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Summary:

Southern California Metropolitan Water District; General Obligation

Primary Credit Analyst:

Chris Morgan, San Francisco (1) 415-371-5032; chris.morgan@spglobal.com

Secondary Contact:

Benjamin P Geare, San Francisco + 1 (415) 371 5047; benjamin.geare@spglobal.com

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US\$17.095 mil GO bonds (Waterworks) ser 2019A dtd 01/30/2018 due 03/01/2028		
<i>Long Term Rating</i>	AAA/Stable	New
Southern California Metro Wtr Dist GO		
<i>Long Term Rating</i>	AAA/Stable	Affirmed

Rationale

S&P Global Ratings assigned its 'AAA' long-term rating to Southern California Metropolitan Water District's (MWD) series 2019A waterworks general obligation (GO) refunding bonds, and affirmed its 'AAA' long-term rating on the district's GO bonds outstanding. The outlook is stable.

At the end of fiscal 2019, the district will have about \$4.1 billion debt outstanding, of which about \$50 million will consist of GO bonds under an authorization dating back to 1966.

Security and use of proceeds

Unlimited ad valorem taxes levied on taxable property (except certain personal property, which is taxable at limited rates) within the district secure the GO bonds. The district will use the series 2019A GO bond proceeds to achieve approximately \$2 million in present value interest expense savings.

Local rating's relationship with U.S. sovereign

Our issue rating reflects our view that the district's general creditworthiness is above that of the U.S. sovereign. This reflects our view that the district would not default in a stress scenario likely to accompany a sovereign default given autonomy from sovereign intervention. We view the district as exhibiting relatively low funding interdependency with the federal government, local service charges, derived through an autonomous rate-setting process, represent virtually all of the system's revenue and the district has independent treasury management. However, consistent with our view that U.S. state and local governments are moderately sensitive to country risk, should our view of the district's general creditworthiness deteriorate we would be unlikely to set the district issue ratings more than two notches above the U.S. sovereign rating.

Credit overview

MWD has one of the strongest property tax bases among organizations with GO debt that we rate in the U.S., owing to the vast extent of its tax and service area in one of the country's largest and most diverse economic regions. Although its capital needs are considerable, including the likelihood that MWD will need to provide the bulk of financing for new long-distance water conveyance capacity, we think the district has a track record of adjusting rates to manage liquidity risks and capital needs and is positioned to continue to adjust rates to accommodate future capital needs. In this

context, we see the most likely threat to credit quality, in the medium term and beyond, coming from a combination of an unexpected operating disruption or higher capital costs, and a break in the pattern of disciplined rate adjustments.

The ratings reflect our opinion of the district's:

- Strength and diversity of its vast service area, encompassing most of Southern California's population centers, including Simi Valley, Los Angeles, Riverside, and San Diego;
- Ability to draw water supplies from multiple sources
- Demonstrated willingness and ability to raise rates;
- Strong financial management; and
- Low-to-moderate overall net debt burden (our measure of direct and overlapping governmental debt).

Institutional profile

The MWD is the primary wholesaler of water to 26 member agencies in Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. The district, whose taxing area also is a composite of these agencies, encompasses 18.9 million residents and its 5,200-square-mile territory includes most of urbanized Southern California, but excludes the Antelope and Victor Valleys. The district provides 40%-60% of the water within its service area, depending on weather conditions. The leading 10 customers represented about 85% of water transaction revenue and water volume in fiscal 2018, with the San Diego County Water Authority the largest customer by transactions at 22.7% of water volume and 17% of transaction revenues. 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.

Water transactions totaled 1.61 million acre-feet (MAF) in fiscal 2018, which was up 4.5% from the previous year. For fiscal 2017, the district's water transactions totaled 1.54 MAF, which was the lowest level since 1999, and down from the 10-year high of 2.26 MAF in 2008. For forecasting purposes, the district assumes that water transactions will gradually rise to 1.80 MAF in 2021 and then remain stable thereafter, based on Colorado River Aqueduct diversions of about 0.8 MAF to 0.9 MAF annually, and the California State Water Project (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 the Los Angeles Department of Water and Power varies significantly depending on water availability from the southern Sierras, which feeds the Los Angeles Aqueduct.

Economic base

MDW has one of the largest sub-state property tax bases in the nation, encompassing \$2.9 trillion in market value. Although it is subject to recessionary losses--total assessed value (AV) declined by an aggregate 3% over two years at the end of the Great Recession--the district's tax base has doubled since 2004, and we think is likely to grow in some

form through fiscal 2021 consistent with our expectation of real GDP growth in the western U.S. through 2020. We consider the district's income profile to be good-to-strong, with a median household effective buying income (EBI) of about 112% of the national level, and a per capita EBI of 97% of the national average. (We have calculated these figures using the weighted average by population of the district's overlapping counties).

Financial performance and debt service coverage

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 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 a 10-year forecast, management anticipates annual rate increases of 4.1% for fiscal years 2021-2028, which, along with the board-approved rate adjustments for fiscal years 2019 and 2020, management anticipates will be sufficient to fund the district's 64.6% share of a major state conveyance project, known as the California WaterFix.

Fiscal 2018 operating revenues were \$1.5 billion, up 9% from the previous year. The increase was primarily due to higher water volumes and higher water rates. At the same time, operating expenses inched up 1% year-over-year to \$954 million, while debt service increased 11% to \$340 million. As calculated by S&P Global Ratings, MWD's all-in debt service coverage (DSC) was 1.7x in fiscal 2018, up from 1.5x in fiscal 2017. 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 ([FCC] across both the senior and subordinate liens), which we view as good, especially for a wholesaler.

MWD has historically held a strong liquidity position partially to serve as a natural hedge against its need to refund or remarket its variable-rate debt, consisting of approximately \$315 million of senior-lien self-liquidity weekly variable rate demand obligations (VRDOs) and the \$447 million of subordinate index tender bonds. In addition, the district has exposure to eight interest rate swaps associated with debt issued in the early 2000s that had a combined fair market value of \$44 million as of the end of fiscal 2018. We think the district's liquidity position of 242 days' cash based on \$634 million in holdings could grow over time. Based on its 10-year forecast, the district anticipates that unrestricted reserves will remain stable through 2019 and then gradually rise through 2023.

MWD's role in California WaterFix

The proposed California WaterFix (three new water intakes and two 40-foot-wide tunnels with a combined 9,000 cubic feet per second [cfs] of conveyance capacity) would entail a substantial infrastructure investment to improve the system that carries water through the Sacramento-San Joaquin Delta. The project is intended to address the Delta's vulnerability to risks related to earthquakes, flooding, saltwater intrusion, and sea-level rise, and reduce impacts to fish. The Department of Water Resources (DWR), MWD and other key stakeholders are analyzing a scenario under which the SWP contractors will pay for 67% of the project costs in proportion to their allocations, while the district, separate from its participation as a SWP contractor, would be responsible for the remaining 33%.

On May 14, 2018, MWD and two other districts that agreed to fund the project formed a new agency--the Delta Conveyance Design and Construction Joint Powers Authority--that is responsible for the design and construction of the project. A separate joint powers authority, the Delta Conveyance Finance Authority, has been formed to facilitate

financing the project, and that the participating agencies will be responsible for their proportionate share of the new debt. MWD could sell, exchange, or lease this additional capacity to other parties, including Central Valley Project (CVP) contractors (and other entities receiving federal water deliveries such as the Santa Clara Valley Water District.) This current capacity and financing scenario is preliminary, and is subject to change.

The capital costs associated with the WaterFix project will likely be significant--most recently estimated at \$16.7 billion--of which MWD's share could total \$10.8 billion. DWR's economic analysis published on Sept. 20, 2018, assumes a 15-year construction period with operations beginning in 2034. Although the method for financing the project has not been established, and significant hurdles remain before the project becomes reality, DWR estimates that the unit cost of supplies preserved through WaterFix would be about \$684 per acre-foot, and the unit cost of conveyance and treatment of that water is up to \$550 per acre-foot depending on point of delivery. This would place a potentially significant burden on ratepayers, in our view, but is cost competitive relative to MWD's estimates for desalination (\$1,900 to \$2,400) or recycled water (estimated at \$1,200 to \$3,200).

If the WaterFix project moves forward, it will ultimately be paid for by the customers of the retail water agencies and cities that receive water from the state's delivery system, including entities served by MWD or that use MWD's system capacity. In our view, SWP water imported through the Delta is already the most expensive source for many of the retail water purveyors served by MWD, and the additional capital costs proposed for WaterFix would raise these costs further. However, water supply alternatives (such as those intended to help replenish local groundwater basins, improve reliability, and meet water quality standards) are limited, and those under consideration may not be meaningfully cheaper.

Debt

The overall net debt burden, which consists of tax-secured direct and overlapping debt, is low, in our view, relative to market value at 2.6% and moderate at \$4,000 per resident. The district's now 52-year-old GO authorization is fully exercised and management indicates that the district is unlikely to request GO authorization from voters again, because the district is able to finance its capital needs via revenue-secured debt and because securing such authorization would require a sizable two-thirds majority voter approval. Amortization of GO and revenue debt is slow, in our view, with 43% of principal retired in the next 10 years.

MWD's near-term capital program is manageable, in our view, at \$1.15 billion (or about \$230 million per year on average; or \$138 million in pay-as-you-go funding and \$92 million in debt funding per year) through fiscal 2023. 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.

Outlook

The stable outlook reflects our view that the district's GO credit profile will continue to benefit from the strength and diversity of a vast and deep economic base and MWD's well-embedded role in providing critical wholesale supply within its service area. We anticipate that during the next two years MWD will raise rates consistent with a policy to make adjustments in anticipation of WaterFix and other capital needs. We do not anticipate changing the rating during

our two-year outlook horizon.

Downside scenario

We see a disruption in operations or unexpected increase in capital costs that affected the district's coverage or liquidity as the most likely scenarios to cause us to lower our rating during the next two years. Should coverage or liquidity weaken, we would look closely at how the district intended to respond and our credit opinion likely would reflect, in part, how effective the district's actions, such as rate adjustments, were likely to be.

Related Research

U.S. State And Local Government Credit Conditions Forecast, Oct. 24, 2018

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