California Water — Striving for 25% Conservation

Rates and Charges Increase, Financial Margins Dip

Special Report

California Demands Water Sales Reductions: California adopted emergency drought regulations in May 2015 that require a statewide 25% reduction in water sales. Each retail water utility is assigned a mandatory conservation amount (between 4% and 36%) by the California State Water Resources Control Board (SWRCB). The cutback levels and short compliance time frame present revenue challenges and heighten credit risk for California's retail water utilities. Initial indications in the state are positive in that utilities appear poised to meet their conservation targets.

Lower Financial Performance Expected: As a result of reduced water sales, many utilities will experience reduced financial margins in fiscals years 2015 and 2016. Fitch Ratings believes water rate changes will begin to gain traction in fiscal 2016, with a more robust recovery of financial margins expected in fiscal 2017 even in the event the severe drought continues. Based on utility forecasts, median all-in debt service coverage for Fitch-rated California water utilities is projected to decline from 2.45x in fiscal 2014 to 1.80x in fiscal 2015, with a slight recovery to 1.84x in fiscal 2016.

Utilities Respond with Rate Increases: California water utilities entered the drought with financial and operational tools to buffer the impacts of the state's typical hydrological cycles. However, the persistence and severity of the drought have begun to outstrip those tools. Fitch surveyed its rated water utilities to determine what additional actions utilities are implementing to protect credit quality. The most commonly reported action is rate increases, with 78% of utilities responding that they would implement one in the coming year. The median rate increase expected in fiscal 2016 is 5%, although the range is wide, between 0% and 31%.

Strong Characteristics to Buffer Impact: California utilities have two significant characteristics that Fitch believes will continue to buffer the near-term credit impacts of the drought: adaptable rate structures and strong financial flexibility. Rating pressure could arise for utilities that fail to act quickly.

Risk Indicators

Unwillingness or Inability to Raise Rates	California utilities have responded to a number of cost pressures in the past decade by raising rates. Rate fatigue exists across the state to varying degrees. Additional rate increases are needed to offset mandated lower sales, and asking customers to pay the same or more for lower water consumption may be a difficult task. Utilities that forego full cost recovery at the expense of lower financial margins for bondholders risk rating downgrades.
Large Gap Between Conservation Achieved and State Mandate	Utilities with the largest delta between conservation levels reported by the state between June 2014 and April 2015 and the mandated reduction by the state have the greatest potential for large decreases in fiscal 2016 revenues. Improved conservation levels in May and June 2015 may reduce the risk of noncompliance with the state mandate but still pose the risk of revenue pressure in fiscal 2016.
Modest or Weak Financial Flexibility	Utilities with weaker (at or below 1.25x) or mid-range (approximately 1.50x) debt service coverage and limited cash reserves will have fewer financial tools at their disposal to help buffer financial performance until rate revenues can be increased.
Highly Volumetric Rate Structure	Water utilities with highly volumetric rate structures are most at risk for revenue declines as a result of lower sales.
Low Expenditure Flexibility	Utilities with a higher percentage of water purchase costs as a component of operating expenditures (typically utilities in Southern California reliant on imported water) will have a greater ability to offset lower revenues with reduced expenditures. Utilities with little to no water purchases as a percentage of operating expenditures will have lower expenditure flexibility. Fitch notes that the lower overall water costs for utilities that do not rely on imported water are viewed as a positive credit factor. However, these utilities may be less able to lower expenditures quickly given the present drought mandates.

Related Research

Fitch: California Water Credits May Struggle with New Rules (May 2015)

Fitch: CA Court Decision Limited, May Pressure a Few Utilities (April 2015)

California Water Utility Spotlight (October 2014)

California Drought Impact on Utilities (March 2014)

2014 Water and Sewer Medians (December 2013)

Peer Review: California Water and Sewer Credits (Strong Metrics, Vulnerable Supplies, Tough Regulation, and Tougher Politics) (December 2013)

Fitch Fundamentals Index – U.S. (July 2015)

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Increasing State Requirements for Water Utilities as Drought Persists

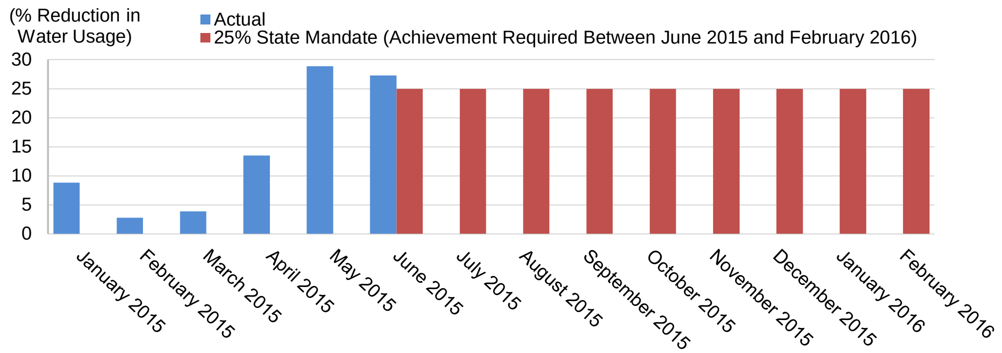
California's water woes have been well publicized in recent years as the state enters its fifth year of drought conditions. Governor Jerry Brown declared a statewide drought in January 2014 and the California Department of Water Resources took the unprecedented step of warning that there might not be water available from the State Water Project. Hydrological conditions in the state have only worsened since that time.

The state has taken increasingly aggressive steps to reduce water consumption in light of the declining supplies and concerns that the drought could potentially continue for years beyond 2016. In April 2014, December 2014 and April 2015, the governor issued emergency orders that included specific actions designed to increase water conservation and preserve water supplies in the event the drought lingers for years more.

The April 2015 executive order escalated the stakes for water utilities by mandating a 25% reduction in water usage across the state. To achieve the reduction, rules were quickly adopted by the SWRCB on May 4, 2015 that establish nine tiers of mandated curtailment (ranging from 4%–36%) for all retail water utilities in the state. Compliance with the mandated conservation percentages will be measured based on the average conservation achieved between June 2015 and February 2016. Achievement is determined by comparing each utility's usage against a baseline average across those same months two years prior (June 2013 to February 2014). While the conservation mandates do not take into account local water supply investments, the governor has recently indicated these may be included in the future.

The magnitude of the cutback levels and the short compliance time frame present challenges for water agencies and heighten revenue risk. California's legal and regulatory framework around water rate setting may constrain the pace at which utilities can send price signals to customers and recover lost revenues from lower water sales.

Statewide Conservation Trend is Positive



Early indications in May and June 2015 show promise that statewide conservation efforts should be sufficient to reach the state's 25% goal. The April 2015 executive order appears to have kicked efforts into higher gear across the state. Efforts until then had been posting mixed results since the drought declaration in January 2014. As shown in the table above, modest conservation levels were recorded in the early months of 2015, which may have been part of what prompted the state's intervention in May and assignment of conservation tiers. As a result, statewide average conservation levels improved notably, and May and June conservation levels were strong.

Most water utilities exceeded their conservation tiers in May, one month ahead of the achievement time frame's start date. While the strong statewide message and the direct and

Related Criteria

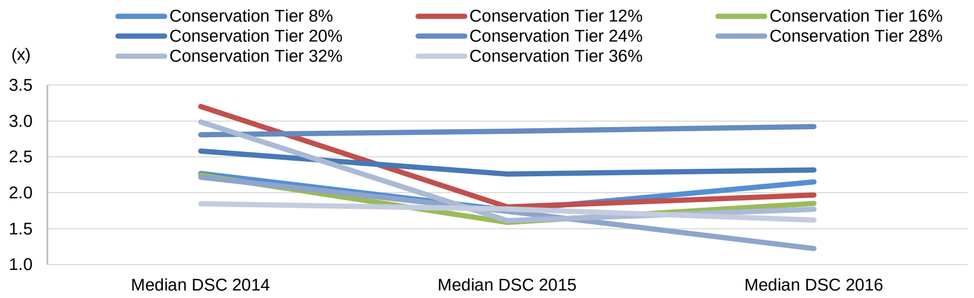
U.S. Water and Sewer Revenue Bond Rating Criteria (July 2013)

Revenue-Supported Rating Criteria (June 2014) meaningful behavior changes by Californians were evident in the improved conservation numbers, a portion of the increase in May was believed to be attributable to above-average rainfall and cooler weather in parts of the state (as compared to the May 2013 baseline). However, conservation was similarly strong in June 2015, which was California's hottest June on record. The continued positive trend despite hot weather conditions across the state bodes well for the likelihood of utilities meeting the ambitious conservation tiers mandated by the state.

Lower Financial Performance Expected

Fitch expects California water agencies to experience revenue declines and reduced financial margins in fiscal 2015 as a result of lower water sales. As one would expect, asking any business to cut sales by between 4% and 36% over a nine-month period will result in significant revenue declines. California's water utilities are no different. The short notice provided to California water agencies (less than 30 days) limits how quickly corresponding revenue and expenditure adjustments could be put into place. (SWRCB rules were adopted on May 4, 2015, with compliance beginning June 1.) While utilities began demonstrating significant conservation levels in May 2015, much of the revenue impact will be delayed into fiscal 2016 given the two-month billing lag between usage and revenue receipt for utilities with monthly billing (and longer for those with bimonthly or quarterly billing). Most water utilities have a June 30 fiscal year end.

Fitch Median Debt Service Coverage



Fitch expects the median all-in debt service coverage for its rated water utilities to decline from strong coverage of 2.45x in fiscal 2014 to still-adequate 1.80x in fiscal 2015. The table above shows a breakout of median debt service coverage movement by conservation tier. While audited results are not yet available, this expectation is based on estimated financial results provided by the utilities to Fitch. The decline in coverage is occurring one year after the governor's emergency order regarding the drought and a couple of years into the drought. Only one tier (24%) shows an increase in median all-in debt service coverage in fiscal 2015, and this is the result of one utility's projected increase and a small data set. That utility expects an increase in coverage due to a self-adjusting rate structure already in place that is designed to produce stable revenues apart from sales levels.

Based on utility-provided projections for fiscal 2016, a slight recovery in the median all-in debt service coverage, to 1.84x, is expected fiscal 2016. Two conservation tiers (in the top three highest) show further decline in fiscal 2016, and the results across utilities were mixed. Rate increases being put into place at many utilities are anticipated to boost revenues in fiscal 2016, although the full financial impact of those rate changes will occur in fiscal 2017. Fitch notes that actual median all-in coverage in fiscal 2016 may be below the estimates provided by utility management in its survey, given the early nature of planning for both expected rate actions and actual conservation levels.

California's own recent history provides context to investors regarding the drought's impact on debt service coverage. During the previous California drought, which occurred from 2007–2009, water utilities experienced downward pressure on water sales, and financial margins generally exhibited slight declines one to two years following the drought's onset (fiscal years 2010 and 2011). As with the present (albeit more severe) drought, water storage buffered the impacts of the previous drought during the initial years before the serious reductions in consumption were needed. Cash reserves and rate mechanisms in place in 2007–2009 muted the full financial impact on utilities' margins, and the same is occurring now. Rate mechanisms' adaptability and ability to decouple revenues from sales have improved even from what was in place in 2007–2009. Fitch notes that during the previous drought, the state also grappled with recession. As such, water sales declines at that time also reflected lower economic activity.

Constraints on the Pace of Rate Setting

The ability of water utilities to preserve their financial performance in fiscal 2016 is further complicated by the legal and regulatory constraints on water rate setting in California. California's Proposition 218 and subsequent legal decisions regarding its applicability to water rates have significantly shaped the rate-setting framework in the state. Water utilities are required to notify all property owners in writing of any proposed rate changes and hold a public hearing to receive protests to the rate action no sooner than 45 days after notification. If written protests are filed by a majority of property owners, the utility cannot impose the proposed rates. Once the public hearing is complete, the utility's governing body can adopt the proposed rates.

Proposition 218 also requires that water charges be limited to recovery of only the actual cost of service. A recent final legal decision upheld a challenge to the city of San Juan Capistrano's use of tiered water rates as they relate to cost of service as required by Proposition 218. As discussed in Fitch's commentary dated April 2015, "Fitch: CA Court Decision Limited, May Pressure a Few Utilities," credit implications are expected to be limited, but the court decision is an example of the increasing scrutiny and legal considerations regarding water rate design in California.

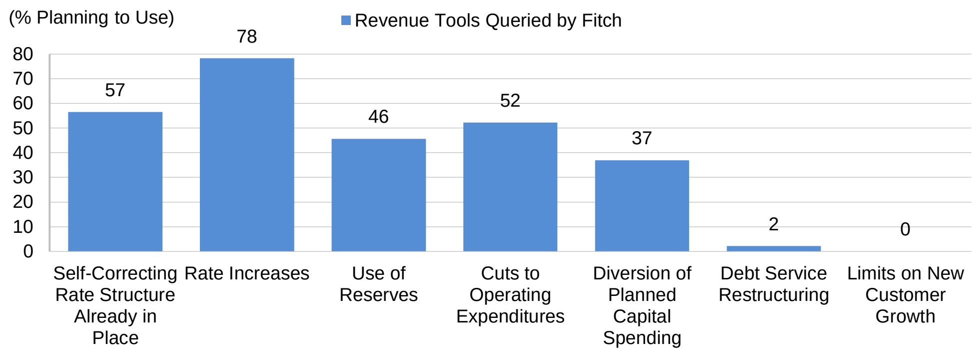
Many of California's utilities report they are currently engaged in a cost-of-service study, initiated following the SWRCB's adoption of individual conservation tiers in May. A cost-of-service study can typically take six months, with the Proposition 218 notification and hearing requirements adding another couple of months to the rate-setting time frame in advance of the utility's own city council or board of directors adoption process. The result is that rate changes needed to adapt utility revenues to the anticipated lower sales and recover the true cost of service across customers can require an eight- to 12-month process in the California rate-setting framework. As a result, cost-of-service studies in progress are expected to result in water rate changes in mid- to late fiscal 2016, with the full impact on revenues occurring in fiscal 2017.

Utilities Plan to Respond Primarily with Rate Increases

Fitch's rated water utilities as a group are responding quickly to the state's mandated curtailments, despite legal constraints on rate setting noted above. While many had increased their ability to operate within the state's drought conditions in the past two years, the state-mandated conservation amounts generally exceed previous conservation targets enacted by most utilities in the state. Utility responses will be two-pronged: to comply with the magnitude of curtailment dictated by the state and to protect utility revenues from the results of achieving that goal. Fitch is primarily concerned with the second of these goals, although failure to achieve the first invites regulatory risk of noncompliance.

Utilities across the state plan to use rate increases in the upcoming year more than any other revenue stability tool. This finding is the result of a survey Fitch conducted of 49 water utilities in the state to assess what types of actions utilities were taking specifically to protect revenues. Responses were received from 46 utilities, although the nature of the responses received indicated that plans regarding the level of rate increases and financial performance in fiscal 2016 will likely continue to evolve and take shape through calendar 2015. Responses indicated that 78% of utilities rated by Fitch are expecting rate adjustments in the upcoming year and have already begun the process. Utility responses about the magnitude and structure of rate increases under consideration have shaped Fitch's expectation that while fiscal 2015 will show lower financial margins for many of the agency's rated utilities, results could show modest improvement in fiscal 2016, with the full rate impact benefiting financial margins in fiscal 2017, even if the drought continues at its present level of severity.

Utility Responses to Protect Revenues



In responses provided to Fitch, utilities indicated that they planned to use traditional base rate increases, drought rates and rate redesigns that would favor lower outdoor allocations for water budget-based rates and a higher reliance on the fixed-charge component of rates. A number of utilities reported being in the middle of a cost-of-service study at the present time, many of which were initiated following the mandatory conservation order. To a lesser extent, utilities reported that they will reduce operating expenditures and use cash reserves to absorb the financial impact in fiscal 2016. While almost all utilities indicated their intentions to keep operating expenditures under control, the affirmative responses in the chart above indicate only those that will actively cut expenditures as a coping mechanism. This includes utilities with imported water costs that can be reduced as less water is purchased. A modest number of utilities reported that they expect to divert capital spending toward managing the drought impacts, while only one indicated that it may use debt restructuring to manage expenses.

Finally, utilities did not report any expectation that the present drought would curb growth in their service areas or lead to reduced permitting for new development. The state's mandatory conservation tiers are designed for a short-term period linked to the present drought; they are not a reflection of long-term regional water supply availability. New development is tied to each issuer's water-providing ability, which respondents believe is still adequate for planned growth. Water utilities in California have long-term planning horizons over which future growth and future supplies are mapped, as required by the California Urban Water Management Plan Act, which requires all urban water suppliers within the state to prepare and update a plan every five years.

Two Strong Characteristics Continue to Support Credit Quality

Fitch believes two key characteristics continue to support credit quality of California's water utilities. The two characteristics — existing rate structure adaptability and financial flexibility — provide short-term support to credit quality as more long-term rate adjustments gain traction by fiscal 2017. These characteristics help to mitigate the constraints associated with California's rate-setting framework.

Rate Structure Adaptability

Many highly rated California water agencies have rate design structures that decouple revenues from water sales and provide a higher level of fixed cost recovery. Adaptable or revenue-neutral rate structures became more prevalent during the 2007–2009 drought, when utilities pursued strategies such as drought-specific rates for use during times of rationing; higher monthly fixed charges as a component of overall rates; rate design that recovers a specific revenue requirement regardless of usage; and the use of designated rate stabilization funds. Since the onset of the current drought, even more utilities have adopted such self-correcting or adaptable rate structures that will protect the utility's revenue stream even with the mandated curtailments. As shown in the chart on page 5, 57% of Fitch's rated water utilities already have a rate component such as this in place. Furthermore, of the 78% of utilities that reported to Fitch that they anticipate enacting a rate adjustment in the upcoming year, most of those cited the potential for including an element such as this in place or strengthening the elements of this nature already present in rates.

Financial Flexibility

California water utilities have a high degree of financial flexibility going into fiscal 2016 that should partially mitigate the full revenue impacts of curtailments. California's water utilities typically operate with above-average medians for debt service coverage and liquidity as compared to Fitch's national medians. Fitch believes there are many reasons behind this trend, but the state's susceptibility to variable hydrology and heightened regulatory risk (including the state's constraints around rate setting) are part of the reason. Fitch believes the sector's healthy financial flexibility will buffer the magnitude of anticipated revenue implications discussed above. Investors will note that individual utility financial conditions are distinct, and the appendix on page 8 provides greater detail for each utility than the summary table presented below.

Recent Financial Performance and Projections, by Conservation Tier

			Financial Flexibility				Estimates Provided in Fitch Survey		
Conservation Tiers (%)	No. of Fitch-Rated Utilities	Range of Conservation to Achieve (%)[a]	Median 2014 Days Cash	Median 2014 All-In DSC (x)	Median 2014 Free Cash to Depreciation (%)	Median 2014 Water Purchases as % of Expenditures	Median Projected 2016 All-In DSC (x)	Median 2016 Free Cash to Depreciation (%)	Range of Projected 2016 Rate Increases (%)[b]
8	2	0	309	2.27	136	23	2.15	113	9–10
12	2	0–4	641	3.20	147	0	1.97	73	0–4
16	6	4–14	423	2.25	118	6	1.85	89	5–15
20	11	7–18	286	2.58	87	44	2.32	70	0–13
24	3	15–17	324	2.81	119	44	2.92	103	0–8
28	11	9–27	593	2.22	135	20	1.23	27	0–31
32	6	18–32	364	2.99	136	25	1.77	38	3–29
36	8	13–39	541	1.85	69	16	1.62	36	0–10

[a]As published by the State Water Resources Control Board in June 2015. The percentages reflect the difference between the conservation tier and the amounts saved by utilities between June 2014 and April 2015 as compared to 2013. When released, these amounts did not include actual conservation achieved in May and June 2015. [b]The range reflects the impact on ratepayers either through drought rates, existing rate designs with self-adjusting features that will increase with lower usage and planned rate increases estimated by utility management.

The table on page 6, Recent Financial Performance and Projections, by Conservation Tier, demonstrates four key medians of financial flexibility: days cash on hand, all-in debt service coverage, free cash to depreciation and water purchases as a percentage of operating expenditures. Days cash on hand and all-in debt service coverage both indicate the level of margins present, based on fiscal 2014 audited financial information for each utility. Cushion in both ratios will provide room for a short-term decline in revenues, as is anticipated for many utilities in fiscal 2015, without posing meaningful risk to bondholder repayment. Robust reserves and strong coverage will provide breathing room for utilities to put rate changes in place to adapt to lower sales levels that could persist beyond fiscal 2016.

Free cash to depreciation similarly provides an indication of cash flow typically available for capital reinvestment at the utility after debt service and any transfer obligations are paid. Strong utilities generally average free cash to depreciation above 100% over time as they generate sufficient revenues to reinvest in system assets at or above the level of annual depreciation. Free cash flow, similar to reserves, can be used on a temporary, short-term basis to support financial operations during a period of unexpected revenue decline. The decline in the fiscal 2016 medians for this ratio, similar to lower debt service coverage, indicates slimmer margins at the utility that will ultimately affect capital reinvestment in the sector.

Finally, water purchases as a percentage of operating expenditures is an indication of those utilities that rely on imported water purchases for much of their water supply. While this attribute often indicates a high water cost relative to utilities with local supplies, it also provides an ability to offset expenditures when water sales decline. The wholesale water purchase agreements in California typically do not require minimum purchases; instead, the wholesale suppliers act as balance-of-supply providers. Therefore, much of the lower demand in the state will be absorbed by the wholesale suppliers in regions reliant on imported water. While the few wholesale suppliers in the state are not included in the page 6 table, they exhibit similar financial strengths, such as strong debt service coverage and robust reserves. Based on their survey responses to Fitch, they similarly expect to use rate increases and some reserves to absorb the anticipated revenue impacts as their members curtail water purchases.

The Recent Financial Performance table additionally indicates the range of anticipated rate impacts on ratepayers in fiscal 2016 as a result of the drought. These actions include the impacts of rate structures already in place that contain drought rates or self-correcting revenue mechanisms and planned rate increases indicated by utility management. The range of rate increases exhibited is wide, with some utilities projecting no increase in fiscal 2016 and others projecting greater than 20% increases to customers.

Appendix: Conservation and Financial Performance, by Utility

(%)

Fitch-Rated California Retail Water or Combined Pledge Water and Wastewater Utilities	Ratings	Conserv Standard	% Saved During June 2014 to April 2015 vs. 2013	% Left to Achieve Going into Mandatory Conserv	Actual May 2015 Conserv	Actual June 2015 Conserv	2014 All-In DSC (x)[d]	2014 Water Purchases as % of Operating Expenses	2014 Free Cash to Depreciation	2014 Days Cash
Redwood City	AA–	8	15	7	29	39	2.75	46	246	328
Santa Cruz	A+	8	23	15	35	32	1.79	0	26	290
Dublin San Ramon Service District	AA	12	29	17	42	43	4.85	0	156	580
San Luis Obispo	AA	12	8	(4)	25	20	1.56	0	139	702
East Bay Municipal Utility District	AA+	16	12	(4)	31	31	1.73	0	90	568
Irvine Ranch Water District	AAA	16	3	(13)	21	12	2.73	11	138	934
Lake Arrowhead Community Services District	AA+	16	11	(5)	34	35	1.71	0	88	442
Los Angeles Department of Water and Power	AA	16	7	(9)	18	16	2.25	38	194	175
San Diego	AA/AA–	16	2	(14)	26	24	1.71	51	97	299
Santa Maria	AA–	16	4	(12)	16	18	2.76	0	184	405
Anaheim	AAA	20	2	(18)	25	25	2.71	48	102	166
Escondido	AA–	20	7	(13)	25	32	2.05	50	126	138
Glendale	A+	20	7	(13)	23	24	1.81	75	64	0
Helix Water District	AA+	20	5	(15)	29	25	6.00	47	87	178
Lomita	A	20	8	(12)	18	25	1.56	44	56	317
Marin Municipal Water District	AA+	20	13	(7)	28	26	2.21	11	85	286
Mesa Consolidated Water District	AAA	20	5	(15)	21	26	3.52	9	185	457
Moulton Niguel Water District	AAA	20	4	(16)	28	22	2.45	36	82	888
Napa	AA+	20	11	(9)	35	30	2.85	0	148	416
Otay Water District	AA–	20	2	(18)	27	26	1.79	62	39	255
Padre Dam Municipal Water District	AA	20	4	(16)	36	28	3.57	36	216	359
Burbank Water and Power	AAA	24	9	(15)	23	26	2.50	49	119	199
South Coast Water District	AA+	24	7	(17)	29	31	4.11	20	151	921
Vallecitos Water District	AA+	24	8	(16)	38	34	2.99	44	122	331
Contra Costa Water District	AA/AA–	28	14	(14)	27	40	1.77	9	85	764
East Valley Water District	AA–	28	12	(16)	33	37	3.40	10	135	172
Eastern Municipal Water District	AA+/AA	28	3	(25)	27	15	1.71	23	41	400
Elsinore Valley Municipal Water District	AA	28	1	(27)	26	14	2.30	24	106	1,418
Fresno	AA/A+	28	13	(15)	33	30	2.81	0	215	540
Jurupa Community Services District	AA	28	7	(21)	35	30	5.44	39	211	790
Pasadena	AA+	28	8	(20)	24	26	3.02	47	272	239
Riverside	AA+	28	8	(20)	30	23	1.94	0	107	816
Sacramento	AA–	28	19	(9)	35	35	2.37	0	184	604
San Juan Capistrano	A	28	4	(24)	26	26	2.06	20	80	0
Stockton[a]	A–/BBB+	28	15	(13)	38	41	1.60	30	138	593
Beverly Hills[b]	AAA	32	3	(29)	17	22	2.83	—	219	395
Cucamonga Valley Water District	AA	32	4	(28)	42	27	1.80	40	150	334
Olivenhain Municipal Water District	AA+	32	0	(32)	37	33	3.23	46	106	449
Palmdale Water District	A+	32	6	(26)	22	28	1.31	11	25	209
Western Municipal Water District	AA	32	3	(29)	27	17	3.04	55	151	229
Yuba City	AA–	32	14	(18)	23	31	2.99	8	123	887
Hillsborough	AA+	36	23	(13)	49	47	3.00	33	216	608
Indian Wells Valley Water District	AA–	36	6	(30)	21	11	2.08	0	89	541
Nevada Irrigation District[a c]	AA	36	15	(21)	33	36	—	—	—	—
Rancho California Water District	AA+	36	1	(35)	39	14	1.31	47	40	244
San Juan Water District[a]	AA+	36	23	(13)	49	45	1.71	16	56	804
Susanville	A	36	(3)	(39)	24	24	1.61	0	113	1,174
Yorba Linda Water District	AA	36	5	(31)	35	38	2.83	44	69	377
Yucaipa Valley Water District	AA–	36	5	(31)	37	22	1.62	6	56	287

[a]Fitch did not receive survey responses following repeated requests. [b]Beverly Hills does not report water purchases as separate line item in audit. [c]Nevada Irrigation District 2014 audit not available. [d]After transfer to the general fund for the few cities in California that made transfers in fiscal 2014.
Source: Fitch, audited financial statements and California State Water Resources Board.