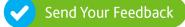
MOODY'S INVESTORS SERVICE

CREDIT OPINION

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Harris County Flood Control District, TX

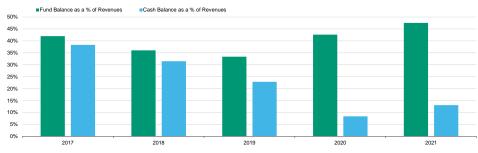
Update to credit analysis

Summary

Harris County Flood Control District, TX's (Aaa stable) credit profile is anchored by a large and global economy complemented by stable demographics that continue to drive its expansive and growing tax base. The district is coterminous with Harris County (Aaa stable). As such, its economy is grounded in energy and resources, healthcare and logistics and transportation. Despite fluctuations in the energy industry, the area's economy has steadily improved over the past two decades. The financial profile is strong, even though its operating history includes surpluses and deficits due to its mandate that drives high capital investment to improve the area's resiliency to weather events. Nevertheless, the district's reserves remain strong (see Exhibit 1). Environmental considerations remain a challenge for the area but part of the exposure is mitigated by the district and county's initiatives as well as multilevel government funding for infrastructure investment to improve the area's resiliency. The pension profile is manageable. However, debt levels will increase over the next few years because of expected substantial issuance over the next five to 10 years to support flood control initiatives. Even so, fixed costs will remain affordable, supported by a large and established economy.

Exhibit 1

Reserves have consistently exceeded 30% of revenue and are growing Cash has reduced in recent years due to the timing mismatch of capital projects and when related grants are received



Source: Harris County Flood Control District, TX Audited Financial Statements

Credit strengths

- » Large and important economy driving assessed value growth
- » Strong management team with a history of generating large surpluses
- » Healthy reserves with ample liquidity in the operating funds

Credit challenges

- » Area is prone to weather related events due to location close to Gulf Coast
- » Sizeable debt issuance expected in the next few years for flood control projects

Rating outlook

The stable outlook reflects the county's important and expansive economy which will sustain its tax base and support property taxes, the largest source of operating revenue. This coupled with prudent fiscal practices will allow ample reserves to remain and allow debt and pension levels to remain affordable over the next five years.

Factors that could lead to an upgrade

» Not applicable

Factors that could lead to a downgrade

- » Substantial reduction in reserves
- » Material economic contraction signified by weakening in key indicators
- » Substantial additional debt that results in levels incompatible with peers

Key indicators

Exh	ibit	2

Harris County Flood Control District, TX	2017	2018	2019	2020	2021
Economy/Tax Base					
Total Full Value (\$000)	\$411,244,560	\$427,612,922	\$438,911,302	\$471,900,419	\$494,885,299
Population	4,525,519	4,602,523	4,646,630	4,680,609	4,680,609
Full Value Per Capita	\$90,872	\$92,908	\$94,458	\$100,820	\$105,731
Median Family Income (% of US Median)	93.3%	93.5%	92.2%	91.5%	91.5%
Finances					
Operating Revenue (\$000)	\$164,998	\$169,037	\$174,011	\$177,669	\$198,320
Fund Balance (\$000)	\$69,244	\$60,918	\$58,042	\$75,682	\$94,312
Cash Balance (\$000)	\$63,231	\$53,238	\$39,785	\$14,908	\$25,934
Fund Balance as a % of Revenues	42.0%	36.0%	33.4%	42.6%	47.6%
Cash Balance as a % of Revenues	38.3%	31.5%	22.9%	8.4%	13.1%
Debt/Pensions					
Net Direct Debt (\$000)	\$590,280	\$553,820	\$541,060	\$634,370	\$741,005
3-Year Average of Moody's ANPL (\$000)	\$1,040,886	\$89,140	\$92,833	\$102,647	\$119,957
Net Direct Debt / Full Value (%)	0.1%	0.1%	0.1%	0.1%	0.1%
Net Direct Debt / Operating Revenues (x)	3.6x	3.3x	3.1x	3.6x	3.7x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	0.3%	0.0%	0.0%	0.0%	0.0%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	6.3x	0.5x	0.5x	0.6x	0.6x

Financial data includes the district's operating and debt service funds

Source: Harris County Flood Control District, TX Audited Financial Statements

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Profile

Harris County Flood Control District is a conservation and reclamation district created by the Texas Legislature in 1937 to control storm and floodwaters in the area. The district's taxing boundary is co-terminus with the county.

Harris County, home to the <u>City of Houston</u> (Aa3 stable), is the third most populous county in the nation with a total population of over 4.5 million people. The economy is driven by energy and resources, manufacturing and logistics.

The district and county are governed by the Harris County's Commissioners' Court.

Detailed credit considerations

Economy and tax base: large economy drives tax base growth, district's boundaries are coterminous with the county

Harris County's strong economic performance will remain over the next five to 10 years supported by a large and more diversified economy and strong assessed valuation growth. Despite a variety of challenges in the past decade such as a major weather event, lower oil prices and the coronavirus pandemic, that threatened to weaken the county's economic output, economic and associated tax base growth have been steady reflecting sustained demand (both commercial and residential) for the area.

The district's boundaries are coterminous with the county. Anchored by the City of Houston, a critically important global economic hub, the county's longer term economic outlook is solid because of favorable demographic trends and high demand for its main economic sectors: energy, healthcare and life sciences and logistics and transportation.

Population growth has been persistent, recording double digit increases in the past four census cycles. In 2020, the American Community Survey estimated population at 4.7 million, an increase of over 14% since 2010. Historical access to abundant job opportunities has supported high labor force participation. A sharp drop in jobs at the early onset of the pandemic forced unemployment levels to a high 9% in 2020. However and since then, strong recovery has erased some of the losses, allowing the county's June 2020 unemployment rate to reach 4.9%, slightly above the state's and the nation's rates recorded during the same time per the Bureau of Labor Statistics.

Like other large urban areas, the county's income indicators lag the nation with the 2020 median family income at 91.5% of the nation. Positively, the median home value is low at 82.4% of the nation, signaling relatively low home affordability difficulties compared with peers.

Real property accounts for over 86% of the county's tax base with the rest from personal property. Mineral values are minimal in the area. With significant investment and redevelopment, assessed value has grown each year since fiscal 2011 yielding a sizeable \$508.8 billion in fiscal 2022. The fiscal 2022 value is a 2.8% increase over the prior year bringing the five year average to 4.4%. The preliminary taxable value for fiscal 2023 is \$572.4 billion, a more than 12% increase from the prior year.

Financial operations and reserves: operating performance is steady, history of ample reserves

The district's solid financial position will remain supported by relatively stable property taxes even though its operating performance will continue to reflect a steady use of reserves to meet capital needs associated with flood control.

The county started a new fiscal year on March 1, 2022 and will only record seven months of operations for the year, given a change in the fiscal year end to September 30. As of the most recent (April) monthly financial report, revenues are below expenditures by \$14.1 million for the first two months. However, this result will likely reverse with the receipt of property taxes, the largest source of revenue. Property taxes are billed on October 1 each year and considered past due by February 1 of the following year. Most Texas local governments receive the bulk of their property taxes between December and January.

Unaudited results for fiscal 2022 (February 28 year end) showed the district ended the year with a \$34.9 million surplus in its main operating fund allowing the total fund balance to reach \$105.6 million, over 80% of its revenues for the year. In the district's debt service fund, the total fund balance grew to \$39.3 million.

The district's unaudited fiscal 2022 results follow strong operations in fiscal 2021 which marked the second consecutive surplus the district has recorded in its general fund in the past six years following a period of draws. Even so, reserve levels remained robust at year end with the unaudited available fund balance at \$70.7 million, 55% of operating revenue. Including the debt service fund, available

reserves totaled \$94.3 million, 47.6% of revenue. Reserve levels will fluctuate over the next three to five years as the district embarks on flood control projects to increase its resiliency to future storms.

The Flood Control District maintains flexibility and ample capacity to access additional tax revenue with its current tax rate of \$0.31 (\$0.26 for operations and \$0.05 for debt service), well below its cap of \$3. The tax rates are set by the county's Commissioners Court.

Liquidity

Cash levels in the general fund have decreased in the past few years due to the timing mismatch between capital projects and when the district receives grants which are only paid on a reimbursement basis. Even so, the district's liquidity will stabilize over the next several years as revenues benefit from a stable source - property taxes.

As of the April 30 monthly financial report, the district reported about \$98.6 million in cash. This is up from the \$33.3 million reported at fiscal year end 2022 based on unaudited results. In fiscal 2021, the district's cash was a limited \$3.1 million as reported in its main operating fund. Including the debt service fund, cash totaled \$25.9 million, 13.1% of operating revenue.

Debt and pensions: affordable pensions, low debt will increase to meet flood control mandates

Harris County Flood Control District's debt profile will increase but should remain affordable supported by the county's expansive economy and tax base growth which will drive property tax receipts. Including the September 2022 sale, the district will have \$819.9 million in general obligation limited tax debt, equal to a low 0.2% of its tax base. However, this number will increase given significant expected issuance over the next several years.

The district is mandated to provide storm and flood control for the area. Following Hurricane Harvey in 2017, Harris County voters authorized \$2.5 billion in debt for flood control for the area. Following the sale, the district will have \$1.9 billion in authorized unissued debt which will be issued in various installments over the next 10 years. The district's flood control efforts will be augmented by other initiatives funded from funds from other governments as well as the somewhat newly created Flood Resilience Trust which will receive funds from the county's Toll Road Authority. Payout is affordable with 60% of principal retired in 10 years.

Legal security

The bonds are payable from a direct and continuing annual ad valorem tax, levied on all taxable property in the district within the limitations prescribed by law.

Debt structure

The debt service schedule ascends slightly through fiscal 2027 before descending over through final maturity scheduled for 2047.

Debt-related derivatives

The district's outstanding debt is largely fixed rate but includes a commercial paper program (\$700 million total). Commercial paper is used for capital purposes, in anticipation of periodic long term bond issues.

External liquidity for the program is provided by <u>JPMorgan Chase Bank</u> (Aa2 stable) and <u>PNC Bank N.A.</u> (A2 stable), both of which have short term ratings of P-1. The district has no general government swap exposure.

Pensions and OPEB

The district provides retirement, disability and death benefits for all of its non-temporary employees through a nontraditional defined benefit pension plan in the statewide Texas County and District Retirement System (TCDRS). The district has consistently fully funded its annual required contributions. However, we note that TCDRS' discount rate of 7.6% is higher than most large US public pension systems and highlights the system's vulnerability to pension asset volatility. Although the rate was reduced from the 8% reported in the prior year.

We gauge pension investment risks at the issuer level using our "pension asset shock indicator," which is our estimate of the one-year probability of a pension investment loss amounting to 25% of a government's operating revenue. The indicator is a function of size of pension assets compared with revenue and asset volatility risk. The higher the assumed rate of investment return, the higher the expected volatility or standard deviation of returns that we assign, based on our estimated efficient frontier. Given the high assumed rate of return and sizable pension assets accumulated, the district's pension asset shock indicator of 0.5% was well below the median 6% for the entities covered in our most recent survey of the nation's largest local governments.

Unfunded pension and other post employment benefits (OPEB) liabilities should remain affordable, although the district's discount rate is high highlighting its risk to pension asset volatility. Our fiscal 2021 adjusted net pension liability (ANPL) for the district, using a 2.52% discount rate, is \$148.6 million, an affordable 74.9% operating revenue. In comparison, the district reported a GASB net pension liability of \$14.5 million, using a 7.6% discount rate. The three year average ANPL was less than 1 times operating revenue and less than 1% of full value.

The district has a strong history of making required contributions and in fiscal 2021, the district paid about \$3.6 million, which was above the our calculated "tread water" level of \$2.3 million. The "tread water" indicator measures the annual government contribution required to prevent the reported net pension liability from growing under reported assumptions. Although actual contributions were higher than tread water, the indicator is understated given that the discount rate remains high.

The district offers other post-employment benefits (OPEB) to its retirees in the form of medical, dental vision and basic life insurance benefits. The plan has historically been funded on a pay as you go basis; county officials expect this will continue. In fiscal 2021, the district contributed \$1.5 million. The district's adjusted net OPEB liability was \$77.4 million. At 39% of revenue, the liability is an affordable source of balance sheet leverage.

Total fixed costs (pensions, debt and OPEB) was \$59.3 million or a high but manageable 29.9% of operating revenue, with debt service accounting for most the costs at 27.3%.

ESG considerations

Environmental

Harris County's overall E issuer profile score is moderately negative (E-3). Please see the county's most recent credit opinion for more detail.

Social

The county's S issuer profile score is neutral to low (S-2). Please see the county's most recent credit opinion for more detail.

Governance

Harris County's strong governance profile supports its rating as captured by a positive G issuer profile score (G-1). Please see the county's most recent credit opinion for more detail.

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