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RATINGS

Metropolitan Water District of Southern California

General Obligation Bonds	Aaa, Stable
Water Revenue Bonds	Aa1, Stable

Source: Moody's Investors Service

KEY METRICS:

Key Metrics

	2012	2013	2014
Operating Revenues	1,230,000	1,456,000	1,667,000
Net Revenues	536,000	709,000	866,000
Debt Service Coverage	1.81	2.37	2.51
Operating Ratio	64.4	53.5	56.5
Debt Ratio	46.3	44.2	38.8

Source: MWD, Moody's Investors Service

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Met Water Shows Near-Term Resilience Against Drought

[The Metropolitan Water District of Southern California's](#) (Aa1 stable, water revenue bonds) strong financial profile and steady water supply will carry the supplier through drought conditions through at least 2016.

- » **MWD is a critical supplier of supplemental water for an exceptionally large and diverse region.** The district's 26 member agencies serve 18.5 million people across six Southern California counties including 26 cities. MWD water deliveries are an essential part of the area's supply mix, a fact reflected by increased reliance on MWD during the drought.
- » **Strong financial position buffers MWD from increased conservation efforts' possible revenue effects.** The district's projected strong 2.75 times debt service coverage projected for fiscal 2015 has risen 52% since 2012 as a result of increased water sales and regular rate adjustments. This compares favorably to the 1.93 sector median. The system's healthy liquidity provides a solid 2.44 times coverage of its short-term obligations. The strong cash level also enables MWD to supplement its regular water supply through market purchases.
- » **Stored water supply remains sufficient despite appreciable decrease since the beginning of the drought.** Preservation of stored water will have an increasingly important credit impact as the drought, already in its fourth year, continues. MWD's traditionally strong level of water storage has fallen 45.7% since reaching an all-time year-end high in 2012. Despite this decrease, storage remains sufficient to effectively supplement the expected total annual water delivery to MWD, and it is well above the level typically held by California water utilities. The availability of a healthy amount of stored water is a key element to the district management's ability to offset the unpredictability of supply from the State Water Project.

MWD is a critical water supplier for exceptionally large and diverse region

The district is a wholesale water provider that serves six large Southern California counties and has a 2015 assessed valuation of \$2.3 trillion. This valuation is among the largest of any local government issuer. The economy is exceptionally diverse and driven by growing industry strength in technology, home building, logistics and shipping, and tourism. The service area includes all of [Orange County](#) (Aa1 negative) and portions of the counties of [Los Angeles](#) (Aa2 stable), [Riverside](#) (Aa3 stable), [San Bernardino](#) (Aa2 stable), [San Diego](#) (Aaa stable) and [Ventura](#) (Aa1 stable).

Its member agencies purchase MWD's water and then sell the water on a retail basis to their own customers. The member agencies include 14 city water enterprises, 11 municipal water districts and one county water authority. Nearly half of MWD's revenue is derived from its two largest member agencies, [San Diego County Water Authority](#) (Aa2 stable) and the [Los Angeles Department of Water and Power](#) (Aa2 stable). While such concentration would be a significant credit weakness for a typical water provider, MWD's customers are themselves highly rated, essential service entities that in turn provide water to very large customer bases (Exhibit 1).

Exhibit 1

Revenue Concentration of Top 10 Member Agencies Offset By Credit Quality, Size and Essentiality

Fiscal Year 2014

Agency	Water Revenue Bond Rating	MWD Water Sales Revenue	Percent of Total	MWD water sales in Acre-Feet	Percent of Total
San Diego County Water Authority	Aa2 Stable	\$328,719,613	22.1%	545,659	26.7%
City of Los Angeles Dept. of Water and Power	Aa2 Stable	\$307,294,389	20.7%	441,871	21.6%
MWD of Orange County	NR	\$185,454,744	12.5%	231,941	11.3%
West Basin Municipal Water District	Aa3	\$104,897,611	7.1%	120,915	5.9%
Calleguas Municipal Water District	Aa2	\$101,576,451	6.8%	116,685	5.7%
Eastern Municipal Water District	Aa2 Stable	\$80,499,907	5.4%	101,622	5%
Western Municipal Water District	NR	\$60,675,556	4.1%	76,194	3.7%
Three Valleys Municipal Water District	NR	\$55,639,136	3.7%	71,072	3.5%
Inland Empire Utilities Agency	Aa2	\$40,225,028	2.7%	67,833	3.3%
Central Basin Municipal Water District	Aa3 Stable	\$29,387,772	2.0%	33,951	1.7%

Source: MWD, Moody's Investors Service

In drought conditions, member agency dependence on MWD increases. This is because MWD's diverse water sources, which include the Colorado River, State Water Project, and solid stored water supply, are more reliable and less pressured than member agencies' local water sources. For example, in wet years, the City of Los Angeles Department of Water and Power typically receives approximately 30% of its total annual water supply from MWD. In 2014, as a result of the drought's pressure on their local water sources, Los Angeles received 75% of its supply from MWD. Agency reliance on MWD thus precludes the necessity for typical annual water purchase commitments.

On average, MWD supplies account for approximately 50% of the supply of individual agencies and 40% to 60% of its service territory's annual water use (see Exhibit 2). As such, MWD's water deliveries are an essential portion of the regional water mix. Member agency dependence on MWD is varied, but even in wet years nearly all of them, including the large agencies, rely on MWD deliveries to meet their demand.

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Exhibit 2

MWD Deliveries Are Historically an Essential Portion of Member Agency Water Supply

Agency	Historical Percentage of annual supply from MWD
San Diego County Water Authority	44%
City of Los Angeles Dept. of Water and Power	52%
Municipal Water District of Orange County	50%
West Basin Municipal Water District	66%
Calleguas Municipal Water District	72%
Eastern Municipal Water District	55%
Western Municipal Water District	35%
Three Valleys Municipal Water District	50%
Inland Empire Utilities Agency	30%
Central Basin Municipal Water District	35%
Average Reliance	49%

Source: MWD

Strong financial position buffers MWD from possible revenue effects of increased water conservation efforts

The district's fiscal position will remain solid despite reduced projected fiscal 2016 revenues as result of increased water conservation reflected by MWD's Water Supply Allocation Plan. Liquidity and debt service coverage in particular will remain quite high and remain consistent with the rating level.

The statewide drought prompted Governor Jerry Brown to mandate a 25% statewide reduction in urban water use. As a water wholesaler, MWD is not subject to the order. However, MWD has implemented its own "tier 3" water restrictions, which require member agencies to reduce their use of MWD supply by 15% or become subject to penalty water rates. Tier 3 conservation was last implemented in 2009 when MWD reduced water usage by 10% with no member agency required to pay the penalty rate. Even if conservation is materially higher than expected, we anticipate that MWD will still generate coverage in fiscal 2016 satisfactory for the rating given its currently high coverage level.

The district's 15% conservation target is based on previously estimated, current year sales demand of 2.0-2.1 million acre-feet. If the target is met, water sales would be approximately 1.8 million acre-feet. The district builds its annual budget on assumed water sales of 1.75 million acre-feet, so the planned sales reduction would still generate revenue above budget. Above budgeted revenue would allow MWD to produce fiscal 2016 debt service coverage comparable to the strong amount expected for fiscal 2015. At a minimum, the district would meet its 2.0 times debt service coverage target.

The district's most recently updated projection for fiscal 2015 shows net revenues of 2.75 times debt service. In addition to increased water sales in 2015, operating revenues rose as a result of MWD's 1.5% rate increase. Despite its implementation of water allocation, the district has not amended its rate annual rate plans and still expects to increase rates by another 1.5% in fiscal 2016. Rates are expected to rise between 3% and 5% annually in future years.

Beyond the current fiscal year, MWD projects that debt service coverage will average 2.02 times through fiscal 2019. This projection assumes the adoption of modest rate increases, and water sales of 1.75 million acre-feet. The projected water sales level is a reasonable estimate given current, firm supplies and the district's all-time sales volume high of 2.3 million acre-feet in 2008 and a low of 1.6 million acre-feet in 2011.

The district's liquidity remains very strong and is a key component of our rating. The available cash will enable the district to supplement water supplies through water market purchases while still maintaining strong liquid reserves. In times of increased need, MWD has historically purchased additional water supplies from farmers, if available, to supplement its long-term, contracted supply from the State Water Project and Colorado River. Such purchases in 2015 are expected to be approximately 5% of total supply. However, agricultural water supplies are also very pressured and thus more expensive than normal on the water market. The district's fiscal 2014 net working capital was a solid 144% of operations and maintenance. The district closely monitors its weekly and monthly cash as part of its oversight of its short-term obligations supported its own liquidity. As of March, the district's internal, daily liquidity was sufficient to provide a sound 2.44 times coverage of its puttable short-term debt.

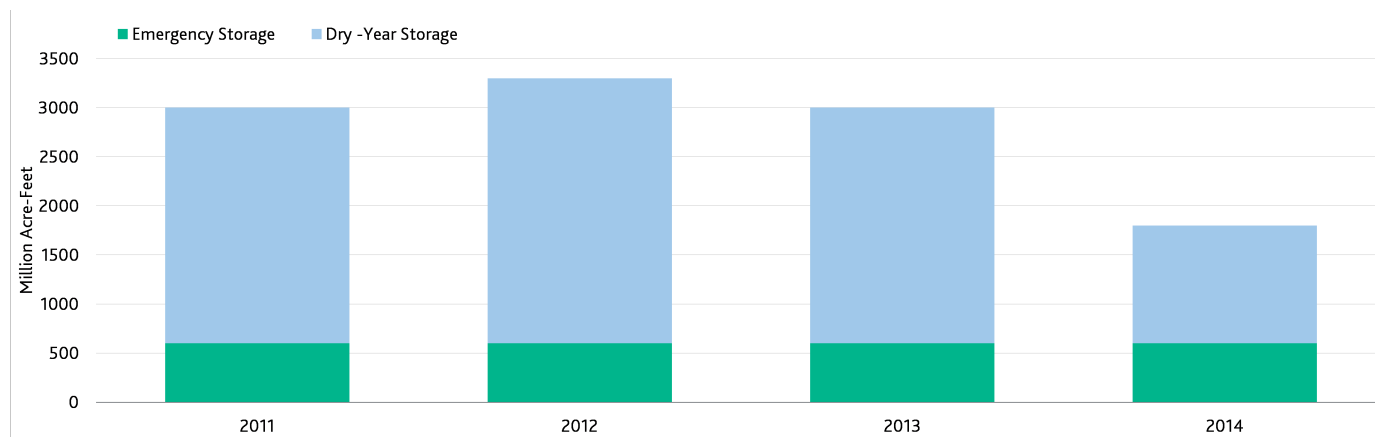
Stored water supply remains sufficient despite appreciable decrease since the beginning of the drought

Despite the district's current ability to meet most of its member agencies' supply demands from available water resources while maintaining solid financial metrics, negative credit pressure will mount as the severity and duration of the California drought deepens. Negative pressure would most likely take the form of increased operating costs and weaker operating margins if the district were exposed to buying significant amounts of water on the open market. In such a scenario, we would also expect weakened liquidity, which is currently a credit strength. Solid liquidity is a particularly important part of the district's current credit profile given its substantial amount of outstanding short-term debt. A large portion of the district's puttable, short-term debt is supported by the district's own liquidity rather than the more usual liquidity support of a letter of credit or standby bond purchase agreement.

The drought has had a material and growing impact on MWD's total stored water supply. In 2012, the district had 3.4 million acre feet of water in storage, which amounted to 57% of its total water storage capacity. By 2013, stored water had fallen to 3.0 million acre feet, 50% of capacity. The district used additional storage to meet its customers demands to compensate for the low allocation from the State Water Project (SWP) in 2014 and closed the year with 1.8 million acre-feet of storage (see Exhibit 3). The district began the current year with dry-year stored water supply of approximately 1.2 million acre-feet (excluding 600,000 acre-feet in emergency storage), an amount consistent with projections and still modestly ahead of the previous storage low points reached in 2008 and 2009 during the last dry period. .

Exhibit 3

Exhibit MWD Water Storage Has Been Significantly Diminished But Remains Sufficient MWD Water Storage Reserves - End of Year Balances



Source: MWD

The dry-year storage drives the district's conservation strategy and is projected to fall to 1.06 million acre-feet by the end of fiscal 2015.

Assuming a 15% water sales reduction in the coming year, the district is expected to have approximately 750,000 acre-feet of dry-year supply with total storage of 1.3 million acre-feet (including emergency supplies) by the end of fiscal 2016. Diminishment of storage below this level would mark the lowest level of stored water in more than a decade and would apply material pressure to the rating. The likelihood of this happening will be largely dependent on next winter's rainfall and rates of conservation. The district's primary water source is the SWP, which can allocate as much as 1.9 million acre feet of water per year to the district. This allocation is well above the 1.75 million acre feet the district uses as an expected sales volume for budgeting purposes. However, in a typical year, SWP supplies are about 70% of MWD's budgeted water deliveries. Due to the drought, the state's current water allocation for 2015 is just 20% of MWD's total supply.

The district's second source is the Colorado River, which is also suffering from a long-term drought. The State of California's 4.4 million acre foot entitlement to Colorado River supplies is senior to the other lower basin states (AZ and NV) and would not be in jeopardy even if more restrictions are put in place in 2016. MWD is entitled to 550,000 acre feet of California's share of Colorado River water.

The district has various Colorado River projects and agreements that allow it to augment its take of river water. This includes the Quantification Settlement Agreement, the 1988 Water Conservation Agreement, and the Land Management, Crop Rotation and Water Supply Program. These projects and agreements allow MWD to supplement its supply through conservation programs, storage agreements, and agricultural land fallowing. In 2015, MWD's total diversion of Colorado River water is expected to be 925,000 acre feet or 52% of budgeted supply

Moody's Related Research

Credit Opinion:

- » [Moody's affirms Aa1 rating on Metropolitan Water District of Southern California's water revenue bonds, May 2015](#)

Sector Comments:

- » [Orange County \(CA\) Water Desalination to Increase Water Access and Reduce Drought Impact, a Credit Positive, May 2015 \(181355\)](#)
- » [Water Pricing Ruling Impedes California Water Suppliers' Ability to Meet Conservation Mandates Without Financial Repercussions, May 2015 \(180968\)](#)
- » [Additional California Water Use Restrictions Will Help Water Utilities Pursue Rate Increases, March 2015 \(180194\)](#)
- » [California Groundwater Legislation Is Credit Positive for Local Governments Dependent on Agriculture, September 2014 \(175699\)](#)
- » [California Water Use Restrictions Are Credit Negative for State's Water Utilities, July 2015 \(173214\)](#)

Issuer Comment:

- » [Agreement Eases Colorado River Shortage Risk for Arizona, California and Nevada; Signifies Continuing Efforts to Address Water Issues Collaboratively, December 2014 \(178348\)](#)

Credit Focus:

- » [LADWP: Water Enterprise Well Positioned to Manage the Drought and Maintain Stable Credit Quality, November 2014 \(1000927\)](#)

Special Comment:

- » [California Water and Sewer Utilities' Rate Increases Will Largely Offset Drought's Financial Impact, September 2014 \(175532\)](#)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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