

RatingsDirect®

Southern California Metropolitan Water District; General Obligation; Water/Sewer

Primary Credit Analyst:

Chloe S Weil, San Francisco (1) 415-371-5026; chloe.weil@spglobal.com

Secondary Contact:

Jenny Poree, San Francisco (1) 415-371-5044; jenny.poree@spglobal.com

Table Of Contents

Rating Action

Stable Outlook

Credit Opinion

Southern California Metropolitan Water District; General Obligation; Water/Sewer

Credit Profile

US\$284.02 mil water rev rfdg bnds ser 2020 C due 07/01/2040

<i>Long Term Rating</i>	AAA/Stable	New
-------------------------	------------	-----

Southern California Metro Wtr Dist wtr

<i>Long Term Rating</i>	AAA/Stable	Affirmed
-------------------------	------------	----------

Rating Action

S&P Global Ratings assigned its 'AAA' long-term rating to the Southern California Metropolitan Water District's (MWD, or the district) 2020 series C senior-lien water revenue refunding bonds. At the same time, S&P Global Ratings affirmed its various ratings on the district's existing revenue bonds, including its:

- 'AAA' long-term rating and underlying rating (SPUR) on MWD's senior-lien revenue bonds;
- 'AA+' long-term rating on MWD's subordinate-lien revenue bonds;
- 'AAA/A-1+' rating on MWD's special variable-rate water revenue bonds (variable-rate bonds with bank liquidity facilities), 2018 series A-1 and A-2;
- 'AAA/A-1' rating on MWD's special variable rate water revenue refunding bonds, 2016 series B-1 and B-2, and its series A water revenue bonds (2017 authorization), and its series B-3 water revenue bonds (2000 Authorization); and
- 'A-1+' rating on MWD's subordinate water revenue refunding bonds, series 2017 C, 2017 D, and 2017 E (SIFMA Index Mode).

The outlook, where applicable, is stable.

The \$350.2 million of senior-lien 2020 series C proceeds will be used to refund the district's outstanding series 2010A&B, 2014C-2, 2014G-5, and short-term notes (which will refund a portion of the subordinate water revenue refunding bonds, 2017 series B) for debt service savings. Prior to the issuance of the 2020 series C bonds, the district had approximately \$2.5 billion aggregate principal amount of senior-lien bonds and \$1.5 billion of subordinate-lien debt outstanding.

The district has recently been focused on de-risking its debt portfolio and taking advantage of historically low interest rates by refunding a portion of its variable rate portfolio with fixed-rate debt. It most recently entered into a direct purchase with Wells Fargo in April 2020 that fixed out \$271.8 million of its self-liquidity weekly variable rate demand obligations. MWD currently has \$825 million of outstanding variable rate debt, of which \$331 million is unhedged, which complies with its debt, investment, and cash management policies.

We consider the bond provisions to be credit neutral. According to the indenture, the district must demonstrate that net operating revenue for the past fiscal year or 12 of the past 24 months to issue additional senior-lien revenue bonds,

or projected net operating revenue for the first year after financed water improvements have been completed must be at least 1.2x future maximum annual debt service (MADS) on previously issued and proposed bonds. The district may adjust revenue for enacted changes in water rates and charges as well as projected revenue from additions to the water system. There will not be a debt service reserve fund for the 2020 series C bonds.

Credit overview

The rating reflects the district's important role as the primary wholesale water provider to an extremely robust and diverse service territory in Southern California. We also recognize the district's ongoing efforts to bolster water storage, execute opportunistic exchange agreements with other water purveyors, and support conservation and local resources, all of which help mitigate the district's future supply challenges. The district's extremely strong financial management, which includes conservative financial forecasting, and well-delineated policies to address any contingent liabilities provide additional support for the ratings.

S&P Global Economics acknowledges a high degree of uncertainty related to the effects of COVID-19, including the rate of spread and peak of the outbreak. Nevertheless, we believe measures to contain COVID-19 have pushed Southern California into economic recession. Although we believe the district's volumetric sales could be affected by reduced economic activity in the region depending on the length of the recession, in our view, this risk is somewhat mitigated by its healthy liquidity position, as well as strong contracting provisions with its members.

The ratings further reflect our view of the district's:

- Ability to draw water supplies from the Colorado River, the State Water Project (SWP), stored water, and supplemental water transfers to keep supplies and regional demands in balance;
- Record dry-year storage balances (3.1 million acre-feet, or over two-years of demand, as of Dec. 31, 2019) that we believe helps to mitigate future drought and climate-related risks;
- Strong member credit quality, particularly that of San Diego County Water Authority (SDCWA) and LADWP;
- Demonstrated willingness and ability to raise rates, with board-approved 3.0% rate increases effective Jan. 1, 2019, and Jan. 1, 2020, and increases of 3.0% and 4.0% effective Jan. 1, 2021 and Jan. 1, 2022, which in our view, will support sound financial metrics over the outlook period; and
- The potential for substantial borrowing in the future to help finance environmental mitigation efforts and conveyance system upgrades in the Sacramento-San Joaquin River Delta as well as potential local supply projects, including the Regional Recycling Water Program.

The stable outlook reflects our view that Southern California's continued dependence on MWD for water will likely remain strong, and that MWD's ability to supply needed water is critical to the health of the Southern California economy, creating a large political incentive to meet future water demand. Because the customer base is sufficiently large and diverse, in our view, MWD has no dependence on any of its principal member agencies for its operating revenues. Although we rate its debt above that of the U.S., MWD has a predominantly locally derived revenue base. Local service charges, derived through an autonomous rate-setting process, represent virtually all of the entity's revenues. This, coupled with operating expense flexibility, precludes exposure to federal revenues.

Environmental, social, and governance factors

Given its location in Southern California, we believe MWD faces elevated environmental risk due to the region's inherent water supply scarcity and seismic exposure. In particular, its imported water supply (both the SWP and the Colorado River) remain susceptible to environmental scrutiny and risks related to climate change, rising temperatures and shifting precipitation patterns. We expect MWD will continue to play a key role regarding Delta conveyance and resource management in the Colorado River basin over the next decade. Over the near-term, management will be faced many other critical water supply decisions which could require massive capital investments, such as whether to proceed with its \$3.4 billion Regional Recycled Water Project, which while costly, we would consider favorable from an environmental stewardship perspective. MWD's comprehensive resource planning and risk management practices have been a cornerstone of the credit rating, resulting in credit stability despite past periods of drought, litigation, and water supply uncertainties. Metropolitan's general manager will be stepping down at the end of this year, after an accomplished fifteen year tenure at the helm of the organization. Given the complexities of the organization, having a leader with commensurate skill and experience in the water industry will be important to ongoing credit quality.

There have been a number of recent headlines regarding the detection of per- and polyfluoroalkyl substances (PFAS) in the groundwater of several of the district's members, primarily in Orange County. We do not consider these pollutants a material credit factor for MWD, given that the district does not pump groundwater on behalf of its members. Nevertheless, we note that MWD has revised its near-term sales projections by shifting 50,000 acre-feet of untreated water sales to treated water, which will raise the cost of water to the retailers affected temporarily.

The district is sensitive to affordability concerns, given that retail water rates in its service area may not be affordable for all customers served (particularly those living in census tracts below 80% of median household income, which we estimate is comprised of about 50% of the population.) MWD oversees targeted programs for increasing water conservation in disadvantaged communities, such as by providing incentives for multi-family housing and grant funding support for the local agencies. We believe COVID-19 presents added social risk, as MWD's member agencies could seek rate deferrals or reductions as the pandemic spreads and the recession deepens.

While not currently a credit risk, in our view, persistent negative public sentiment or rising political pressure--especially should decision-makers' willingness and ability to raise rates in a rising cost of service environment--would adversely affect our view of its governance practices.

Stable Outlook

Downside scenario

Should there be sustained deterioration in the credit fundamentals, primarily measured by total financial capacity, we could revise the outlook to negative or lower the rating. If, as S&P Global Economics projects, the recovery does not begin until late in the third quarter of 2020, we believe that credit conditions will face headwinds even into 2021. We believe this increases the possibility that unfavorable variances to budget could extend beyond fiscal 2020. For more information, see "COVID-19's Potential Effects In U.S. Public Finance Vary By Sector" (published March 5, 2020, on RatingsDirect), "All U.S. Public Finance Sector Outlooks Are Now Negative" (published April 1, 2020), and "An Already Historic U.S. Downturn Now Looks Even Worse" (published April 16, 2020). We could also lower the ratings or revise

the outlook to negative, or both, if water sales decline materially from current levels--due to the development of significantly lower cost water supply alternatives or the loss of a major member--although we believe neither is likely to occur over the two-year outlook period.

Credit Opinion

MWD is the main water wholesaler to 26 member agencies in a service area of approximately 19 million people in Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties in Southern California. The district provides 40% to 60% of the water within its 5,200-square-mile service area, depending on water conditions. The leading 10 customers represented about 85% of water transaction revenue and water volume in fiscal 2019, with the SDCWA the largest customer by transactions at 24.4% of water volume resulting in the highest percentage of transaction revenue at 18%. Although no customer is required to purchase water from MWD, all members must pay a readiness-to-serve charge calculated from historical purchase levels.

The district's service territory is extremely large, offering it several advantages, including the ability to spread its costs over a large customer base. In addition, a very minor rate increase can generate millions in water transaction revenue. MWD filters and disinfects an average of 0.8 billion to 1.0 billion gallons of water per day at five treatment facilities, with a total maximum treatment capacity of 2.4 billion gallons per day. About 50% of MWD's delivered water requires treatment.

Metropolitan's contracting provisions are a key credit strength. Member agencies are billed monthly and a late charge of 1% of the delinquent payment is assessed for a payment that is delinquent for no more than five business days. A late charge of 2% of the amount of the delinquent payment is charged for a payment that is delinquent for more than five business days for each month or portion of a month that the payment remains delinquent.

Over the last five years, the district's water sales have declined to levels that are well below historical averages, as per capital consumption has declined and the member agencies, primarily the Los Angeles Department of Water and Power (LADWP), have relied on alternative supplies when available. For example, the district's sales declined from 2.1 million-acre feet (MAF) in fiscal 2014 to 1.4 million MAF in fiscal 2019.

The district is forecasting water transactions to rise slightly to 1.48 MAF in fiscal 2020, however, the current forecast is below the mid-year projection of 1.55 million acre-feet for fiscal 2020. The lower than budgeted sales are primarily due to weather, although we understand the slowdown in economic activity due to the shelter-in-place is also a factor. Both the State Water Project and Colorado River System are experiencing below average runoff of 52% and 68%, respectively, this year. Moreover, depending on the extent of the recession, and as future weather conditions also remain uncertain, we believe the district's revenue may decline further in fiscal 2021 and beyond, though ultimately our expectation is that management will continue to manage rates and charges to maintain strong coverage levels.

For forecasting purposes, the district assumes that water transactions will rebound to 1.6 MAF in fiscal 2021 and gradually rise to 1.74 MAF in fiscal 2026 and then remain stable thereafter. The forecast assumes Colorado River Aqueduct diversions of about 0.8 MAF to 0.9 MAF annually and SWP allocations of 50% annually. Although we believe these assumptions are reasonable as long-term averages, we expect that year-to-year actuals will vary

significantly based on annual hydrologic conditions and demand. In particular, demand from LADWP varies significantly depending on water availability from the southern Sierras, which feeds the Los Angeles Aqueduct.

The district has indicated that the shelter-in-place order has shifted some water use from the commercial, industrial and institutional customer classes to residential, and that in addition to increased indoor water use, outdoor use may increase as residents turn their attention to gardening during the stay-at-home time. Nevertheless, our forward-looking analysis incorporates a 10% cut to fiscal 2021 water transactions to reflect S&P Global Economics' economic outlook. Our current forecast assumes U.S. GDP will contract 5.3% in 2020 and a historic (annualized) decline of almost 35% in the second quarter given that U.S. economic activity has effectively stopped as a result of the COVID-19 pandemic.

Financial performance has been very strong despite recent declines in water sales. Fiscal 2019 operating revenue was \$1.3 billion, down 9.8% or \$144.5 million, below the prior year. The decrease was primarily due to \$136.5 million of lower water sales, offset by \$17 million of higher water rates. At the same time, operating expenses declined 8.8% year-over-year to \$869.7 million, while debt service declined to \$308 million from \$340 million. As calculated by S&P Global Ratings, MWD's all-in DSC was 1.43x in fiscal 2019, down from 1.63x in fiscal 2018 and 1.57x in fiscal 2017.

Based on forecasted revenue projections for fiscal 2020, operating revenues are projected at \$290.6 million below budget. However, operating expenses are also down by about \$123.7 million, as a result of lower water supply, power costs, and reduced demand side management expenditures. Debt service is also lower by \$47.5 million as the district prepaid some debt the prior year. As a result, despite the reduction in water sales, we expect fiscal 2020 financial metrics to remain consistent with recent trends, with forecasted coverage of 1.55x, which we consider very strong. Based on management's projections, DSC is forecasted to remain at levels generally consistent with past performance, ranging from 1.5x to 2.0x through 2025.

We performed a number of stress tests to evaluate future DSC. If we assume that water sales remain flat at 1.48 MAF in 2021, all else equal, coverage would remain at about 1.4x. We also assume that a further declines in water sales would partly be offset by a corresponding decline in water supply and power costs, therefore, in the absence of any extraordinary expenditures, we assume coverage will remain above the 1.2x, even under a protracted recession scenario. MWD board policy is to maintain 2.0x annual senior-lien DSC by net operating revenue, which we view as strong, and 1.2x fixed-charge coverage (across both the senior and subordinate liens), which we view as good, especially for a wholesaler.

MWD has historically held a strong liquidity position in part to serve as a natural hedge against its variable-rate debt exposure as well as a financial backstop in the event of a 20% reduction in water sales, due to hydrology or other factors. The total unrestricted reserve position (which consists of the water rate stabilization fund and the revenue remainder fund) at the end of fiscal 2019 was \$575 million, equivalent to 240 days' of operating expenses. Metropolitan expects to hold unrestricted reserves of about \$582 million at the end of fiscal 2020. Based on the 10-year forecast, management anticipates that unrestricted reserves will gradually rise to more than \$700 million by 2030.

Metropolitan's near-term capital program is manageable, in our view, as a relatively sizable portion of the CIP is funded on a pay-as-you-go basis. Management's current objective is to fund 55% to 60% of capital program expenditures, although future debt associated with the proposed \$3.4 billion 150 million gallons per day (mgd) recycled

water project (in partnership with Los Angeles County Sanitation) has not been incorporated into the current CIP. Current projections for fiscal 2021 through 2025 assume the issuance of approximately \$510 million in additional water revenue bonds to finance capital projects. Major capital projects include Colorado River Aqueduct improvements and refurbishments, distribution system renewal and replacement projects, system reliability projects, and various projects at its Weymouth Treatment Plant and Diemer Treatment Plant.

Colorado River Drought Contingency Plan

As unprecedented drought and growing demands have caused flows on the Colorado River to drop dramatically, storage levels in the system's two largest reservoirs--Lake Mead and Lake Powell--have also declined. In response, MWD, the federal government, states, and various other urban and agricultural water districts are working together toward a solution. The result is the Drought Contingency Plan (DCP)--a collection of agreements effective through 2026 within and among the seven western states in the Colorado River Basin to prevent the reservoirs from reaching critically low levels. Metropolitan has been a leader in this ongoing collaboration and is committed to working cooperatively within California and beyond to ensure the plan's success.

We view the DCP to be generally credit neutral to the district, as it will allow Metropolitan access at lower elevations to its conserved water stored in Lake Mead; MWD's water under the Intentionally Created Surplus Program would be available for delivery so long as Lake Mead's elevation remains above 1,025 feet. Previously, that water would likely have become inaccessible below a Lake Mead elevation of 1,075 feet. Moreover, Arizona and Nevada are first subject to the initial curtailments identified by the secretary of the interior.

MWD's average annual net deliveries for 2009 through 2018 from the Colorado River were nearly 957 thousand acre-feet (TAF) with annual volumes dependent primarily on programs to augment supplies, including transfers of conserved water from agriculture. In 2019, total available Colorado River supply was just over 1.0 MAF, although only 535 TAF was diverted, with the rest banked for future usage, which mitigates the risk of critical shortages over the near-term.

Delta Conveyance Modernization

On Feb. 12, 2019, Gov. Gavin Newsom presented a conceptual proposal at the State of the State address supporting a single-tunnel configuration for California WaterFix (initially proposed as three new water intakes and two 40-foot wide tunnels). At the governor's direction, on May 2, 2019, DWR withdrew the approval of the California WaterFix project, and rescinded the accompanying notice of determination (NOD) filed pursuant to the California Environmental Quality Act. Timing and project scope remain unknown but several single tunnel options were prepared by MWD staff and were presented at a board workshop on March 26, 2019, which indicate that a single tunnel with one intake could cost \$9.7 billion while a single tunnel with two intakes could cost \$11.8 billion; the district's proportionate share has not been specified.

Given that the WaterFix project was originally intended to address operational constraints on pumping in the south Delta as well as risks to water supplies and water quality from climate change and seismic events, we believe that alternative projects to bolster resiliency and address environmental concerns (particularly in the Delta) will need to be identified if a decision is made to not proceed with the single tunnel option. It is our understanding that a notice of preparation of environmental impact review was released on Jan. 15, 2020 and that the planning, environmental

review and conceptual design will take at least 18 to 36 months before more concrete timing and a cost allocation are known.

Local Projects

From S&P Global Ratings' perspective, local water supply projects in MWD's service area are generally viewed positively, even if they are owned and operated by the member agencies and not the district, given that they will help address water scarcity risks in Southern California during future periods of drought and high temperatures. The value, in our opinion, of MWD taking on local projects directly is potential cost savings related to economies of scale, its experience managing large capital projects, and that it has a large rate base over which to spread the costs.

One such project is the Regional Recycled Water Program, a partnership with the Sanitation Districts of Los Angeles County, which would produce up to 150 mgd, enough to serve more than 500,000 homes. Purified water from the advanced treatment facility would be delivered through 60 miles of new pipelines to groundwater basins in Los Angeles and Orange County, industrial facilities and two of MWD's treatment plants. No decisions to proceed with the project have been made at this time, but assuming 16 years to design and build, current estimates indicate it would cost \$3.4 billion to build, \$129 million annually to operate, resulting in a water cost of \$1,830 per acre-foot, which while expensive compared to MWD's existing cost of water, is generally comparable to other proposed recycled water projects in the region (estimated at \$1,500 to \$2,500 per acre-foot) but below the cost of alternatives like desalination (estimated at \$2,000 to \$4,000 per acre-foot by the district.)

Ratings Detail (As Of June 1, 2020)		
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/A-1/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	NR/NR	
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	NR/NR	
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/A-1/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/A-1/Stable	Affirmed

Ratings Detail (As Of June 1, 2020) (cont.)

Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/A-1/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/A-1+/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/A-1+/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/Stable	Affirmed
Southern California Metro Wtr Dist wtr <i>Long Term Rating</i>	AAA/Stable	Affirmed
Southern California Metro Wtr Dist wtr subord <i>Short Term Rating</i>	A-1+	Affirmed
Southern California Metro Wtr Dist wtr subord <i>Long Term Rating</i>	AA+/Stable	Affirmed
Southern California Metro Wtr Dist wtr (FGIC) (SEC MKT) <i>Unenhanced Rating</i>	AAA(SPUR)/Stable	Affirmed
Southern California Metro Wtr Dist GO <i>Long Term Rating</i>	AAA/Stable	Affirmed

Many issues are enhanced by bond insurance.

Copyright © 2020 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.