has a very stable and predictable revenue stream, with the system fee determined per dwelling unit charged on the monthly combined utility bill. Nonpayment of any portion of the utility fees results in termination of water service.

OPERATING RISKS

As a drainage system, the operating risk is assessed at 'aa' due to the limited operations and lack of measured flows. The low cost of maintaining the utility assets provides the system with very low operating costs and a high degree of operating and financial flexibility.

Pension expense claims 17% of operating costs due to rising pension costs. Recently city council and employees approved a reform pack for the city's single employer pension plan that adjusts benefits, increases both employee and city contributions, along with others adjustments. Given current market volatility, coupled with inherent timing lags with pension reporting, Fitch expects that the net pension liability will increase in 2021.

The system's lifecycle ratio is favorable at 23% and capex spending has consistently outpaced annual depreciation. The 2021-2025 capital improvement plan totals over $127 million, more than double the $59 million spent on capital from fiscal 2016 - 2020. The city is accelerating its planned capital spending above historical norms to address high priority needs and driven by a significant flooding event in 2018 that resulted in four fatalities. A portion of the current offering plus another anticipated debt issuance around 2024 will provide the majority of the financing to address major drainage, roadway crossing, drainage engineering and rehabilitation projects.

FINANCIAL PROFILE

The financial profile is very strong and assessed at 'aa'. Since 2016, the system's leverage ratio has ranged between 5.2x and 7.8x. Leverage in fiscal 2015 was significantly higher due to large $9.9 million transfers for capital projects; however net leverage without the large transfer registered 8.7x. The liquidity profile is neutral to the assessment with COFO of over 1.3x since 2015 and current days cash on hand declined to 127 days in 2019, down from 386 days in fiscal 2015.

The system's declining cash position is a result of continued planned pay-go capital spending. Despite cash balances declining, they are not expected to drop to less than 60 days due to adopted cash balance policies. The city adopted financial policies in fiscal 2015 for city enterprise funds, including a minimum reserve cash policy with a floor of 62 DCOH and a target of at least 150 DCOH. This policy will help ensure cash balances remain adequate. The large degree of discretion with regard to operating expenses of the utility given the lower cost of maintenance of utility assets is a credit strength.

Fitch Analytical Stress Test (FAST)

The five-year forward look provided by Fitch's FAST considers the potential trend of key ratios in a base case and a stress case. The stress case is designed to impose capital costs 10% above expected levels and evaluate potential variability in projected key ratios. Management forecasts took into consideration a potential revenue reduction in fiscal 2021 due to the on-going pandemic.

Revenue in the scenario analysis are informed by assumptions provide by the city, including a 10% increase in fiscal 2020 due to the recent rate increase and an uptick in billable ERUs. Fiscal 2021 revenue reflects a 1% coronavirus sensitized assumption, followed by management's expectation of more typical growth patterns of 2% annually. Fitch assumes operating cost growth at 4.4% annually, in line with the three-year historical average. FAST also takes into consideration the system's planned capital spending and $53 million in debt funding as part of the series 2020 bonds proceeds. Additional debt in 2024 was estimated at $17 million per discussions with management.

Using these assumptions, leverage under the base case is projected to rise to 6.2x by fiscal 2024, with the stress rate producing slightly higher leverage of 6.6x by fiscal 2024. All scenarios support the current rating.

ASYMMETRIC ADDITIVE RISK CONSIDERATIONS

No asymmetric additive risk considerations affect the rating.

SOURCES OF INFORMATION

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG CONSIDERATIONS

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg

VIEW ADDITIONAL RATING DETAILS

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APPLICABLE CRITERIA

Public Sector, Revenue-Supported Entities Rating Criteria (pub. 27 Mar 2020) (including rating assumption sensitivity)

U.S. Water and Sewer Rating Criteria (pub. 03 Apr 2020) (including rating assumption sensitivity)

ADDITIONAL DISCLOSURES

Dodd-Frank Rating Information Disclosure Form

Solicitation Status

Endorsement Policy

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