

Reflections on California's Drought

By Betsy Shelton, Director of Research/Senior Portfolio Manager

"Historical", "Unprecedented", "Exceptional". Those are the words of California's Governor Jerry Brown on April 1st announcing his executive order that mandates a 25% overall reduction in water consumption throughout the state, to be achieved primarily through various local measures imposed by the state's nearly 400 water agencies. With California entering a critically dry fourth year, where over 33% of the state is experiencing extreme drought conditions and the annual snowpack is only 1/5 of what it would ordinarily be, it almost goes without saying that these extreme times require extreme measures.

California's water problems are nothing new. In fact they are decades old and they are also very complicated. Space constraints keep us from going into too much detail here about this century old problem. Suffice it to say, however, our Mediterranean climate continuously presents the challenge of balancing an annual concentrated rainy season with high temperatures and long dry periods, making both infrastructure planning and conservation measures very difficult to time. California's perpetual water problems have also created ongoing territorial disputes among geographic regions (many of you may remember the 1974 movie "Chinatown", which memorialized this struggle). Currently Del Norte (adjacent to the Oregon border) is the only county (out of 52) in the state that is not experiencing drought conditions.

Previous crises have been resolved through the development of new and more diverse water sources. But many say this crisis is different. These days, "the economy is thriving, the population is growing, the state budget is in surplus, and development is exploding from Silicon Valley to San Diego; the evidence of it can be seen in the construction cranes dotting the skylines of Los Angeles and San Francisco." This puts extreme pressure on an essential and now very scarce resource. Our newspapers, magazines, and the internet are all chock-full of information, data, and opinions on how this problem should be handled. Since the new mandate does not apply to farms, and given that agriculture is responsible for nearly 80% of California's water consumption, meeting the Governor's mandate will be that much more challenging, requiring that "we must adjust, we must learn, we must change." California's water agencies began changing in early 2014 when many of them enacted their own voluntary restrictions. (Continued on page 2)

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Our Mission

CFI is dedicated to the task of securing for each individual account the best possible after-tax performance net of fees. We accomplish this by actively managing tailored portfolios in strict adherence to the strategic objectives of each client. It is our responsibility to employ the most suitable fixed income assets and strategies in a manner most effective for every account. It is our duty to devote the resources, intensity and vigilance necessary to insure all clients consistent superior results.

Questions and comments are *always* welcome. Email susan@charlesfishinvestments.com with your comments. Thanks!



"Nothing in life is to be feared.
It is only to be understood."
Madam Marie Curie

The new regulations have met with a modicum of success, but not without a hefty price tag. East Bay Municipal Water District, which serves over 1.3 million customers in the Bay Area, reports that last year it lost \$25 million on a 12% reduction in usage. Santa Clara Valley Water District's 1.8 million residents likewise cut back their usage by 20%, but not without the District losing \$20 million in the process. Now additional plans are under consideration, as the Governor's plan requires water agencies to incorporate conservation pricing into their rate structures. Both East Bay MUD (see Acronym of the Month) and the San Francisco Public Utilities Commission are considering raising rates once again or imposing drought surcharges. (Continued on page 3)

Acronym of the month: MWD (Municipal Water District) and MUD (Municipal Utility District)

Both are special purpose local districts charged with providing public utilities to district residents. A MUD usually provides one or more utilities (water, sewer, power) while an MWD offers primarily drinking water service but could also include wastewater services as well. Examples of California districts include East Bay MUD, Sacramento MUD, San Bernardino Valley MWD, and Eastern MWD. Other acronyms that include water providers are PUD (Public Utility District) and ID (Irrigation District).

FISH SCALES									
NATIONAL AA RATED*		MAR	AA G.O.	A-rated COPs	Pre-Refunded	1915 Act (1x7)**	USTN	AA TxbI Muni	
0.22		2016	0.28	0.46	0.23	0.74	0.22		+28
0.56		2017	0.59	0.80	0.53	1.06	0.55		+30
0.91		2018	0.94	1.12	0.85	1.43	0.88		+37
1.18		2019	1.18	1.43	1.10	1.81	1.19		+49
1.37		2020	1.36	1.67	1.28	2.11	1.38		+55
1.55		2021	1.54	1.90		2.32	1.58		+66
1.77		2022	1.77	2.15		2.52	1.71		+74
1.92		2023	1.91	2.33		2.74	1.78		+82
2.06		2024	2.06	2.47		2.89	1.87		+90
2.17		2025	2.21	2.61		3.00	1.93		+94
2.28		2026	2.36	2.72		3.16			
2.41		2027	2.53	2.97		3.32			
2.54		2028	2.68	3.10		3.45			
2.62		2029	2.83	3.23		3.53			
2.69		2030	2.92	3.33		3.62	2.19		+114
2.91		2035	3.25	3.47		3.81	2.30		+131
2.99		2040	3.36	3.56		4.00	2.47		+140
3.04		2045	3.39	3.59		4.04	2.53		+151

March 31, 2015

NOTE: The scales represent CFI's opinion of approximate bond values (offered side) at the close of business for the date shown and should be used as a general reference only. They are based on data from sources we believe to be reliable. CFI does not guarantee the above information for accuracy or changes due to shifting market conditions and other unforeseen reasons.



While many agencies have long offered rebates on the removal of inefficient appliances and lawn replacement, Long Beach has gone a step further in approving the installation of “smart meters” to help consumers monitor and reduce usage. The City of Huntington Beach recently approved the construction of a desalination plant similar to the one in Carlsbad, while the City of Pacific Grove authorized the use of reclaimed wastewater for watering its golf course and cemetery. Moreover, Caltrans just announced its emergency funding of smart sprinklers on state property in hopes of saving billions of gallons of water by lowering usage by 50%. Clearly there are more headlines to come as more agencies follow suit.

But all these measures cost both time and money at a time when both supply and revenues are rapidly dwindling. Concerns are rising as to whether California utilities have begun to get their proverbial big toe caught in that vicious cycle where declining usage begets lower revenues, which in turn results in lower operating margins. Lower operating margins mean reduced debt service coverage on outstanding indebtedness, which causes the rating agencies to lower their respective ratings. Lower ratings mean higher borrowing costs, which in turn put pressure on debt service coverage, and the cycle begins again. This begs the question of how these measures are affecting the bottom line and who is at risk. At greatest risk, in our opinion, are those agencies that have a combination of very high water rates, have exhausted their supply options, and operate in an area with little or no local economy to sustain users through difficult times. Certainly those areas dependent upon groundwater, such as the Central and Coachella Valleys, along with more rural communities, deserve careful review. While most credit analysts do not foresee any major defaults on the horizon, it is likely that we will see more ratings downgrades in the months ahead as reserves are depleted and financial options dissipate.

Unfortunately, there is no silver bullet to fix California’s drought and its related issues. Instead it will take a concerted effort on the financial,

technology, and infrastructure fronts along with some help from Mother Nature. In the meantime the Golden State will likely experience more frequent and severe wildfires, potential blackouts from the drop in hydroelectric power production, and even a slowdown in housing construction due to the scarcity of water. Collectively these things can put additional pressure on local governments at a time when they have just begun to recover from the 2008-09 recession. We would like to caution our readers, however, to remember that sector generalities cannot be evenly applied to all credits. In the municipal market, one size does not fit all. Each individual credit must be reviewed and financial data compared in order to determine the true credit exposure of a particular issuer.

But one should not forget that Californians are survivors. In the early 2000’s, “the State ran out of electricity, then it ran out of money and now it is running out of water.” The state has survived many a catastrophe before and it will find a way to survive this one as well. Long-term survival requires that both people and governments change so that our collective water behavior matches and respects our environment and climate. As the famous oceanographer Jacques Yves Cousteau reminded us, “We forget that the water cycle and the life cycle are one.” We anticipate that as California’s many water agencies, be they wholesale or retail providers, seek ways to meet the Governor’s latest mandate, many of their responses will be “Historical”, “Unprecedented”, and “Exceptional”.

Keep in mind: Good portfolio management is never passive. Even if one makes no transactions in their portfolio, active management mandates continual vigilance and ongoing review of one’s holdings. CFI is dedicated to this endeavor, routinely performing such surveillance on all its clients’ portfolios. If you would like to review your water-related holdings or overall portfolio, please contact our Director of Client Services, Susan Munson, at 949-296-3980.

1 DIVER commentary, April 6, 2015

2 Adam Nagourney, Jack Healy, and Nelson Schwartz, *California Drought Tests History of Endless Growth*, New York Times, April 4, 2015

3 Governor Edmund G. Brown Jr., Press Release, April 1, 2015

4 Adam Nagourney, Jack Healy, and Nelson Schwartz quoting Kevin Starr, *California Drought Tests History of Endless Growth*, New York Times, April 4, 2015

For more information visit
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