

RatingsDirect®

Summary:

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

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Credit Profile		
US\$213.97 mil wtr rev bnds 2020 ser A due 10/01/2049		
<i>Long Term Rating</i>	AAA/Stable	New
US\$154.93 mil subord wtr rev rfdg bnds 2020 ser A due 07/01/2029		
<i>Long Term Rating</i>	AA+/Stable	New
Southern California Metro Wtr Dist wtr		
<i>Long Term Rating</i>	AAA/Stable	Affirmed
The Metropolitan Water District of Southern California, Water Revenue Bonds, 2000 Authorization, Seriew B-3		
<i>Long Term Rating</i>	AAA/A-1/Stable	Affirmed

Rationale

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

- '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;
- 'A-1+' short-term rating on MWD's senior-lien self-liquidity revenue bonds (variable-rate bonds without bank enhancement);
- '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; and
- '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).

The outlook, where applicable, is stable.

The district is issuing the senior-lien 2020 series A bonds to fund \$270 million of capital projects identified in the fiscal 2020 capital improvement plan (CIP), while the subordinate-lien 2020 series A bonds will refund approximately \$194 million of variable rate bonds with maturities between 2020 and 2029.

The ratings reflect our view of the district's:

- Role as the primary wholesaler to an extremely robust and diverse service territory in Southern California;

- 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;
- Extremely strong member credit quality, particularly that of San Diego County Water Authority (SDCWA) and Los Angeles Department of Water and Power (LADWP);
- Demonstrated willingness and ability to raise rates, with board-approved 3.0% rate increases effective Jan. 1, 2019, and Jan. 1, 2020, and projected 5% annual rate increases planned (not yet board approved) through 2023 and 3% per annum thereafter, which in our view, will support sound financial metrics over the next decade;
- The potential for substantial borrowing in the future to help finance environmental mitigation efforts and SWP conveyance system upgrades in the Sacramento-San Joaquin River Delta as well as potential local supply projects, including the Regional Recycling Water Program, which if fully implemented, is estimated to cost approximately \$3.4 billion; and
- Strong financial management, which includes conservative financial forecasting, robust drought and resource adequacy planning, and well-delineated policies to address any contingent liabilities.

The district has a predominantly locally derived revenue base. Local service charges, derived through an autonomous rate-setting process, represent virtually all of the system's revenue. This, coupled with operating expense flexibility, limits exposure to federal revenue.

Prior to the issuance of the 2020 bonds, the district had approximately \$2.5 billion aggregate principal amount of senior-lien bonds and \$1.3 billion of subordinate lien bonds outstanding. 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.

MWD is the main water wholesaler to 26 member agencies serving approximately 19 million customers 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.

Fiscal 2019 water transactions totaled 1.46 million acre-feet (MAF), down 9.3% from the prior year, the lowest level of water transactions since 1999; well below the 10-year high of 2.26 MAF in 2008. As comparison, fiscal 2018, water

transactions totaled 1.61 MAF, and totaled 1.54 MAF in fiscal 2017. 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. In particular, demand from LADWP varies significantly depending on water availability from the southern Sierras, which feeds the Los Angeles Aqueduct.

We believe that recently implemented rate increases and board-approved future rate increases (as well as future rate increases, subject to board adoption) should allow the district's overall financial margins to remain sound in the near term, and that MWD's critical role as a key water supplier should provide it with sufficient revenue-raising flexibility. The district has adopted annual rate increases since 2004 and most recently adopted 3.0% rate increases effective Jan. 1, 2019, and Jan. 1, 2020. Based on the 10-year forecast, management anticipates annual rate increases of 5% for 2021 through 2023, and 3% per annum increases thereafter.

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 1.4x in fiscal 2019, down from 1.6x in both fiscals 2018 and 2017. Fixed-charge coverage--as calculated by management, which includes the portion of SWP capital costs not paid from dedicated property taxes--was 1.4x in fiscal 2019, down from 1.5x in 2018.

The district projects fixed charge coverage to remain at levels generally consistent with past performance, ranging from 1.4x to 1.9x (excluding the costs of the previously contemplated WaterFix project.) MWD's 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. 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.

We view strong reserves (and the maintenance of the dedicated credit facilities) as necessary if the district can't refund or remarket (or is unsuccessful in doing so) the \$315 million of senior-lien self-liquidity weekly variable rate demand obligations or the \$446.3 million of subordinate index tender bonds. Based on the 10-year forecast, management anticipates that unrestricted reserves will remain stable through 2019 and then gradually rise to more than \$708 million by 2030.

MWD's near-term capital program is manageable, in our view, at \$1.34 billion (or about \$260 million per year on average; or \$165 million in pay-as-you-go funding and \$98 million in debt funding per year) through fiscal 2024. 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. We note that certain large-scale projects that have not yet been authorized (such as a single-tunnel

Bay-Delta conveyance facility instead of the approved WaterFix project) and a recycled water project (both discussed below) are sizable in scope, but are not included in the current capital plan.

Environment, Social, Governance

Although we recognize the district's ongoing efforts to bolster water storage, as well as the district's ability to execute opportunistic exchange agreements with other water purveyors, and collaborate on measures like the Colorado River Drought Contingency to provide a cushion against future supply challenges, we believe that MWD's imported water supply (both the SWP and the Colorado River) remains susceptible to environmental scrutiny and risks related to climate change and natural cycles of drought.

The district has full rate setting autonomy, which is critical as it considers multiple large-scale water supply projects over the next decade. Given that retail water rates in MWD's service area may not be affordable for all customer served (defined as those living in census tracts below 80% of median household income, or 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.

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 affect our view of MWD's future credit quality.

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. MWD 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 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 Metropolitan 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; MWD'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.

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 MWD directly, given that they will help address water scarcity concerns 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, MWD's 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 million gallons daily, 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 Metropolitan'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.)

Outlook

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. The outlook additionally reflects our anticipation that MWD will raise rates sufficiently to manage its capital needs during the next five years. We could lower the ratings or revise the outlook to negative, or both, if water sales decline materially from historic levels--due to the development of 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.

Ratings Detail (As Of January 16, 2020)

Ratings Detail (As Of January 16, 2020) (cont.)

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/Stable	Affirmed
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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
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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/A-1/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.

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