FitchRatings

RATING ACTION COMMENTARY

Fitch Affirms Metropolitan Water District of Southern California Water Revs at 'AA+'; Outlook Stable

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Fitch Ratings - Austin - 13 Jan 2021: Fitch Ratings affirms its ratings on the following bonds issued by the Metropolitan Water District of Southern California (Metropolitan, or the district):

- --\$2.8 billion outstanding Fitch-rated senior lien and subordinate lien water revenue bonds and term bonds at 'AA+':
- --Bank bond ratings associated with water revenue bonds, series 2016 B-1 and B-2, 2017 authorization series A and 2018A-1 and 2018A-2 at 'AA+';
- --\$271.3 million subordinate lien water revenue bonds (SIFMA index mode), series 2017C-E at 'AA+'/'F1+':
- --\$4.5 million waterworks general obligation (GO) refunding bonds, series 2014A at 'AA+';
- --Issuer Default Rating (IDR) at 'AA+'.

The Outlook for all ratings is Stable.

ANALYTICAL CONCLUSION

The affirmation of the 'AA+' issue ratings and IDR reflect Metropolitan's relatively low leverage, as measured by net adjusted debt to adjusted funds available for debt service (FADS), within the context of the district's very strong revenue defensibility and operating risks profiles, both assessed at 'aa'. Metropolitan's leverage ratio has trended downward over the last five years to 6.4x in fiscal 2020 from 10.9x in fiscal 2016, at the height of the state's most recent drought when conservation measures at the local level were imposed. Leverage is expected to rise temporarily for fiscal 2021, largely as a result of below-average water transactions, but is expected to generally be in the 5x-7x range thereafter through the fiscal 2025 forward look, consistent with the rating level.

Metropolitan's revenue defensibility is supported by the district's very strong purchaser credit quality, independent rate raising ability and unlimited ability to reallocate costs. Metropolitan's business model is subject to price competitiveness relative to local sources. However, while Metropolitan's supplies in many cases are the most costly, the significant inherent demand for the district's supplies cannot be reasonably replaced. Metropolitan manages purchase volatility by typically maintaining a strong financial cushion. Metropolitan's operating risks assessment is supported by the district's very low operating cost burden coupled with its moderate life cycle of capital assets.

The repayment obligation of Metropolitan's GO bonds is very strong based on its ability to levy unlimited ad valorem taxes on its \$3.1 trillion (fiscal 2021) assessed valuation within the district; however, the rating is capped at the district's IDR per Fitch's criteria. The short-term rating on the SIFMA index mode bonds is linked to the long-term rating per Fitch's criteria. The lack of notching between the senior and subordinate revenue bonds reflects Fitch's view that the distinctions in the leverage between the two liens is not material enough to warrant a rating distinction.

CREDIT PROFILE

Metropolitan is a wholesale water supplier in southern California to 26 member agencies, many of whom have some form of local water supply. The total population served by Metropolitan either wholly or in part is estimated at around 19 million. Metropolitan's service area includes approximately 85% of the six-county area population consisting of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. The six-

county area is the most densely populated and heavily industrialized portion of Southern California and accounts for around 55% of the state's population.

The district's water supply is derived from two sources: Northern California's Sacramento-San Joaquin River Delta (the Delta) through a long-term contract with the California Department of Water Resources (DWR) for water from the State Water Project (the SWP), and the Colorado River. In recent years, the SWP supply has exhibited a greater amount of variability than the Colorado River supply but both supplies have suffered from drought conditions over the last decade.

The SWP is owned by the state and operated by DWR. The project transports Feather River water released from Oroville Dam and unregulated flows diverted directly from the Delta via a 444-mile aqueduct (the California Aqueduct) to Metropolitan's service territory. Metropolitan is the largest of the 29 agencies having a SWP water contract with DWR, both in terms of service area population and water allocation (at about 46%). Metropolitan's contract with DWR allocates the district slightly more than 1.9 million acrefeet (maf) per year, although the actual average delivery to contracted agencies has been lower than the full allocation in most recent years and is driven by water conditions in the Sierra Mountains. Further, DWR alters the operations of the SWP to accommodate requirements to protect various species of endangered fish, which can limit actual water available for delivery to purchasing agencies.

DWR announces initial allocation levels in the November/December timeframe for the following calendar year, with the initial allocation for 2021 set at 10%. The allocations may be increased over the next few months, as DWR has better information on the snowfall and snowpack in the Sierra Mountains. Given the regulatory demands on pumping, even in normal or surplus water conditions, the SWP contractors typically rely on receiving only around 60% of their allocation.

California's total apportionment of the Colorado River water supply is 4.4 maf per year plus one-half of any combined surplus available to Arizona, California, and Nevada. Metropolitan has a fourth-priority right to the Colorado River water, totaling 550,000 acrefeet (af) per year, which is the fourth and last-ranked priority right under California's 4.4 maf per year firm allocation. The district also holds a fifth-priority right to 662,000 af per year in excess of the state's allotment. However, receipt of the fifth-priority right depends on water conditions, and the Colorado River system has experienced a drought since 2000. In addition to Metropolitan's own allocations, the district, as well as San Diego County Water Authority (SDCWA), has long-term agreements with entities having higher priority rights within the state's apportionment, which when combined with its firm allocation

provide for diversions of around 850,000 af per year, not including additional water under separate augmentation agreements.

Due to the severity of drought conditions along the Colorado River, a Lower Basin Drought Contingency Plan (DCP) became effective in May 2019. The DCP requires California, Nevada and Arizona to store defined amounts of water in Lake Mead based on the elevation level of Lake Mead, with Nevada and Arizona subject to the initial shortfalls identified in the DCP. California would begin making contributions upon the lake falling to an elevation of 1,045' (the January 1, 2021 elevation was 1,083'), with such contributions ranging from 200,000 af to 350,000 af annually depending on the elevation of the lake; Metropolitan would be responsible for 93% of the contribution amounts for California. If Metropolitan were required to make contributions, it could ultimately impact Metropolitan's price competitiveness as the district's charges would likely increase beyond current expectations to enable the district to recover all of its costs. However, Fitch does not believe there is an immediate credit concern for Metropolitan as a result of the DCP.

Coronavirus Considerations

The outbreak of the coronavirus has not resulted in significant impairment to the district's revenue or cost profiles to date. However, our ratings remain forward-looking in nature, and we will continue to monitor developments related to the severity and duration of the virus outbreak, and revise expectations for future performance as appropriate.

KEY RATING DRIVERS

Revenue Defensibility 'aa'

Ability to Reallocate Costs; Very Strong Purchaser Credit Quality

Metropolitan derives the majority of its revenues from volumetric water transactions that fluctuate from year-to-year. Nevertheless, Metropolitan has full ability to implement rates and reallocate costs, and the purchaser credit quality of underlying members is very strong.

Production costs are very low and life cycle investment needs are moderate, supported by sound capital spending and robust long-range capital planning.

Financial Profile 'aa'

Low Leverage Expected to Remain Relatively Steady

Leverage in recent years has remained relatively consistent and generally in the 6x-7x range despite variable weather and demand patterns influencing sales. Leverage is expected to remain along these lines over the forward look. The liquidity profile is neutral to the assessment.

ASYMMETRIC ADDITIVE RISK CONSIDERATIONS

No asymmetric additive risk considerations affected this rating determination.

RATING SENSITIVITIES

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Sustained leverage below 5.0x in Fitch's base and stress cases.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

- --Sustained leverage around 8.0x or above in Fitch's base and stress cases, whether as a result of significantly lower water transactions or larger than anticipated capital projects.
- --Sustained weakening in capital spending leading to an elevated life cycle ratio that results in a lowering of the operating risks assessment.

--Significant weakening in the purchaser credit quality that erodes the revenue defensibility assessment.

BEST/WORST CASE RATING SCENARIO

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit [https://www.fitchratings.com/site/re/10111579].

SECURITY

The senior lien bonds are payable from a senior lien on net water revenues of Metropolitan. Subordinate lien bonds are payable from net water revenues of Metropolitan subordinate in payment to the senior lien bonds. Metropolitan's GO bonds are payable from an unlimited ad valorem tax levy on all taxable property within the district.

REVENUE DEFENSIBILITY

Revenue defensibility is very strong and assessed at 'aa'. The district provides wholesale water services to a massive service area encompassing about 5,200 square miles, including the urban and economic core of Southern California. The credit quality of Metropolitan's purchasers is considered very strong, with Fitch's Purchaser Credit Index registering at less than 1.5. The largest three members (40% of water revenues in fiscal 2020) include SDCWA (IDR 'AA+'/Stable), Metropolitan Water District of Orange County, and Los Angeles Department of Water and Power (water revenue bonds 'AA'/Negative).

Metropolitan retains full ability to reallocate costs and independent rate flexibility, although the district is subject to a higher degree of competitive pressure than other

wholesalers. While Metropolitan's members all pay fixed readiness-to-serve charges (typically accounting for around 10% of revenues), they are not required to buy minimum amounts of water from Metropolitan but instead use the imported water supply to supplement their other sources. In many cases, Metropolitan's water supply is the most expensive source in a member agency's overall water supply portfolio. As a result, Metropolitan absorbs much of the regional demand variability from naturally occurring hydrological conditions that impact the member agencies' local supplies and demand.

Member agencies enter into 10-year purchase order agreements that provide a pricing incentive by allowing them to buy a higher amount of water at Tier 1 rates. Fitch views the contracts as helpful in providing some planning parameters from Metropolitan's sales but members still retain a high degree of flexibility to vary their purchases. Nevertheless, Metropolitan typically provides 40%-60% of southern California's water supply, and consequently, Fitch expects Metropolitan will remain a key water supplier since purchasers do not have the practical ability to entirely replace the service provided by the district.

Metropolitan's board formulates the revenue structure and typically adopts two years of rate adjustments at one time. Rates were adopted in April 2020 for calendars 2021 and 2022, which will lead to 3% and 4% average annual increases, respectively. Full-service Tier 1 treated rates, which account for the majority of member water transactions, are \$1,104 per af as of Jan. 1, 2021; the modest level of rate increases over the biennium are not expected to materially change the cost differential between Metropolitan's supplies compared to local sources. Beyond calendar 2022, Metropolitan is currently forecasting average annual increases of between 4%-5% for 2023-2025. Metropolitan's rate increases are based on assumed water sales of 1.48 maf in fiscal 2021, climbing to 1.69 maf by fiscal 2025. These amounts are below the 20-year historical average of around 2 maf but are more in line with the recent five-year average.

OPERATING RISKS

Metropolitan's operating risks profile is assessed at 'aa', which considers the district's very low operating cost burden, moderate life cycle ratio and extensive capital and supply planning. Metropolitan's operating cost burden was just \$2,917 per million gallons (mg) of water transactions in fiscal 2020. The operating cost burden has been relatively steady over the last five fiscal years ranging from around \$2,450-\$3,000 per mg of water transactions.

Metropolitan's life cycle ratio was a moderate 41% in fiscal 2020 but has trended slightly upward since fiscal 2016. Capital spending over the last five fiscal years has been favorable, averaging just under 100% of annual depreciation costs. Capital spending for fiscals 2021-2025 is currently estimated at \$1.4 billion and expected to be funded through \$585 million in planned debt issuances (42% of total sources) and \$815 million in pay-go sources (58%). The capital program is focused on ongoing renewal and replacement of assets along with compliance of drinking water regulations. Planned investment is about 15% less than spending over the previous five-year period. The lower spending will likely lead to continued increases in the life cycle ratio, but should not result in a downward revision of the operating risks assessment over the near future.

Currently, two potentially large-scale projects that are not factored in anticipated operating costs and planned capital spending may commence construction within the forward-look period or soon thereafter: participation in a Regional Recycle Water Program (the RRWP) with the Sanitation Districts of Los Angeles County (LACSD) and a Delta conveyance project. As envisioned, the RRWP would have the potential to re-use up to 150 million gallons per day (mgd) of treated effluent from LACSD's facilities, with a portion of the purified water available for delivery to two of Metropolitan's treatment plants. Construction of a 0.5 mgd advanced water treatment demonstration project was completed in 2019 and is in the initial phase of testing, which is scheduled to be completed in 2021, and which would undergo additional testing prior to design and full-scale construction.

Metropolitan estimates that capital costs related to the full-scale RRWP would be around \$3.4 billion with annual operating costs of \$129 million. Metropolitan has approved \$30 million in its fiscal 2021/2022 biennial budget for preparation of a programmatic environmental report associated with the RRWP, which will help to inform the board decision-making as to Metropolitan's next course of action related to the RRWP.

In July 2017, DWR approved the WaterFix, a plan that had been championed by former Governor Brown to improve the reliability of Delta water supply. The WaterFix called for spending to construct three new intakes on the Sacramento River at 9,000 cubic-feet per second (cfs) capacity and two 45-foot diameter, 40 mile-long tunnels south under the Delta to existing SWP and Central Valley Project pumping facilities. Construction was expected to commence in 2021 and be complete by 2035. The project had been subject to strong opposition from potential participants, who cited high costs, as well as many environmental groups, local governments and others who had challenged the project through the legal process.

Metropolitan's board had voted in July 2018 to support up to approximately 65% of project costs. However, in February 2019 Governor Newsom expressed in his State of the State speech that he did not support the two-tunnel WaterFix but did support a single tunnel project. Consequently, in May 2019 DWR withdrew the approval of the WaterFix and rescinded the notice of determination required under the environmental process, among other actions, and has been pursuing a new environmental review process for a single tunnel Delta conveyance project. Planning, environmental review and conceptual design for a proposed single tunnel project is expected to be completed in the 2021-2023 timeframe. Metropolitan has approved \$25 million per year for fiscals 2021 and 2022 to support DWR's planning and permitting activities.

Metropolitan has reviewed two single-tunnel potential options that would provide a 3,000 cfs diversion as well as a 6,000 cfs diversion staged implementation option that was previously considered by DWR. Metropolitan's preliminary cost estimates of these particular options in 2019 dollars are \$9.7 billion and \$11.8 billion, respectively. Until DWR identifies the actual scope of the project and addresses key issues, it is unclear as to whether or to what extent any revised Delta conveyance project will be implemented or Metropolitan's level of participation.

FINANCIAL PROFILE

The financial profile is assessed at 'aa'. Net leverage was 6.4x at the end of fiscal 2020 and has trended downward from 10.9x in fiscal 2016 (the height of California's latest drought), reflecting declining debt levels and improved FADS since fiscal 2016. System liquidity is neutral to the assessment. The liquidity cushion ratio has been at or above 248 days since fiscal 2016. Coverage of full obligations (COFO) is typically just under 1.0x, but this is largely because Fitch's standard calculation of annual debt service, including all principal from the prior year classified as due within one year, which can include short-term debt. Excluding from the calculation Metropolitan's variable-rate debt classified as due within one year that is subject to mandatory tender but having a longer stated maturity date, COFO was 1.5x for fiscal 2020. Fitch-calculated total debt service coverage, both including and excluding Metropolitan's variable-rate debt classified as due within one year but with longer stated maturities, was 0.9x and 2.2x, respectively, in fiscal 2020.

Fitch Analytical Stress Test (FAST)

The five-year forward look provided by FAST considers the potential trend of key ratios in a base case and a stress case. The stress case is designed to impose capital costs of 10%

above expected base case levels and evaluate potential variability in projected key ratios. Fitch's base case through fiscal 2025 was informed by Metropolitan's proposed capital spending and financial forecast through fiscal 2025, which included the previously mentioned sales assumptions of between 1.48 maf to 1.69 maf and rate increases of between 3%-5%. However, the FAST does not include any capital or operating costs related to either the RRWP or Delta conveyance project beyond amounts currently included in Metropolitan's biennial budget. The FAST demonstrates a temporary rise in leverage to 8.0x in both the base and stress case before water transactions recover to the recent historical average of around 1.6 maf and rate increases accelerate to reduce leverage to 5.4x and 5.6x in the base and stress case, respectively, by fiscal 2025.

ASYMMETRIC ADDITIVE RISK CONSIDERATIONS

No asymmetric additive risk considerations affected this rating determination.

SOURCES OF INFORMATION

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG CONSIDERATIONS

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg

RATING ACTIONS

ENTITY/DEBT	RATING			PRIOR
Metropolitan Water District of Southern California (CA)	LT IDR	AA+ Rating Outlook Stable	Affirmed	AA+ Rating Outlook Stable
 Metropolitan Water District of Southern California (CA) /General Obligation - Unlimited Tax/1 LT 	LT	AA+ Rating Outlook Stable	Affirmed	AA+ Rating Outlook Stable
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APPLICABLE CRITERIA

Public Sector, Revenue-Supported Entities Rating Criteria (pub. 27 Mar 2020) (including rating assumption sensitivity)

U.S. Public Finance Tax-Supported Rating Criteria (pub. 27 Mar 2020) (including rating assumption sensitivity)

U.S. Water and Sewer Rating Criteria (pub. 03 Apr 2020) (including rating assumption sensitivity)

ADDITIONAL DISCLOSURES

Dodd-Frank Rating Information Disclosure Form

Solicitation Status

Endorsement Policy

ENDORSEMENT STATUS

Metropolitan Water District of Southern California (CA)

EU Endorsed, UK Endorsed

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