

CREDIT OPINION

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Metro. Water Reclam. Dist. of Greater Chicago

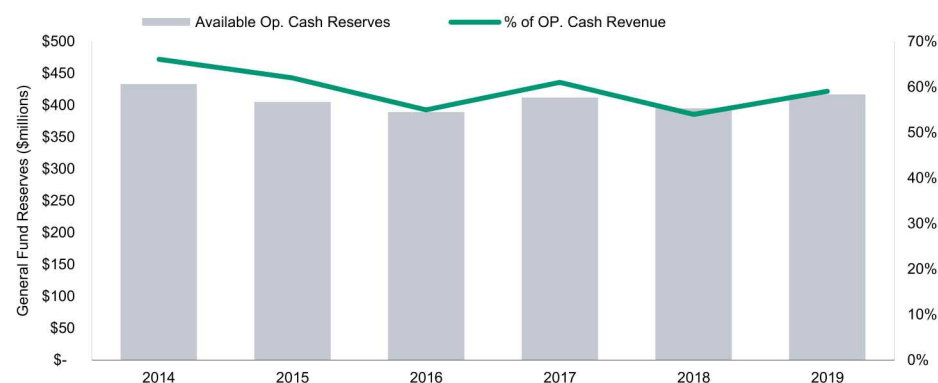
Update to credit analysis

Summary

The [Metropolitan Water Reclamation District of Greater Chicago, IL's](#) (Aa2 stable) has experienced minimal revenue and expenditure impacts from coronavirus given low dependence on economically sensitive revenue sources. The district's ample reserves remain a credit strength. While the district is coterminous with [Cook County](#) (A2 stable), its governance and legal structure is independent from any other local government. The district benefits from a very large tax base and diverse economic composition that serves as the largest regional economic center in the Midwest. The district's challenges include elevated debt burden and pension burdens of the district and overlapping local governments.

We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. Metropolitan Water Reclamation District of Greater Chicago, IL (MWRD) is not susceptible to immediate material credit risks related to coronavirus. The longer term impact will depend on both the severity and duration of the crisis. The situation surrounding coronavirus is rapidly evolving. If our view of the credit quality of Metropolitan Water Reclamation District of Greater Chicago, IL changes, we will publish our updated opinion at that time.

Exhibit 1

**District operating fund reserves have remained consistently strong
 MWRD available operating fund cash**


Source: Audited financial statements; Moody's Investors Service

Credit strengths

- » Large diverse economy anchored by [Chicago](#) (Ba1 stable)
- » Healthy financial operations with ample fund balance and liquidity
- » Governance structure is independent from other local governments

Credit challenges

- » Property taxes, the district's key revenue source, are subject to caps on rates and annual levy increases
- » Elevated direct and overall debt and pension burdens
- » Fixed costs comprise a high percentage of the operating budget

Rating outlook

The stable outlook reflects the district's successful absorption of higher fixed costs into its budget without eroding reserves. Also considered is that revenue and expenditure impacts related to Corona virus have been minor and are expected to remain so. We expect the district's management team will continue to make timely budget adjustments as needed.

Factors that could lead to an upgrade

- » Moderation of the direct and overlapping debt and pension burdens

Factors that could lead to a downgrade

- » Declines in operating reserves or liquidity
- » Growth in the direct or overlapping debt or pension burdens

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Key indicators

Exhibit 2

Metropolitan Water Reclamation District of Greater Chicago	2015	2016	2017	2018	2019
Economy/Tax Base					
Total Full Value (\$000)	\$499,136,554	\$528,843,259	\$559,685,160	\$585,788,374	\$585,788,374
Population	5,236,393	5,227,575	5,238,541	5,180,493	5,180,493
Full Value Per Capita	\$95,321	\$101,164	\$106,840	\$113,076	\$113,076
Median Family Income (% of US Median)	102.0%	103.2%	103.0%	103.0%	103.0%
Finances					
Operating Revenue (\$000)	\$655,831	\$713,250	\$675,381	\$738,590	\$695,845
Fund Balance (\$000)	\$440,990	\$471,809	\$469,531	\$469,326	\$432,908
Cash Balance (\$000)	\$405,039	\$389,200	\$412,433	\$395,097	\$417,152
Fund Balance as a % of Revenues	67.2%	66.1%	69.5%	63.5%	62.2%
Cash Balance as a % of Revenues	61.8%	54.6%	61.1%	53.5%	59.9%
Debt/Pensions					
Net Direct Debt (\$000)	\$2,860,467	\$2,968,045	\$3,032,770	\$2,956,022	\$2,861,314
3-Year Average of Moody's ANPL (\$000)	\$1,869,250	\$1,921,929	\$2,095,119	\$2,172,533	\$2,234,710
Net Direct Debt / Full Value (%)	0.6%	0.6%	0.5%	0.5%	0.5%
Net Direct Debt / Operating Revenues (x)	4.4x	4.2x	4.5x	4.0x	4.1x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	0.4%	0.4%	0.4%	0.4%	0.4%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	2.9x	2.7x	3.1x	2.9x	3.2x

The table above reflects data through the close of fiscal 2019.

Source: Moody's Investors Service; MWRD audited financial statements; US Census Bureau

Profile

The Metropolitan Water Reclamation District of Greater Chicago is the sanitary district for nearly all of Cook County. It provides collection and treatment services for approximately 5.2 million people over 882 square miles, including residents of the City of Chicago and 129 suburban communities.

Detailed credit considerations

Economy and tax base: large, diverse tax base will be significantly impacted by outbreak

The coronavirus is driving an unprecedented economic slowdown. We currently forecast US GDP to decline significantly during 2020 with a gradual recovery commencing toward the end of the year. Local governments with the highest exposure to the tourism, healthcare, retail, oil and gas and international trade sectors could suffer particularly severe impact. Chicago's labor force composition mirrors the US with slightly fewer employed in government and the military and slightly more in services and transportation. As of April 2020 unemployment in Cook County surged to 18%, a slightly more severe rise than the nation.

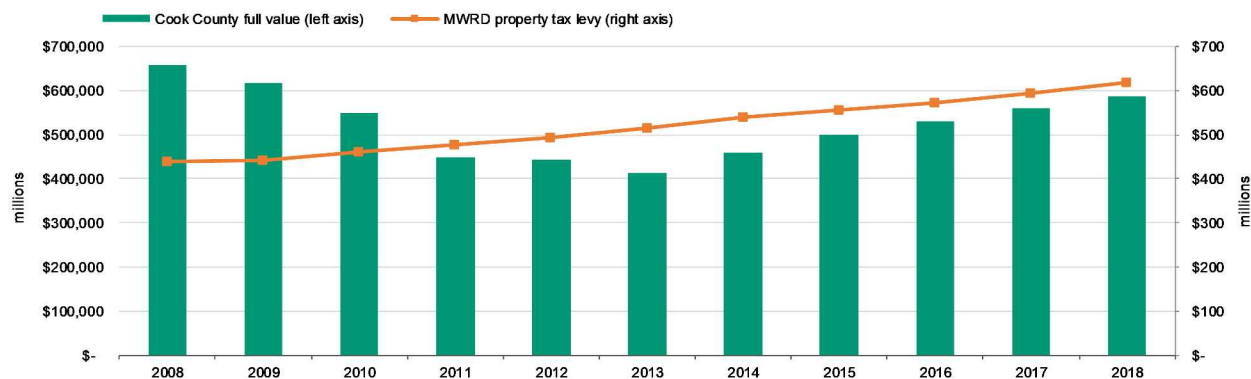
Cook County is the second largest county in the country and serves as a regional economic hub for a large swath of the Midwest. Prior to the coronavirus outbreak the county was realizing steady appreciation of property and new development and positive trends of most economically sensitive revenues. However, due to decreased economic activity associated with social distancing measures to prevent further spread of the coronavirus, the county assessor is currently evaluating the impact on assessments.

MWRD is unlikely to see a decline in tax revenues even if there is a decline in valuations. The district has ample headroom under tax rate limitations. For example, in 2019 the corporate fund tax rate was 0.159 compared with a statutory cap of 0.410. The district sets its annual levy at a dollar amount, that the Cook County assessor distributes among taxpayers and applies the applicable tax rate up to the statutory limits. If valuations fell, the tax rate would roll up to offset declines up to the rate cap. In addition to rate limits, the district is subject to growth on yield established Illinois' Property Tax Extension Limitation Law (PTELL), which limits annual growth in the district's property tax levy to the lesser of 5% or the consumer price index (CPI). The district levied to capture the maximum amounts allowable under PTELL for fiscal 2019. During the previous two economic downturns, property tax collection rates remained strong. Property taxes accounts for the largest portion of operating fund revenues for the district at 84% in fiscal 2019.

Exhibit 3

District levies property tax to capture maximum amounts under PTELL

Comparison of the county's estimated full valuation and MWRD property tax revenue 2008-2018



Source: Audited financial statements

Financial operations and reserves: strong reserve levels expected to mitigate coronavirus related revenue losses

The economic downturn is expected to have a minimal impact on the district's financial position, given strong reserve levels and low dependence on economically volatile revenue sources. The district is seeing minimal impacts on revenues and expenditures related to coronavirus. Management reports additional costs related to the coronavirus are expected to be around \$7.2 million, including \$6.2 million in personnel costs, while overall revenues in the general corporate fund, are estimated to come in \$10.4 million under budget. Charges for services, Personal Property Replacement Tax (PPRT), and investment income have seen the biggest revenue declines during the pandemic. However, management reports revenue collections were very strong at the end of the first quarter, will help mitigate some of the losses during the second quarter. Charges for service are the district's second largest source for the district, but only comprise 11.8% of revenue.

The district has budgeted for largely balanced operations for fiscal 2020, however the general corporate fund could end with a shortfall of up to \$17 million because of the increased expenses and revenue loss. If fully realized the impact would be very minor relative to its \$700 million budget and strong reserves. At the close of fiscal 2019, available reserves across district operating funds (combined general, debt service, construction, retirement, and stormwater management funds) totaled \$469.3 million, equal to an ample 64% of operating revenues.

LIQUIDITY

Net cash across district operating funds is expected to remain strong. At the close of fiscal 2019, net cash totaled \$417 million, equal to a healthy 60% of operating revenue, up from \$395 million, or 54% of revenues.

Debt and pensions: elevated direct and overlapping debt and pension burdens

Long-term leverage related to debt and pensions will remain a primary credit challenge. As of fiscal 2019, the district's direct debt burden was low relative to tax base valuation at 0.5%. However, the direct debt burden was elevated when compared to operating revenue at 4.1x. Debt service accounted for a high 35% of operating revenues in fiscal 2019. The district's high debt service costs are largely attributable to the capital intensive nature of the district. The capital program calls for approximately \$1 billion in system improvements over the next five years. The district's debt burden will remain high, but the use of grants and pay-go capital financing should prevent material growth in the debt burden.

Overall fixed costs (combined debt service, pension and other post-employment benefits) equaled a very high 49% of operating revenue. Pension liabilities are above average. As of fiscal 2019, the district's three year average Moody's adjusted net pension liability (ANPL) totaled \$2.2 billion, equal to a significant 3.2x operating revenue and 0.4% of full valuation. The district has fully absorbed statutorily required increases to pension contributions in its budget, but is contributing above the required minimums (see Pensions and OPEB section for details).

The district's tax base is further leveraged from the substantial debt and pension obligations of overlapping local governments. As of fiscal 2019, the district's overall debt burden equaled 4% of full valuation, which largely reflects the tax-supported debt of Cook County, the City of Chicago and Chicago Public Schools (B2 stable). This figure does not include the unfunded pension liabilities for those local governments which are substantial.

DEBT STRUCTURE

All of the district's debt is fixed rate and long-term. Amortization of debt is moderate, with 44% of principal set to be retired over the next ten years. The district's \$2.9 billion in debt includes state revolving fund (SRF) loans, general obligation unlimited tax (GOULT) bonds, general obligation limited tax (GOLT) debt service extension base (DSEB) bonds, bond anticipation notes (BANs) and capital leases. GOLT DSEB debt is paid from the district's DSEB, which totaled \$169 million in fiscal 2019. The DSEB base provides sufficient coverage on outstanding GOLT debt, assuming no growth in the DSEB base.

DEBT-RELATED DERIVATIVES

The district is not a party to any derivative agreements.

PENSIONS AND OPEB

Eligible district employees participate in the Metropolitan Water Reclamation District Retirement Fund, a single-employer defined benefit pension plan. Employee and employer contribution levels are defined by state statute and have historically been insufficient to reduce unfunded liabilities. In August 2012, the Illinois General Assembly passed Public Act 97-0894, which provides for additional pension funding through increased employer and employee contributions. As a result, the district's statutory employer multiplier was increased to 4.19 times from 2.19 times. The reform increased employee contributions by 1% annually for three years, going from 9% to its current 12%. The reform requires the district to contribute the lesser of 4.19 times the employee contribution or the actuarially determined amount. However, Section 5.9 of 70 ILCS 2605 also allows the district, by a vote of two-thirds of its board members, to contribute interest earnings from some of the district's operating funds to the Retirement Fund. In addition to its legislated pension reform, in September 2014, the district adopted a new funding policy that directs it to contribute an annual amount to the fund that will result in a funded ratio of 100% by 2050. In addition, the District introduced legislation this year to expand the express authorization to contribute other forms of revenue to the Retirement Fund in addition to the real estate tax levy and interest income to further increase the funding of the pension plan.

Due to these changes, the district's pension contributions have increased significantly in recent years. In fiscal 2019, district contributions were \$87.4 million and 12.6% of operating fund revenues, up from \$30 million and 6% revenues in fiscal 2010. The district's fiscal 2019 contributions were just short of "tread water" in fiscal 2019¹ The shortfall was \$24 million, or a negligible 0.3% of operating revenues. The district plans to make approximately \$107 million in pension contributions for fiscal 2020, and in March 2020 contributed \$20 million in excess interest income to the retirement fund.

The district's reported unfunded other post employment benefit (OPEB) liability as of December 31, 2019, the most recent actuarial valuation date, was \$72 million or a minimal 0.1x operating revenue. The district recently amended its funding policy to achieve a 100% funding level by 2027, using an assumed discount rate of 6.5%.

ESG considerations

Environmental

Environmental considerations are driving the system's extensive capital needs and high debt burden. According to data of Moody's affiliate, Four Twenty Seven, Cook County is at high risk for extreme rainfall events relative to counties nationally. The system's Tunnel and Reservoir Plan (TARP, deep tunnel) aims to reduce flooding and protect waterways by substantially increasing reservoir capacity. MWRD is currently in phase two, which is expected to be completed in 2029. TARP is one of the country's largest public works projects for pollution and flood control.

Social

We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. Social considerations impact the district's credit profile. Metropolitan Water Reclamation District of Greater Chicago, IL's local economy benefits from its role as the business, finance, transportation and tourism hub for the Midwest, as detailed in the Economy

and Tax Base section. Overall county demographics average, and unemployment rates are on par with the state and median averages. Like many areas across the county, the Chicago area has been subject to social unrest. For more information please see the following Moody's report: [Social unrest and underlying inequality pose fiscal and governance credit risks](#).

Governance

The district maintains legal separation of management and governance from other overlapping units of local government. The district's legal separation reduces the risk that financial pressures experienced by the other Chicago area local governments will directly impact the district's financial position. Cook County residents elect the district's Board of Commissioners, a board of nine members who serve six-year terms. The executive director, who is appointed by the Board of Commissioners, manages and controls district operations. Management has demonstrated a willingness to control operating expenditures.

Illinois utility districts have an institutional framework score of "Aa" or strong. We expect property tax revenues to remain largely stable given significant margin under rate limits to adjust for fluctuations in the tax base. However, in addition to rate caps, the district is subject to the PTELL, which limits growth in property tax extensions to the lesser of 5% or the CPI.

Endnotes

- 1 Our "tread water" indicator measures the annual government contribution required to prevent reported net pension liabilities from growing, given the entity's actuarial assumptions.

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