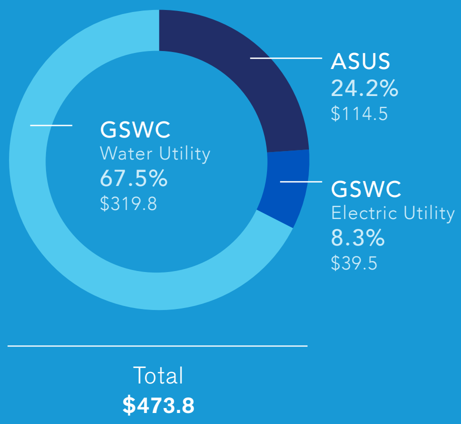
2019 ANNUAL REPORT

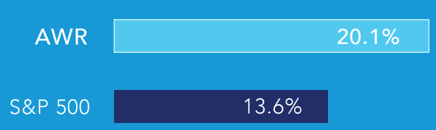
American States
Water Company

Total Operating Revenues

(in millions)



10-Year Compound Annual Return



AMERICAN STATES WATER COMPANY is the parent of Golden State Water Company and American States Utility Services, Inc. Through its utility subsidiary, Golden State Water Company, the company provides water service to customers located within more than 80 communities in Northern, Coastal and Southern California. The company's Bear Valley Electric Service, a division of Golden State Water Company, distributes electricity to customers in the City of Big Bear Lake and surrounding areas in San Bernardino County, California. Through its contracted services subsidiary, American States Utility Services, Inc., the company provides operations, maintenance and construction management services for water distribution and wastewater collection and treatment facilities located on eleven military bases throughout the country under 50-year privatization contracts with the U.S. government. American States Water Company common stock trades on the New York Stock Exchange under the symbol AWR.

All In

Operating a utility isn't like operating other businesses. There's no sitting on the sidelines of community life, no working without a profound connection to the people we serve. **Delivering essential services means we're part of our customers' lives in the most basic and meaningful ways.** Put simply, we're *there* for them. Not only is this the right thing to do, it's also how we succeed as a business and continue to earn the right to serve our customers. Which is why, for more than ninety years, we've been proud to be an integral part of the communities where we live and work. For us, anything less than delivering dependable service with passion and commitment isn't an option. At American States Water Company, we're *all in*.

Involved

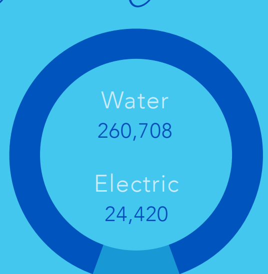
IN COMMUNITIES

WE ARE PROUD THAT GOLDEN STATE WATER COMPANY WAS NAMED LOS OSOS, CALIFORNIA'S 2019 BUSINESS OF THE YEAR.

Our pipes are like hidden threads beneath the streets, making communities stronger. We're part of the local fabric—as a provider of critical services, as an employer, as a taxpayer, and as a neighbor. We're proud to be a part of communities serving over one million people in nine states, from residential customers to military personnel and their families.

For many years, our employees have donated their time and resources to serve the communities where they live and work. As an example, Golden State Water Company and Bear Valley Electric Service employee volunteers support local schools, sponsoring STEM programs, taking part in efforts to increase literacy, and teaching about the value of conservation. At ASUS, our volunteers created a community outreach event to support active duty military, connecting with locally deployed units in need of care packages from home. These are just some of the ways we're involved in our communities, and always working to get closer to our customers.

GSWC
Customer Connections



Total: **285,128**

Investment per
Customer Connection

Providing dependable service 24/7 is what we do. And dependability comes down to our infrastructure, which we're continually maintaining and upgrading. In 2019, we spent $136.2 million improving reliability in communities served by Golden State Water Company and Bear Valley Electric Service. As for ASUS customers, we spent $55.7 million in infrastructure improvements in 2019. And in all our communities, we invested in technology that makes our workforce more mobile and our mapping more precise. Result? Faster response, better service, and being on the spot when customers need us.

VAULT INSTALLATION IN **CULVER CITY, CA**
TO PROTECT GOLDEN STATE WATER'S PIPES AND ASSETS UNDERGROUND, THIS VAULT TOP PROVIDES EASIER AND SAFER ACCESS TO CRITICAL INFRASTRUCTURE CARRYING WATER TO AREA RESIDENTS.

Capital Investments
(in millions)

Invested

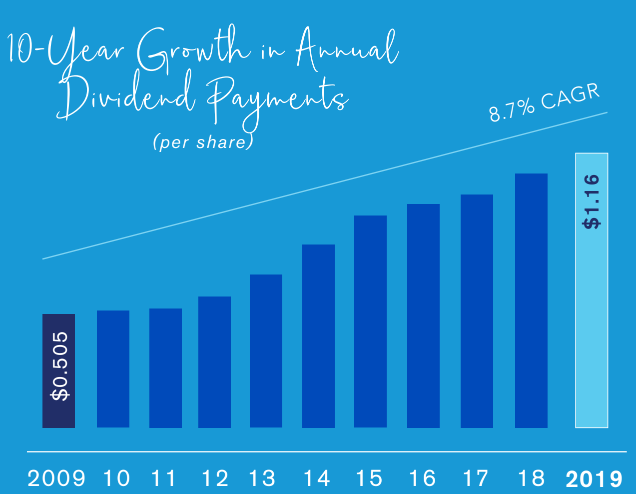
IN RELIABLE SERVICE

Intentional

BUSINESS STRATEGY

Year after year, we've served customers and investors alike by employing a consistent business strategy—one that focuses on fundamentals, seeks measured growth, and delivers reliable returns. Our strategy continued to be successful in 2019: We received two positive regulatory decisions that will enable us to grow our business while investing in infrastructure for Golden State Water Company and Bear Valley Electric Service customers. We continued to pursue opportunities for new contracts on military bases through American States Utility Services. And we delivered a dividend increase for the 65th consecutive year while improving earnings per share by 33 percent, or 30 percent adjusted.

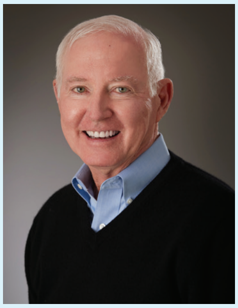
WATER TREATMENT FACILITY AT **FORT RILEY, KANSAS**
BRINGING A SECOND FACILITY UP AND RUNNING PROVIDES THE BASE WITH REDUNDANCY AND RESILIENCY REQUIRED TO MEET ITS WATER SUPPLY NEEDS AND EXECUTE ITS MISSION.



Targeting a compound annual growth rate of more than 7% over the long-term.

FINANCIAL HIGHLIGHTS

(in thousands, except per share amounts)	2019	2018	Variance	Change
INCOME STATEMENT INFORMATION				
Total Operating Revenues	**$ 473,869**	$ 436,816	$ 37,053	8.5%
Total Operating Expenses	**346,796**	335,833	10,963	3.3%
Operating Income	**127,073**	100,983	26,090	25.8%
Interest Charges (Net)	**21,337**	19,855	1,482	7.5%
Net Income	**84,342**	63,871	20,471	32.1%
Basic Earnings per Common Share	**$ 2.28**	$ 1.73	$ 0.55	31.8%
Fully Diluted Earnings per Common Share	**$ 2.28**	$ 1.72	$ 0.56	32.6%
Dividends Paid per Common Share	**$ 1.160**	$ 1.060	$ 0.100	9.4%
Average Number of Shares Outstanding	**36,814**	36,733	81	0.2%
Average Number of Diluted Shares Outstanding	**36,964**	36,936	28	0.1%
BALANCE SHEET INFORMATION				
Total Assets	**$ 1,641,331**	$ 1,501,433	$ 139,898	9.3%
Net Utility Plant	**1,415,705**	1,296,310	119,395	9.2%
Common Shareholders' Equity	**601,530**	558,223	43,307	7.8%
Long-Term Debt	**280,996**	281,087	(91)	0.0%
Total Capitalization	**882,526**	839,310	43,216	5.1%
Book Value per Common Share	**$ 16.33**	$ 15.19	$ 1.14	7.5%



With Thanks

TO JAMES F. MCNULTY UPON HIS RETIREMENT

The level of commitment required of American States Water employees is modeled by our leadership. This year, we say goodbye to retiring board member James "Jim" McNulty, who has served our company and shareholders since 2010.

During most of his tenure, Jim served as chair of the board's ASUS committee, guiding the organization through a period of growth and success during a very critical time in ASUS's development. His expertise in engineering, government contracting, and project management has been of great value. In particular, his 24 years of service in the United States Army and his business experience with the federal government enabled him to provide valuable insights to the ASUS committee's oversight of military utility privatization projects. He also served as a long-term member of the compensation committee and as a member of the nominating and governance committee.

Here are just some of the ways that ASUS has grown under Jim's guidance since he joined the board in 2010:*

- Number of military bases: +2
- 50-year military base contracts award value: +$1.4 billion
- Diluted EPS contribution: +370%, from $0.10 to $0.47
- Revenues: +94%, from $59.1 million to $114.5 million
- Net income: +355%, from $3.8 million to $17.3 million

A West Point graduate with advanced degrees from The Ohio State University and the Massachusetts Institute of Technology, Jim is the former Chairman and Chief Executive Officer of Parsons Corporation, an international engineering, construction and technical and management firm whose customers include the U.S. government. He retired from Parsons in May 2008.

In addition to his service on our board, Jim's board and community service has included serving on the board of ARC Document Solutions, a publicly traded company, and serving as a trustee of the Linsly School, his high school alma mater in Wheeling, West Virginia. He is also a past member of the board of directors of the Greater Los Angeles Chamber of Commerce, the California Science Center, the Los Angeles Sports Council and the board of trustees of Pomona College. He is a former chairman of Town Hall, Los Angeles.

In his service to country, community and business, Jim has exemplified what it means to be "all in." We wish him well as he retires from our board in May 2020, and thank him for his leadership.

**Data represents 12/31/19 compared to 12/31/09.*

LETTER TO OUR SHAREHOLDERS

DEAR SHAREHOLDERS:

American States Water Company was founded in 1929 on the simple idea of building a successful business by providing communities with safe, reliable water service. Nine decades later, we're a larger, more diversified company, but the proposition at the heart of our business remains the same. Delivering dependable service for communities is an all-encompassing focus; it is what we do. From our board to our front-line teams, everyone at American States Water was "all in" in 2019, to the benefit of customers and shareholders alike. We are pleased to report on the results of our work in the following highlights.

Financial results

American States Water posted very strong financial results in 2019, driven by growth in all three of our businesses. We earned $2.28 per fully diluted share, including $0.04 per share for the retroactive impact of an electric general rate case decision related to the full year of 2018. Our adjusted earnings per share of $2.24 was a 30% increase over 2018. We achieved a consolidated return on equity of 14.3% and a total return on our stock of 31.2%. We also raised our dividend by nearly 11%—our 65th consecutive increase—and revised our dividend policy to achieve a compound annual growth rate of more than 7% over the long-term.

Key developments in 2019

- The California Public Utilities Commission (CPUC) issued a rate case decision for the water segment of Golden State Water Company (GSWC), setting new rates for 2019-2021. The final decision authorized GSWC to invest approximately $334.5 million over the rate cycle to continue providing safe and reliable water service to customers. The CPUC's decision resulted in an increase of $16.3 million in GSWC's 2019 adopted water gross margin over 2018, after adjusting the 2019 gross margin for lower depreciation and excess deferred tax refunds. The decision also allows for additional increases in the water gross margin of approximately $10.4 million and $11.4 million for 2020 and 2021, respectively, subject to the results of an earnings test. The company has already successfully passed the earnings test for the 2020 increase.

- GSWC continues to make prudent capital investments and spent a total of $136.2 million in 2019, a historic high. More investment in "pipe in the ground" adds up to more efficient water systems, and more reliable service for customers.

- The CPUC issued a general rate case decision for the Bear Valley Electric Service (BVES) division of GSWC, which, among other things, extends the rate cycle by one year with new rates effective for 2018-2022. The decision also increases the electric gross margin for 2018 by approximately $2.3 million compared to the 2017 adopted electric gross margin, and provides for additional increases of $1.0 million to $1.2 million each year for 2019-2022. The decision also authorized BVES to move forward with the capital projects requested in its application, which are dedicated to improving system safety and reliability, and total approximately $44 million.

- American States Utility Services, Inc. (ASUS) was awarded $23 million in new construction projects on the bases it serves, the majority of which we expect to complete in 2020. ASUS's contribution to earnings per share was $0.47, its highest ever.

- Credit rating agencies affirmed ratings for American States Water and GSWC. Standard & Poor's affirmed its "A+" credit rating and "Stable" outlook for American States Water and GSWC, while Moody's Investors Service affirmed its "A2" credit rating with a revised outlook of "Stable" for GSWC.

- GSWC's spending with diverse suppliers was 29.4% of its eligible total spend, exceeding the CPUC's target of 21.5% for the seventh consecutive year. Meeting this goal is one of our top priorities.

- We continued to strive for diversity and inclusion across our company, including on our board of directors, which represents a mix of experience and expertise. More than half of our board members are women, including Anne as our newly-appointed Chairman of the Board. This is considerably more than the 20% of seats held by women overall on boards of companies in the Russell 3000.

- We continued to practice effective conservation efforts. Total water usage by GSWC customers is down by approximately 34% since 2007, even though its customers have increased in number. GSWC strongly promotes conservation through tiered rates, education, free water conservation kits, customer rebates, and other programs. At BVES, customer electric use is down more than 6% since 2007, even though its customers, too, have increased in number. BVES's percentage of electric supply from renewable sources has increased to 31% as of the end of 2019.

Continuing to outpace the market in long-term shareholder returns

Our common stock achieved a total shareholder return of 31.2% in 2019. Over the past three years, our stock achieved a compound annual return of 26.1%, outperforming the S&P 500's return of 15.3%, as well as all the other publicly traded water companies in the U.S. Your $1,000 investment in our common stock on December 31, 2009 would have increased in value to $5,245 as of December 31, 2019, assuming all dividends were reinvested in additional AWR common shares. This amounts to a compound annual growth rate of 20.1% for the ten-year period, as compared to 13.3% if invested in the S&P 500.

65th consecutive year of annual dividend increases and new dividend policy

We increased our annual dividend from $1.10 per share to $1.22 per share, an increase of 10.9%. Over the last decade, our dividend has posted a compound annual growth rate of 8.7%. We've paid a dividend to shareholders every year since 1931 and have increased it each year for 65 consecutive years. This accomplishment places us in an exclusive group of companies on the New York Stock Exchange. We also revised our dividend policy in 2019 to achieve a compound annual growth rate in the dividend of more than 7% over the long-term.

Golden State Water Company: A strategy that continues to succeed

GSWC is our largest subsidiary, and is responsible for our water and electric utility operations. During 2019, it accounted for 76% of American States Water's consolidated revenues and 79% of consolidated net income. The key tenets of GSWC's strategy continue to include: (i) delivering outstanding customer service; (ii) driving operational efficiency to minimize costs to customers; (iii) making prudent capital additions and infrastructure investments; (iv) maintaining a strong water supply portfolio; (v) providing the right customer incentives for conservation; and (vi) purchasing goods and services from diverse vendors.

Delivering outstanding customer service

Customer service remains a top priority for both the water and electric utility segments of GSWC. Our customers deserve great service, and we go the extra mile to provide it. As we have for many years, we continue to operate an in-house call center 24 hours a day, 7 days a week, 365 days per year, ensuring that our customers' problems are resolved quickly. We continue to focus on enhancing our customer communications regarding our programs for capital investment, conservation, water quality, and community engagement. In fact, part of our officers' and managers' compensation is directly tied to customer satisfaction.

Driving operational efficiency to minimize cost to customers

We continually review our processes to ensure their efficiency so that we can improve our water and electric systems by investing in needed infrastructure. This was further evidenced in 2019. Other operations, maintenance and administrative & general expenses (Expenses) for both the water and electric utility segments were 1.5% lower than the same period of 2018. Among other things, we continue to implement proven technology and tools to assist our employees in serving customers more efficiently. To put this effort into perspective, GSWC's Expenses are just 2.4% higher today than they were ten years ago, and its number of employees has declined by 3.8% since 2009, while the number of water and electric customer connections has grown.

Making prudent capital additions and infrastructure investments

We take great pride in keeping our utility systems reliable and running efficiently, and are proactive about their maintenance and improvements. Our capital investment program is critical for delivering consistent, safe, high-quality service to all our customers. GSWC spent $136.2 million on company-funded water and electric capital work during 2019, an increase over the $121 million spent in 2018, and a record high. The weighted average water utility rate base, as authorized by the CPUC, has grown from $717 million in 2017 to $916 million in 2020, a compound annual growth rate of 8.5%. The rate base amounts for 2020 do not include $20.4 million of advice letter projects.

Maintaining a strong water supply portfolio

We continue to closely monitor our water supplies to ensure a robust supply portfolio for the future. GSWC owns 72,400 acre-feet of adjudicated groundwater rights and a significant number of unadjudicated groundwater rights. In addition, GSWC owns 11,300 acre-feet of surface water rights. We remain intent on preserving the ever-increasing value of these water rights to serve our customers.

Providing the right customer incentives for conservation
Strong conservation programs encourage customers to use less water and electricity. With the CPUC's encouragement, GSWC continued to heavily promote conservation through tiered rates, education, free conservation kits, customer rebates, and meter installation during the year. Almost all of our customers are on conservation tiered rates. With the help of these programs and the public's general awareness of the need to conserve—as well as the residual effects of the State of California's 2015 mandatory water usage reductions—GSWC's billed water sales in 2019 were approximately 34% lower than water sales in 2007, and total electric customer usage is down 6% since 2007. We also have a 10-year agreement for the purchase of renewable energy credits, allowing BVES to meet the CPUC's Renewables Portfolio Standard requirements. In 2019, renewable power represented 31% of BVES's total electric supply purchases. In addition, BVES has implemented CPUC-approved energy-efficiency and solar-initiative programs, and during 2019, BVES filed an application with the CPUC to construct an eight-megawatt solar generation facility. If approved and built, this investment will help provide a clean, local energy solution for the region.

Purchasing goods and services from diverse vendors
GSWC is committed to seeking diverse suppliers and offering equitable opportunities to all potential business partners. It is our strategic business decision to broaden the supplier base, stimulate competition and ensure that GSWC receives the highest-quality materials and services at the best available prices. 2019 marked the seventh consecutive year that GSWC exceeded the CPUC goal for spending with diverse suppliers. Spending was 29.4%, exceeding the CPUC's target of 21.5%. Additionally, we met the goals for each of the CPUC's sub-categories, including Minority Owned Business Enterprises, Women-Owned Business Enterprises, and Service Disabled Veteran-Owned Businesses, for the fourth consecutive year.

American States Utility Services: Record earnings and poised for additional growth

ASUS has 50-year contracts with the U.S. government to perform operations, maintenance, and capital construction activities on water and/or wastewater systems at 11 military bases. The company earns a profit on operating and maintaining the systems, and on new construction. ASUS provides American States Water Company with opportunities to grow, diversify risk, and improve companywide returns. It also contributes to our ability to deliver dividends to shareholders and provides us with the opportunity to proudly serve military personnel and their families. The key components of ASUS's strategy include: (i) delivering outstanding customer service; (ii) improving financial performance at the military bases we serve; (iii) further developing service opportunities on current bases; and (iv) actively pursuing numerous bases still to be privatized.

Delivering outstanding customer service
We continue to enhance our relationship with the U.S. government, consistently receiving high marks for our customer service, socioeconomic utilization, business relations, and adherence to schedules for capital construction. Our government clients view our local teams as integral partners in achieving mission readiness and look to ASUS as the experts in utility service. The ASUS field teams are referred to as the best "boots on the ground" for delivering superior utility support.

Improving financial performance at the military bases we serve
ASUS continued to grow in 2019, contributing $0.47 per share to consolidated earnings. Major contributors to the higher earnings include a full year of operations at Fort Riley, our most recently awarded contract, as well as an increase in management-fee revenues at the other military bases. For the year, ASUS generated operating revenues of $114.5 million—an increase over the $107.2 million in 2018—and pretax operating income of $22.0 million.

Further developing service opportunities on current bases
Unlike GSWC, which earns a return on its rate base, ASUS earns a profit on its operation, maintenance and construction activities. In addition to ongoing renewal and replacement construction projects, ASUS receives funding from the U.S. government for new construction projects at the military bases we serve, and was awarded $23 million in 2019. ASUS collaborates with the government on projects that will enhance system reliability, improve sustainability, expand the service footprint, and lay the groundwork to meet future demand. At the same time, we focus on the design and placement of the projects to maximize operational efficiency and improve our financial performance.

Actively pursuing numerous bases still be privatized
Winning new military base privatizations is a key growth initiative for ASUS and American States Water. We aggressively pursue solicitations from the U.S. government on military bases where the water and wastewater utilities are in the process of being privatized, in an effort to increase ASUS's footprint in the utility privatization industry, and continue to be recognized as one of the premier providers of water and wastewater services. We have the in-house capability to respond to multiple, simultaneous requests for proposals from the U.S. government in a cost-effective manner. We anticipate continued privatization opportunities by the U.S. government over the next five years, and expect ASUS to be successful in winning our share of those new bases.

American States Water Company: Involved in our communities

A utility plays a unique role in a community. We're tied to residents' daily lives, and to the overall strength of the places we serve, in a way many businesses aren't. Beyond providing service that our customers can depend on, community engagement remains a priority across all of our businesses. Our employees contributed a combined total of 5,300 volunteer hours to various community events and activities in 2019.

Prioritizing ESG

We are committed to upholding high environmental, social responsibility and governance (ESG) standards through our delivery of clean, safe and reliable water, wastewater and electric services to our customers. We are also committed to proactively maintaining the integrity of our systems, managing a strong water supply portfolio and an increasingly renewable electric supply portfolio, and planning for climate variability issues and risks. We are proud of our longstanding conservation efforts, and of our workplace culture, in which we strive for diversity and inclusion while prioritizing employee safety and well-being. In fact, compensation for our executives is linked to performance on metrics for customer satisfaction, supplier diversity, employee safety and capital investment for reliability and water quality. We invite you to read more about our efforts in our corporate social responsibility report on our website.

Responding to COVID-19

As this report goes to press, the United States is responding to the emerging COVID-19 pandemic and despite "shelter in place" requirements, customers of GSWC and ASUS continue to receive the same excellent water, electric and wastewater services they have come to expect. The health and safety of our customers and employees is, as ever, our first priority. As this situation unfolds, we are taking all necessary steps to protect customers and staff and coordinating with local, state and federal authorities to ensure the safety and dependability of the critical services we supply. Our hearts go out to those affected by the virus, and we are committed to being part of a robust response to it in the communities we serve. We will continue to communicate with all of our stakeholders about our response as circumstances dictate in the coming months.

All in all, we're all in

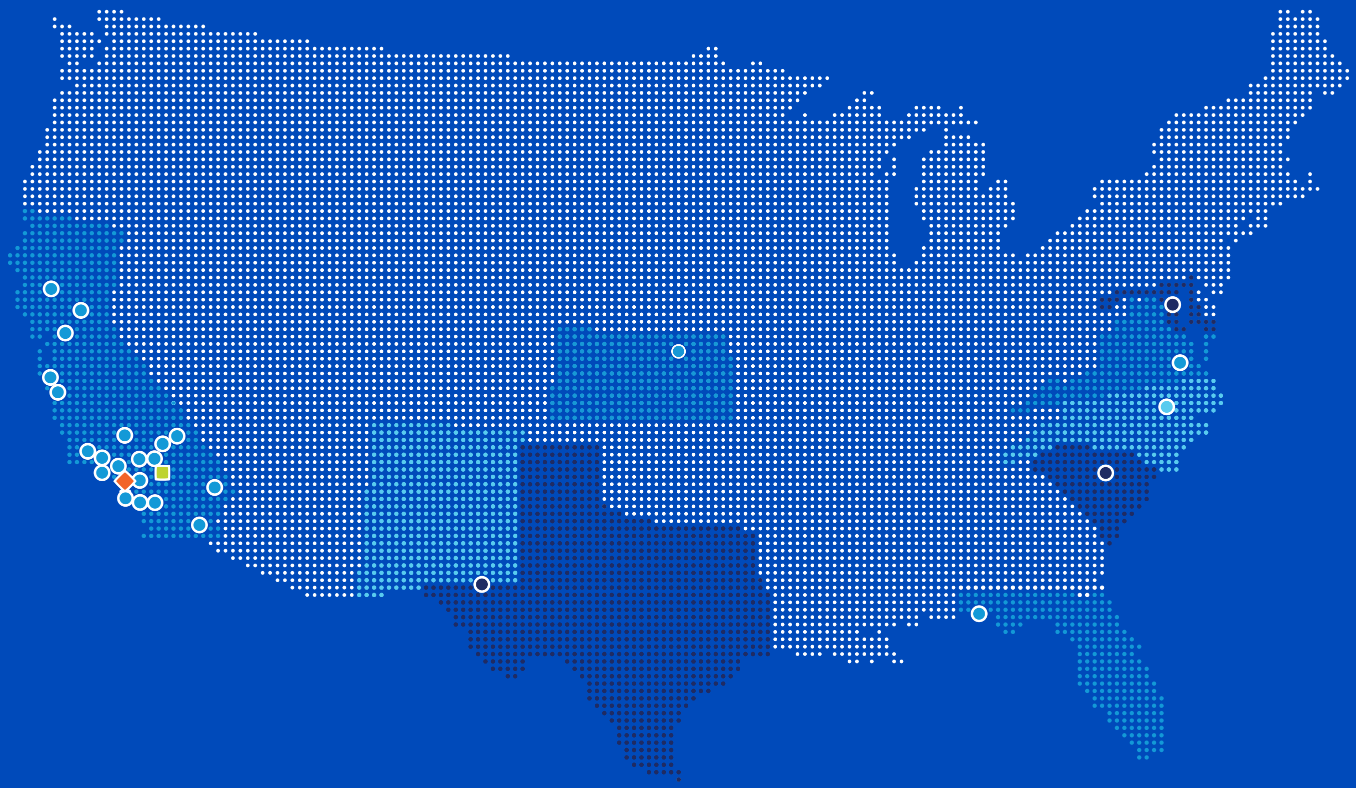
In 2019, we at American States Water Company and our subsidiaries continued to pursue our proven business strategy, invest in delivering reliable service, develop our people, and become ever more involved in strengthening the communities where we live and work. Driving our progress is the understanding, built over almost a century, that being successful as a business starts with always being there for our customers. Our commitment in that regard is total, and our business is strong as a result. We owe our achievements in 2019 to the hard work and dedication of our teams around the country, and to the longstanding trust of shareholders like you. On behalf of our board and employees, thank you for your ongoing support.

Robert J. Sprowls
President and CEO

Anne M. Holloway
Chairman of the Board

A NATIONAL PRESENCE

Providing safe and reliable service to over 1 million people in 9 states



American States Water Company and its Subsidiaries Headquarters

GOLDEN STATE WATER COMPANY

Golden State Water Company provides water service to customers located throughout 10 counties in Northern, Coastal, and Southern California, as well as distributes electricity to customers in the Big Bear recreational area of California. Our customers reside in the following areas:

California	*Customers*
Northern District	
Arden / Rancho Cordova	17,042
Bay Point	5,095
Clearlake	2,111
Coastal District	
Los Osos	3,294
Santa Maria	14,934
Simi Valley	13,641
Central District – Los Angeles County	
Central Basin East	20,287
Central Basin West	20,411
Culver City	9,723
Southwest District – Los Angeles County	
Southwest	53,154
Foothill District	
Claremont	11,282
San Dimas	16,247
San Gabriel	12,540
Mountain/Desert District	
Apple Valley / Victorville	3,022
Barstow	9,129
Calipatria	1,192
Morongo Valley	982
Wrightwood	2,774
Orange County District	
Los Alamitos	28,245
Placentia	15,603
BEAR VALLEY ELECTRIC SERVICE	24,420

TOTAL CUSTOMER CONNECTIONS **285,128**

AMERICAN STATES UTILITY SERVICES, INC.

American States Utility Services, Inc. provides operation and maintenance and capital construction and improvements (collectively, "services") of potable water, wastewater, and treatment systems under 50-year privatization contracts with the U.S. government as identified below:

Maryland
Terrapin Utility Services, Inc. provides services to the United States Air Force and Navy at Joint Base Andrews in Maryland.

Virginia
In Virginia, Old Dominion Utility Services, Inc. provides services to the United States Air Force and Army at Joint Base Langley-Eustis, the United States Navy and Army at Joint Expeditionary Base Little Creek-Fort Story, along with wastewater services to the United States Army at Fort Lee.

North Carolina
Old North Utility Services, Inc. provides services to the United States Army in North Carolina at Fort Bragg, Pope Army Airfield and Camp Mackall.

South Carolina
Palmetto State Utility Services, Inc. provides services to the United States Army at Fort Jackson in South Carolina.

Texas/New Mexico
Fort Bliss Water Services Company provides services to the United States Army at the Fort Bliss military installation in El Paso, Texas. The service area also includes Dona Ana, MacGregor, and Myers Range Camps located in New Mexico.

Florida
Emerald Coast Utility Services, Inc. provides services to the United States Air Force at Eglin Air Force Base in Florida.

Kansas
Fort Riley Utility Services, Inc. provides services to the United States Army at Fort Riley in Kansas.

11 MILITARY BASES

5-YEAR STATISTICAL REVIEW

(in thousands, except for per share and per customer amounts)	2019	2018	2017*	2016	2015
FINANCIAL INFORMATION					
Revenues by Segment					
Water Revenues	$ 319,830	$ 295,258	$ 306,332	$ 302,931	$ 328,511
Electric Revenues	39,548	34,350	33,969	35,771	36,039
Contracted Services Revenues	114,491	107,208	100,302	97,385	94,091
Total Operating Revenues	473,869	436,816	440,603	436,087	458,641
Net Income	$ 84,342	$ 63,871	$ 69,367	$ 59,743	$ 60,484
Diluted Earnings per Common Share	2.28	1.72	1.88	1.62	1.60
Dividends Paid per Common Share	1.160	1.060	0.994	0.914	0.874
Total Assets	$ 1,641,331	$ 1,501,433	$ 1,416,734	$ 1,470,493	$ 1,343,959
Net Utility Plant	1,415,705	1,296,310	1,204,992	1,150,926	1,060,794
Capital Additions	151,940	126,561	113,126	129,867	87,323
Long-term Debt, net of Issuance Costs	280,996	281,087	321,039	320,981	320,900
Investment per Customer Connection	6,870	6,536	6,138	5,909	5,600
OPERATING INFORMATION					
Water Sold by Classification (mg)					
Residential and Commercial	35,870	37,874	37,889	37,210	36,972
Industrial	326	381	380	398	388
Fire Service and Other	4,179	4,673	4,442	4,006	3,801
Total Water	40,374	42,928	42,711	41,614	41,161
Total Electric Sales (mwh)	132,036	128,041	127,985	128,821	133,665
Water Production by Source (mg)					
Purchased	20,110	19,985	20,035	18,220	18,237
Pumped - Electric and Gas	22,960	25,794	24,896	24,192	23,436
Surface	1,445	1,564	1,436	2,362	2,345
Total Supply	44,515	47,343	46,367	44,774	44,018
Customers by Classification**					
Residential and Commercial	252,091	251,451	250,541	252,579	251,880
Industrial	337	337	342	344	346
Fire Service and Other	8,280	8,131	8,066	8,079	7,925
Total Water	260,708	259,919	258,949	261,002	260,151
Electric	24,420	24,353	24,274	23,940	23,846
Total Company	285,128	284,272	283,223	284,942	283,997
Miles of Main in Service	2,791	2,789	2,783	2,825	2,820
Number of Employees as of December 31	841	813	754	730	702

mg = millions of gallons /// mwh = mega-watt hours
*Includes a gain on the sale of assets of $8.3 million, or $0.13 per share.
**In addition, as of December 31, 2019 the Company had eight contracts with the U.S. government for its contracted services business.

10-K 2019

American States
Water Company

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SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

FOR ANNUAL AND TRANSITION REPORTS PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

(Mark One)

☒ **Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2019 or**

☐ **Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the transition period from to**

Commission File Number	Registrant, State of Incorporation Address, Zip Code and Telephone Number	IRS Employer Identification No.
001-14431	**American States Water Company** Incorporated in California 630 E. Foothill Boulevard, San Dimas CA 91773-1212 (909) 394-3600	95-4676679
001-12008	**Golden State Water Company** Incorporated in California 630 E. Foothill Boulevard, San Dimas CA 91773-1212 (909) 394-3600	95-1243678

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
American States Water Company Common Shares	AWR	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

American States Water Company	Yes	☒	No	☐
Golden State Water Company	Yes	☐	No	☒

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

American States Water Company	Yes	☐	No	☒
Golden State Water Company	Yes	☐	No	☒

Indicate by check mark whether Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

American States Water Company	Yes	☒	No	☐
Golden State Water Company	Yes	☒	No	☐

Indicate by check mark whether Registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or such shorter period that the Registrant was required to submit and post such files).

American States Water Company	Yes	☒	No	☐
Golden State Water Company	Yes	☒	No	☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of “large accelerated filer”, “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

American States Water Company

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

Golden States Water Company

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act)

American States Water Company	Yes	☐	No	☒
Golden State Water Company	Yes	☐	No	☒

The aggregate market value of all voting Common Shares held by non-affiliates of American States Water Company was approximately $2,771,217,000 and $3,325,833,000 on June 30, 2019 and February 20, 2020, respectively. The closing price per Common Share of American States Water Company on February 20, 2020, as traded on the New York Stock Exchange, was $90.23. As of February 20, 2020, the number of Common Shares of American States Water Company outstanding was 36,859,505. As of that same date, American States Water Company owned all 165 outstanding Common Shares of Golden State Water Company. The aggregate market value of all voting stock held by non-affiliates of Golden State Water Company was zero on June 30, 2019 and February 20, 2020.

Golden State Water Company meets the conditions set forth in General Instruction I(1)(a) and (b) of Form 10-K and is therefore filing this Form, in part, with the reduced disclosure format for Golden State Water Company.

Documents Incorporated by Reference:

Portions of the Proxy Statement of American States Water Company will be subsequently filed with the Securities and Exchange Commission as to Part III, Item Nos. 10, 11, 13 and 14 and portions of Item 12, in each case as specifically referenced herein.

AMERICAN STATES WATER COMPANY
and
GOLDEN STATE WATER COMPANY

FORM 10-K

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PART I

Item 1. Business

This annual report on Form 10-K is a combined report being filed by two separate Registrants, American States Water Company ("AWR") and Golden State Water Company ("GSWC"). References in this report to "Registrant" are to AWR and GSWC, collectively, unless otherwise specified. GSWC makes no representations as to the information contained in this report relating to AWR and its subsidiaries, other than GSWC.

AWR makes its periodic reports, Form 10-Q and Form 10-K, and current reports, Form 8-K, available free of charge through its website, www.aswater.com, as soon as material is electronically filed with or furnished to the Securities and Exchange Commission ("SEC"). Such reports are also available on the SEC's website at www.sec.gov. AWR also makes available free of charge its code of business conduct and ethics, its corporate governance guidelines and the charters of its Nominating and Governance Committee, Compensation Committee and Audit and Finance Committee through its website or by calling (877) 463-6297. AWR and GSWC have filed the certification of officers required by Section 302 of the Sarbanes-Oxley Act as Exhibits 31.1 and 31.2 to its Form 10-K for the year ended December 31, 2019.

Overview

AWR is the parent company of GSWC and American States Utility Services, Inc. ("ASUS") (and its wholly owned subsidiaries: Fort Bliss Water Services Company ("FBWS"), Terrapin Utility Services, Inc. ("TUS"), Old Dominion Utility Services, Inc. ("ODUS"), Palmetto State Utility Services, Inc. ("PSUS"), Old North Utility Services, Inc. ("ONUS"), Emerald Coast Utility Services, Inc. ("ECUS") and Fort Riley Utility Services, Inc. ("FRUS")). AWR was incorporated as a California corporation in 1998 as a holding company. AWR has three reportable segments: water, electric and contracted services. Within the segments, AWR has two principal business units, water and electric service utility operations, conducted through GSWC, and contracted services conducted through ASUS and its subsidiaries. FBWS, TUS, ODUS, PSUS, ONUS, ECUS and FRUS may be referred to herein collectively as the "Military Utility Privatization Subsidiaries."

GSWC is a public utility engaged principally in the purchase, production, distribution and sale of water in 10 counties in the State of California. GSWC is regulated by the California Public Utilities Commission ("CPUC"). It was incorporated as a California corporation on December 31, 1929. GSWC also distributes electricity in several San Bernardino County mountain communities in California through its Bear Valley Electric Service ("BVES") division.

GSWC served 260,708 water customers and 24,420 electric customers at December 31, 2019, or a total of 285,128 customers, compared with 259,919 water customers and 24,353 electric customers at December 31, 2018, or a total of 284,272 customers. GSWC's operations exhibit seasonal trends. Although GSWC's water utility operations have a diversified customer base, residential and commercial customers account for the majority of GSWC's water sales and revenues. Revenues derived from commercial and residential water customers generally account for more than 90% of total water revenues for the years ended December 31, 2019, 2018 and 2017.

ASUS, itself or through the Military Utility Privatization Subsidiaries, has contracted with the U.S. government to provide water and/or wastewater services at various military installations. ASUS operates, maintains and performs construction activities (including renewal and replacement capital work) on water and/or wastewater systems at various U.S. military bases pursuant to 50-year firm, fixed-price contracts. Each of the contracts with the U.S. government is subject to termination, in whole or in part, prior to the end of its 50-year term for convenience of the U.S. government or as a result of default or nonperformance by the subsidiary performing the contract. The contract price for each of these contracts is subject to annual economic price adjustments. Contracts are also subject to modifications for changes in circumstances, changes in laws and regulations, and additions to the contract value for new construction of facilities at the military bases. AWR guarantees performance of ASUS's military privatization contracts.

Pursuant to the terms of these contracts, the Military Utility Privatization Subsidiaries operate the following water and wastewater systems:

Subsidiary	Military Base	Type of System	Location
FBWS	Fort Bliss	Water and Wastewater	Texas and New Mexico
TUS	Joint Base Andrews	Water and Wastewater	Maryland
ODUS	Fort Lee	Wastewater	Virginia
ODUS	Joint-Base Langley Eustis and Joint Expeditionary Base Little Creek-Fort Story	Water and Wastewater	Virginia
PSUS	Fort Jackson	Water and Wastewater	South Carolina
ONUS	Fort Bragg, Pope Army Airfield and Camp Mackall	Water and Wastewater	North Carolina
ECUS	Eglin Air Force Base	Water and Wastewater	Florida
FRUS	Fort Riley	Water and Wastewater Collection and Treatment	Kansas

Certain financial information for each of AWR's business segments - water distribution, electric distribution, and contracted services - is set forth in Note 17 to the Notes to Consolidated Financial Statements of American States Water Company and its subsidiaries. While AWR's water and electric utility segments are not dependent upon a single or only a few customers, the U.S. government is the primary customer for ASUS's contracted services. ASUS, from time to time, performs work at military bases for other prime contractors of the U.S. government.

A large portion of the revenue from AWR's segments is seasonal. The impact of this seasonality is discussed in more detail in Item 1A. *"Risk Factors."*

Environmental matters and compliance with such laws and regulations are discussed in detail in Item 7. *"Management's Discussion and Analysis of Financial Condition and Results of Operation"* under the section titled "Environmental Matters."

Competition

The businesses of GSWC are substantially free from direct and indirect competition with other public utilities, municipalities and other public agencies within their existing service territories. However, GSWC may be subject to eminent domain proceedings in which governmental agencies, under state law, may acquire GSWC's water systems if doing so is necessary and in the public's interest. GSWC competes with governmental agencies and other investor-owned utilities in connection with offering service to new real estate developments on the basis of financial terms, availability of water and ability to commence providing service on a timely basis. ASUS actively competes for business with other investor-owned utilities, other third-party providers of water and/or wastewater services and governmental entities primarily on the basis of quality of service and price.

AWR Workforce

AWR and its subsidiaries had a total of 841 employees as of December 31, 2019. GSWC had 560 employees as of December 31, 2019. Seventeen employees of BVES are covered by a collective bargaining agreement with the International Brotherhood of Electrical Workers, which expires in December 2020.

ASUS had 281 employees as of December 31, 2019. Sixteen of FBWS's employees are covered by a collective bargaining agreement with the International Union of Operating Engineers. This agreement expires in September 2022.

Forward-Looking Information

This Form 10-K and the documents incorporated herein contain forward-looking statements intended to qualify for the "safe harbor" from liability established by the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on current estimates, expectations and projections about future events and assumptions regarding these events, and include statements regarding management's goals, beliefs, plans or current expectations, considering the information currently available to management. Forward-looking statements are not statements of historical facts. For example, when we use words such as “anticipate,” “believe,” “plan,” “estimate,” “expect,” “intend,” “may” and other words that convey uncertainty of future events or outcomes, we are making forward-looking statements. We are not able to predict all the factors that may affect future results. We caution you that any forward-looking statements made by us are not guarantees of future performance and the actual results may differ materially from those in our forward-looking statements. Some of the factors that could cause future results to differ materially from those expressed or implied by our forward-looking statements or from historical results, include, but are not limited to:

- the outcome of pending and future regulatory, legislative or other proceedings, investigations or audits, including decisions in GSWC's general rate cases and the results of independent audits of GSWC's construction contracting procurement practices or other independent audits of our costs;
- changes in the policies and procedures of the CPUC;
- timeliness of CPUC action on GSWC rates;
- availability of GSWC's water supplies, which may be adversely affected by increases in the frequency and duration of droughts, changes in weather patterns, contamination, and court decisions or other governmental actions restricting the use of water from the Colorado River, the California State Water Project, and/or pumping of groundwater;
- liabilities of GSWC associated with the inherent risks of damage to private property and injuries to employees and the public if our or their property should come into contact with electrical current or equipment;
- the potential of strict liability for damages caused by GSWC's property or equipment, even if GSWC was not negligent in the operation and maintenance of that property or equipment, under a doctrine known as inverse condemnation;
- the impact of storms, high winds, earthquakes, floods, mudslides, drought, wildfires and similar natural disasters, contamination or acts of terrorism or vandalism, that affect water quality and/or supply, affect customer demand, that damage or disrupt facilities, operations or information technology systems owned by us, our customers or third parties on whom we rely or that damage the property of our customers or other third parties or cause bodily injury resulting in liabilities that we may be unable to recover from insurance, other third parties and/or the U.S. government or that the CPUC or the courts do not permit us to recover from ratepayers;
- the impact on water utility operations during high fire threat conditions as a result of the Public Safety Power Shut-Off program authorized by the CPUC and implemented by the electric utilities that serve GSWC facilities throughout the state and our ability to get full cost recovery in rates for costs incurred in preparation of and during a Public Safety Power Shut-Off event;
- liabilities of GSWC for wildfires caused by GSWC’s electrical equipment if GSWC is unable to recover the costs and expenses associated with such liabilities from insurance or from ratepayers on a timely basis, if at all;
- penalties which may be assessed by the CPUC if GSWC shuts down power to its customers during high threat conditions under the Public Safety Power Shut-Off program authorized by the CPUC if the CPUC determines that the shutdown was not reasonably necessary or excessive in the circumstances;
- our ability to implement GSWC's wildfire mitigation program and effectively implement Public Safety Power Shut-Offs when appropriate;
- costs incurred, and the ability to recover such costs from customers, associated with service disruptions as the result of a Public Safety Power Shut-Off program;
- risks associated with California Assembly Bill No. 1054's effectiveness in mitigating the risk faced by California investor-owned utilities related to liability for damages arising from catastrophic wildfires where utility facilities are a substantial cause, including GSWC's ability to maintain a valid safety certification and the CPUC's interpretation of and actions under California Assembly Bill No. 1054;
- increases in the cost of obtaining insurance or in uninsured losses that may not be recovered in rates, or under our contracts with the U.S. government, including increases due to difficulties in obtaining insurance for certain risks, such as wildfires and earthquakes in California;

- increases in costs to reduce the risks associated with the increasing frequency of severe weather, including to improve the resiliency and reliability of our water production and delivery facilities and systems, and our electric transmission and distribution lines;
- increases in service disruptions if severe weather and wildfires or threats of wildfire become more frequent as predicted by some scientists who study climate change;
- our ability to efficiently manage GSWC capital expenditures and operating and maintenance expenses within CPUC authorized levels and timely recover our costs through rates;
- the impact of opposition to GSWC rate increases on our ability to recover our costs through rates, including costs associated with construction and costs associated with damages to our property and that of others and injuries to persons arising out of more extreme weather events;
- the impact of opposition by GSWC customers to conservation rate design, including more stringent water-use restrictions if drought in California persists due to climate change, as well as future restrictions on water use mandated in California, which may decrease adopted usage and increase customer rates;
- the impact of condemnation actions on future GSWC revenues and other aspects of our business if we do not receive adequate compensation for the assets taken, or recovery of all charges associated with the condemnation of such assets, as well as the impact on future revenues if we are no longer entitled to any portion of the revenues generated from such assets;
- our ability to forecast the costs of maintaining GSWC's aging water and electric infrastructure;
- our ability to recover increases in permitting costs and costs associated with negotiating and complying with the terms of our franchise agreements with cities and counties and other demands made upon us by the cities and counties in which GSWC operates;
- changes in accounting valuations and estimates, including changes resulting from our assessment of anticipated recovery of GSWC's regulatory assets, settlement of liabilities and revenues subject to refund or regulatory disallowances and the timing of such recovery, and the amounts set aside for uncollectible accounts receivable, inventory obsolescence, pension and post-retirement liabilities, taxes and uninsured losses and claims, including general liability and workers' compensation claims;
- changes in environmental laws, health and safety laws, and water and recycled water quality requirements, and increases in costs associated with complying with these laws and requirements, including costs associated with GSWC's upgrading and building new water treatment plants, GSWC's disposing of residuals from our water treatment plants, more stringent rules regarding pipeline repairs and installation, handling and storing hazardous chemicals, upgrading equipment to make it more resistant to extreme weather events, removal of vegetation near power lines, compliance-monitoring activities and GSWC's securing alternative water supplies when necessary;
- changes in laboratory detection capabilities and drinking water notification levels for certain substances, such as fluorinated organic perfluoroalkyl (e.g. PFOA and PFOS) used to make certain fabrics and other materials, used in certain fire suppression agents and also used in various industrial processes;
- our ability to obtain adequate, reliable and cost-effective services, supplies of chemicals, electricity, fuel, water and other raw materials that are needed for our water and wastewater operations;
- our ability to attract, retain, train, motivate, develop and transition key employees;
- our ability to recover the costs associated with any contamination of GSWC's groundwater supplies from parties responsible for the contamination or through the ratemaking process, and the time and expense incurred by us in obtaining recovery of such costs;
- adequacy of GSWC's electric division's power supplies and the extent to which we can manage and respond to the volatility of electricity and natural gas prices;
- GSWC's electric division's ability to comply with the CPUC's renewable energy procurement requirements;

- changes in GSWC's long-term customer demand due to changes in customer usage patterns as a result of conservation efforts, regulatory changes affecting demand such as mandatory restrictions on water use, new landscaping or irrigation requirements, recycling of water by customers or purchase of recycled water supplied by other parties, unanticipated population growth or decline, changes in climate conditions, general economic and financial market conditions and cost increases, which may impact our long-term operating revenues if we are unable to secure rate increases in an amount sufficient to offset reduced demand;
- changes in accounting treatment for regulated utilities;
- effects of changes in, or interpretations of, tax laws, rates or policies;
- changes in estimates used in ASUS's cost-to-cost method for revenue recognition of certain construction activities;
- termination, in whole or in part, of one or more of ASUS's military utility privatization contracts to provide water and/or wastewater services at military bases for the convenience of the U.S. government or for default;
- suspension or debarment of ASUS for a period of time from contracting with the government due to violations of laws or regulations in connection with military utility privatization activities;
- delays by the U.S. government in making timely payments to ASUS for water and/or wastewater services or construction activities at military bases because of fiscal uncertainties over the funding of the U.S. government or otherwise;
- delays in ASUS obtaining economic price or equitable adjustments to our prices on one or more of our contracts to provide water and/or wastewater services at military bases;
- disallowance of costs on any of ASUS's contracts to provide water and/or wastewater services at military bases because of audits, cost reviews or investigations by contracting agencies;
- inaccurate assumptions used by ASUS in preparing bids in our contracted services business;
- failure of wastewater systems that ASUS operates on military bases resulting in untreated wastewater or contaminants spilling into nearby properties, streams or rivers, a risk which may increase if flooding and rainfall become more frequent or severe as a result of climate change;
- failure to comply with the terms of our military privatization contracts;
- failure of any of our subcontractors to perform services for ASUS in accordance with the terms of our military privatization contracts;
- competition for new military privatization contracts;
- issues with the implementation, maintenance or upgrading of our information technology systems;
- general economic conditions which may impact our ability to recover infrastructure investments and operating costs from customers;
- explosions, fires, accidents, mechanical breakdowns, the disruption of information technology and telecommunication systems, human error and similar events that may occur while operating and maintaining water and electric systems in California or operating and maintaining water and wastewater systems on military bases under varying geographic conditions;
- potential costs, lost revenues, or other consequences resulting from misappropriation of assets or sensitive information, corruption of data, or operational disruption due to a cyber-attack or other cyber incident;
- restrictive covenants in our debt instruments or changes to our credit ratings on current or future debt that may increase our financing costs or affect our ability to borrow or make payments on our debt; and
- our ability to access capital markets and other sources of credit in a timely manner on acceptable terms.

Please consider our forward-looking statements in light of these risks as you read this Form 10-K. We qualify all of our forward-looking statements by these cautionary statements.

Item 1A. Risk Factors

You should carefully read the risks described below and other information in this Form 10-K in order to understand certain of the risks of our business.

Our business is heavily regulated and, as a result, decisions by regulatory agencies and changes in laws and regulations can significantly affect our business

GSWC's revenues depend substantially on the rates and fees it charges its customers and the ability to recover its costs on a timely basis, including the ability to recover the costs of purchased water, groundwater assessments, electricity, natural gas, chemicals, water treatment, security at water facilities and preventative maintenance and emergency repairs. Any delays by the CPUC in granting rate relief to cover increased operating and capital costs at our public utilities or delays in obtaining approval of our requests at ASUS for economic price or equitable adjustments for contracted services from the U.S. government may adversely affect our financial performance. We may file for interim rates in California in situations where there may be delays in granting final rate relief during a general rate case proceeding. If the CPUC approves lower rates, the CPUC will require us to refund to customers the difference between the interim rates and the rates approved by the CPUC. Similarly, if the CPUC approves rates that are higher than the interim rates, the CPUC may authorize us to recover the difference between the interim rates and the final rates.

Regulatory decisions affecting GSWC may also impact prospective revenues and earnings, affect the timing of the recognition of revenues and expenses, may overturn past decisions used in determining our revenues and expenses and could result in impairment charges and customer refunds. Management continually evaluates the anticipated recovery of regulatory assets, settlement of liabilities and revenues subject to refund and provides for allowances and reserves as deemed necessary. In the event that our assessment of the probability of recovery or settlement through the ratemaking process is incorrect, we will adjust the associated regulatory asset or liability to reflect the change in our assessment or any regulatory disallowances. A change in our evaluation of the probability over the recovery of regulatory assets including a future disallowance of previously granted regulatory mechanisms, or a regulatory disallowance of all or a portion of our costs could have a material adverse effect on our financial results.

We are also, in some cases, required to estimate future expenses and, in others, we are required to incur the expense before recovering costs. As a result, our revenues and earnings may fluctuate depending on the accuracy of our estimates, the timing of our investments or expenses or other factors. If expenses increase significantly over a short period, we may experience delays in recovery of these expenses, the inability to recover carrying costs for these expenses and increased risks of regulatory disallowances or write-offs.

Regulatory agencies may also change their rules and policies, which may adversely affect our profitability and cash flows. Changes in policies of the U.S. government may also adversely affect one or more of our Military Utility Privatization Subsidiaries. In certain circumstances, the U.S. government may be unwilling or unable to appropriate funds to pay costs mandated by changes in rules and policies of federal or state regulatory agencies. The U.S. government may disagree with the increases that we request and may delay approval of requests for equitable adjustment or economic price adjustments, which could adversely affect our anticipated rates of return.

We may also be subject to fines or penalties if a regulatory agency, including the U.S. government, determines that we have failed to comply with laws, regulations or orders applicable to our businesses, unless we successfully appeal such an adverse determination. Regulatory agencies may also disallow recovery of certain costs if they determine they may no longer be recovered in rates, or if audit findings determine that we have failed to comply with our policies and procedures for procurement or other practices.

Our liquidity and earnings may be adversely affected by wildfires

It is possible that wildfires may occur more frequently, be of longer duration or impact larger areas as a result of drought-damaged plants and trees, lower humidity or higher winds that may occur as result of changed weather patterns. Our liquidity, earnings and operations may be materially adversely affected by wildfires in our electric service territory. We may be required to (i) incur greater costs to relocate lines or increase our trimming of trees and other plants near our electric facilities to avoid wildfires, and (ii) bear the costs of damages to property or injuries to the public if it is determined that our power lines or other electrical equipment was a cause of such damages or injuries.

Losses by insurance companies resulting from wildfires in California may cause insurance coverage for wildfire risks to become more expensive or unavailable on reasonable terms, and our insurance may be inadequate to recover all our losses incurred in a wildfire. We might not be allowed to recover in our rates any increased costs of wildfire insurance or the costs of any uninsured wildfire losses.

Electric utilities in California are authorized to shut off power for public safety reasons, such as during periods of extreme fire hazard, if the utility reasonably believes that there is an imminent and significant risk that strong winds may topple power lines or cause vegetation to come into contact with power lines leading to increased risk of fire. Shut-offs can reduce BVES's electric revenues and decrease customer satisfaction.

These shut-offs can also adversely affect GSWC's water utility operations if the electric utilities that provide electric service to GSWC's water operations shut off power lines that deliver electricity to GSWC's water plant and equipment, thereby adversely affecting its ability to provide water service to its customers.

We may be held strictly liable for damages to property caused by our equipment even if we are not negligent

Utilities in California may be held strictly liable for damages caused by their property, such as mains, fire hydrants, power lines and other equipment, even though they were not negligent in the operation and maintenance of that property, under a doctrine known as inverse condemnation. GSWC's liquidity, earnings and operations may be adversely affected if we are unable to recover the costs of paying claims for damages caused by the non-negligent operation and maintenance of our property from customers or through insurance.

Our costs involved in maintaining water quality and complying with environmental regulation have increased and are expected to continue to increase

Our capital and operating costs at GSWC may increase substantially as a result of increases in environmental regulation arising from increases in the cost of upgrading and building new water treatment plants, disposing of residuals from our water treatment plants, compliance-monitoring activities and securing alternative supplies when necessary. GSWC may be able to recover these costs through the ratemaking process. We may also be able to recover these costs under settlement and contractual arrangements.

We may be subject to financial losses, penalties and other liabilities if we fail to maintain safe work sites, equipment or facilities

Our safety record is critical to our reputation. We maintain health and safety standards to protect our employees, customers, vendors and the public. Although we aim to comply with such health and safety standards, it is unlikely that we will be able to avoid all accidents or other events resulting in damage to property or the public.

Our business sites, including construction and maintenance sites, often put our employees and others in close proximity with large pieces of equipment, moving vehicles, pressurized water, chemicals and other regulated materials. On many sites we are responsible for safety and, accordingly, must implement safety procedures. If we fail in any respect to implement such procedures or if the procedures we implement are ineffective or are not followed by our employees or others, our employees and others may be injured or die. Unsafe work sites also have the potential to increase our operating costs. Any of the foregoing could result in financial losses, which could have a material adverse impact on our business, financial condition, and results of operations.

Our operations may involve the handling and storage of hazardous chemicals which, if improperly handled, stored or disposed of, could subject us to penalties or other liabilities. We are also subject to regulations dealing with occupational health and safety. Although we maintain functional employee groups whose primary purpose is to ensure that we implement effective health, safety, and environmental work procedures throughout our organization, including construction sites and maintenance sites, a failure to comply with such regulations in any respect could subject us to liability.

Electrical facilities also have an inherent risk of damage to persons or property should such persons or property come into contact with such facilities which could, depending upon the circumstances, subject us to penalties and damages.

We may sustain losses that exceed or are excluded from our insurance coverage or for which we are not insured

We are, from time to time, parties to legal or regulatory proceedings. These proceedings may pertain to regulatory investigations, employment matters or other disputes. Management periodically reviews its assessment of the probable outcome of these proceedings, the costs and expenses reasonably expected to be incurred, and the availability and extent of insurance coverage. On the basis of this review, management establishes reserves for such matters. We may, however, from time to time be required to pay fines, penalties or damages that exceed our insurance coverage and/or reserves if our estimate of the probable outcome of such proceedings proves to be inaccurate.

We maintain insurance coverage as part of our overall legal and risk management strategy to minimize our potential liabilities. However, our insurance policies contain exclusions and other limitations that may not cover our potential liabilities. Generally, our insurance policies cover property, workers' compensation, employer liability, general liability and automobile liability. Each policy includes deductibles or self-insured retentions and policy limits for covered claims. As a result, we may sustain losses that exceed or that are excluded from our insurance coverage or for which we are not insured.

We have experienced increased costs in obtaining insurance coverage for wildfires that could impact or potentially arise from BVES's ordinary operations. Uninsured losses and increases in the cost of insurance may not be recoverable in customer rates. A loss which is not insured or not fully insured or cannot be recovered in customer rates could materially affect GSWC's financial condition and results of operations.

Additional Risks Associated with our Public Utility Operations

Our operating costs may increase as a result of groundwater contamination

Our operations can be impacted by groundwater contamination in certain service territories. Historically, we have taken a number of steps to address contamination, including the removal of wells from service, decreasing the amount of groundwater pumped from wells in order to facilitate remediation of plumes of contaminated water, constructing water treatment facilities and securing alternative sources of supply from other areas not affected by the contamination. In emergency situations, we have supplied our customers with bottled water until the emergency situation has been resolved.

Our ability to recover these types of costs depends upon a variety of factors, including approval of rate increases, the willingness of potentially responsible parties to settle litigation and otherwise address the contamination and the extent and magnitude of the contamination. We may recover costs from certain third parties that may be responsible, or potentially responsible, for groundwater contamination. However, we often experience delays in obtaining recovery of these costs and incur additional costs associated with seeking recovery from responsible or potentially responsible parties which may adversely impact our liquidity. In some events we may be unable to recover all of these costs from third parties due to the inability to identify the potentially responsible parties, the lack of financial resources of responsible parties or the high litigation costs associated with obtaining recovery from responsible or potentially responsible parties.

We can give no assurance regarding the adequacy of any such recovery to offset the costs associated with contamination or the cost of recovery of any legal costs. To date, the CPUC has permitted us to establish memorandum accounts for potential recovery of these types of costs when they have arisen.

Management believes that rate recovery, proper insurance coverage and reserves are in place to appropriately manage these types of contamination issues. However, such issues, if ultimately resolved unfavorably to us, could, in the aggregate, have a material adverse effect on our results of operations and financial condition.

The adequacy of our water supplies depends upon weather and a variety of other uncontrollable factors

The adequacy of our water supplies varies from year to year depending upon a variety of factors, including:

- rainfall, basin replenishment, flood control, snow pack levels in California and the West, reservoir levels and availability of reservoir storage;
- availability of Colorado River water and imported water from the State Water Project;
- the amount of usable water stored in reservoirs and groundwater basins;
- the amount of water used by our customers and others;
- water quality;
- legal limitations on production, diversion, storage, conveyance and use; and
- climate change.

More frequent and extended California drought conditions and changes in weather patterns and population growth in California cause increased stress on surface water supplies and groundwater basins. In addition, low or no allocations of water from the State Water Project and court-ordered pumping restrictions on water obtained from the Sacramento-San Joaquin Delta decrease or eliminate the amount of water that the Metropolitan Water District of Southern California ("MWD") and other state water contractors are able to import from northern California.

We have implemented tiered rates and other practices, as appropriate, in order to encourage water conservation. We have also implemented programs to assist customers in complying with water usage reductions. Over the long term, we are acting to secure additional supplies from desalination and increase use of reclaimed water, where appropriate and feasible. We cannot predict the extent to which these efforts to reduce stress on our water supplies will be successful or sustainable, or the extent to which these efforts will enable us to continue to satisfy all of the water needs of our customers.

Water shortages at GSWC may:

- adversely affect our supply mix, for instance, by causing increased reliance upon more expensive water sources;
- adversely affect our operating costs, for instance, by increasing the cost of producing water from more highly contaminated aquifers or requiring us to transport water over longer distances, truck water to water systems or adopt other emergency measures to enable us to continue to provide water service to our customers;
- result in an increase in our capital expenditures over the long term, for example, by requiring future construction of pipelines to connect to alternative sources of supply, new wells to replace those that are no longer in service or are otherwise inadequate to meet the needs of our customers, and other facilities to conserve or reclaim water;
- adversely affect the volume of water sold as a result of such factors as mandatory or voluntary conservation efforts by customers, changes in customer conservation patterns, recycling of water by customers and imposition of new regulations impacting such things as landscaping and irrigation patterns;
- adversely affect aesthetic water quality if we are unable to flush our water systems as frequently due to water shortages or drought restrictions; and
- result in customer dissatisfaction and harm to our reputation if water service is reduced, interrupted or otherwise adversely affected as a result of drought, water contamination or other causes.

Our liquidity may be adversely affected by changes in water supply costs

We obtain our water supplies for GSWC from a variety of sources, which vary among our water systems. Certain systems obtain all of their supply from water that is pumped from aquifers within our service areas; some systems purchase all of their supply from wholesale suppliers; some systems obtain their supply from treating surface water sources; and other systems obtain their supply from a combination of wells, surface water sources and/or wholesale suppliers. The cost of obtaining these supplies varies, and overall costs can be impacted as use within a system varies from time to time. As a result, our cost of providing, distributing and treating water for our customers' use can vary significantly.

Furthermore, imported water wholesalers, such as MWD, may not always have an adequate supply of water to sell to us. Wholesale water suppliers may increase their prices for water delivered to us based on factors that affect their operating costs. Purchased water rate increases are beyond our control.

GSWC has implemented a modified supply cost balancing account ("MCBA") to track and recover costs from supply mix changes and rate changes by wholesale suppliers, as authorized by the CPUC. However, cash flows from operations can be significantly affected since much of the balance we recognize in the MCBA is collected from or refunded to customers primarily through surcharges or surcredits, respectively, generally over twelve- to twenty-four-month periods.

Our liquidity and earnings may be adversely affected by maintenance costs

Some of our infrastructure in California is aging. We have experienced leaks and mechanical problems in some of these older systems. In addition, well and pump maintenance expenses are affected by labor and material costs and more stringent environmental regulations. Our electrical systems have also required upgrades due to aging and new compliance requirements. These costs can increase substantially and unexpectedly.

We include estimated increases in maintenance costs for future years in each water and electric general rate case filed by GSWC for possible recovery.

Our liquidity and earnings may be adversely affected by our conservation efforts

Our water utility business is heavily dependent upon revenue generated from rates charged to our customers based on the volume of water used. The rates we charge for water are regulated by the CPUC and may not be adequately adjusted to reflect changes in demand. Declining usage also negatively impacts our long-term operating revenues if we are unable to secure rate increases or if growth in the customer base does not occur to the extent necessary to offset per-customer usage decline.

Conservation by all customer classes at GSWC is a top priority. However, customer conservation will result in lower volumes of water sold. We may experience a decline in per-customer water usage due to factors such as:

- conservation efforts to reduce costs;
- drought conditions resulting in additional water conservation;
- the use of more efficient household fixtures and appliances by consumers to save water;
- voluntary or mandatory changes in landscaping and irrigation patterns;
- recycling of water by our customers; and
- mandated water-use restrictions.

These types of changes may result in permanent decreases in demand even if our water supplies are sufficient to meet higher levels of demand after a drought ends. In addition, governmental restrictions on water usage during drought conditions may result in a decreased demand for water, even if our sources of supply are sufficient to serve our customers during such drought conditions.

We implemented a CPUC-approved water-revenue adjustment mechanism ("WRAM") at GSWC, which has the effect of reducing the adverse impact of our customers' conservation efforts on revenues. However, cash flows from operations can be significantly affected since much of the balance we recognize in the WRAM account is collected from or refunded to customers generally over twelve-, eighteen- or twenty-four-month periods.

Our earnings may be affected by weather during different seasons

The demand for water and electricity varies by season. For instance, there can be a higher level of water consumption during the third quarter of each year when weather in California tends to be hot and dry. During unusually wet weather, our customers generally use less water. The CPUC-approved WRAM helps mitigate fluctuations in revenues due to changes in water consumption by our customers in California.

The demand for electricity in our electric customer service area is greatly affected by winter snow levels. An increase in winter snow levels reduces the use of snowmaking machines at ski resorts in the Big Bear area and, as a result, reduces our electric revenues. Likewise, unseasonably warm weather during a skiing season may result in temperatures too high for snowmaking conditions, which also reduces our electric revenues. GSWC has implemented a CPUC-approved base-revenue-requirement adjustment mechanism for our electric business which helps mitigate fluctuations in the revenues of our electric business due to changes in the amount of electricity used by GSWC's electric customers.

Our liquidity may be adversely affected by increases in electricity and natural gas prices in California

We purchase most of the electric energy sold to customers in our electric customer service area from others under purchased power contracts. In addition to purchased power contracts, we purchase additional energy from the spot market to meet peak demand and following the expiration of purchased power contracts if there are delays in obtaining CPUC authorization of new purchase power contracts. We may sell surplus power to the spot market during times of reduced energy demand. As a result, our cash flows may be affected by increases in spot market prices of electricity purchased and decreases in spot market prices for electricity sold. However, GSWC has implemented supply-cost balancing accounts, as approved by the CPUC, to mitigate fluctuations in supply costs.

Unexpected generator downtime at our 8.4 megawatt natural-gas-fueled generator or a failure to perform by any of the counterparties to our electric and natural gas purchase contracts could further increase our exposure to fluctuating natural gas and electricity prices.

Changes in electricity prices also affect the unrealized gains and losses on our block forward purchased power contracts that qualify as derivative instruments since we adjust the asset or liability on these contracts to reflect the fair market value of the contracts at the end of each month. The CPUC has authorized us to establish a memorandum account to track the changes in the fair market value of our purchased power contracts. As a result, unrealized gains and losses on these types of purchased power contracts do not impact earnings.

We may not be able to procure sufficient renewable energy resources to comply with CPUC rules

We are required to procure a portion of our electricity for BVES from renewable energy resources to meet the CPUC's renewable procurement requirements. We have an agreement with a third party to purchase renewable energy credits which we believe enables us to meet these requirements through 2023. In the event that the third party fails to perform in accordance with the terms of the agreement, we may not be able to obtain sufficient resources to meet the renewable procurement requirements. We may be subject to fines and penalties by the CPUC if it determines that we are not in compliance with the renewable resource procurement rules.

Our assets are subject to condemnation

Municipalities and other governmental subdivisions may, in certain circumstances, seek to acquire certain of our assets through eminent domain proceedings. It is generally our practice to contest these proceedings, which may be costly and may temporarily divert the attention of management from the operation of our business. If a municipality or other governmental subdivision succeeds in acquiring our assets, there is a risk that we will not receive adequate compensation for the assets taken or be able to recover all charges associated with the condemnation of such assets. In addition, we would no longer be entitled to any portion of revenue generated from the use of such assets.

Our costs of obtaining and complying with the terms of franchise agreements are increasing

Cities and counties in which GSWC operates have granted GSWC franchises to construct, maintain and use pipes and appurtenances in public streets and rights of way. The costs of obtaining, renewing and complying with the terms of these franchise agreements have been increasing as cities and counties attempt to regulate GSWC's operations within the boundaries of the city or unincorporated areas of the counties in which GSWC operates. Cities and counties have also been imposing new fees on GSWC's operations, including pipeline abandonment fees and road-cut or other types of capital improvement fees. At the same time, there is increasing opposition from consumer groups to rate increases that may be necessary to compensate GSWC for the increased costs of regulation by local governments. These trends may adversely affect GSWC's ability to recover in rates its costs of providing water service and to efficiently manage capital expenditures and operating and maintenance expenses within CPUC-authorized levels.

The generation, transmission and distribution of electricity are dangerous and involve inherent risks of damage to private property and injury to employees and the general public

Electricity is dangerous for employees and the general public should they come in contact with electrical current or equipment, including through downed power lines, sparking during high-wind events or equipment malfunctions. Injuries and property damage caused by such events may subject GSWC to significant liabilities that may not be covered or fully covered by insurance. Additionally, the CPUC has delegated to its staff the authority to issue citations, which carry a fine of $50,000 per-violation per day, to electric utilities subject to its jurisdiction for violations of safety rules found in statutes, regulations, and the General Orders of the CPUC, which could also materially affect GSWC's liquidity and results of operations.

Adverse publicity and reputational risks can lead to increased regulatory oversight or sanctions

As a utility company, we have a large customer base and are therefore, subject to public criticism regarding, among other things, the quality and reliability of our water and electricity services, and the accuracy, timeliness and format of bills that are provided to our customers for such services. Adverse publicity and negative customer sentiment may cause regulatory authorities, including CPUC, and other governing bodies to view us unfavorably and cause us to be susceptible to increased oversight and more stringent regulations and economic requirements.

Additional Risks Associated with our Contracted Services Operations

We derive revenues from contract operations primarily from the operation and maintenance of water and/or wastewater systems at military bases and the construction of water and wastewater infrastructure on these bases (including renewal and replacement of these systems). As a result, these operations are subject to risks that are different from those of our public utility operations.

Our 50-year contracts for servicing military bases create certain risks that are different from our public utility operations

We have entered into contracts to provide water and/or wastewater services at military bases pursuant to 50-year contracts, subject to termination, in whole or in part, for the convenience of the U.S. government. In addition, the U.S. government may stop work under the terms of one or more of the contracts, delay performance of our obligations under the contracts or modify the contracts at its convenience.

Our contract pricing is based on a number of assumptions, including assumptions about prices and availability of labor, equipment and materials. We may be unable to recover all costs if any of these assumptions are inaccurate or if all costs incurred in connection with performing the work were not considered. Our contracts are also subject to annual economic price adjustments or other changes permitted by the terms of the contracts. Prices are also subject to equitable adjustment based upon changes in circumstances, laws or regulations and service-requirement changes to the extent provided in each of the contracts.

We are required to record all costs under these types of contracts as they are incurred. As a result, we may record losses associated with unanticipated conditions, higher than anticipated infrastructure levels and emergency work at the time such expenses occur. We recognize additional revenue for such work as, and to the extent that, our economic price adjustments and/or requests for equitable adjustments are approved. Delays in obtaining approval of economic price adjustments and/or equitable adjustments can negatively impact our results of operations and cash flows.

Certain payments under these contracts are subject to appropriations by Congress. We may experience delays in receiving payment or delays in price adjustments due to canceled or delayed appropriations specific to our projects or reductions in government spending for the military generally or military-base operations specifically. Appropriations and the timing of payment may be influenced by, among other things, the state of the economy, competing political priorities, budget constraints, the timing and amount of tax receipts, government shutdowns and the overall level of government expenditures.

Risks associated with wastewater systems are different from those of our water distribution operations

The wastewater-collection-system operations of our subsidiaries providing wastewater services on military bases are subject to substantial regulation and involve significant environmental risks. If collection, treatment or disposal systems fail, overflow or do not operate properly, untreated wastewater or other contaminants could spill onto nearby properties or into nearby streams and rivers, causing damage to persons or property, injury to aquatic life and economic damages. The cost of addressing such damages may not be recoverable. This risk is most acute during periods of substantial rainfall or flooding, which are common causes of sewer overflows and system failures. Liabilities resulting from such damage could adversely and materially affect our business, results of operations and financial condition. In the event that we are deemed liable for any damage caused by overflows, our losses may not be recoverable under our contracts with the U.S. government or covered by insurance policies. We may also find it difficult to secure insurance for this business in the future at acceptable rates.

We may have responsibility for water quality at the military bases we serve

While it is the responsibility of the U.S. government to provide the source of water supply to meet the Military Utility Privatization Subsidiaries' water distribution system requirements under their contracts, the Military Utility Privatization Subsidiaries, as the water system permit holders for most of the bases they serve, are responsible for ensuring the continued compliance of the provided source of supply with all federal, state and local regulations. We believe, however, that the terms of the contracts between the Military Utility Privatization Subsidiaries and the U.S. government provide the opportunity for us to recover costs incurred in the treatment or remediation of any quality issue that arises from the source of water supply.

Our contracts for the construction of infrastructure improvements on military bases create risks that are different from those of our operations and maintenance activities

We have entered into contract modifications with the U.S. government and agreements with third parties for the construction of new water and/or wastewater infrastructure at the military bases on which we operate. Most of these contracts are firm fixed-price contracts. Under firm fixed-price contracts, we will benefit from cost savings, but are generally unable (except for changes in scope or circumstances approved by the U.S. government or third party) to recover any cost overruns to the approved contract price. Under most circumstances, the U.S. government or third party has approved increased-cost change orders due to changes in scope of work performed.

We generally recognize contract revenues from these types of contracts over time using input methods to measure progress towards satisfying a performance obligation. The measurement of performance over time is based on cost incurred relative to total estimated costs, or the physical completion of the construction projects. The earnings or losses recognized on individual contracts are based on periodic estimates of contract revenues, costs and profitability as these construction projects progress.

We establish prices for these types of firm fixed-price contracts and the overall 50-year contracts taken as a whole, based, in part, on cost estimates that are subject to a number of assumptions, including assumptions regarding future economic conditions. If these estimates prove inaccurate or circumstances change, cost overruns could have a material adverse effect on our contracted business operations and results of operations.

We may be adversely affected by disputes with the U.S. government regarding our performance of contracted services on military bases

We are periodically audited or reviewed by the Defense Contract Auditing Agency (“DCAA”) and/or the Defense Contract Management Agency ("DCMA") for compliance with federal acquisition regulations, cost-accounting standards and other laws, regulations and standards that are not applicable to the operations of GSWC. During the course of these audits/reviews, the DCAA or DCMA may question our incurred project costs or the manner in which we have accounted for such costs and recommend to our U.S. government administrative contracting officer that such costs be disallowed.

If there is a dispute with the U.S. government regarding performance under these contracts or the amounts owed to us, the U.S. government may delay, reject or withhold payment, delay price adjustments or assert its right to offset damages against amounts owed to us. If we are unable to collect amounts owed to us on a timely basis or the U.S. government asserts its offset rights, profits and cash flows could be adversely affected.

If we fail to comply with the terms of one or more of our U.S. government contracts, other agreements with the U.S. government or U.S. government statutes and regulations, we could also be suspended or barred from future U.S. government contracts for a period of time and be subject to possible damages, fines and penalties as well as damage to our reputation in the water and wastewater industry.

We depend, to some extent, upon subcontractors to assist us in the performance of contracted services on military bases

We rely, to some extent, on subcontractors to assist us in the operation and maintenance of the water and wastewater systems at military bases. The failure of any of these subcontractors to perform services for us in accordance with the terms of our contracts with the U.S. government could result in the termination of our contract to provide water and/or wastewater services at the affected base(s), and/or a loss of revenues, or increases in costs, to correct a subcontractor’s performance failures.

We are also required to make a good faith effort to achieve our small business subcontracting plan goals pursuant to U.S. government regulations. If we fail to use good faith efforts to meet these goals, the U.S. government may assess damages against us at the end of the contract. The U.S. government has the right to offset claimed damages against any amounts owed to us.

We also rely on third-party manufacturers, as well as third-party subcontractors, to complete our construction projects. To the extent that we cannot engage subcontractors or acquire equipment or materials, our ability to complete a project in a timely fashion or at a profit may be impaired. If the amount of costs we incur for these projects exceeds the amount we have estimated in our bids, we could experience reduced profits or losses in the performance of these contracts. In addition, if a subcontractor or manufacturer is unable to deliver its services, equipment or materials according to the negotiated terms for any reason, including the deterioration of its financial condition, we may be required to purchase the services, equipment or materials from another source at a higher price. This may reduce the profit to be realized or result in a loss on a project for which the services, equipment or materials were needed.

If subcontractors fail to perform services to be provided to us or fail to provide us with the proper equipment or materials, we may be penalized for their failure to perform; however, our contracts with subcontractors include certain protective provisions, which may include the assessment of liquidated damages. We also mitigate these risks by requiring our subcontractors, as appropriate, to obtain performance bonds and to compensate us for any penalties we may be required to pay as a result of their failure to perform.

Our earnings may be affected, to some extent, by weather during different seasons

Seasonal weather conditions, such as hurricanes, heavy rainfall or significant winter storms, occasionally cause temporary office closures and/or result in temporary halts to construction activity at military bases. To the extent that our construction activities are impeded by these events, we will experience a delay in recognizing revenues from these construction projects.

We continue to incur costs associated with the expansion of our contract activities

We continue to incur additional costs in connection with the expansion of our contract operations associated with the preparation of bids for new contract operations on prospective and existing military bases. Our ability to recover these costs and to earn a profit on our contract operations will depend upon the extent to which we are successful in obtaining new contracts and recovering these costs and other costs from new contract revenues.

We face competition for new military privatization contracts

An important part of our growth strategy is the expansion of our contracted services business through new contract awards to serve additional military bases for the U.S. government. ASUS competes with other investor-owned utilities, municipalities, and other entities for these contracts.

Additionally, should the U.S. government decide to curtail or eliminate the issuance of solicitations for future military privatization contract awards, the potential for growth in this segment could be negatively impacted.

Other Risks

The accuracy of our judgments and estimates about financial and accounting matters will impact our operating results and financial condition

The quality and accuracy of estimates and judgments used have an impact on our operating results and financial condition. If our estimates are not accurate, we will be required to make an adjustment in a future period. We make certain estimates and judgments in preparing our financial statements regarding, among others:

- timing of recovering WRAM and MCBA regulatory assets;
- amounts to set aside for uncollectible accounts receivable, inventory obsolescence and uninsured losses;
- our legal exposure and the appropriate accrual for claims, including general liability and workers' compensation claims;
- future costs and assumptions for pensions and other post-retirement benefits;
- regulatory recovery of deferred items; and
- possible tax uncertainties.

Our business requires significant capital expenditures and our inability to access the capital or financial markets could affect our ability to meet our liquidity needs and long-term commitments, which could adversely impact our operations and financial results

The utility business is capital intensive. We spend significant sums of money for additions to, or replacement of, our property, plant and equipment at our water and electric utilities. We obtain funds for these capital projects from operations, contributions by developers and others, and refundable advances from developers (which are repaid over a period of time). We also periodically borrow money or issue equity for these purposes. In addition, we have a revolving credit facility that is partially used for these purposes. We cannot provide assurance that these sources will continue to be adequate or that the cost of funds will remain at levels permitting us to earn a reasonable rate of return.

As our capital investment program continues to increase, coupled with the elimination of bonus depreciation for regulated utilities due to tax reform, we will need access to external financing more often, which increases our exposure to market conditions. In addition to cash flow from operations, we rely primarily on our credit facility and long-term private placement notes to satisfy our liquidity needs. Changes in market conditions, including events beyond our control, could also limit our ability to access capital on terms favorable to us or at all, including the credit facility with the borrowing capacity needed as well as issuing long-term debt. As a result, the amount of capital available may not be sufficient to meet all our liquidity needs at a reasonable cost at all of our subsidiaries.

Our Military Utility Privatization Subsidiaries providing water and wastewater services on military bases also expect to incur significant capital expenditures. To the extent that the U.S. government does not reimburse us for these expenditures as the work is performed or completed, the U.S. government will repay us over time.

We may be adversely impacted by economic conditions

Access to external financing on reasonable terms depends, in part, on conditions in the debt and equity markets. When business and market conditions deteriorate, we may no longer have access to the capital markets on reasonable terms. Our ability to obtain funds is dependent upon our ability to access the capital markets by issuing debt or equity to third parties or obtaining funds from our revolving credit facility. In the event of financial turmoil affecting the banking system and financial markets, consolidation of the financial services industry, significant financial service institution failures or our inability to renew or replace our existing revolving credit facility on favorable terms, it may become necessary for us to seek funds from other sources on less favorable terms.

Market conditions and demographic changes may adversely impact the value of our benefit plan assets and liabilities

Market factors can affect assumptions we use in determining funding requirements with respect to our pension and other post-retirement benefit plans. For example, a relatively modest change in our assumptions regarding discount rates can materially affect our calculation of funding requirements. To the extent that market data compels us to reduce the discount rate used in our assumptions, our benefit obligations could materially increase, which could adversely affect our financial position and cash flows. Further, changes in demographics, such as increases in life expectancy assumptions may also increase the funding requirements of our obligations related to the pension and other post-retirement benefit plans.

Market conditions also affect the values of the assets that are held in trusts to satisfy significant future obligations under our pension and other post-retirement benefit plans. These assets are subject to market fluctuations, which may cause investment returns to fall below our projected rates of return. A decline in the market value of our pension and other post-retirement benefit plan assets will increase the funding requirements under these plans if future returns on these assets are insufficient to offset the decline in value. Future increases in pension and other post-retirement costs as a result of the reduced value of plan assets may not be fully recoverable in rates, and our results of operations and financial position could be negatively affected. These risks are mitigated to some extent by the two-way pension balancing accounts authorized by the CPUC, which permits us to track differences between forecasted annual pension expense adopted in water and electric rates and actual pension expenses for future recovery or refund to customers.

Payment of our debt may be accelerated if we fail to comply with restrictive covenants in our debt agreements

Our failure to comply with restrictive covenants in our debt agreements could result in an event of default. If the default is not cured or waived, we may be required to repay or refinance the debt before it becomes due. Even if we are able to obtain waivers from our creditors, we may only be able to do so on unfavorable terms.

The price of our Common Shares may be volatile and may be affected by market conditions beyond our control

The trading price of our Common Shares may fluctuate in the future because of the volatility of the stock market and a variety of other factors, many of which are beyond our control. Factors that could cause fluctuations in the trading price of our Common Shares include: regulatory developments; general economic conditions and trends; price and volume fluctuations in the overall stock market; actual or anticipated changes or fluctuations in our results of operations; actual or anticipated changes in the expectations of investors or securities analysts; actual or anticipated developments in other utilities' businesses or the competitive landscape generally; litigation involving us or our industry; major catastrophic events, or sales of large blocks of our stock.

AWR is a holding company that depends on cash flow from its subsidiaries to meet its financial obligations and to pay dividends on its Common Shares

As a holding company, our subsidiaries conduct substantially all operations and our only significant assets are investments in our subsidiaries. This means that we are dependent on distributions of funds from our subsidiaries to meet our debt service obligations and to pay dividends on our Common Shares.

Our subsidiaries are separate and distinct legal entities and generally have no obligation to pay any amounts due on our credit facility. Our subsidiaries only pay dividends if and when declared by the respective subsidiary board. Moreover, GSWC is obligated to give first priority to its own capital requirements and to maintain a capital structure consistent with that determined to be reasonable by the CPUC in its most recent decision on capital structure in order that customers not be adversely affected by the holding company structure. Furthermore, our right to receive cash or other assets in the unlikely event of liquidation or reorganization of any of our subsidiaries is generally subject to the prior claims of creditors of that subsidiary. If we are unable to obtain funds from a subsidiary in a timely manner, we may be unable to meet our financial obligations, make additional investments or pay dividends.

Failure to attract, retain, train, motivate, develop and transition key employees could adversely affect our business

In order to be successful, we must attract, retain, train, motivate, and develop key employees, including those in managerial, operational, financial, regulatory, business-development and information-technology support positions. Our regulated business and contracted services operations are complex. Attracting and retaining high quality staff allows us to minimize the cost of providing quality service. In order to attract and retain key employees in a competitive marketplace, we must provide a competitive compensation package and be able to effectively recruit qualified candidates. The failure to successfully hire key employees or the loss of a material number of key employees could have a significant impact on the quality of our operations in the short term. Further, changes in our management team may be disruptive to our business, and any failure to successfully transition key new hires or promoted employees could adversely affect our business and results of operations.

We must successfully maintain and/or upgrade our information technology systems as we are increasingly dependent on the continuous and reliable operation of these systems

We rely on various information technology systems to manage our operations. Such systems require periodic modifications, upgrades and/or replacement, which subject us to inherent costs and risks including potential disruption of our internal control structure, substantial capital expenditures, additional administrative and operating expenses, retention of sufficiently skilled personnel to implement and operate the new systems, and other risks and costs of delays or difficulties in transitioning to new systems or of integrating new systems into our current systems. In addition, the difficulties with implementing new technology systems may cause disruptions in our business operations and have an adverse effect on our business and operations, if not anticipated and appropriately mitigated.

We rely on our computer, information and communications technology systems in connection with the operation of our business, especially with respect to customer service and billing, accounting and the monitoring and operation of our treatment, storage and pumping facilities. Our computer and communications systems and operations could be damaged or interrupted by weather, natural disasters, telecommunications failures, cyber-attacks or acts of war or terrorism or similar events or disruptions. Any of these or other events could cause system interruption, delays and loss of critical data, or delay or prevent operations and adversely affect our financial results.

Security risks, data protection breaches and cyber-attacks could disrupt our internal operations, and any such disruption could increase our expenses, damage our reputation and adversely affect our stock price

There have been an increasing number of cyber-attacks on companies around the world, which have caused operational failures or compromised sensitive corporate or customer data. These attacks have occurred over the internet, through malware, viruses or attachments to e-mails, or through persons inside the organization or with access to systems inside the organization. Although we do not believe that our systems are at a materially greater risk of cyber security attacks than other similar organizations, our information technology systems remain vulnerable to damage or interruption from:

- computer viruses;
- ransomware;
- malware;
- hacking; and
- denial of service actions.

We have implemented security measures and will continue to devote significant resources to address any security vulnerabilities in an effort to prevent cyber-attacks. Despite our efforts, we cannot be assured that a cyber-attack will not cause water, wastewater or electric system problems, disrupt service to our customers, compromise important data or systems or result in unintended release of customer or employee information. Moreover, if a computer security breach affects our systems or results in the unauthorized release of sensitive data, our reputation could be materially damaged. We could also be exposed to a risk of loss or litigation and possible liability. In addition, pursuant to U.S. government regulations regarding cyber-security of government contractors, we might be subject to fines, penalties or other actions, including debarment, with respect to current contracts or with respect to future contract opportunities.

In addition, we must comply with privacy rights regulations such as The California Consumer Privacy Act ("CCPA"), a state statute that became effective January 1, 2020 which enhances the privacy rights and consumer protections for California residents. Among other things, the CCPA establishes statutory damages for victims of data security breaches, and provides additional rights for consumers to obtain their data from any business that has their personally identifying information. Any actual or perceived failure to comply with the CCPA could lead to investigations, claims, and proceedings by governmental entities and private parties, damages for breach, and other significant costs, penalties, and other liabilities, as well as harm to our reputation.

Our operations are geographically concentrated in California

Although we operate water and wastewater facilities in a number of states, our water and electric operations are concentrated in California, particularly Southern California. As a result, our financial results are largely subject to political, water supply, labor, utility cost and regulatory risks, economic conditions, natural disasters and other risks affecting California.

We operate in areas subject to natural disasters

We operate in areas that are prone to earthquakes, fires, mudslides, hurricanes, tornadoes, flooding or other natural disasters. While we maintain insurance policies to help reduce our financial exposure, a significant seismic event in Southern California, where GSWC's operations are concentrated, wildfires or other natural disasters in any of the areas that we serve could adversely impact our ability to deliver water and electricity or provide wastewater service and adversely affect our costs of operations. With respect to GSWC, the CPUC has historically allowed utilities to establish a catastrophic event memorandum account to potentially recover such costs. With respect to the Military Utility Privatization Subsidiaries, costs associated with response to natural disasters have been recoverable through requests for equitable adjustment.

Our operations may be the target of terrorist activities

Terrorists could seek to disrupt service to our customers by targeting our assets. We have invested in additional security for facilities throughout our regulated service areas to mitigate the risks of terrorist activities. We also may be prevented from providing water and/or wastewater services at the military bases we serve in times of military crisis affecting these bases.

The final determination of our income tax liability may be materially different from our income tax provision

Significant judgment is required in determining our provision for income taxes. Our calculation of the provision for income taxes is subject to our interpretation of applicable tax laws in the jurisdictions in which we file. In addition, our income tax returns are subject to periodic examination by the Internal Revenue Service and other taxing authorities.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was signed into federal law. The provisions of this major tax reform were generally effective January 1, 2018, including a reduction of the corporate federal income tax rate from 35% to 21% - the most significant change for Registrant. To account for the effects of the Tax Act, Registrant remeasured its deferred tax balances as reflected in its December 31, 2017 and subsequent financial statements. Technical corrections or other forms of guidance addressing the Tax Act, as well as regulatory or governmental actions, could result in adjustments to Registrant's remeasurement and accounting for the effects of the Tax Act.

In December 2014, the Company changed its tax method of accounting to permit the expensing of qualifying utility asset improvement costs that were previously being capitalized and depreciated for tax purposes. Our determination of costs that qualify as a capital asset versus an immediate tax deduction for utility asset improvements is subject to subsequent adjustment arising from review by taxing authorities, and may impact the deductions that were taken on previously filed tax returns.

Although we believe our income tax estimates are appropriate, there is no assurance that the final determination of our current taxes payable will not be materially different, either higher or lower, from the amounts reflected in our financial statements. In the event we are assessed additional income taxes, our financial condition and cash flows could be adversely affected.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Water Properties

As of December 31, 2019, GSWC's physical properties consisted of water transmission and distribution systems which included 2,791 miles of pipeline together with services, meters and fire hydrants and approximately 450 parcels of land, generally less than one acre each, on which are located wells, pumping plants, reservoirs and other water utility facilities, including four surface water treatment plants. GSWC also has franchises, easements and other rights of way for the purpose of accessing wells and tanks and constructing and using pipes and appurtenances for transmitting and distributing water. All of GSWC's properties are located in California.

As of December 31, 2019, GSWC owned 240 wells, of which 186 are active with an aggregate production capacity of approximately 187 million gallons per day. GSWC has 58 connections to the water distribution facilities of the MWD and other municipal water agencies. GSWC's storage reservoirs and tanks have an aggregate capacity of approximately 112.4 million gallons. GSWC owns no dams. The following table provides information regarding the water utility plant of GSWC:

Pumps		Distribution Facilities			Reservoirs		
Well	Booster	Mains*	Services	Hydrants	Tanks	Capacity*	
240	385	2,791	260,920	26,369	140	112.4	(1)

* Reservoir capacity is measured in millions of gallons. Mains are in miles.

(1) GSWC has additional capacity in its Bay Point system and in its Cordova system through exclusive capacity rights to use 4.4 million gallons per day from a treatment plant owned by the Contra Costa Water District, and a capacity right to use 4.5 million gallons per day from a treatment plant owned by the Carmichael Water District, respectively. GSWC also has additional reservoir capacity through an exclusive right to use all of one eight-million-gallon reservoir, one-half of another eight-million-gallon reservoir, and one-half of a treatment plant's capacity, all owned by the Three Valleys Municipal Water District and used to serve the cities of Claremont and San Dimas.

Electric Properties

GSWC's electric properties are located in the Big Bear area of San Bernardino County, California. As of December 31, 2019, GSWC owned and operated approximately 87.8 miles of overhead 34.5 kilovolt (kv) sub-transmission lines, 6.49 miles of underground 34.5 kv sub-transmission lines, 490.7 miles of 4.16 kv or 2.4 kv distribution lines, 113.3 miles of underground cable, 13 sub-stations and a natural gas-fueled 8.4 MW peaking generation facility. GSWC also has franchises, easements and other rights of way for the purpose of constructing and using poles, wires and other appurtenances for transmitting electricity.

Adjudicated and Other Water Rights

GSWC owns groundwater and surface water rights in California. Groundwater rights are further subject to classification as either adjudicated or unadjudicated rights. Adjudicated rights have been established through comprehensive litigation in the courts, and the annual extraction quantities and use of the adjudicated rights are often subject to the provisions of the judgment for that particular groundwater basin. Additionally, as a result of the adjudication, many of these groundwater basins are managed by a watermaster that is charged with enforcing the provisions of the judgment, which may include determining operating safe yields based on the water supply conditions of the groundwater basin. GSWC actively manages its adjudicated groundwater rights portfolio to ensure that this source of supply is optimized and is sustainable. Unadjudicated rights are subject to further regulation by the State Water Resources Control Board ("SWRCB") and the California Department of Water Resources. Surface water rights are quantified and managed by the SWRCB, unless the surface water rights originated prior to 1914. As of December 31, 2019, GSWC had adjudicated groundwater rights and surface water rights of 72,399 and 11,335 acre-feet per year, respectively. GSWC also has a number of unadjudicated groundwater rights, which have not been quantified, but are typically measured by historical usage.

Office Buildings

GSWC owns its general headquarters facility in San Dimas, California. GSWC also owns and leases customer service offices and office space throughout California. ASUS leases office facilities in Georgia, Virginia, Texas and North Carolina, and owns service centers in Maryland, South Carolina, Virginia, North Carolina and Kansas.

Mortgage and Other Liens

As of December 31, 2019, neither AWR, GSWC, ASUS, nor any of its subsidiaries, had any mortgage debt or liens securing indebtedness outstanding. Under the terms of certain debt instruments, AWR and GSWC are prohibited from issuing any secured debt, without providing equal and ratable security to the holders of this existing debt.

Condemnation of Properties

The laws of the state of California provide for the acquisition of public utility property by governmental agencies through their power of eminent domain, also known as condemnation, where doing so constitutes a more necessary use. In addition, these laws provide that the owner of utility property (i) may contest whether the condemnation is actually necessary, and (ii) is entitled to receive the fair market value of its property if the property is ultimately taken.

Environmental Clean-Up and Remediation of Properties

GSWC has been involved in environmental remediation and clean-up at a plant site ("Chadron Plant") that contained an underground storage tank which was used to store gasoline for its vehicles. This tank was removed from the ground in July 1990 along with the dispenser and ancillary piping. Since then, GSWC has been involved in various remediation activities at this site.

GSWC has accrued an estimated liability which includes costs for two years of continued activities of cleanup and monitoring, and site-closure-related activities. The ultimate cost may vary as there are many unknowns in remediation of underground gasoline spills and this is an estimate based on currently available information. Management believes it is probable that the estimated additional costs will be approved for inclusion in rate base by the CPUC.

Item 3. Legal Proceedings

Registrant is subject to ordinary routine litigation incidental to its business, some of which may include claims for compensatory and punitive damages. Management believes that rate recovery, proper insurance coverage and reserves are in place to insure against, among other things, property, general liability, employment, and workers' compensation claims incurred in the ordinary course of business. Insurance coverage may not cover certain claims involving punitive damages.

Item 4. Mine Safety Disclosure

Not applicable.

PART II

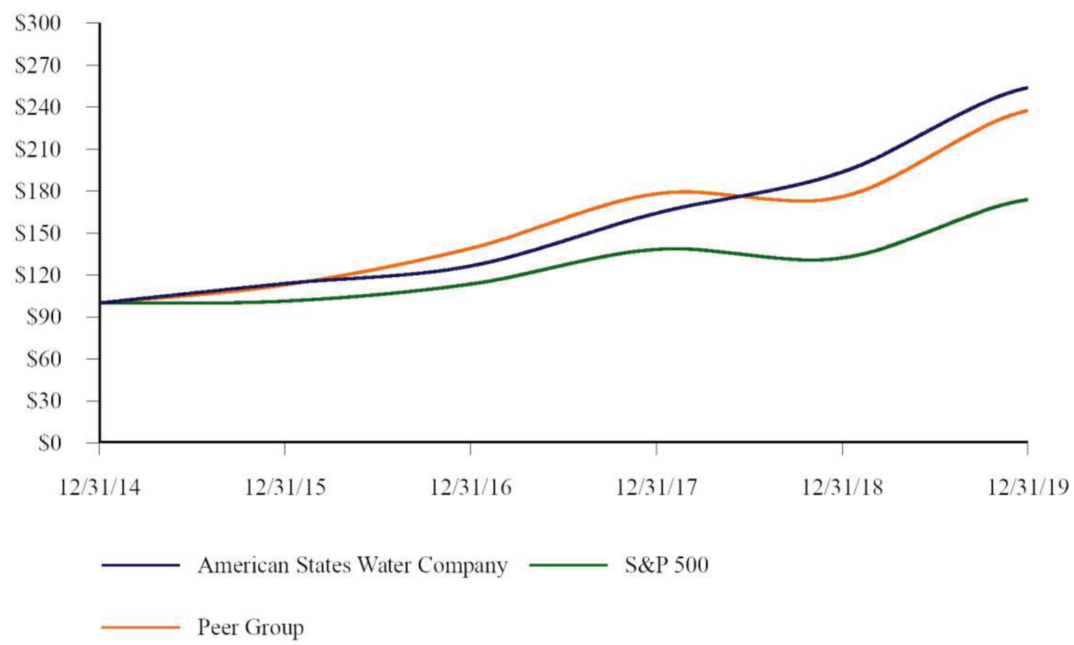
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Stock Performance Graph

The graph below compares the cumulative 5-year total return on American States Water Company's Common Shares relative to the cumulative total returns of the S&P 500 index and a peer group of seven publicly traded companies headquartered in the United States. The seven companies included in the Company's customized peer group are: American Water Works Company Inc., Aqua America Inc., Artesian Resources Corporation, California Water Service Group, Middlesex Water Company, York Water Company and SJW Group.

An investment of $100 (with reinvestment of all dividends) is assumed to have been made in our Common Shares, and in the common stock in the index and in the peer group on December 31, 2014. Relative performance is tracked through December 31, 2019.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
among American States Water Company, the S&P 500 Index,
and a Peer Group



*$100 invested on December 31, 2014 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

	12/2014	12/2015	12/2016	12/2017	12/2018	12/2019
American States Water Company	**$ 100.00**	**$ 113.91**	**$ 126.45**	**$ 164.09**	**$ 193.48**	**$ 253.82**
S&P 500	**$ 100.00**	**$ 101.38**	**$ 113.51**	**$ 138.29**	**$ 132.23**	**$ 173.86**
Peer Group	**$ 100.00**	**$ 112.91**	**$ 138.99**	**$ 177.99**	**$ 175.95**	**$ 237.45**

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Market Information Relating to Common Shares

Common Shares of American States Water Company are traded on the New York Stock Exchange ("NYSE") under the symbol "AWR." The intra-day high and low NYSE prices on the Common Shares for each quarter during the past two years were:

	Stock Prices	
	High	Low
2019		
First Quarter	$ 72.50	$ 63.27
Second Quarter	$ 76.43	$ 67.52
Third Quarter	$ 94.39	$ 73.64
Fourth Quarter	$ 96.00	$ 82.54
2018		
First Quarter	$ 60.00	$ 50.16
Second Quarter	$ 58.82	$ 51.30
Third Quarter	$ 61.66	$ 57.13
Fourth Quarter	$ 69.61	$ 58.48

The closing price of the Common Shares of American States Water Company on the NYSE on February 20, 2020 was $90.23.

Approximate Number of Holders of Common Shares

As of February 20, 2020, there were 2,135 holders of record of the 36,859,505 outstanding Common Shares of American States Water Company. AWR owns all of the outstanding Common Shares of GSWC and ASUS. ASUS owns all of the outstanding stock of the Military Utility Privatization Subsidiaries.

Frequency and Amount of Any Dividends Declared and Dividend Restrictions

For the last two years, AWR has paid dividends on its Common Shares on or about March 1, June 1, September 1 and December 1. The following table lists the amounts of dividends paid on Common Shares of American States Water Company:

	2019	2018
First Quarter	$ 0.275	$ 0.255
Second Quarter	$ 0.275	$ 0.255
Third Quarter	$ 0.305	$ 0.275
Fourth Quarter	$ 0.305	$ 0.275
Total	$ 1.160	$ 1.060

AWR's ability to pay dividends is subject to the requirement in its revolving credit facility to maintain compliance with all covenants described in footnote (14) to the table in the section entitled "*Contractual Obligations, Commitments and Off-Balance Sheet Arrangements*" included in Part II, Item 7, in Management's Discussion and Analysis of Financial Condition and Results of Operation. GSWC's maximum ability to pay dividends is restricted by certain Note Agreements to the sum of $21.0 million plus 100% of consolidated net income from certain dates plus the aggregate net cash proceeds received from capital stock offerings or other instruments convertible into capital stock from various dates. Under the most restrictive of the Note Agreements, $473.9 million was available from GSWC to pay dividends to AWR as of December 31, 2019. GSWC is also prohibited under the terms of senior notes from paying dividends if, after giving effect to the dividend, its total indebtedness to capitalization ratio (as defined) would be more than 0.6667-to-1. GSWC would have to issue additional debt of $661.4 million to invoke this covenant as of December 31, 2019.

Under California law, AWR, GSWC and ASUS are each permitted to distribute dividends to its shareholders and repurchase its shares so long as the Board of Directors determines, in good faith, that either: (i) the value of the corporation's assets equals or exceeds the sum of its total liabilities immediately after the dividend, or (ii) its retained earnings equals or exceeds the amount of the distribution.

Under the least restrictive of the California tests, approximately $346.0 million was available to pay dividends to AWR's common shareholders and repurchase shares from AWR's common shareholders at December 31, 2019. Approximately $257.4 million was available for GSWC to pay dividends to AWR at December 31, 2019 and approximately $62.1 million was available for ASUS to pay dividends to AWR at December 31, 2019. However, ASUS's ability to pay dividends is further subject to the ability of each of its subsidiaries to pay dividends to it, which may, in turn, be restricted by the laws under the state in which the applicable subsidiary was formed.

AWR paid $42.7 million in dividends to shareholders for the year ended December 31, 2019, as compared to $38.9 million for the year ended December 31, 2018. GSWC paid dividends of $20.2 million and $68.9 million to AWR in 2019 and 2018, respectively. ASUS paid dividends of $22.5 million and $10.1 million to AWR in 2019 and 2018, respectively.

Other Information

The shareholders of AWR have approved the material features of all equity-compensation plans under which AWR directly issues equity securities. AWR did not directly issue any unregistered equity securities during 2019.

The following table provides information about AWR repurchases of its Common Shares during the fourth quarter of 2019:

Period	Total Number of Shares Purchased		Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Maximum Number of Shares That May Yet Be Purchased under the Plans or Programs (1)(3)
October 1 - 31, 2019	473		$ 93.99	—	—
November 1 - 30, 2019	20,763		$ 88.05	—	—
December 1 - 31, 2019	2,670		$ 85.25	—	—
Total	23,906	(2)	$ 87.85	—	

(1) None of the Common Shares were repurchased pursuant to any publicly announced stock repurchase program.

(2) Of this amount, 20,235 Common Shares were acquired on the open market for employees pursuant to the 401(k) Plan and the remainder of the Common Shares were acquired on the open market for participants in the Common Share Purchase and Dividend Reinvestment Plan.

(3) Neither the 401(k) plan nor the Common Share Purchase and Dividend Reinvestment Plan contains a maximum number of common shares that may be purchased in the open market.

Item 6. Selected Financial Data

AMERICAN STATES WATER COMPANY (AWR):

(in thousands, except per share amounts)	2019	2018	2017 (1)	2016	2015
Income Statement Information:					
Total Operating Revenues	$ 473,869	$ 436,816	$ 440,603	$ 436,087	$ 458,641
Total Operating Expenses **(2)**	346,796	335,833	313,508	321,895	339,721
Operating Income **(2)**	127,073	100,983	127,095	114,192	118,920
Interest Expense	24,586	23,433	22,582	21,992	21,088
Interest Income	3,249	3,578	1,790	757	458
Net Income	$ 84,342	$ 63,871	$ 69,367	$ 59,743	$ 60,484
Basic Earnings per Common Share	$ 2.28	$ 1.73	$ 1.88	$ 1.63	$ 1.61
Fully Diluted Earnings per Common Share	$ 2.28	$ 1.72	$ 1.88	$ 1.62	$ 1.60
Average Shares Outstanding	36,814	36,733	36,638	36,552	37,389
Average number of Diluted Shares Outstanding	36,964	36,936	36,844	36,750	37,614
Dividends paid per Common Share	$ 1.160	$ 1.060	$ 0.994	$ 0.914	$ 0.874
Balance Sheet Information:					
Total Assets **(3)**	$ 1,641,331	$ 1,501,433	$ 1,416,734	$ 1,470,493	$ 1,343,959
Common Shareholders' Equity	601,530	558,223	529,945	494,297	465,945
Long-Term Debt **(3)**	280,996	281,087	321,039	320,981	320,900
Total Capitalization	$ 882,526	$ 839,310	$ 850,984	$ 815,278	$ 786,845

GOLDEN STATE WATER COMPANY (GSWC):

(in thousands)	2019	2018	2017 (1)	2016	2015
Income Statement Information:					
Total Operating Revenues	$ 359,378	$ 329,608	$ 340,301	$ 338,702	$ 364,550
Total Operating Expenses **(2)**	254,286	249,046	234,430	243,515	263,887
Operating Income **(2)**	105,092	80,562	105,871	95,187	100,663
Interest Expense	23,399	22,621	22,055	21,782	20,998
Interest Income	1,867	2,890	1,766	749	440
Net Income	$ 66,663	$ 48,012	$ 53,757	$ 46,969	$ 47,591
Balance Sheet Information:					
Total Assets **(3)**	$ 1,522,454	$ 1,389,222	$ 1,326,823	$ 1,384,178	$ 1,271,879
Common Shareholder's Equity	551,188	503,575	474,374	446,770	423,730
Long-Term Debt **(3)**	280,996	281,087	321,039	320,981	320,900
Total Capitalization	$ 832,184	$ 784,662	$ 795,413	$ 767,751	$ 744,630

(1) 2017 results include an $8.3 million pretax gain, or $0.13 per share, from the sale of GSWC's Ojai water system.

(2) Registrant adopted Accounting Standards Update ASU 2017-07, *Improving the Presentation of Net Periodic Pension Cost,* as of January 1, 2018 on a retrospective basis. As a result, service costs for defined benefit pension plans and other retirement benefits continue to be reflected as operating expenses, while all other components of net benefit cost for retirement plans (such as interest cost, expected return on assets, and the amortization of prior service costs and actuarial gains and losses) are presented outside of operating income. Total Operating Expenses and Operating Income have been restated for all periods presented above.

(3) Registrant adopted Accounting Standard Update 2015-03, *Simplifying the Presentation of Debt Issuance Costs* as of December 31, 2016, whereby debt issuance costs and redemption premiums are presented as a direct reduction from the carrying value of the associated debt rather than as an asset. Total Assets and Long-Term Debt have been restated for 2015 presented above.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operation

The following discussion and analysis provides information on AWR's consolidated operations and assets, and, where necessary, includes specific references to AWR's individual segments and/or its subsidiaries: GSWC and ASUS and its subsidiaries. Included in the following analysis is a discussion of water and electric gross margins. Water and electric gross margins are computed by subtracting total supply costs from total revenues. Registrant uses these gross margins as important measures in evaluating its operating results. Registrant believes these measures are useful internal benchmarks in evaluating the performance of GSWC.

The discussions and tables included in the following analysis also present Registrant's operations in terms of earnings per share by business segment. Registrant believes that the disclosure of earnings per share by business segment provides investors with clarity surrounding the performance of its different services. Furthermore, the retroactive earnings impact for fiscal 2018 resulting from the CPUC's final decision on the electric general rate case issued in August 2019, has been excluded when communicating the electric segment's 2019 financial results to help facilitate comparisons of the company's performance from period to period.

Registrant reviews these measurements regularly and compares them to historical periods and to its operating budget. However, these measures, which are not presented in accordance with Generally Accepted Accounting Principles ("GAAP"), may not be comparable to similarly titled measures used by other enterprises and should not be considered as an alternative to operating income or earnings per share, which are determined in accordance with GAAP. A reconciliation of water and electric gross margins to the most directly comparable GAAP measures is included in the table under the section titled "*Operating Expenses: Supply Costs.*" Reconciliations to AWR's diluted earnings per share are included in the discussions under the sections titled "*Summary Results by Segment.*"

Overview

Factors affecting our financial performance are summarized under *Forward-Looking Information*.

Water and Electric Segments:

GSWC's revenues, operating income and cash flows are earned primarily through delivering potable water to homes and businesses in California and the delivery of electricity in the Big Bear area of San Bernardino County, California. Rates charged to GSWC customers are determined by the CPUC. These rates are intended to allow recovery of operating costs and a reasonable rate of return on capital. GSWC plans to continue to seek additional rate increases in future years from the CPUC to recover operating and supply costs and receive reasonable returns on invested capital. Capital expenditures in future years at GSWC are expected to remain at higher levels than depreciation expense. When necessary, GSWC obtains funds from external sources in the capital markets and through bank borrowings.

General Rate Case Filings and Other Matters:

Water Segment:

In July 2017, GSWC filed a general rate case application for all of its water regions and the general office to determine new rates for the years 2019 - 2021. On May 30, 2019, the CPUC issued a final decision on GSWC's water general rate case with rates retroactive to January 1, 2019. Among other things, the final decision approves in its entirety an August 2018 settlement agreement that had been entered into between GSWC and the CPUC's Public Advocates Office. As a result, the final decision authorizes GSWC to invest approximately $334.5 million over the rate cycle. The $334.5 million of infrastructure investment includes $20.4 million of capital projects to be filed for revenue recovery through advice letters when those projects are completed.

Excluding the advice letter project revenues, the new rates approved increased the water gross margin for 2019 by approximately $7.1 million, adjusted for updated inflation index values since the August 2018 settlement, as compared to the 2018 adopted water gross margin. The 2019 water revenue requirement has been reduced to reflect a decrease of approximately $7.0 million in depreciation expense, compared to the adopted 2018 depreciation expense, due to a reduction in the overall composite depreciation rates based on a revised study filed in the general rate case. The decrease in depreciation expense lowers the water gross margin and is offset by a corresponding decrease in depreciation expense, resulting in no impact to net earnings. In addition, the 2019 water revenue requirement includes a decrease of approximately $2.2 million for excess deferred tax refunds as a result of the 2017 Tax Cuts and Jobs Act ("Tax Act"), with a corresponding decrease in income tax expense also resulting in no impact to net earnings. Had depreciation remained the same as the 2018 adopted amount and there were no excess deferred tax refunds that lowered the 2019 revenue requirement, the water gross margin for 2019 would have increased by approximately $16.3 million.

As a result of the May 2019 CPUC final decision, GSWC implemented new water rates on June 8, 2019. The CPUC in the final decision also approved the recovery of previously incurred costs that were being tracked in CPUC-authorized memorandum accounts. This resulted in a reduction to administrative and general expense of approximately $1.1 million, or $0.02 per share, which was recorded during the second quarter of 2019. The final decision also allowed for a water gross margin increase of approximately $10.4 million from new customer rates for 2020, which were effective January 1, 2020, as well as a potential additional increase of approximately $11.4 million in 2021, subject to the results of an earnings test and changes to the forecasted inflationary index values.

Electric Segment:

In May 2017, GSWC filed its electric general rate case application with the CPUC to determine new electric rates for the years 2018 through 2021. In November 2018, GSWC and the Public Advocates Office filed a joint motion to adopt a settlement agreement between the two parties resolving all issues in connection with the general rate case.

On August 15, 2019, the CPUC issued a final decision on this general rate case, adopting the settlement agreement in its entirety. Among other things, the decision (i) extends the rate cycle by one year (new rates were effective for 2018 - 2022); (ii) increases the electric gross margin for 2018 by approximately $2.3 million compared to the 2017 adopted electric gross margin, adjusted for Tax Act changes; (iii) authorizes BVES to construct all the capital projects requested in its application, which are dedicated to improving system safety and reliability and total approximately $44 million over the 5-year rate cycle; and (iv) increases the adopted electric gross margin by $1.2 million for each of the years 2019 and 2020, by $1.1 million in 2021, and by $1.0 million in 2022. The rate increases for 2019 - 2022 are not subject to an earnings test. The decision authorizes a return on equity for GSWC's electric segment of 9.60%, as compared to its previously authorized return of 9.95% and includes a capital structure and debt cost that is consistent with those approved by the CPUC in March 2018 in connection with GSWC's water segment cost of capital proceeding.

Due to the delay in finalizing the electric general rate case, electric revenues recognized during 2018 were based on 2017 adopted rates. Because the August 2019 CPUC final decision is retroactive to January 1, 2018, the cumulative retroactive earnings impact was recorded as part of fiscal 2019 results, which includes approximately $0.04 per share relating to fiscal 2018.

Contracted Services Segment:

ASUS's revenues, operating income and cash flows are earned by providing water and/or wastewater services, including operation and maintenance services and construction of facilities at the water and/or wastewater systems at various military installations, pursuant to 50-year firm fixed-price contracts. The contract price for each of these 50-year contracts is subject to annual economic price adjustments. Additional revenues generated by contract operations are primarily dependent on new construction activities under contract modifications with the U.S. government or agreements with other third-party prime contractors.

Fort Riley:

On July 1, 2018, ASUS assumed the operation, maintenance and construction management of the water distribution and wastewater collection and treatment facilities at Fort Riley, a United States Army installation located in Kansas, after completing a transition period and a detailed inventory study. The contract was awarded by the U.S. government in September 2017 with a value of $681 million over a 50-year period. The 50-year contract is also subject to annual economic price adjustments.

Summary Results by Segment

The table below sets forth a comparison of diluted earnings per share by business segment for AWR's operations:

	Diluted Earnings per Share		
	Year Ended		
	12/31/2019	12/31/2018	CHANGE
Water	$ 1.61	$ 1.19	$ 0.42
Electric, adjusted (2019 excludes retroactive impact of CPUC decision in the general rate case related to 2018)	0.15	0.11	0.04
Contracted services	0.47	0.42	0.05
AWR (parent)	0.01	—	0.01
Consolidated diluted earnings per share, adjusted	2.24	1.72	0.52
Retroactive impact of CPUC decision in the electric general rate case related to the full year of 2018	0.04	—	0.04
Totals from operations, as reported	$ 2.28	$ 1.72	$ 0.56

Water Segment:

Diluted earnings per share from the water segment for the year ended December 31, 2019 increased by $0.42 per share as compared to the same period in 2018 largely due to the approval of the water general rate case in May 2019 and effective January 1, 2019. Also included in the earnings for 2019 was a $1.1 million reduction to administrative and general expense, positively impacting earnings by $0.02 per share, which reflects the CPUC's approval received in the general rate case for recovery of costs previously expensed as incurred and tracked in memorandum accounts. Excluding this $0.02 per share impact, diluted earnings per share from the water segment for 2019 increased by $0.40 per share due to the following items (excluding billed surcharges):

- An overall increase in the water gross margin of $0.21 per share, largely as a result of the May 2019 CPUC decision on the general rate case, which approved new water rates and adopted supply costs for 2019. The 2019 water revenue requirement has also been reduced to reflect a decrease in depreciation expense, due to a reduction in the overall composite depreciation rates based on a revised study filed in the general rate case. The decrease in depreciation expense lowers the water gross margin and is offset by a corresponding decrease in depreciation expense, resulting in no impact to net earnings.
- An overall decrease in operating expenses (excluding supply costs) increased earnings by approximately $0.11 per share due, in large part, to lower depreciation expense. As discussed above, the lower depreciation expense is reflected in the new revenue requirement approved in the general rate case. There was also a decrease in administrative and general expenses primarily due to lower regulatory-related costs resulting from timing of the rate case cycle and when such costs are incurred. These decreases were partially offset by an overall increase in labor costs and property and other taxes.
- An increase in interest and other income (net of interest expense), which increased earnings by approximately $0.05 per share due to gains generated during 2019 on Registrant's investments held to fund a retirement benefit plan, as compared to losses incurred during 2018 due to market conditions. These gains were partially offset by interest income on a federal tax refund recorded in 2018 with no similar item in 2019, and an increase in interest expense resulting from higher borrowings to fund a portion of GSWC's capital expenditures.
- Changes in the water segment's effective income tax rate resulting from certain flow-through taxes and permanent items for the year ended December 31, 2019 as compared to the same period in 2018, increased earnings at the water segment by approximately $0.03 per share.

Electric Segment:

The CPUC's August 2019 final decision on the electric general rate case set new rates for 2018 through 2022 and was retroactive to January 1, 2018. As a result, the retroactive impact of the new electric rates for all of fiscal 2018 has been reflected in the results for 2019. Of the electric segment's $0.19 earnings per share for the year ended December 31, 2019, approximately $0.04 per share relates to the full year ended December 31, 2018, which is shown on a separate line in the table above.

Excluding the retroactive impact related to 2018, diluted earnings from the electric segment for 2019 were $0.15 per share as compared to $0.11 per share for the same period in 2018. The increase was due to a higher electric gross margin as a result of new rates authorized by the CPUC's August 2019 final decision, partially offset by an increase in operating expenses and a higher effective income tax rate as compared to 2018 due to changes in certain flow-through taxes.

Contracted Services Segment:

For the year ended December 31, 2019, diluted earnings from contracted services were $0.47 per share, compared to $0.42 per share for the same period in 2018. This was due, in part, to the commencement of operations at Fort Riley in July 2018. There was also an increase in management fees at several other military bases due to the successful resolution of various price adjustments during 2018 and 2019.

AWR (parent):

For the year ended December 31, 2019, diluted earnings from AWR (parent) increased $0.01 per share compared to 2018 due primarily to changes in state unitary taxes.

The following discussion and analysis for the years ended December 31, 2019 and 2018 provides information on AWR’s consolidated operations and assets and, where necessary, includes specific references to AWR’s individual segments and subsidiaries: GSWC and ASUS and its subsidiaries.

Consolidated Results of Operations — Years Ended December 31, 2019 and 2018 (amounts in thousands, except per share amounts):

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
OPERATING REVENUES				
Water	$ 319,830	$ 295,258	$ 24,572	8.3%
Electric	39,548	34,350	5,198	15.1%
Contracted services	114,491	107,208	7,283	6.8%
Total operating revenues	473,869	436,816	37,053	8.5%
OPERATING EXPENSES				
Water purchased	72,289	68,904	3,385	4.9%
Power purchased for pumping	8,660	8,971	(311)	-3.5%
Groundwater production assessment	18,962	19,440	(478)	-2.5%
Power purchased for resale	11,796	11,590	206	1.8%
Supply cost balancing accounts	(7,026)	(15,649)	8,623	-55.1%
Other operation	32,756	31,650	1,106	3.5%
Administrative and general	83,034	82,595	439	0.5%
Depreciation and amortization	35,397	40,425	(5,028)	-12.4%
Maintenance	15,466	15,682	(216)	-1.4%
Property and other taxes	20,042	18,404	1,638	8.9%
ASUS construction	55,673	53,906	1,767	3.3%
Gain on sale of assets	(253)	(85)	(168)	197.6%
Total operating expenses	346,796	335,833	10,963	3.3%
OPERATING INCOME	127,073	100,983	26,090	25.8%
OTHER INCOME AND EXPENSES				
Interest expense	(24,586)	(23,433)	(1,153)	4.9%
Interest income	3,249	3,578	(329)	-9.2%
Other, net	3,276	760	2,516	331.1%
	(18,061)	(19,095)	1,034	-5.4%
INCOME FROM OPERATIONS BEFORE INCOME TAX EXPENSE	109,012	81,888	27,124	33.1%
Income tax expense	24,670	18,017	6,653	36.9%
NET INCOME	$ 84,342	$ 63,871	$ 20,471	32.1%
Basic earnings per Common Share	$ 2.28	$ 1.73	$ 0.55	31.8%
Fully diluted earnings per Common Share	$ 2.28	$ 1.72	$ 0.56	32.6%

Operating Revenues

General

GSWC relies upon approvals by the CPUC of rate increases to recover operating expenses and to provide for a return on invested and borrowed capital used to fund utility plant. Registrant relies on economic price and equitable adjustments by the U.S. government in order to recover operating expenses and provide a profit margin for ASUS. Current operating revenues and earnings can be negatively impacted if the Military Privatization Subsidiaries do not receive adequate price increases or adjustments in a timely manner. ASUS's earnings are also impacted by the level of additional construction projects at the Military Utility Privatization Subsidiaries, which may or may not continue at current levels in future periods.

Water

For the year ended December 31, 2019, revenues from water operations increased by $24.6 million to $319.8 million, compared to the year ended December 31, 2018. This increase was a result of new CPUC-approved water rates effective January 1, 2019 as part of the May 2019 general rate case final decision. There were also revenue increases related to CPUC-approved surcharges resulting from the May 2019 decision, as well as surcharges to cover increases in supply costs experienced in most ratemaking areas. The increase in surcharge revenues was offset by a corresponding increase in operating expenses, resulting in no impact to earnings.

Billed water consumption for the year ended December 31, 2019 decreased approximately 6% as compared to 2018. In general, changes in consumption do not have a significant impact on recorded revenues due to the CPUC-approved WRAM accounts in place in the majority of GSWC's rate-making areas. GSWC records the difference between what it bills its water customers and that which is authorized by the CPUC in the WRAM accounts as regulatory assets or liabilities.

Electric

For the year ended December 31, 2019, revenues from electric operations were $39.5 million as compared to $34.4 million for the year ended December 31, 2018. This increase was primarily due to new rates approved in the August 2019 CPUC final decision on the electric general rate case, which were retroactive to January 1, 2018. Included in revenues for the year ended December 31, 2019 was approximately $2.3 million which related to the full year of 2018.

Billed electric usage for the year ended December 31, 2019 increased 3% as compared to the same period in 2018. Due to the CPUC-approved base revenue requirement adjustment mechanism ("BRRAM"), which adjusts base revenues to adopted levels authorized by the CPUC, changes in usage do not have a significant impact on earnings.

Contracted Services

Revenues from contracted services are composed of construction revenues (including renewal and replacements) and management fees for operating and maintaining the water and/or wastewater systems at various military bases. For the year ended December 31, 2019, revenues from contracted services were $114.5 million as compared to $107.2 million for 2018. The increase was primarily due to the commencement of operations at Fort Riley in July 2018.

ASUS's subsidiaries continue to enter into U.S. government-awarded contract modifications and agreements with third-party prime contractors for new construction projects at the military bases served. During 2019, ASUS was awarded approximately $23 million in new construction projects for completion in 2019 and 2020. Earnings and cash flows from modifications to the original 50-year contracts with the U.S. government and agreements with third-party prime contractors for additional construction projects may or may not continue in future periods.

Operating Expenses:

Supply Costs

Supply costs for the water segment consist of purchased water, purchased power for pumping, groundwater production assessments and changes in the water supply cost balancing accounts. Supply costs for the electric segment consist primarily of purchased power for resale, the cost of natural gas used by BVES's generating unit, the cost of renewable energy credits and changes in the electric supply cost balancing account. Water and electric gross margins are computed by subtracting total supply costs from total revenues. Registrant uses these gross margins and related percentages as an important measure in evaluating its operating results. Registrant believes these measures are useful internal benchmarks in evaluating the utility business performance within its water and electric segments. Registrant reviews these measurements regularly and compares them to historical periods and to its operating budget. However, these measures, which are not presented in accordance with GAAP, may not be comparable to similarly titled measures used by other enterprises and should not be considered as an alternative to operating income, which is determined in accordance with GAAP.

Total supply costs comprise the largest segment of total operating expenses. Supply costs accounted for 30.2% and 27.8% of total operating expenses for the years ended December 31, 2019 and 2018, respectively. The table below provides the amounts (in thousands) of increases (decreases) and percent changes in water and electric revenues, supply costs and gross margins during the years ended December 31, 2019 and 2018. There was an increase in surcharges of $1.4 million recorded in water revenues to recover previously incurred costs, which did not impact water earnings. Surcharges to recover previously incurred costs are recorded to revenues when billed to customers and are offset by a corresponding amount in operating expenses, resulting in no impact to earnings.

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
WATER OPERATING REVENUES **(1)**	$ 319,830	$ 295,258	$ 24,572	8.3%
WATER SUPPLY COSTS:				
Water purchased **(1)**	72,289	68,904	3,385	4.9%
Power purchased for pumping **(1)**	8,660	8,971	(311)	-3.5%
Groundwater production assessment **(1)**	18,962	19,440	(478)	-2.5%
Water supply cost balancing accounts **(1)**	(8,153)	(17,116)	8,963	-52.4%
TOTAL WATER SUPPLY COSTS	$ 91,758	$ 80,199	$ 11,559	14.4%
WATER GROSS MARGIN **(2)**	$ 228,072	$ 215,059	$ 13,013	6.1%
ELECTRIC OPERATING REVENUES **(1)**	$ 39,548	$ 34,350	$ 5,198	15.1%
ELECTRIC SUPPLY COSTS:				
Power purchased for resale **(1)**	11,796	11,590	206	1.8%
Electric supply cost balancing accounts **(1)**	1,127	1,467	(340)	-23.2%
TOTAL ELECTRIC SUPPLY COSTS	$ 12,923	$ 13,057	$ (134)	-1.0%
ELECTRIC GROSS MARGIN **(2)**	$ 26,625	$ 21,293	$ 5,332	25.0%

(1) As reported on AWR's Consolidated Statements of Income, except for supply-cost-balancing accounts. The sums of water and electric supply-cost balancing accounts in the table above are shown on AWR's Consolidated Statements of Income and totaled $(7,026,000) and $(15,649,000) for the years ended December 31, 2019 and 2018, respectively. Revenues include surcharges that have no net earnings impact because they increase both revenues and operating expenses by corresponding amounts.

(2) Water and electric gross margins do not include depreciation and amortization, maintenance, administrative and general, property and other taxes, and other operation expenses.

Two of the principal factors affecting water supply costs are the amount of water produced and the source of the water. Generally, the variable cost of producing water from wells is less than the cost of water purchased from wholesale suppliers. Under the CPUC-approved Modified Cost Balancing Account ("MCBA"), GSWC tracks adopted and actual expense levels for purchased water, power purchased for pumping and pump taxes. GSWC records the variances (which include the effects of changes in both rate and volume) between adopted and actual purchased water, purchased power and pump tax expenses. GSWC recovers from or refunds to customers the amount of such variances. GSWC tracks these variances individually for each water ratemaking area.

The overall actual percentages for purchased water for the years ended December 31, 2019 and 2018 were 44% and 41%, respectively, as compared to the adopted percentages of 36% and 28% for 2019 and 2018, respectively. The higher actual percentages of purchased water as compared to adopted percentages resulted primarily from several wells being out of service. For 2020, the percentage of purchased water is expected to continue being higher than the adopted percentage. Purchased water costs for the year ended December 31, 2019 increased to $72.3 million as compared to $68.9 million for the same period in 2018 primarily due to the higher mix of purchased water as compared to pumped water and an increase in wholesale water costs, partially offset by lower customer usage.

The cost of power purchased for pumping decreased to $8.7 million in 2019 as compared to $9.0 million for the same period in 2018, and groundwater production assessments decreased to $19.0 million in 2019 as compared to $19.4 million in 2018. The decrease in both of these areas was due, in part, to a higher mix of purchased water as compared to pumped water resulting from several wells being out of service as previously discussed, as well as lower customer usage.

The under-collection in the water supply cost balancing account decreased $9.0 million during the year ended December 31, 2019 as compared to the same period in 2018 due to updated adopted supply costs approved in the May 2019 general rate case decision, as well as CPUC-approved rate increases to cover increases in supply costs experienced in most ratemaking areas.

For the year ended December 31, 2019, the cost of power purchased for resale to BVES's customers was $11.8 million as compared to $11.6 million for the same period in 2018 due to an increase in customer usage, partially offset by a lower average price per megawatt-hour ("MWh"). The average price per MWh, including fixed costs, decreased to $75.47 per MWh in 2019 from $79.90 per MWh for the year ended December 31, 2018.

Other Operation

The primary components of other operation expenses for GSWC include payroll, materials and supplies, chemicals and water-treatment costs, and outside service costs of operating the regulated water and electric systems, including the costs associated with transmission and distribution, pumping, water quality, meter reading, billing, and operations of district offices. Registrant's contracted services operations incur many of the same types of expenses. For the years ended December 31, 2019 and 2018, other operation expenses by business segment consisted of the following amounts (in thousands):

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
Water Services	$ 23,664	$ 22,525	$ 1,139	5.1%
Electric Services	2,672	2,809	(137)	-4.9%
Contracted Services	6,420	6,316	104	1.6%
Total other operation	$ 32,756	$ 31,650	$ 1,106	3.5%

For the year ended December 31, 2019, there was an increase in billed surcharges at the water segment related to the recovery of previously incurred other operation-related expenses of $653,000. This increase in billed surcharges has a corresponding increase in other operation expense, resulting in no impact to earnings. The remaining increase was mostly due to higher labor costs.

Administrative and General

Administrative and general expenses include payroll related to administrative and general functions, the related employee benefits, insurance expenses, outside legal and consulting fees, regulatory utility commission expenses, expenses associated with being a public company and general corporate expenses charged to expense accounts. For the years ended December 31, 2019 and 2018, administrative and general expenses by business segment, including AWR (parent), consisted of the following amounts (in thousands):

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
Water Services	$ 51,755	$ 54,212	$ (2,457)	-4.5%
Electric Services	8,150	7,944	206	2.6%
Contracted Services	23,120	20,446	2,674	13.1%
AWR (parent)	9	(7)	16	*
Total administrative and general	$ 83,034	$ 82,595	$ 439	0.5%

* not meaningful

For the year ended December 31, 2019, administrative and general expenses at the water segment decreased due, in part, to a $1.1 million reduction to reflect the CPUC's approval in the May 2019 final decision on the water general rate case for recovery of previously incurred costs that were being tracked in CPUC-authorized memorandum accounts. The remaining decrease was due primarily to lower regulatory-related costs resulting from timing of the rate case cycle and when such costs are incurred. GSWC will file its next water general rate case in July 2020 and therefore, regulatory costs are expected to increase in 2020 compared to 2019.

For the year ended December 31, 2019, administrative and general expenses for contracted services increased by $2.7 million due to the commencement of operations at Fort Riley in July 2018, as well as an increase in legal and labor-related costs.

Depreciation and Amortization

For the years ended December 31, 2019 and 2018, depreciation and amortization expense by segment consisted of the following amounts (in thousands):

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
Water Services	$ 29,956	$ 36,137	$ (6,181)	-17.1%
Electric Services	2,485	2,258	227	10.1%
Contracted Services	2,956	2,030	926	45.6%
Total depreciation and amortization	$ 35,397	$ 40,425	$ (5,028)	-12.4%

The final CPUC decision approved in May 2019 in the water general rate case approved lower overall composite depreciation rates based on a revised depreciation study. The decrease in composite depreciation rates lowers the adopted water gross margin, with a corresponding decrease in adopted depreciation expense, resulting in no impact to net earnings. The decrease in depreciation expense resulting from the new composite rates was partially offset by increased depreciation from additions to utility plant.

The increases in depreciation expense at the electric and contracted services segments were due to plant additions in 2018 and 2019.

Maintenance

For the years ended December 31, 2019 and 2018, maintenance expense by segment consisted of the following amounts (in thousands):

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
Water Services	$ 11,850	$ 12,102	$ (252)	-2.1%
Electric Services	993	1,002	(9)	-0.9%
Contracted Services	2,623	2,578	45	1.7%
Total maintenance	$ 15,466	$ 15,682	$ (216)	-1.4%

Property and Other Taxes

For the years ended December 31, 2019 and 2018, property and other taxes by segment, consisted of the following amounts (in thousands):

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
Water Services	$ 17,034	$ 15,750	$ 1,284	8.2%
Electric Services	1,134	1,059	75	7.1%
Contracted Services	1,874	1,595	279	17.5%
Total property and other taxes	$ 20,042	$ 18,404	$ 1,638	8.9%

Property and other taxes increased overall by $1.6 million during 2019 as compared to 2018 primarily due to capital additions and the associated higher assessed property values. Increases in property taxes are reflected in the new adopted water revenue requirement approved by the CPUC in the general rate case.

ASUS Construction

For the year ended December 31, 2019, construction expenses for contracted services were $55.7 million, increasing by $1.8 million compared to the same period in 2018 due to an overall increase in construction activity as compared to 2018 due, in part, to the commencement of operations at Fort Riley in July 2018.

Interest Expense

For the years ended December 31, 2019 and 2018, interest expense by segment, including AWR (parent), consisted of the following amounts (in thousands):

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
Water Services	$ 21,966	$ 21,212	$ 754	3.6%
Electric Services	1,433	1,409	24	1.7%
Contracted Services	587	362	225	62.2%
AWR (parent)	600	450	150	33.3%
Total interest expense	$ 24,586	$ 23,433	$ 1,153	4.9%

The overall increase in interest expense is due to higher average borrowings, as well as an overall increase in the weighted average interest rate incurred during 2019 on the revolving credit facility, as compared to 2018. In March 2019, AWR amended this credit facility to increase its borrowing capacity from $150.0 million to $200.0 million, and in October 2019 further amended the credit facility to temporarily increase its borrowing capacity to $225.0 million, effective until June 30, 2020. Borrowings made during 2019 were used to repay $40.0 million of GSWC's 6.70% senior note, which matured in March 2019, as well as to fund a portion of GSWC's capital expenditures. In February 2020, AWR received a binding commitment from its lender for the option to revise the temporary increase of the credit facility to $260.0 million through the end of 2020. When needed, AWR will be able to exercise this commitment and have immediate access to the additional funds.

On December 31, 2020, the borrowing capacity will revert to $200.0 million. GSWC intends to issue debt in 2020 and use the proceeds to reduce its intercompany borrowings from AWR and to partially fund capital expenditures. AWR intends to use the proceeds from GSWC to pay down the amounts outstanding under its credit facility.

Interest Income

For the years ended December 31, 2019 and 2018, interest income by business segment, including AWR (parent), consisted of the following amounts (in thousands):

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
Water Services	$ 1,662	$ 2,809	$ (1,147)	-40.8%
Electric Services	205	81	124	*
Contracted Services	1,321	689	632	*
AWR (parent)	61	(1)	62	*
Total interest income	$ 3,249	$ 3,578	$ (329)	-9.2%

* not meaningful

For the year ended December 31, 2019, interest income decreased overall by $329,000 as compared to the same period in 2018 due primarily to interest income related to a federal tax refund recorded at the water segment in 2018, with no similar item in 2019. This was partially offset by interest income recognized in 2019 on certain initial construction projects performed at the contacted services segment, as well as interest related to regulatory assets for the electric segment as a result of the August 2019 CPUC final decision.

Other, net

For the year ended December 31, 2019, other income increased by $2.5 million primarily due to gains recorded on investments held for a retirement benefit plan resulting from favorable market conditions, as compared to losses recorded in 2018. This was partially offset by an increase in the non-service cost components of net periodic benefit costs related to Registrant's defined benefit pension plans and other retirement benefits. However, as a result of GSWC's pension balancing account authorized by the CPUC, changes in net periodic benefit costs are mostly offset by corresponding changes in revenues, having no material impact to earnings.

Income Tax Expense

For the years ended December 31, 2019 and 2018, income tax expense by segment, including AWR (parent), consisted of the following amounts (in thousands):

	Year Ended 12/31/2019	Year Ended 12/31/2018	$ CHANGE	% CHANGE
Water Services	$ 17,295	$ 12,391	$ 4,904	39.6%
Electric Services	2,882	1,212	1,670	137.8%
Contracted Services	5,202	4,939	263	5.3%
AWR (parent)	(709)	(525)	(184)	35.0%
Total income tax expense	$ 24,670	$ 18,017	$ 6,653	36.9%

Consolidated income tax expense for the year ended December 31, 2018 increased by $6.7 million primarily due to an increase in pretax income at all segments. AWR's consolidated effective income tax rate ("ETR") was 22.6% and 22.0% for the years ended December 31, 2019 and 2018, respectively. The increase was due primarily to the increase in GSWC's ETR, which was 23.2% for 2019 as compared to 22.1% for 2018 resulting primarily from net changes in certain permanent and flow-through items, including the amortization of the excess deferred income tax liability brought about by the lower federal corporate income tax rate beginning in 2018. Partially offsetting the overall increase in GSWC's ETR were lower state taxes at AWR (parent).

Critical Accounting Policies and Estimates

Critical accounting policies and estimates are those that are important to the portrayal of AWR's financial condition, results of operations and cash flows, and require the most difficult, subjective or complex judgments of AWR's management. The need to make estimates about the effect of items that are uncertain is what makes these judgments difficult, subjective and/or complex. Management makes subjective judgments about the accounting and regulatory treatment of many items. The following are accounting policies that are critical to the financial statements of AWR. For more information regarding the significant accounting policies of Registrant, see Note 1 of "*Notes to Financial Statements*" included in Part II, Item 8, in Financial Statements and Supplementary Data.

Accounting for Rate Regulation — Because GSWC operates extensively in a regulated business, it is subject to the authoritative guidance for accounting for the effects of certain types of regulation. Application of this guidance requires accounting for certain transactions in accordance with regulations adopted by the regulatory commissions of the states in which rate-regulated operations are conducted. Utility companies defer costs and credits on the balance sheet as regulatory assets and liabilities when it is probable that those costs and credits will be recognized in the ratemaking process in a period different from the period in which they would have been reflected in income by an unregulated company. These deferred regulatory assets and liabilities are then reflected in the income statement in the period in which the same amounts are reflected in the rates charged for service.

Regulation and the effects of regulatory accounting have the most significant impact on the financial statements of GSWC. When GSWC files for adjustments to rates, the capital assets, operating costs and other matters are subject to review, and disallowances may occur. In the event that a portion of GSWC's operations is no longer subject to the accounting guidance for the effects of certain types of regulation, GSWC is required to write-off related regulatory assets that are not specifically recoverable and determine if other assets might be impaired. If the CPUC determines that a portion of GSWC's assets are not recoverable in customer rates, GSWC is required to determine if it has suffered an asset impairment that would require a write-down in the asset valuation. Management continually evaluates the anticipated recovery, settlement or refund of regulatory assets, liabilities, and revenues subject to refund and provides for allowances and/or reserves that it believes to be necessary. In the event that GSWC's assessment as to the probability of the inclusion in the ratemaking process is incorrect, the associated regulatory asset or liability will be adjusted to reflect the change in assessment or the impact of regulatory approval of rates. Reviews by the CPUC may also result in additional regulatory liabilities to refund previously collected revenues to customers if the CPUC were to disallow costs included in the ratemaking process.

Registrant also reviews its utility plant in-service for possible impairment in accordance with accounting guidance for regulated entities for abandonments and disallowances of plant costs.

Revenue Recognition — GSWC records water and electric utility operating revenues when the service is provided to customers. Operating revenues include unbilled revenues that are earned (i.e., the service has been provided) but not billed by the end of each accounting period. Unbilled revenues are calculated based on the number of days and total usage from each customer's most recent billing record that was billed prior to the end of the accounting period and is used to estimate unbilled consumption as of the year-end reporting period. Unbilled revenues are recorded for both monthly and bi-monthly customers.

The CPUC granted GSWC the authority to implement revenue decoupling mechanisms through the adoption of the WRAM and the BRRAM. With the adoption of these alternative revenue programs, GSWC adjusts revenues in the WRAM and BRRAM for the difference between what is billed to its regulated customers and that which is authorized by the CPUC.

As required by the accounting guidance for alternative revenue programs, GSWC is required to collect its WRAM and BRRAM balances within 24 months following the year in which they are recorded. The CPUC has set the recovery period for under-collected balances that are up to 15% of adopted annual revenues at 18 months or less. For net WRAM under-collected balances greater than 15%, the recovery period is 19 to 36 months. As a result of the accounting guidance and CPUC-adopted recovery periods, Registrant must estimate if any WRAM and BRRAM revenues will be collected beyond the 24-month period, which can affect the timing of when such revenues are recognized.

ASUS's 50-year firm fixed-price contracts with the U.S. government are considered service concession arrangements under ASC 853 *Service Concession Arrangements*. Accordingly, the services under these contracts are accounted for under Topic 606 *Revenue from Contracts with Customers* and the water and/or wastewater systems are not recorded as Property, Plant and Equipment on Registrant's balance sheet. Revenues for ASUS's operations and maintenance contracts are recognized when services have been rendered to the U.S. government pursuant to 50-year contracts. Revenues from construction activities are recognized based on either the percentage-of-completion or cost-plus methods of accounting. In accordance with GAAP, revenue recognition under these methods requires management to estimate the progress toward completion on a contract in terms of efforts, such as costs incurred. This approach is used because management considers it to be the best available measure of progress on these contracts. Changes in job performance, job conditions, change orders and estimated profitability, including those arising from any contract penalty provisions, and final contract settlements may result in revisions to costs and income, and are recognized in the period in which the revisions are determined. Unbilled receivables from the U.S. government represent amounts to be billed for construction work completed and/or for services rendered pursuant to the 50-year contracts with the U.S government, which are not presently billable but which will be billed under the terms of the contracts.

Income Taxes — Registrant's income tax calculations require estimates due principally to the regulated nature of the operations of GSWC, the multiple states in which Registrant operates, and potential future tax rate changes. Registrant uses the asset and liability method of accounting for income taxes under which deferred tax assets and liabilities are recognized for future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. Changes in regulatory treatment, or significant changes in tax-related estimates, assumptions or law, could have a material impact on the financial position and results of operations of Registrant.

As a regulated utility, GSWC treats certain temporary differences as flow-through adjustments in computing its income tax expense consistent with the income tax approach approved by the CPUC for ratemaking purposes. Flow-through adjustments increase or decrease tax expense in one period, with an offsetting decrease or increase occurring in another period. Giving effect to these temporary differences as flow-through adjustments typically results in a greater variance between the effective tax rate and the statutory federal income tax rate in any given period than would otherwise exist if GSWC were not required to account for its income taxes as a regulated enterprise. As of December 31, 2019, Registrant's total amount of unrecognized tax benefits was zero.

Pension Benefits — Registrant's pension benefit obligations and related costs are calculated using actuarial concepts within the framework of accounting guidance for employers' accounting for pensions and post-retirement benefits other than pensions. Two critical assumptions, the discount rate and the expected return on plan assets, are important elements of expense and/or liability measurement. We evaluate these critical assumptions annually. Other assumptions include employee demographic factors such as retirement patterns, mortality, turnover and rate of compensation increase. The discount rate enables Registrant to state expected future cash payments for benefits as a present value on the measurement date. The guideline for setting this rate is a high-quality, long-term corporate bond rate. Registrant's discount rates were determined by considering the average of pension yield curves constructed using a large population of high-quality corporate bonds. The resulting discount rates reflect the matching of plan liability cash flows to the yield curves. A lower discount rate increases the present value of benefit obligations and increases periodic pension expense. Conversely, a higher discount rate decreases the present value of benefit obligations and decreases periodic pension expense. To determine the expected long-term rate of return on the plan assets, Registrant considers the current and expected asset allocation, as well as historical and expected returns on each plan asset class. A lower expected rate of return on plan assets will increase pension expense. The long-term expected return on the pension plan's assets was 6.50% in both 2019 and 2018.

For the pension plan obligation, Registrant decreased the discount rate to 3.43% as of December 31, 2019 from 4.43% as of December 31, 2018 to reflect market interest-rate conditions at December 31, 2019. A hypothetical 25-basis point decrease in the assumed discount rate would have increased total net periodic pension expense for 2019 by approximately $761,000, or 17.1%, and would have increased the projected benefit obligation ("PBO") and accumulated benefit obligation ("ABO") at December 31, 2019 by a total of $8.8 million, or 3.8%. A 25-basis point further decrease in the long-term return on pension-plan-asset assumption would have increased 2019 pension cost by approximately $399,000, or 9.0%.

In addition, changes in the fair value of plan assets will impact future pension cost and the Plan's funded status. Volatile market conditions can affect the value of plan assets held to fund its future long-term pension benefits. Any reductions in the value of plan assets will result in increased future expense, an increase in the underfunded position and increased future contributions.

The CPUC has authorized GSWC to maintain two-way balancing accounts to track differences between the forecasted annual pension expenses adopted in rates and the actual annual expense to be recorded by GSWC in accordance with the accounting guidance for pension costs. As of December 31, 2019, GSWC has a $2.7 million over-collection in the two-way pension balancing accounts, consisting of a $1.5 million over-collection related to the general office and water regions, and a $1.2 million over-collection related to BVES.

Funding requirements for qualified defined benefit pension plans are determined by government regulations. In establishing the contribution amount, Registrant has considered the potential impact of funding-rule changes under the Pension Protection Act of 2006. Registrant contributes the minimum required contribution as determined by government regulations or the forecasted annual pension cost authorized by the CPUC and included in customer rates, whichever is higher. In accordance with this funding policy, for 2020 the pension contribution is expected to be approximately $3.3 million. Any differences between the forecasted annual pension costs in rates and the actual pension costs are included in the two-way pension balancing accounts. Additionally, market factors can affect assumptions we use in determining funding requirements with respect to our pension plan. For example, a relatively modest change in our assumptions regarding discount rates can materially affect our calculation of funding requirements. To the extent that market data compels us to reduce the discount rate used in our assumptions, our benefit obligations could materially increase.

Changes in demographics, including increased numbers of retirees or increases in life expectancy assumptions may also increase the funding requirements of our obligations related to the pension and other postretirement benefit plans. Mortality assumptions are a critical component of benefit obligation amounts and a key factor in determining the expected length of time for annuity payments. Assuming no changes in actuarial assumptions or plan amendments, the costs over the long term are expected to decrease due to the closure of Registrant's defined benefit pension plan to new employees as of January 1, 2011. Employees hired or rehired after December 31, 2010 are eligible to participate in a defined contribution plan.

Liquidity and Capital Resources

AWR

Registrant's regulated business is capital intensive and requires considerable capital resources. A portion of these capital resources is provided by internally generated cash flows from operations. AWR anticipates that interest expense will increase in future periods due to the need for additional external capital to fund its construction program and as market interest rates increase. AWR believes that costs associated with capital used to fund construction at GSWC will continue to be recovered through water and electric rates charged to customers.

AWR funds its operating expenses and pays dividends on its outstanding Common Shares primarily through dividends from its wholly owned subsidiaries. The ability of GSWC to pay dividends to AWR is restricted by California law. Under these restrictions, approximately $257.4 million was available for GSWC to pay dividends to AWR on December 31, 2019. Approximately $62.1 million was available for ASUS to pay dividends to AWR as of December 31, 2019 to the extent that the subsidiaries of ASUS are able to pay dividends in that amount to ASUS under applicable state laws.

When necessary, Registrant obtains funds from external sources in the capital markets and through bank borrowings. Access to external financing on reasonable terms depends on the credit ratings of AWR and GSWC and current business conditions, including that of the water utility industry in general, as well as conditions in the debt and equity capital markets.

AWR borrows under a credit facility, which expires in May 2023, and provides funds to its subsidiaries, GSWC and ASUS, in support of their operations. The interest rate charged to GSWC and ASUS is sufficient to cover AWR's interest expense under the credit facility. In March 2019, AWR amended this credit facility to increase its borrowing capacity from $150.0 million to $200.0 million, and in October 2019 further amended the credit facility to temporarily increase its borrowing capacity to $225.0 million, effective until June 30, 2020. In February 2020, AWR received a binding commitment from its lender for the option to revise the temporary increase of the credit facility to $260.0 million through the end of 2020. When needed, AWR will be able to exercise this commitment and have immediate access to the additional funds. On December 31, 2020, the borrowing capacity will revert to $200.0 million. As of December 31, 2019, there was $205.0 million outstanding under this facility. Management intends to seek additional financing in 2020 through the issuance of long-term debt at GSWC. GSWC intends to use the proceeds from any additional long-term debt to reduce its intercompany borrowings and to partially fund capital expenditures. AWR parent intends to use any financing proceeds from GSWC to pay down the amounts outstanding under its credit facility.

In December 2019, Standard and Poor's Global Ratings ("S&P") affirmed an A+ credit rating with a stable outlook on both AWR and GSWC. S&P's debt ratings range from AAA (highest possible) to D (obligation is in default). In May 2019, Moody's Investors Service ("Moody's") affirmed its A2 rating with a revised outlook from positive to stable for GSWC. Securities ratings are not recommendations to buy, sell or hold a security, and are subject to change or withdrawal at any time by the rating agencies. Registrant believes that AWR's sound capital structure and A+ credit rating, combined with its financial discipline, will enable AWR to access the debt and equity markets. However, unpredictable financial market conditions in the future may limit its access or impact the timing of when to access the market, in which case Registrant may choose to temporarily reduce its capital spending.

AWR's ability to pay cash dividends on its Common Shares outstanding depends primarily upon cash flows from its subsidiaries. AWR intends to continue paying quarterly cash dividends in the future, on or about March 1, June 1, September 1 and December 1, subject to earnings and financial conditions, regulatory requirements and such other factors as the Board of

Directors may deem relevant. Registrant has paid dividends on its Common Shares for over 80 consecutive years. On January 28, 2020, AWR's Board of Directors approved a first quarter dividend of $0.305 per share on AWR's Common Shares. Dividends on the Common Shares will be paid on March 2, 2020 to shareholders of record at the close of business on February 14, 2020.

Cash Flows from Operating Activities:

Cash flows from operating activities have generally provided sufficient cash to fund operating requirements, including a portion of construction expenditures at GSWC, construction expenses at ASUS and dividend payments. Registrant’s future cash flows from operating activities are expected to be affected by a number of factors, including utility regulation; changes in tax law and deferred taxes; maintenance expenses; inflation; compliance with environmental, health and safety standards; production costs; customer growth; per-customer usage of water and electricity; weather and seasonality; conservation efforts; compliance with local governmental requirements, including mandatory restrictions on water use; and required cash contributions to pension and post-retirement plans. Future cash flows from contracted services subsidiaries will depend on new business activities, existing operations, the construction of new and/or replacement infrastructure at military bases, timely economic price and equitable adjustment of prices and timely collection of payments from the U.S. government and other prime contractors operating at the military bases.

The lower federal tax rate and the elimination of bonus depreciation brought about by the 2017 Tax Cuts and Jobs Act ("Tax Act") have and are expected to continue to reduce Registrant's cash flows from operating activities and result in higher financing costs arising from an increased need to borrow and/or issue equity securities more frequently. Pursuant to a CPUC directive, the 2018 impact of the Tax Act on the water adopted revenue requirement was tracked in a memorandum account effective January 1, 2018. On July 1, 2018, new lower water rates, which incorporated the new federal income tax rate, were implemented for all water ratemaking areas. As a result of receiving the May 2019 CPUC final decision on the water general rate case, in the third quarter of 2019 GSWC refunded to water customers approximately $7.2 million of over-collections recorded in this memorandum account as a one-time surcredit.

ASUS funds its operating expenses primarily through internal operating sources, which include U.S. government funding under 50-year contracts for operations and maintenance costs and construction activities, as well as investments by, or loans from, AWR. ASUS, in turn, provides funding to its subsidiaries. ASUS's subsidiaries may also from time to time provide funding to ASUS or its subsidiaries.

Cash flows from operating activities are primarily generated by net income, adjusted for non-cash expenses such as depreciation and amortization. Cash generated by operations varies during the year. Net cash provided by operating activities was $116.9 million for the year ended December 31, 2019 as compared to $136.8 million for the year ended December 31, 2018. There was a decrease in cash receipts in 2019 due to lower water customer usage, delays in receiving decisions on the water and electric general rate cases and also the refunding of $7.2 million to water customers during the third quarter related to the Tax Act. The decrease in water customer usage increases the under-collection balance in the WRAM regulatory asset, which is filed annually for recovery. These decreases in cash flows were partially offset by an increase in cash resulting from the timing in billing of and cash receipts for construction work at military bases during 2019. The billings (and cash receipts) for construction work at our contracted services segment generally occur at completion of the work or in accordance with a billing schedule contractually agreed to with the U.S. government and/or other prime contractors. Thus, cash flow from construction-related activities may fluctuate from period to period with such fluctuations representing timing differences of when the work is being performed and when the cash is received for payment of the work. The timing of cash receipts and disbursements related to other working capital items also affected the change in net cash provided by operating activities.

Cash Flows from Investing Activities:

Net cash used in investing activities was $153.2 million for the year ended December 31, 2019 as compared to $128.0 million used in 2018. The increase in cash used in investing activities during 2019 was due to an increase in capital expenditures as compared to 2018. Cash used for other investments consists primarily of cash invested in a trust for a retirement benefit plan.

Registrant invests capital to provide essential services to its regulated customer base and has an opportunity to earn a fair rate of return on investments in infrastructure. Registrant’s infrastructure investment plan consists of both infrastructure renewal programs, where infrastructure is replaced as needed, and major capital investment projects, where new water treatment and delivery facilities are constructed. GSWC may also be required from time to time to relocate existing infrastructure in order to accommodate local infrastructure improvement projects. Projected capital expenditures and other investments are subject to periodic review and revision.

Cash Flows from Financing Activities:

Registrant's financing activities include primarily: (i) the sale proceeds from the issuance of Common Shares and stock option exercises and the repurchase of Common Shares; (ii) the issuance and repayment of long-term debt and notes payable to banks; and (iii) the payment of dividends on Common Shares. In order to finance new infrastructure, Registrant also receives customer advances (net of refunds) for, and contributions in aid of, construction. Short-term borrowings are used to fund capital expenditures until long-term financing is arranged.

Net cash provided by financing activities was $30.5 million for the year ended December 31, 2019 as compared to net cash used of $1.8 million for the same period in 2018. The increase in cash provided by financing activities in 2019 was due largely to increased borrowings on Registrant's credit facility to partially fund capital expenditures, as well as repay $40 million in GSWC debt, which became due in 2019.

GSWC

GSWC funds its operating expenses, payments on its debt, dividends on its outstanding common shares and a portion of its construction expenditures through internal sources. Internal sources of cash flow are provided primarily by retention of a portion of earnings from operating activities. Internal cash generation is influenced by factors such as weather patterns, conservation efforts, environmental regulation, litigation, changes in tax law and deferred taxes, changes in supply costs and regulatory decisions affecting GSWC's ability to recover these supply costs, timing of rate relief, increases in maintenance expenses and capital expenditures, surcharges authorized by the CPUC to enable GSWC to recover expenses previously incurred from customers and CPUC requirements to refund amounts previously charged to customers.

GSWC may, at times, utilize external sources, including equity investments and borrowings from AWR, and long-term debt to help fund a portion of its construction expenditures.

In addition, GSWC receives advances and contributions from customers, homebuilders and real estate developers to fund construction necessary to extend service to new areas. Advances for construction are generally refundable at a rate of 2.5% in equal annual installments over 40 years. Amounts that are no longer subject to refund are reclassified to contributions in aid of construction. Utility plant funded by advances and contributions is excluded from rate base. Generally, GSWC amortizes contributions in aid of construction at the same composite rate of depreciation for the related property.

As is often the case with public utilities, GSWC's current liabilities may at times exceed its current assets. Management believes that internally generated funds, along with the proceeds from the issuance of long-term debt, borrowings from AWR and common share issuances to AWR, will be adequate to provide sufficient capital to enable GSWC to maintain normal operations and to meet its capital and financing requirements pending recovery of costs in rates. The CPUC requires GSWC to completely pay down all intercompany borrowings from AWR within a 24-month period. The end of the next 24-month period in which GSWC is required to completely pay down its intercompany borrowings will be in November 2020. As a result, GSWC's intercompany borrowings of $158.8 million as of December 31, 2019 have been classified as a current liability on GSWC's balance sheet. GSWC intends to use the proceeds from any new long-term debt to reduce its intercompany borrowings and to partially fund capital expenditures. AWR parent intends to use any financing proceeds from GSWC to pay down the amounts outstanding under its credit facility.

Cash Flows from Operating Activities:

Net cash provided by operating activities was $96.6 million for the year ended December 31, 2019 as compared to $120.4 million for the same period in 2018. The decrease in cash receipts in 2019 as compared to 2018 was due to lower water customer usage, delays in receiving decisions on the water and electric general rate cases and also the refunding of $7.2 million to water customers during the third quarter of 2019 related to the Tax Act. The decrease in water customer usage increases the under-collection balance in the WRAM regulatory asset, which is filed annually for recovery. The timing of cash receipts and disbursements related to other working capital items also affected the change in net cash provided by operating activities.

Cash Flows from Investing Activities:

Net cash used in investing activities was $144.2 million for the year ended December 31, 2019 as compared to $117.9 million for the same period in 2018. The increase in cash used in investing activities during 2019 was due to an increase in capital expenditures as compared to 2018.

During the years ended December 31, 2019 and 2018, cash paid for capital expenditures was $142.9 million and $116.4 million, respectively. Capital expenditures incurred in 2019 and 2018 were consistent with GSWC's capital investment program. GSWC expects 2020 company-funded capital expenditures to be between $120 and $135 million.

Cash Flows from Financing Activities:

Net cash provided by financing activities was $43.8 million for 2019 as compared to net cash used of $1.4 million for 2018. The increase in net cash provided by financing activities during 2019 was due to an increase in intercompany borrowings as compared to 2018. These proceeds were used to partially fund capital expenditures and to repay $40.0 million of GSWC debt, which matured in 2019. There was also a decrease in dividends paid by GSWC to AWR parent in 2019 as compared to 2018.

Contractual Obligations, Commitments and Off-Balance-Sheet Arrangements

Registrant has various contractual obligations which are recorded as liabilities in the consolidated financial statements. Other items, such as certain purchase commitments and operating leases, are not recognized as liabilities in the consolidated financial statements but are required to be disclosed. In addition to contractual maturities, Registrant has certain debt instruments that contain annual sinking funds or other principal payments. Registrant believes that it will be able to refinance debt instruments at their maturity through public issuance or private placement of debt or equity. Annual payments to service debt are generally made from cash flows from operations.

The following table reflects Registrant's contractual obligations and commitments to make future payments pursuant to contracts as of December 31, 2019. The table reflects only financial obligations and commitments. Therefore, performance obligations associated with our 50-year firm, fixed-price contracts with the U.S. government at our contracted services segment are not included in the amounts below. All obligations and commitments are obligations and commitments of GSWC unless otherwise noted.

	Payments/Commitments Due by Period (1)				
($ in thousands)	Total	Less than 1 Year	1-3 Years	4-5 Years	After 5 Years
Notes/Debentures (2)	$ 187,000	$ —	$ —	$ —	$ 187,000
Private Placement Notes (3)	83,000	—	—	—	83,000
Tax-Exempt Obligations (4)	11,293	156	348	378	10,411
Other Debt Instruments (5)	3,406	188	409	453	2,356
Total AWR Long-Term Debt	$ 284,699	$ 344	757	$ 831	$ 282,767
Interest on Long-Term Debt (6)	$ 234,813	$ 18,890	$ 37,721	$ 37,648	$ 140,554
Advances for Construction (7)	67,350	3,361	6,708	6,660	50,621
Renewable Energy Credit Agreement (8)	2,323	465	1,858	—	—
Purchased Power Contracts (9)	26,347	6,224	11,157	8,966	—
Capital Expenditures (10)	50,878	50,878	—	—	—
Water Purchase Agreements (11)	4,116	417	834	834	2,031
Operating Leases (12)	15,983	2,709	4,750	3,278	5,246
Employer Contributions (13)	6,469	3,326	3,143	—	—
SUB-TOTAL	$ 408,279	$ 86,270	$ 66,171	$ 57,386	$ 198,452
Other Commitments (14)	214,802				
TOTAL	$ 907,780				

(1) Excludes dividends and facility fees.

(2) The notes and debentures have been issued by GSWC under an Indenture dated September 1, 1993, as amended in December 2008. The notes and debentures do not contain any financial covenants that Registrant believes to be material or any cross-default provisions.

(3) GSWC issued private placement notes in 1991 in the amount of $28 million pursuant to the terms of note purchase agreements with substantially similar terms. These agreements contain restrictions on the payment of dividends, minimum interest coverage requirements, a maximum debt-to-capitalization ratio, and a negative pledge. Pursuant to the terms of these agreements, GSWC must maintain a minimum interest coverage ratio of two times interest expense. In addition, a senior note in the amount of $40 million was issued by GSWC in October 2005 to CoBank, ACB. A senior note in the amount of $15 million was issued to The Prudential Insurance Company of America in December 2014. Under the terms of these senior notes, GSWC may not incur any additional debt or pay any distributions to its shareholders if, after giving effect thereto, it would have a debt to capitalization ratio in excess of 0.6667-to-1 or a debt to earnings before interest, taxes, depreciation and amortization ratio of more than 8-to-1. GSWC is in compliance with these covenant provisions as of December 31, 2019. GSWC does not currently have any outstanding mortgages or other liens on indebtedness on its properties.

(4) Consists of obligations at GSWC related to (i) a loan agreement supporting $7.7 million in outstanding debt issued by the California Pollution Control Financing Authority, and (ii) $3.6 million of obligations with respect to GSWC's 500 acre-foot entitlement to water from the State Water Project (“SWP”). These obligations do not contain any financial covenants believed to be material to Registrant or any cross-default provisions. In regard to its SWP entitlement, GSWC has entered into agreements with various developers for a portion of its 500 acre-foot entitlement to water from the SWP.

(5) Consists of the outstanding debt portion of funds received under the American Recovery and Reinvestment Act for reimbursements of capital costs related to the installation of meters for conversion of non-metered service to metered service in GSWC's Arden-Cordova District.

(6) Consists of expected interest expense payments based on the assumption that GSWC’s long-term debt remains outstanding until maturity.

(7) Advances for construction represent contract refunds by GSWC to developers for the cost of water systems paid for by the developers. The advances are generally refundable in equal annual installments over 40-year periods.

(8) Consists of an agreement by GSWC to purchase renewable energy credits through 2023. These renewable energy credits are used by GSWC's electric division to meet California's renewables portfolio standard.

(9) Consists of BVES fixed-cost purchased power contracts executed in September 2019 with Exelon Generation Company, LLC and Morgan Stanley Capital Group Inc.

(10) Consists primarily of capital expenditures estimated to be required under signed contracts at GSWC as of December 31, 2019.

(11) Water purchase agreements consist of (i) a remaining amount of $2.1 million under an agreement expiring in 2028 to use water rights from a third party, and (ii) an aggregate amount of $2.0 million of other water purchase commitments with other third parties, which expire through 2038.

(12) Reflects future minimum payments under noncancelable operating leases for both GSWC and ASUS.

(13) Consists of expected contributions to Registrant's defined benefit pension plan for the years 2020 through 2021. Contribution to the pension plan are expected to be the higher of the minimum required contribution under the Employee Retirement Income Security Act (“ERISA”) or the amounts that are recovered in customer rates and approved by the CPUC. These amounts are estimates and are subject to change based on, among other things, the limits established for federal tax deductibility (pension plan) and the significant impact that returns on plan assets and changes in discount rates have on such amounts.

(14) Other commitments consist primarily of (i) a $225 million revolving credit facility, of which $205.0 million was outstanding as of December 31, 2019; (ii) a $8.9 million asset retirement obligation of GSWC that reflects the retirement of wells by GSWC, which by law need to be properly capped at the time of removal; (iii) an irrevocable letter of credit in the amount of $340,000 for the deductible in Registrant’s business automobile insurance policy; (iv) an irrevocable letter of credit issued on behalf of GSWC in the amount of $585,000 as security for the purchase of power by BVES under an energy scheduling agreement with Automated Power Exchange; and (v) a $15,000 irrevocable letter of credit issued on behalf of GSWC pursuant to a franchise agreement with the City of Rancho Cordova. In February 2020, AWR received a binding commitment from its lender for the option to temporarily increase the revolving credit facility to $260.0 million through the end of 2020. When needed, AWR will be able to exercise this commitment and have immediate access to the additional funds. On December 31, 2020, the borrowing capacity will revert to $200.0 million. All of the letters of credit are issued pursuant to the revolving credit facility. The revolving credit facility contains restrictions on prepayments, disposition of property, mergers, liens and negative pledges, indebtedness and guaranty obligations, transactions with affiliates, minimum interest coverage requirements, a maximum debt-to-capitalization ratio, and a minimum debt rating. Pursuant to the credit agreement, AWR must maintain a minimum interest coverage ratio of 3.25 times interest expense, a maximum total funded debt ratio of 0.65-to-1.00 and a minimum debt rating from Moody’s or S&P of Baa3 or BBB-, respectively. As of December 31, 2019, AWR was in compliance with these covenants with an interest coverage ratio of 6.89 times interest expense, a debt ratio of 0.45-to-1.00 and debt ratings of A+ and A2.

Off-Balance-Sheet Arrangements

Registrant has various contractual obligations that are recorded as liabilities in the consolidated financial statements. Other items, such as certain purchase commitments, are not recognized as liabilities in the consolidated financial statements but are required to be disclosed. Except for those disclosed above in the table, Registrant does not have any other off-balance-sheet arrangements.

Effects of Inflation

The rates of GSWC are established to provide recovery of costs and a fair return on shareholders' investment. Recovery of the effects of inflation through higher water rates is dependent upon receiving adequate and timely rate increases; however, authorized rates charged to customers are usually based on a forecast of expenses and capital costs for GSWC. Rates may lag increases in costs caused by unanticipated inflation. During periods of moderate to low inflation, as has been experienced for the last several years, the effects of inflation on operating results have not been significant. Furthermore, the CPUC approves projections for a future test year in general rate cases which reduces the impact of inflation to the extent that GSWC's inflation forecasts are accurate.

For the Military Utility Privatization Subsidiaries, under the terms of the contracts with the U.S. government, the contract price is subject to an economic price adjustment on an annual basis. ASUS has experienced delays in some of its economic price adjustments. However, when adjustments are finalized, they are implemented retroactively to the effective date of the economic price adjustment.

Climate Change

Water - GSWC considers the potential impacts of climate change in its water supply portfolio planning and its overall infrastructure replacement plans. In addition, GSWC considers the impacts of greenhouse gas emissions and other environmental concerns in its operations and infrastructure investments.

Electric - California has established a cap-and-trade program applicable to greenhouse gas emissions. While BVES's power-plant emissions are below the reporting threshold, as a "Covered Entity" BVES has an obligation to file a report in June of each year under the Greenhouse Gas Mandatory Reporting Regulation. The State of California and the CPUC have also established renewable energy procurement targets. BVES has entered into a CPUC-approved ten-year contract for renewable energy credits. Because of this agreement, BVES believes it will comply through at least 2023 with California's renewable energy statutes that address this issue.

BVES is also required to comply with the CPUC's greenhouse gas emission performance standards. Under these standards, BVES must file an annual attestation with the CPUC stating that BVES is in compliance. Specifically, BVES must attest to having no new ownership investment in generation facilities exceeding the emission performance standards and no long-term commitments for generation exceeding the standards. In February 2020, BVES filed an attestation that BVES complied with the standards for 2019. At this time, management cannot estimate the impact, if any, that these regulations may have on future costs over BVES's power plant operations or the cost of BVES's purchased power from third party providers.

BVES Power-Supply Arrangements

BVES began taking power pursuant to purchased power contracts approved by the CPUC effective in the fourth quarter of 2019 at a fixed cost over three and five-year terms depending on the amount of power and period during which the power is purchased under the contracts. In addition to the purchased power contracts, BVES buys additional energy to meet peak demand as needed and sells surplus power when necessary. The average price per MWh, including fixed costs, decreased to $75.47 per MWh in 2019 from $79.90 per MWh for the year ended December 31, 2018. BVES's average energy costs are impacted by pricing fluctuations on the spot market. However, BVES has implemented an electric-supply-cost balancing account, as approved by the CPUC, to alleviate any impacts to earnings.

Construction Program

GSWC maintains an ongoing water distribution main replacement program throughout its customer service areas based on the age and type of distribution-system materials, priority of leaks detected, remaining productive life of the distribution system and an underlying replacement schedule. In addition, GSWC upgrades its electric and water supply facilities in accordance with industry standards, local and CPUC requirements, and new legislation. In September 2018, the California legislature enacted Senate Bill (SB) 901 mandating investor-owned electric utilities to submit an annual wildfire mitigation plan to the CPUC for approval. SB 901 requires all electric utilities to prepare plans on constructing, maintaining, and operating their electrical lines and equipment to minimize the risk of catastrophic wildfire.

As of December 31, 2019, GSWC has unconditional purchase obligations for capital projects of approximately $50.9 million. During the years ended December 31, 2019, 2018 and 2017, GSWC had capital expenditures of $140.8 million, $125.1 million and $115.3 million, respectively. A portion of these capital expenditures was funded by developers through contributions in aid of construction, which are not required to be repaid, and refundable advances. During the years ended December 31, 2019, 2018 and 2017, capital expenditures funded by developers were $4.7 million, $4.1 million and $3.5 million, respectively. During 2020, GSWC's company-funded capital expenditures are estimated to be approximately $120 - $135 million.

Contracted Services

Under the terms of the current and future utility privatization contracts with the U.S. government, each contract's price is subject to an economic price adjustment ("EPA") on an annual basis. In the event that ASUS (i) is managing more assets at specific military bases than were included in the U.S. government's request for proposal, (ii) is managing assets that are in substandard condition as compared to what was disclosed in the request for proposal, (iii) prudently incurs costs not contemplated under the terms of the utility privatization contract, and/or (iv) becomes subject to new regulatory requirements, such as more stringent water-quality standards, ASUS is permitted to file, and has filed, requests for equitable adjustment ("REA"). The timely filing for and receipt of EPAs and/or REAs continues to be critical in order for the Military Utility Privatization Subsidiaries to recover increasing costs of operating, maintaining, renewing, and replacing the water and/or wastewater systems at the military bases it serves.

Under the Budget Control Act of 2011 (the "2011 Act"), substantial automatic spending cuts, known as "sequestration," have impacted the expected levels of Department of Defense budgeting. The Military Utility Privatization Subsidiaries have not experienced any earnings impact to their existing operations and maintenance and renewal and replacement services, as utility privatization contracts are an "excepted service" within the 2011 Act. While the ongoing effects of sequestration have been mitigated through the passage of the Bipartisan Budget Act of 2018 for fiscal years 2018 and 2019, similar issues may arise as part of fiscal uncertainty and/or future debt-ceiling limits imposed by Congress. However, any future impact on ASUS and its operations through the Military Utility Privatization Subsidiaries will likely be limited to (a) the timing of funding to pay for services rendered, (b) delays in the processing of EPAs and/or REAs, (c) the timing of the issuance of contract modifications for new construction work not already funded by the U.S. government, and/or (d) delays in the solicitation for and/or awarding of new contracts under the Department of Defense utility privatization program. Furthermore, from December 22, 2018 until January 25, 2019, the U.S. government shutdown impacted non-essential government employees due to the lack of an approved appropriations bill to fund the operations of the federal government for fiscal year 2019. However, the shutdown did not have any meaningful impact on ASUS due to the fact that funding for military operations (including military bases) is provided by the Department of Defense, which is fully funded for fiscal year 2019 and was not part of the government shutdown. There were no further shutdowns during the remainder of 2019 and the start of 2020 as two continuing resolutions and a spending package were passed allowing the federal government funding to continue for 2020.

At times, the DCAA and/or the DCMA may, at the request of a contracting officer, perform audits/reviews of contractors for compliance with certain government guidance and regulations, such as the Federal Acquisition Regulations and Defense Federal Acquisition Regulation Supplements. Certain audit/review findings, such as system deficiencies for government-contract-business-system requirements, may result in delays in the resolution of filings submitted to and/or the ability to file new proposals with the U.S. government.

Below is a summary of current and projected EPA filings for price adjustments to operations and maintenance fees and renewal and replacement fees for the Military Utility Privatization Subsidiaries in fiscal 2020.

Military Base	EPA period	Filing Date
Fort Bliss (FBWS)	October 2019 - September 2020	Third Quarter 2019
Andrews Air Force Base (TUS)	February 2020 - January 2021	Fourth Quarter 2019
Fort Lee (ODUS)	February 2020 - January 2021	Fourth Quarter 2019
Joint Base Langley Eustis and Joint Expeditionary Base Little Creek Fort Story (ODUS)	April 2020 - March 2021	First Quarter of 2020
Fort Jackson (PSUS)	February 2020 - January 2021	Fourth Quarter 2019
Fort Bragg (ONUS)	March 2020 - February 2021	First Quarter 2020
Eglin Air Force Base (ECUS)	June 2020 - May 2021	Second Quarter 2020
Fort Riley (FRUS)	July 2020 - June 2021	Second Quarter 2020

ASUS assumed the operation of the water distribution and wastewater collection and treatment facilities at Fort Riley on July 1, 2018. The value of this contract is approximately $681.0 million over its 50-year term, subject to annual economic price adjustments.

Regulatory Matters

Certificates of Public Convenience and Necessity

GSWC holds Certificates of Public Convenience and Necessity ("CPCN") granted by the CPUC in each of the ratemaking areas it serves. ASUS is regulated, if applicable, by the state in which it primarily conducts water and/or wastewater operations. FBWS holds a CPCN from the Public Utilities Commission of Texas. The Virginia State Corporation Commission exercises jurisdiction over ODUS as a public service company. The Maryland Public Service Commission approved the right of TUS to operate as a water and wastewater utility at Joint Base Andrews, Maryland, based on certain conditions. The South Carolina Public Service Commission exercises jurisdiction over PSUS as a public service company. ONUS is regulated by the North Carolina Public Service Commission. ECUS and FRUS are not subject to regulation by their respective states' utility commissions.

Rate Regulation

GSWC is subject to regulation by the CPUC which has broad authority over service and facilities, rates, classification of accounts, valuation of properties, the purchase, disposition and mortgaging of properties necessary or useful in rendering public utility service, the issuance of securities, the granting of certificates of public convenience and necessity as to the extension of services and facilities and various other matters.

Rates that GSWC is authorized to charge are determined by the CPUC in general rate cases and are derived using rate base, cost of service and cost of capital, as projected for a future test year. Rates charged to customers vary according to customer class and rate jurisdiction and are generally set at levels allowing for recovery of prudently incurred costs, including a fair return on rate base. Rate base generally consists of the original cost of utility plant in service, plus certain other assets, such as working capital and inventory, less accumulated depreciation on utility plant in service, deferred income tax liabilities and certain other deductions.

GSWC is required to file a water general rate case application every three years according to a schedule established by the CPUC. General rate cases typically include an increase in the first test year with inflation-rate adjustments for expenses for the second and third years of the rate case cycle. For capital projects, there are two test years. Rates are based on a forecast of expenses and capital costs for each test year. Electric general rate cases are typically filed every four years. Rates may also be increased by offsets for certain expense increases, including, but not limited to, supply-cost offset and balancing-account amortization, advice letter filings related to certain plant additions and other operating cost increases.

Neither the operations nor rates of AWR and ASUS are directly regulated by the CPUC. The CPUC does, however, regulate certain transactions between GSWC and ASUS and between GSWC and AWR.

General Rate Case Filings

Water Segment:

In July 2017, GSWC filed a general rate case application for all of its water regions and the general office to determine new rates for the years 2019 - 2021. On May 30, 2019, the CPUC issued a final decision on GSWC's water general rate case with rates retroactive to January 1, 2019. Among other things, the final decision approves in its entirety an August 2018 settlement agreement that had been entered into between GSWC and the CPUC's Public Advocates Office. As a result, the final decision authorizes GSWC to invest approximately $334.5 million over the rate cycle. The $334.5 million of infrastructure investment includes $20.4 million of capital projects to be filed for revenue recovery through advice letters when those projects are completed.

Excluding the advice letter project revenues, the new rates approved increased the adopted water gross margin for 2019 by approximately $7.1 million, adjusted for updated inflation index values since the August 2018 settlement, as compared to the 2018 adopted water gross margin. The 2019 water revenue requirement has been reduced to reflect a decrease of approximately $7.0 million in depreciation expense, compared to the adopted 2018 depreciation expense, due to a reduction in the overall composite depreciation rates based on a revised study filed in the general rate case. The decrease in depreciation expense lowers the water gross margin and is offset by a corresponding decrease in depreciation expense, resulting in no impact to net earnings. In addition, the 2019 water revenue requirement includes a decrease of approximately $2.2 million for excess deferred tax refunds as a result of the 2017 Tax Cuts and Jobs Act ("Tax Act"), with a corresponding decrease in income tax expense also resulting in no impact to net earnings. Had depreciation remained the same as the 2018 adopted amount and there were no excess deferred tax refunds that lowered the 2019 revenue requirement, the water gross margin for 2019 would have increased by approximately $16.3 million.

As a result of the May 2019 CPUC final decision, GSWC implemented new water rates on June 8, 2019. The final decision also allowed for a water gross margin increase of approximately $10.4 million from new customer rates for 2020, which were effective January 1, 2020, as well as an additional increase of approximately $11.4 million in 2021, subject to the results of an earnings test and changes to the forecasted inflationary index values.

Electric Segment:

In May 2017, GSWC filed its electric general rate case application with the CPUC to determine new electric rates for the years 2018 through 2021. In November 2018, GSWC and the Public Advocates Office filed a joint motion to adopt a settlement agreement between the two parties resolving all issues in connection with the general rate case.

On August 15, 2019, the CPUC issued a final decision on this general rate case, adopting the settlement agreement in its entirety. Among other things, the decision (i) extends the rate cycle by one year (new rates will be effective for 2018 - 2022); (ii) increases the adopted electric gross margin for 2018 by approximately $2.3 million compared to the 2017 adopted electric gross margin, adjusted for Tax Act changes; (iii) authorizes BVES to construct all the capital projects requested in its application, which are dedicated to improving system safety and reliability and total approximately $44 million over the 5-year rate cycle; and (iv) increases the adopted electric gross margin by $1.2 million for each of the years 2019 and 2020, by $1.1 million in 2021, and by $1.0 million in 2022. The rate increases for 2019 - 2022 are not subject to an earnings test. The decision authorizes a return on equity for GSWC's electric segment of 9.60%, as compared to its previously authorized return of 9.95% and includes a capital structure and debt cost that is consistent with those approved by the CPUC in March 2018 in connection with GSWC's water segment cost of capital proceeding.

Cost of Capital Proceedings

In March 2018, the CPUC issued a final decision in the cost of capital proceeding for GSWC and three other water utilities serving California for the years 2018 - 2020. Among other things, the final decision adopted for GSWC's water segment a return on equity of 8.90%, with a return on rate base of 7.91%. The previously authorized return on equity for GSWC’s water segment was 9.43%, with a return on rate base of 8.34%.

Investor-owned water utilities serving California are required to file their cost of capital applications on a triennial basis with the next scheduled filing to take place on May 1, 2020 effective for the years 2021 - 2023. In January 2020, GSWC, along with the three other water utilities, requested an extension of the date by which each of them must file its 2020 cost of capital applications. If approved, the request would postpone this filing date by one year until May 1, 2021, with a corresponding effective date of January 1, 2022. As part of this request, the joint parties agreed to leave the current Water Cost of Capital Mechanism in place, but that there will be no changes to the respective costs of capital during the one-year extension, regardless of what the mechanism might otherwise indicate. The joint parties are currently awaiting the CPUC's response to the joint request.

Other Regulatory Matters

Application to Transfer Electric Utility Operations to New Subsidiary:

GSWC filed applications with the CPUC and the FERC in December 2018 and July 2019, respectively, to transfer the assets and liabilities of the BVES division of GSWC to Bear Valley Electric Service, Inc., a newly created separate legal entity and stand-alone subsidiary of AWR. Due to the differences in operations, regulations, and risks, management believes a separate electric legal entity and stand-alone subsidiary of AWR is in the best interests of customers, employees, and the communities served. The FERC and CPUC approved GSWC's application for reorganization in October and December of 2019, respectively. The reorganization plan is pending the completion of certain closing procedures to effectuate the transfer of assets and liabilities including, among other things, an additional FERC approval for tariffs. When completed, the reorganization plan is not expected to result in a substantive change to AWR's operations and business segments.

Wildfire Mitigation Plan and New California Legislation:

In September 2018, the California legislature enacted Senate Bill (SB) 901 mandating investor-owned electric utilities to submit an annual wildfire mitigation plan (WMP) to the CPUC for approval. SB 901 requires all electric utilities to prepare plans on constructing, maintaining, and operating their electrical lines and equipment to minimize the risk of catastrophic wildfire. In February 2019 BVES filed its first WMP, which was subsequently approved by the CPUC in June 2019. Among other things, the WMP approves capital projects and programs dedicated to improving system safety and reliability and, specifically, aimed at reducing the possibility of wildfires. Upon approval in June 2019, BVES commenced executing its WMP immediately. BVES filed its second WMP with the CPUC on February 7, 2020.

Additionally, the California legislature enacted Assembly Bill (AB) 1054 in July 2019, which among other things, changed the burden of proof applicable in CPUC proceedings in which an electric utility with a valid safety certification seeks to recover wildfire costs. Traditionally, an electric utility seeking to recover costs has the burden to prove that it acted reasonably. Under AB 1054, if an electric utility has a valid safety certification, it will be presumed to have acted reasonably unless a party to the relevant proceeding creates a "serious doubt" as to the reasonableness of the utility's conduct. BVES received its initial safety certification from the CPUC on February 4, 2020.

AB 1054 also establishes a Wildfire Fund to pay eligible claims arising from a covered wildfire under certain circumstances. The Wildfire Fund is expected to be funded partially by electrical corporation shareholders, and partly by ratepayers. California's three largest electric utilities are participating in the Wildfire Fund. Other investor-owned electric utilities (referred to as "regional" utilities), including GSWC's BVES division have decided not to participate. It is highly unlikely that the Wildfire Fund will have any financial value for regional utilities such as BVES because withdrawals by a regional utility are capped per wildfire at three times the regional utility's aggregate initial and annual contributions and withdrawals may only be made if and to the extent that the amount of the claims against the utility (which must be settled or finally adjudicated) in a given year exceed the greater of the amount of the utility's insurance or $1 billion dollars. It is remote that claims within BVES's service territory from a wildfire will reach the $1 billion minimum, and if they did, the claims would likely exceed the amount that the electric division would be able to access from the Wildfire Fund.

Solar Energy Project:

BVES is subject to the California renewables portfolio standard ("RPS") law, which requires BVES to meet certain targets for purchases of energy from qualified renewable energy resources. BVES has purchased renewable energy credits from sources outside its service territory, which are being used towards meeting the RPS requirements. However, to ensure local area reliability and help meet its RPS requirements over the long-term, in December 2019, BVES filed an application with the CPUC for the development of a turn-key solar project within its service territory. BVES has selected a 7.9-megawatt solar generation project that will be constructed by a third party and will be connected directly with BVES's existing distribution system, which will help in achieving California's energy and environmental goals. BVES estimates the total cost of this solar project to be approximately $14.3 million. In December 2019, BVES filed a joint motion to adopt a settlement agreement between BVES and the CPUC's Public Advocates Office for approval to acquire, own and operate the solar generation project upon completion. The CPUC is scheduled to issue a proposed decision in this proceeding during the second quarter of 2020.

For more information regarding significant regulatory matters, see Note 3 of "*Notes to Financial Statements*" included in Part II, Item 8, in Financial Statements and Supplementary Data.

Environmental Matters

AWR's subsidiaries are subject to stringent environmental regulations. GSWC is required to comply with the safe drinking water standards established by the U.S. Environmental Protection Agency ("U.S. EPA") and the Division of Drinking Water ("DDW"), under the State Water Resources Control Board ("SWRCB"). The U.S. EPA regulates contaminants that may have adverse health effects that are known or likely to occur at levels of public health concern, and the regulation of which will provide a meaningful opportunity for health risk reduction. The DDW, acting on behalf of the U.S. EPA, administers the U.S. EPA's program in California. Similar state agencies administer these rules in the other states in which Registrant operates.

GSWC currently tests its water supplies and water systems according to, among other things, requirements listed in the Federal Safe Drinking Water Act ("SDWA"). GSWC works proactively with third parties and governmental agencies to address issues relating to known contamination threatening GSWC water sources. GSWC also incurs operating costs for testing to determine the levels, if any, of the constituents in its sources of supply and additional expense to treat contaminants in order to meet the federal and state maximum contaminant level standards and consumer demands. GSWC expects to incur additional capital costs as well as increased operating costs to maintain or improve the quality of water delivered to its customers in light of anticipated stress on water resources associated with watershed and aquifer pollution, as well as to meet future water quality standards and consumer expectations. The CPUC ratemaking process provides GSWC with the opportunity to recover prudently incurred capital and operating costs in future filings associated with achieving water quality standards. Management believes that such incurred and expected future costs should be authorized for recovery by the CPUC.

Matters Relating to Environmental Cleanup

GSWC has been involved in environmental remediation and cleanup at a plant site ("Chadron Plant") that contained an underground storage tank that was used to store gasoline for its vehicles. This tank was removed from the ground in July 1990 along with the dispenser and ancillary piping. Since then, GSWC has been involved in various remediation activities at this site.

As of December 31, 2019, the total spent to cleanup and remediate GSWC's plant facility was approximately $6.3 million, of which $1.5 million has been paid by the State of California Underground Storage Tank Fund. Amounts paid by GSWC have been included in rate base and approved by the CPUC for recovery. As of December 31, 2019, GSWC has a regulatory asset and an accrued liability for the estimated additional cost of $1.3 million to complete the cleanup at the site. The estimate includes costs for continued activities of groundwater cleanup and monitoring, future soil treatment, and site closure related activities. The ultimate cost may vary as there are many unknowns in remediation of underground gasoline spills and this is an estimate based on currently available information. Management also believes it is probable that the estimated additional costs will be approved for inclusion in rate base by the CPUC.

Drinking Water Notification and Response Levels

In July 2018, DDW issued drinking water notification levels for certain fluorinated organic chemicals used to make certain fabrics and other materials, and used in various industrial processes. These chemicals were also present in certain fire suppression agents. These chemicals are referred to as perfluoroalkyl substances (PFAS). Notification levels are health-based advisory levels established for contaminants in drinking water for which maximum contaminant levels have not been established. The US EPA has also established health advisory levels for these compounds. Notification to consumers and stakeholders is required when the advisory levels or notification levels are exceeded. Assembly Bill 756, signed into law in July 2019 and effective in January 2020, requires, among other things, additional notification requirements for water systems detecting levels of PFAS above response levels. GSWC is in the process of collecting and analyzing samples for PFAS under the direction of DDW. GSWC has removed some wells from service, and expects to incur additional treatment costs to treat impacted wells. GSWC has provided customers with information regarding PFAS detections, and provided updated information via its website. In February 2020, DDW established new response levels for two of the PFAS compounds: 10 parts per trillion for perfluorooctanoic acid (PFOA) and 40 parts per trillion for perfluorooctanesulfonic acid (PFOS).

Lead Testing in Schools

In January 2017, the California State Water Resources Control Board - Division of Drinking Water (DDW) issued a permit amendment that required all community water systems to test the schools in their service area for lead, if sampling is requested in writing by the institution's officials. In addition, the California Assembly passed Assembly Bill 746 in October 2017, which required all community water systems that serve a school site of a local educational agency with a building constructed before January 1, 2010, to test for lead in the potable water system of the school site on or before July 1, 2019. GSWC worked extensively with the schools in its service areas. As a result of concerted outreach to the schools, GSWC completed lead sampling at all schools that were subject to Assembly Bill 746 in its service area in 2019.

Matters Relating to Military Privatization Contracts

Each of the Military Utility Privatization Subsidiaries is responsible for testing the water and wastewater systems on the military bases on which it operates in accordance with applicable law.

Each of the Military Utility Privatization Subsidiaries has the right to seek an equitable adjustment to its contract in the event that there are changes in environmental laws, a change in the quality of water used in providing water service or wastewater discharged by the U.S. government, or contamination of the air or soil not caused by the fault or negligence of the Military Utility Privatization Subsidiary. These changes can impact operations and maintenance and renewal and replacement costs under the contracts. The U.S. government is responsible for environmental contamination due to its fault or negligence and for environmental contamination that occurred prior to the execution of a contract.

Security Issues

GSWC has security systems and infrastructure in place intended to prevent unlawful intrusion, service disruption and cyber-attacks. GSWC utilizes a variety of physical security measures to protect its facilities. GSWC also considers advances in security and emergency preparedness technology and relevant industry developments in developing its capital-improvement plans. GSWC intends to seek approval of the CPUC to recover any additional costs that it incurs in enhancing the security, reliability and resiliency of its water and electric systems.

The Military Utility Privatization Subsidiaries operate facilities within the boundaries of military bases, which provide limited access to the general public. To further enhance security, in prior years, certain upgrades were completed at various military bases through contract modifications funded by the U.S. government.

Registrant has evaluated its cyber-security systems and continues to address identified areas of improvement with respect to U.S. government regulations regarding cyber-security of government contractors. These improvements include the physical security at all of the office and employee facilities it operates. Registrant believes it is in compliance with these regulations.

Despite its efforts, Registrant cannot guarantee that intrusions, cyber-attacks or other attacks will not cause water or electric system problems, disrupt service to customers, compromise important data or systems or result in unintended release of customer or employee information.

GSWC's Water Supply

During 2019, GSWC delivered approximately 59.5 million hundred cubic feet ("ccf") of water to its customers, which is an average of about 374 acre-feet per day (an acre-foot is approximately 435.6 ccf or 326,000 gallons). Approximately 53% of GSWC's supply came from groundwater production wells situated throughout GSWC's service areas. GSWC supplemented its groundwater production with wholesale purchases from Metropolitan Water District ("MWD") member agencies and regional water suppliers (roughly 44% of total demand) and with authorized diversions from rivers (roughly 3%) under contracts with the United States Bureau of Reclamation ("Bureau") and the Sacramento Municipal Utility District ("SMUD"). GSWC also utilizes recycled water supplies to serve recycled water customers in several service areas. GSWC continually assesses its water rights and groundwater storage assets.

Groundwater

GSWC has a diverse water supply portfolio which includes adjudicated groundwater rights, surface water rights, and a number of unadjudicated water rights to help meet supply requirements. The productivity of GSWC's groundwater resources varies from year to year depending upon a variety of factors, including natural replenishment from snow-melt or rainfall, the availability of imported replenishment water, the amount of water previously stored in groundwater basins, natural or man-made contamination, legal production limitations, and the amount and seasonality of water use by GSWC's customers and others. GSWC actively participates in efforts to protect groundwater basins from over-use and from contamination. In some periods, these efforts may require reductions in groundwater pumping and increased reliance on alternative water resources. GSWC also participates in implementation of California's Sustainable Groundwater Management Act.

From time to time, GSWC may purchase or temporarily use water rights from others for delivery to customers. GSWC has contracts to purchase water or water rights for an aggregate amount of $4.1 million as of December 31, 2019. Included in the $4.1 million is a remaining commitment of $2.1 million under an agreement with the City of Claremont ("the City") to lease water rights that were ascribed to the City as part of the Six Basins adjudication. The initial term of the agreement expires in 2028. GSWC may exercise an option to renew this agreement for 10 additional years. The remaining $2.0 million is for commitments for purchased water with other third parties, which expire through 2038.

Imported Water

GSWC also manages a portfolio of water supply arrangements with water wholesalers who may import water from outside the immediate service area. For example, GSWC has contracts with various governmental entities (principally MWD member agencies) and other parties to purchase water through a total of 58 connections for distribution to customers, in addition to numerous emergency connections. MWD is a public agency organized and managed to provide a supplemental, imported supply to its member public agencies. There are 26 such member agencies, consisting of 14 cities, 11 municipal water districts and one county water authority. GSWC has 45 connections to MWD's water distribution facilities and those of member agencies. GSWC purchases MWD water through six separate member agencies aggregating 49,973 acre-feet annually. MWD's principal source of water is the SWP and the Colorado River via the Colorado River Aqueduct.

Drought Impact

In May 2018, the California Legislature passed two bills that provide a framework for long-term water-use efficiency standards and drought planning and resiliency. The initial steps in implementation of this legislation has been laid out in a summary document by the California Department of Water Resources ("DWR") and State Water Resources Control Board ("SWQCB"). Over the next several years, State agencies, water suppliers and other entities will be working to meet the requirements and timelines of plan implementation. A notable milestone is the establishment of indoor water use standard of 55 gallons per capita per day (gpcd) until 2025 at which time the standard may be reduced to 52.5 gpcd or a new standard as recommend by DWR.

California's recent period of multi-year drought resulted in reduced recharge to the state's groundwater basins. GSWC utilizes groundwater from numerous groundwater basins throughout the state. Several of these basins, especially smaller basins, experienced lower groundwater levels because of the drought. Several of GSWC's service areas rely on groundwater as their only source of supply. Given the critical nature of the groundwater levels in California's Central Coast area, GSWC implemented mandatory water restrictions in certain service areas, in accordance with CPUC procedures. In the event of water supply shortages beyond the locally available supply, GSWC would need to transport additional water from other areas, increasing the cost of water supply.

The 2018-2019 water year was a normal year, with rainfall in northern California being above normal levels. Precipitation to date in 2020 has been slightly below normal levels with statewide snowpack at about 75% of average. As of February 18, 2020, the U.S. Drought Monitor reported that approximately 10% of California was considered in a "Moderate Drought" as compared to approximately 4% one year ago. If dry conditions continue or get worse, the SWQCB or other regulatory agencies may impose emergency drought actions. Due to local conditions, water-use restrictions and allocations remain in place for customers in some of GSWC's service areas. GSWC continues assessing water supply conditions and water-use restrictions in these service areas and will make appropriate adjustments as needed.

Military Utility Privatization Subsidiaries

The U.S. government is responsible for providing the source of supply for all water on each of the bases served by the Military Utility Privatization Subsidiaries at no cost to the Military Utility Privatization Subsidiaries. Once received from the U.S. government, ASUS is responsible for ensuring the continued compliance of the provided source of supply with all federal, state and local regulations.

New Accounting Pronouncements

Registrant is subject to newly issued accounting requirements as well as changes in existing requirements issued by the Financial Accounting Standards Board. See *Note 1* of *Notes to Consolidated Financial Statements.*

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Registrant is exposed to certain market risks, including fluctuations in interest rates, and commodity price risk primarily relating to changes in the market price of electricity. Market risk is the potential loss arising from adverse changes in prevailing market rates and prices.

Interest Rate Risk

A significant portion of Registrant's capital structure is comprised of fixed-rate debt. Market risk related to our fixed-rate debt is deemed to be the potential increase in fair value resulting from a decrease in interest rates. At December 31, 2019, the fair value of Registrant's long-term debt was $376.5 million. A hypothetical ten percent decrease in market interest rates would have resulted in an $11.6 million increase in the fair value of Registrant's long-term debt.

At December 31, 2019, Registrant did not believe that its short-term debt was subject to interest-rate risk due to the fair market value being approximately equal to the carrying value.

Commodity/Derivative Risk

GSWC's electric division, BVES, is exposed to commodity price risk primarily relating to changes in the market price of electricity. To manage its exposure to energy price risk, BVES from time to time executes purchased power contracts that qualify as derivative instruments, requiring mark-to-market derivative accounting under the accounting guidance for derivatives. A derivative financial instrument or other contract derives its value from another investment or designated benchmark.

In August 2019, the CPUC authorized BVES to execute long-term purchased power contracts with energy providers, which became effective during the fourth quarter of 2019. BVES began taking power under these long-term contracts at a fixed cost over three- and five-year terms depending on the amount of power and period during which the power is purchased under the contracts.

The long-term contracts executed in 2019 qualify for derivative accounting treatment. Among other things, the CPUC also authorized BVES to establish a regulatory memorandum account to offset the mark-to-market entries required by the accounting guidance. Accordingly, all unrealized gains and losses generated from these purchased power contracts are deferred on a monthly basis into a non-interest bearing regulatory memorandum account that tracks the changes in fair value of the derivative throughout the term of the contract. As a result, the unrealized gains and losses on these contracts do not impact GSWC's earnings. As of December 31, 2019, there was a $3.2 million unrealized loss in the memorandum account reflected as a regulatory asset as a result of a drop in energy prices since the execution of the contracts.

Except as discussed above, Registrant has had no other derivative financial instruments, financial instruments with significant off-balance sheet risks or financial instruments with concentrations of credit risk.

Item 8. Financial Statements and Supplementary Data

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of American States Water Company

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets and statements of capitalization of American States Water Company and its subsidiaries (the "Company") as of December 31, 2019 and 2018, and the related consolidated statements of income, of changes in common shareholders' equity and of cash flows for each of the three years in the period ended December 31, 2019, including the related notes and the financial statement schedule listed in the index appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue Recognition - Estimated Costs to Complete Long-term Contracts

As described in Notes 1 and 2 to the consolidated financial statements, $114 million of the Company's total revenues for the year ended December 31, 2019 was generated from operating, maintaining and performing construction activities (including renewal and replacement capital work) on water and wastewater systems at various U.S. military bases pursuant to 50-year firm fixed-price contracts. As disclosed by management, a portion of the revenue from construction activities is recognized based on a percentage-of-completion method of accounting. These revenues are recognized over time, with progress toward completion measured based on the input method using costs incurred relative to the total estimated costs (cost-to-cost method). Changes in job performance, job site conditions, change orders and/or estimated profitability may result in revisions to costs and income, and are recognized in the period in which any such revisions are determined.

The principal considerations for our determination that performing procedures relating to revenue recognition on construction contracts where estimates are made on the cost to complete long term contracts is a critical audit matter are there was significant judgment by management when developing the estimate of total estimated costs, which in turn led to significant auditor judgment, subjectivity and effort in performing audit procedures and evaluating audit evidence obtained relating to management's estimate of total estimated costs.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, including controls over the determination of estimated costs to complete long-term contracts. The procedures also included, among others, (i) evaluating management's process for developing the estimates of progress towards completion and the total estimated costs, (ii) inquiring with project personnel regarding construction progress and status, and (iii) testing contracts, subcontractor bids, underlying contract costs, and other supporting documents. In addition, procedures were performed to evaluate changes in total estimated costs by (i) comparing changes in total estimated costs with prior period estimates and (ii) evaluating management's methodologies and assumptions for changing the cost estimates.

Accounting for the Effects of Rate Regulation

As described in Notes 1 and 3 to the consolidated financial statements, the Company records regulatory assets, which represent probable future recovery of costs from customers through the ratemaking process, and regulatory liabilities, which represent probable future refunds that are to be credited to customers through the ratemaking process. Accounting for such activities as regulatory assets and liabilities is in accordance with the guidance for accounting for the effects of rate regulation. In determining the probability of costs being recognized in other periods, management considers regulatory rules and decisions, past practices and other facts or circumstances that would indicate if recovery is probable. As of December 31, 2019, there were $21 million of regulatory assets and $23 million of regulatory liabilities.

The principal considerations for our determination that performing procedures relating to accounting for the effects of rate regulation is a critical audit matter are there was significant judgment by management related to the accounting for regulatory assets and liabilities, including assessing the probability that costs will be recovered or that amounts will be refunded and the timing of recognition of regulatory assets and liabilities as a result of established practice, new or changes in regulatory and legislative proceedings, or other relevant facts and circumstances. This in turn led to significant auditor judgment, subjectivity and effort in performing audit procedures and evaluating audit evidence obtained relating to management's accounting for regulatory assets and liabilities.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's assessment and consideration of regulatory and legislative proceedings and other evidence informing the probability that costs will be recovered, amounts will be refunded, and the timing of the inclusion of these deferrals in rates as well as the disclosure impacts. These procedures also included, among others, evaluating the reasonableness of management's judgments regarding the probability and timing of recovery of regulatory assets and refund of regulatory liabilities based on the Company's correspondence with regulators, status of regulatory proceedings, past practices, and other relevant information; evaluating the related accounting and disclosure implications; and calculating regulatory assets and liabilities balances based on provisions and formulas outlined in rate orders and other correspondence with the Company's regulator.

/s/ PricewaterhouseCoopers LLP

Los Angeles, California
February 24, 2020
We have served as the Company's auditor since 2002.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholder of Golden State Water Company

Opinion on the Financial Statements

We have audited the accompanying balance sheets and statements of capitalization of Golden State Water Company (the "Company") as of December 31, 2019 and 2018, and the related statements of income, of common shareholder's equity and of cash flows for each of the three years in the period ended December 31, 2019, including the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

Los Angeles, California
February 24, 2020
We have served as the Company's auditor since 2002.

AMERICAN STATES WATER COMPANY
CONSOLIDATED BALANCE SHEETS

(in thousands)	December 31, 2019	December 31, 2018
Assets		
Utility Plant		
Regulated utility plant, at cost:		
Water	$ 1,700,442	$ 1,649,535
Electric	108,425	106,064
Total	1,808,867	1,755,599
Non-regulated utility property, at cost	30,554	24,511
Total utility plant, at cost	1,839,421	1,780,110
Less — accumulated depreciation	(543,263)	(561,855)
	1,296,158	1,218,255
Construction work in progress	119,547	78,055
Net utility plant	1,415,705	1,296,310
Other Property and Investments		
Goodwill	1,116	1,116
Other property and investments	30,293	25,356
Total other property and investments	31,409	26,472
Current Assets		
Cash and cash equivalents	1,334	7,141
Accounts receivable — customers, less allowance for doubtful accounts	20,907	23,395
Unbilled revenue — receivable	20,482	23,588
Receivable from U.S. government, less allowance for doubtful accounts (Note 2)	22,613	21,543
Other accounts receivable, less allowance for doubtful accounts	3,096	3,103
Income taxes receivable	5,685	2,164
Materials and supplies	6,429	5,775
Regulatory assets — current	20,930	16,527
Prepayments and other current assets	5,413	6,063
Contract assets (Note 2)	15,567	22,169
Total current assets	122,456	131,468
Other Assets		
Unbilled revenue — receivable from U.S. government	8,621	—
Receivable from U.S. government (Note 2)	42,206	39,583
Contract assets (Note 2)	64	2,278
Operating lease right-of-use assets	13,168	—
Other	7,702	5,322
Total other assets	71,761	47,183
Total Assets	$ 1,641,331	$ 1,501,433

The accompanying notes are an integral part of these consolidated financial statements.

AMERICAN STATES WATER COMPANY
CONSOLIDATED BALANCE SHEETS

(in thousands)	December 31, 2019	December 31, 2018
Capitalization and Liabilities		
Capitalization		
Common shareholders' equity	$ 601,530	$ 558,223
Long-term debt	280,996	281,087
Total capitalization	882,526	839,310
Current Liabilities		
Notes payable to banks	5,000	—
Long-term debt — current	344	40,320
Accounts payable	55,616	59,532
Income taxes payable	95	360
Accrued other taxes	11,110	10,094
Accrued employee expenses	14,255	13,842
Accrued interest	3,050	3,865
Unrealized loss on purchased power contracts	3,171	311
Contract liabilities (Note 2)	11,167	7,530
Operating lease liabilities	1,849	—
Other	10,341	10,731
Total current liabilities	115,998	146,585
Other Credits		
Notes payable to banks	200,000	95,500
Advances for construction	63,989	66,305
Contributions in aid of construction — net	134,706	124,385
Deferred income taxes	125,304	114,216
Regulatory liabilities	23,380	44,867
Unamortized investment tax credits	1,295	1,367
Accrued pension and other post-retirement benefits	68,469	57,636
Operating lease liabilities	11,739	—
Other	13,925	11,262
Total other credits	642,807	515,538
Commitments and Contingencies (Notes 14 and 15)		
Total Capitalization and Liabilities	$ 1,641,331	$ 1,501,433

The accompanying notes are an integral part of these consolidated financial statements.

AMERICAN STATES WATER COMPANY
CONSOLIDATED STATEMENTS OF CAPITALIZATION

	December 31,	
(in thousands, except share data)	2019	2018
Common Shareholders' Equity:		
Common Shares, no par value:		
Authorized: 60,000,000 shares		
Outstanding: 36,846,614 shares in 2019 and 36,757,842 shares in 2018	$ 255,566	$ 253,689
Reinvested earnings in the business	345,964	304,534
	601,530	558,223
Long-Term Debt (All are of GSWC)		
Notes/Debentures:		
6.81% notes due 2028	15,000	15,000
6.59% notes due 2029	40,000	40,000
7.875% notes due 2030	20,000	20,000
7.23% notes due 2031	50,000	50,000
6.00% notes due 2041	62,000	62,000
Private Placement Notes:		
3.45% notes due 2029	15,000	15,000
9.56% notes due 2031	28,000	28,000
5.87% notes due 2028	40,000	40,000
6.70% notes due 2019	—	40,000
Tax-Exempt Obligations:		
5.50% notes due 2026	7,730	7,730
State Water Project due 2035	3,563	3,667
Other Debt Instruments:		
American Recovery and Reinvestment Act Obligation due 2033	3,406	3,581
	284,699	324,978
Less: Current maturities	(344)	(40,320)
Debt issuance costs	(3,359)	(3,571)
	280,996	281,087
Total Capitalization	$ 882,526	$ 839,310

The accompanying notes are an integral part of these consolidated financial statements.

AMERICAN STATES WATER COMPANY
CONSOLIDATED STATEMENTS OF INCOME

(in thousands, except per share amounts)	For the years ended December 31, 2019	2018	2017
Operating Revenues			
Water	$ 319,830	$ 295,258	$ 306,332
Electric	39,548	34,350	33,969
Contracted services	114,491	107,208	100,302
Total operating revenues	473,869	436,816	440,603
Operating Expenses			
Water purchased	72,289	68,904	68,302
Power purchased for pumping	8,660	8,971	8,518
Groundwater production assessment	18,962	19,440	18,638
Power purchased for resale	11,796	11,590	10,720
Supply cost balancing accounts	(7,026)	(15,649)	(17,939)
Other operation	32,756	31,650	29,994
Administrative and general	83,034	82,595	81,643
Depreciation and amortization	35,397	40,425	39,031
Maintenance	15,466	15,682	15,176
Property and other taxes	20,042	18,404	17,905
ASUS construction	55,673	53,906	49,838
Gain on sale of assets	(253)	(85)	(8,318)
Total operating expenses	346,796	335,833	313,508
Operating Income	127,073	100,983	127,095
Other Income and Expenses			
Interest expense	(24,586)	(23,433)	(22,582)
Interest income	3,249	3,578	1,790
Other, net	3,276	760	2,038
Total other income and expenses	(18,061)	(19,095)	(18,754)
Income before income tax expense	109,012	81,888	108,341
Income tax expense	24,670	18,017	38,974
Net Income	$ 84,342	$ 63,871	$ 69,367
Weighted Average Number of Shares Outstanding	36,814	36,733	36,638
Basic Earnings Per Common Share	$ 2.28	$ 1.73	$ 1.88
Weighted Average Number of Diluted Shares	36,964	36,936	36,844
Fully Diluted Earnings Per Share	$ 2.28	$ 1.72	$ 1.88
Dividends Paid Per Common Share	$ 1.160	$ 1.060	$ 0.994

The accompanying notes are an integral part of these consolidated financial statements.

AMERICAN STATES WATER COMPANY
CONSOLIDATED STATEMENTS OF CHANGES
IN COMMON SHAREHOLDERS' EQUITY

	Common Shares		Reinvested	
(in thousands)	Number of Shares	Amount	Earnings in the Business	Total
Balances at December 31, 2016	36,571	$ 247,232	$ 247,065	$ 494,297
Add:				
Net income			69,367	69,367
Exercise of stock options and other issuance of Common Shares	110	909		909
Stock-based compensation, net of taxes paid from shares withheld from employees related to net share settlements		1,789		1,789
Dividend equivalent rights on stock-based awards not paid in cash		194		194
Deduct:				
Dividends on Common Shares			36,417	36,417
Dividend equivalent rights on stock-based awards not paid in cash			194	194
Balances at December 31, 2017	36,681	250,124	279,821	529,945
Add:				
Net income			63,871	63,871
Exercise of stock options and other issuance of Common Shares	77	546		546
Stock-based compensation, net of taxes paid from shares withheld from employees related to net share settlements		2,798		2,798
Dividend equivalent rights on stock-based awards not paid in cash		221		221
Deduct:				
Dividends on Common Shares			38,937	38,937
Dividend equivalent rights on stock-based awards not paid in cash			221	221
Balances at December 31, 2018	36,758	253,689	304,534	558,223
Add:				
Net income			84,342	84,342
Exercise of stock options and other issuance of Common Shares	89	519		519
Stock-based compensation, net of taxes paid from shares withheld from employees related to net share settlements		1,148		1,148
Dividend equivalent rights on stock-based awards not paid in cash		210		210
Deduct:				
Dividends on Common Shares			42,702	42,702
Dividend equivalent rights on stock-based awards not paid in cash			210	210
Balances at December 31, 2019	36,847	$ 255,566	$ 345,964	$ 601,530

The accompanying notes are an integral part of these consolidated financial statements.

AMERICAN STATES WATER COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)	For the years ended December 31, 2019	2018	2017
Cash Flows From Operating Activities:			
Net income	$ 84,342	$ 63,871	$ 69,367
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	35,713	40,663	39,273
Provision for doubtful accounts	608	841	989
Deferred income taxes and investment tax credits	6,623	(5,773)	12,153
Stock-based compensation expense	2,517	3,851	2,885
Gain on sale of assets	(253)	(85)	(8,318)
(Gain) loss on investments held in a trust	(3,580)	558	(1,743)
Other — net	526	97	218
Changes in assets and liabilities:			
Accounts receivable — customers	1,882	1,882	(7,671)
Unbilled revenue — receivable	(5,515)	2,823	(2,020)
Other accounts receivable	214	5,151	(1,671)
Receivables from the U.S. government	1,144	(20,976)	4,742
Materials and supplies	(654)	(980)	(501)
Prepayments and other assets	3,978	(519)	(1,641)
Contract assets	3,979	5,941	—
Costs and estimated earnings in excess of billings on contracts	—	—	(2,881)
Regulatory assets/liabilities	(11,597)	33,834	24,626
Accounts payable	(249)	1,282	4,358
Income taxes receivable/payable	(3,786)	2,708	13,206
Contract liabilities / Billings in excess of costs and estimated earnings on contracts	3,637	3,619	1,648
Accrued pension and other post-retirement benefits	1,994	(1,086)	(878)
Other liabilities	(4,659)	(928)	(1,589)
Net cash provided	116,864	136,774	144,552
Cash Flows From Investing Activities:			
Capital expenditures	(151,940)	(126,561)	(113,126)
Proceeds from sale of assets	169	72	34,324
Other investments	(1,424)	(1,553)	(1,229)
Net cash used	(153,195)	(128,042)	(80,031)
Cash Flows From Financing Activities:			
Proceeds from stock option exercises	519	546	909
Receipt of advances for and contributions in aid of construction	10,171	5,551	7,275
Refunds on advances for construction	(5,005)	(3,886)	(3,889)
Retirement or repayments of long-term debt	(40,325)	(326)	(329)
Net change in notes payable to banks	109,500	36,500	(31,000)
Dividends paid	(42,702)	(38,937)	(36,417)
Other	(1,634)	(1,253)	(1,292)
Net cash provided (used)	30,524	(1,805)	(64,743)
Net change in cash and cash equivalents	(5,807)	6,927	(222)
Cash and cash equivalents, beginning of year	7,141	214	436
Cash and cash equivalents, end of year	$ 1,334	$ 7,141	$ 214

The accompanying notes are an integral part of these consolidated financial statements.

GOLDEN STATE WATER COMPANY
BALANCE SHEETS

(in thousands)	December 31, 2019	December 31, 2018
Assets		
Utility Plant, at cost		
Water	$ 1,700,442	$ 1,649,535
Electric	108,425	106,064
Total	1,808,867	1,755,599
Less — accumulated depreciation	(531,801)	(551,244)
	1,277,066	1,204,355
Construction work in progress	117,676	76,737
Net utility plant	1,394,742	1,281,092
Other Property and Investments	28,212	23,263
	28,212	23,263
Current Assets		
Cash and cash equivalents	401	4,187
Accounts receivable — customers, less allowance for doubtful accounts	20,907	23,395
Unbilled revenue — receivable	18,636	17,892
Other accounts receivable, less allowance for doubtful accounts	1,857	1,959
Income taxes receivable from Parent	7,727	5,617
Materials and supplies	4,920	4,797
Regulatory assets — current	20,930	16,527
Prepayments and other current assets	4,497	5,275
Total current assets	79,875	79,649
Other Assets		
Operating lease right-of-use assets	12,745	—
Other	6,880	5,218
Total other assets	19,625	5,218
Total Assets	$ 1,522,454	$ 1,389,222

The accompanying notes are an integral part of these financial statements.

GOLDEN STATE WATER COMPANY
BALANCE SHEETS

(in thousands)	December 31, 2019	December 31, 2018
Capitalization and Liabilities		
Capitalization		
Common shareholder's equity	$ 551,188	$ 503,575
Long-term debt	280,996	281,087
Total capitalization	832,184	784,662
Current Liabilities		
Intercompany payable to Parent	158,845	—
Long-term debt — current	344	40,320
Accounts payable	45,756	47,865
Accrued other taxes	10,640	9,911
Accrued employee expenses	12,386	11,910
Accrued interest	2,736	3,550
Unrealized loss on purchased power contracts	3,171	311
Operating lease liabilities	1,612	—
Other	9,745	9,432
Total current liabilities	245,235	123,299
Other Credits		
Intercompany payable to Parent	—	57,289
Advances for construction	63,989	66,305
Contributions in aid of construction — net	134,706	124,385
Deferred income taxes	127,806	118,241
Regulatory liabilities	23,380	44,867
Unamortized investment tax credits	1,295	1,367
Accrued pension and other post-retirement benefits	68,469	57,636
Operating lease liabilities	11,588	—
Other	13,802	11,171
Total other credits	445,035	481,261
Commitments and Contingencies (Notes 14 and 15)		
Total Capitalization and Liabilities	$ 1,522,454	$ 1,389,222

The accompanying notes are an integral part of these financial statements.

GOLDEN STATE WATER COMPANY
STATEMENTS OF CAPITALIZATION

(in thousands, except share data)	December 31, 2019	December 31, 2018
Common Shareholder's Equity:		
Common Shares, no par value:		
Authorized: 1,000 shares		
Outstanding: 165 shares in 2019 and 2018	$ 293,754	$ 292,412
Reinvested earnings in the business	257,434	211,163
	551,188	503,575
Long-Term Debt		
Notes/Debentures:		
6.81% notes due 2028	15,000	15,000
6.59% notes due 2029	40,000	40,000
7.875% notes due 2030	20,000	20,000
7.23% notes due 2031	50,000	50,000
6.00% notes due 2041	62,000	62,000
Private Placement Notes:		
3.45% notes due 2029	15,000	15,000
9.56% notes due 2031	28,000	28,000
5.87% notes due 2028	40,000	40,000
6.70% notes due 2019	—	40,000
Tax-Exempt Obligations:		
5.50% notes due 2026	7,730	7,730
State Water Project due 2035	3,563	3,667
Other Debt Instruments:		
American Recovery and Reinvestment Act Obligation due 2033	3,406	3,581
	284,699	324,978
Less: Current maturities	(344)	(40,320)
Debt issuance costs	(3,359)	(3,571)
	280,996	281,087
Total Capitalization	$ 832,184	$ 784,662

The accompanying notes are an integral part of these financial statements.

GOLDEN STATE WATER COMPANY
STATEMENTS OF INCOME

(in thousands)	For the years ended December 31, 2019	2018	2017
Operating Revenues			
Water	$ 319,830	$ 295,258	$ 306,332
Electric	39,548	34,350	33,969
Total operating revenues	359,378	329,608	340,301
Operating Expenses			
Water purchased	72,289	68,904	68,302
Power purchased for pumping	8,660	8,971	8,518
Groundwater production assessment	18,962	19,440	18,638
Power purchased for resale	11,796	11,590	10,720
Supply cost balancing accounts	(7,026)	(15,649)	(17,939)
Other operation	26,336	25,334	24,877
Administrative and general	59,905	62,156	62,408
Depreciation and amortization	32,441	38,395	37,852
Maintenance	12,843	13,104	12,970
Property and other taxes	18,168	16,809	16,402
Gain on sale of assets	(88)	(8)	(8,318)
Total operating expenses	254,286	249,046	234,430
Operating Income	105,092	80,562	105,871
Other Income and Expenses			
Interest expense	(23,399)	(22,621)	(22,055)
Interest income	1,867	2,890	1,766
Other, net	3,280	784	2,234
Total other income and expenses	(18,252)	(18,947)	(18,055)
Income from operations before income tax expense	86,840	61,615	87,816
Income tax expense	20,177	13,603	34,059
Net Income	$ 66,663	$ 48,012	$ 53,757

The accompanying notes are an integral part of these financial statements.

GOLDEN STATE WATER COMPANY
STATEMENTS OF CHANGES IN
COMMON SHAREHOLDER'S EQUITY

(in thousands, except number of shares)	Common Shares Number of Shares	Common Shares Amount	Reinvested Earnings in the Business	Total
Balances at December 31, 2016	146	$ 240,482	$ 206,288	$ 446,770
Add:				
Net income			53,757	53,757
Stock-based compensation, net of taxes paid from shares withheld from employees related to net share settlements		1,527		1,527
Dividend equivalent rights on stock-based awards not paid in cash		172		172
Deduct:				
Dividends on Common Shares			27,680	27,680
Dividend equivalent rights on stock-based awards not paid in cash			172	172
Balances at December 31, 2017	146	242,181	232,193	474,374
Add:				
Net income			48,012	48,012
Issuance of Common Shares to Parent	19	47,500		47,500
Stock-based compensation, net of taxes paid from shares withheld from employees related to net share settlements		2,539		2,539
Dividend equivalent rights on stock-based awards not paid in cash		192		192
Deduct:				
Dividends on Common Shares			68,850	68,850
Dividend equivalent rights on stock-based awards not paid in cash			192	192
Balances at December 31, 2018	165	292,412	211,163	503,575
Add:				
Net income			66,663	66,663
Stock-based compensation, net of taxes paid from shares withheld from employees related to net share settlements		1,150		1,150
Dividend equivalent rights on stock-based awards not paid in cash		192		192
Deduct:				
Dividends on Common Shares			20,200	20,200
Dividend equivalent rights on stock-based awards not paid in cash			192	192
Balances at December 31, 2019	165	$ 293,754	$ 257,434	$ 551,188

The accompanying notes are an integral part of these financial statements.

GOLDEN STATE WATER COMPANY
STATEMENTS OF CASH FLOWS

(in thousands)	For the years ended December 31, 2019	2018	2017
Cash Flows From Operating Activities:			
Net income	$ 66,663	$ 48,012	$ 53,757
Adjustments to reconcile net income to net cash provided by operating			
Depreciation and amortization	32,757	38,633	38,094
Provision for doubtful accounts	606	850	816
Deferred income taxes and investment tax credits	5,081	(6,817)	13,970
Stock-based compensation expense	2,253	3,397	2,420
Gain on sale of assets	(88)	(8)	(8,318)
(Gain) loss on investments held in a trust	(3,580)	558	(1,743)
Other — net	58	27	130
Changes in assets and liabilities:			
Accounts receivable — customers	1,882	1,882	(7,671)
Unbilled revenue — receivable	(744)	960	(1,152)
Other accounts receivable	311	4,140	(544)
Materials and supplies	(123)	(751)	(322)
Prepayments and other assets	4,230	(154)	(1,450)
Regulatory assets/liabilities	(11,597)	33,834	24,626
Accounts payable	1,558	(1,907)	4,927
Inter-company receivable/payable	1,056	(47)	(390)
Income taxes receivable/payable from/to Parent	(2,110)	973	15,266
Accrued pension and other post-retirement benefits	1,994	(1,086)	(878)
Other liabilities	(3,579)	(2,057)	(1,930)
Net cash provided	96,628	120,439	129,608
Cash Flows From Investing Activities:			
Capital expenditures	(142,852)	(116,354)	(110,487)
Proceeds from sale of assets	88	9	34,324
Other investments	(1,424)	(1,553)	(1,229)
Net cash used	(144,188)	(117,898)	(77,392)
Cash Flows From Financing Activities:			
Proceeds from issuance of Common Shares to Parent	—	47,500	—
Receipt of advances for and contributions in aid of construction	10,171	5,551	7,275
Refunds on advances for construction	(5,005)	(3,886)	(3,889)
Retirement or repayments of long-term debt	(40,325)	(326)	(329)
Net change in inter-company borrowings	100,500	22,500	(26,500)
Dividends paid	(20,200)	(68,850)	(27,680)
Other	(1,367)	(1,057)	(1,088)
Net cash provided (used)	43,774	1,432	(52,211)
Net change in cash and cash equivalents	(3,786)	3,973	5
Cash and cash equivalents, beginning of year	4,187	214	209
Cash and cash equivalents, end of year	$ 401	$ 4,187	$ 214

The accompanying notes are an integral part of these financial statements.

Note 1 — Summary of Significant Accounting Policies

Nature of Operations: American States Water Company ("AWR") is the parent company of Golden State Water Company ("GSWC") and American States Utility Services, Inc. ("ASUS") (and its wholly owned subsidiaries, Fort Bliss Water Services Company ("FBWS"), Terrapin Utility Services, Inc. ("TUS"), Old Dominion Utility Services, Inc. ("ODUS"), Palmetto State Utility Services, Inc. ("PSUS"), Old North Utility Services, Inc. ("ONUS"), Emerald Coast Utility Services, Inc. ("ECUS"), and Fort Riley Utility Services, Inc. ("FRUS")). AWR and its subsidiaries may be collectively referred to as "Registrant" or "the Company." The subsidiaries of ASUS are collectively referred to as the "Military Utility Privatization Subsidiaries." AWR, through its wholly owned subsidiaries, serves over one million people in nine states.

GSWC is a public utility engaged principally in the purchase, production, distribution and sale of water in California serving approximately 261,000 customers. GSWC also distributes electricity in several San Bernardino County mountain communities in California serving approximately 24,000 customers through its Bear Valley Electric Service ("BVES") division. The California Public Utilities Commission ("CPUC") regulates GSWC's water and electric businesses in matters including properties, rates, services, facilities, and transactions by GSWC with its affiliates. GSWC filed applications with the CPUC and the Federal Energy Regulatory Commission ("FERC") in December 2018 and July 2019, respectively, to transfer the assets and liabilities of the BVES division of GSWC to Bear Valley Electric Service, Inc., a newly created separate legal entity and stand-alone subsidiary of AWR. The FERC and CPUC approved GSWC's application for reorganization in October and December of 2019, respectively. The reorganization plan is pending the completion of certain closing procedures to effectuate the transfer of assets and liabilities including, among other things, an additional FERC approval for tariffs. When completed, the reorganization plan is not expected to result in a substantive change to AWR's operations and business segments.

ASUS, through its Military Utility Privatization Subsidiaries, operates, maintains and performs construction activities (including renewal and replacement capital work) on water and/or wastewater systems at various U.S. military bases pursuant to 50-year firm fixed-price contracts. These contracts are subject to annual economic price adjustments and modifications for changes in circumstances, changes in laws and regulations and additions to the contract value for new construction of facilities at the military bases.

There is no direct regulatory oversight by the CPUC over AWR or the operations, rates or services provided by ASUS or the Military Utility Privatization Subsidiaries.

Basis of Presentation: The consolidated financial statements and notes thereto are presented in a combined report filed by two separate Registrants: AWR and GSWC. References in this report to "Registrant" are to AWR and GSWC, collectively, unless otherwise specified. Certain prior period amounts have been reclassified on the statements of cash flows to conform to current year presentation.

AWR owns all of the outstanding Common Shares of GSWC and ASUS. ASUS owns all of the outstanding Common shares of the Military Utility Privatization Subsidiaries. The consolidated financial statements of AWR include the accounts of AWR and its subsidiaries. These financial statements are prepared in conformity with accounting principles generally accepted in the United States of America. Intercompany transactions and balances have been eliminated in the AWR consolidated financial statements.

Related-Party Transactions: GSWC and ASUS provide and/or receive various support services to and from their parent, AWR, and among themselves. GSWC also allocates certain corporate office administrative and general costs to its affiliate, ASUS, using allocation factors approved by the CPUC. During the years ended December 31, 2019, 2018 and 2017, GSWC allocated to ASUS approximately $4.7 million, $4.2 million and $4.0 million, respectively, of corporate office administrative and general costs.

AWR borrows under a credit facility, which expires in May 2023, and provides funds to its subsidiaries, GSWC and ASUS, in support of their operations. The interest rate charged to GSWC and ASUS is sufficient to cover AWR's interest expense under the credit facility. In March 2019, AWR entered into an amendment to this credit facility to increase its borrowing capacity from $150.0 million to $200.0 million. In October 2019 AWR entered into another amendment to the credit facility to temporarily increase its borrowing capacity to $225.0 million, effective until June 30, 2020. In February 2020, AWR received a binding commitment from its lender for the option to revise the temporary increase of the credit facility to $260.0 million through the end of 2020. AWR will be able to exercise this commitment and have immediate access to the additional funds when needed. On December 31, 2020, the borrowing capacity will revert to $200.0 million. As of December 31, 2019, there was $205.0 million outstanding under this facility, of which $5.0 million has been reflected as a current liability on the consolidated balance sheet of AWR. Management intends to seek additional financing in 2020 through the issuance of long-term debt at GSWC.

The CPUC requires GSWC to completely pay down all intercompany borrowings from AWR within a 24-month period. The end of the next 24-month period in which GSWC is required to completely pay down its intercompany borrowings will be in November 2020. As a result, GSWC's intercompany borrowings of $158.8 million as of December 31, 2019 have been classified as a current liability on GSWC's balance sheet. GSWC intends to use the proceeds from any new long-term debt to reduce its intercompany borrowings and to partially fund capital expenditures. AWR parent intends to use any financing proceeds from GSWC to pay down the amounts outstanding under its credit facility.

Utility Accounting: Registrant's accounting policies conform to accounting principles generally accepted in the United States of America ("U.S. GAAP"), including the accounting principles for rate-regulated enterprises, which reflect the ratemaking policies of the CPUC and the FERC. GSWC has incurred various costs and received various credits reflected as regulatory assets and liabilities. Accounting for such costs and credits as regulatory assets and liabilities is in accordance with the guidance for accounting for the effects of certain types of regulation. This guidance sets forth the application of U.S. GAAP for those companies whose rates are established by or are subject to approval by an independent third-party regulator.

Under such accounting guidance, rate-regulated entities defer costs and credits on the balance sheet as regulatory assets and liabilities when it is probable that those costs and credits will be recognized in the ratemaking process in a period different from the period in which they would have been reflected in income by an unregulated company. These regulatory assets and liabilities are then recognized in the income statement in the period in which the same amounts are reflected in the rates charged for service. The amounts included as regulatory assets and liabilities that will be collected or refunded over a period exceeding one year are classified as long-term assets and liabilities as of December 31, 2019 and 2018.

Property and Depreciation: Registrant's property consists primarily of regulated utility plant at GSWC. GSWC capitalizes, as utility plant, the cost of construction and the cost of additions, betterments and replacements of retired units of property. Such cost includes labor, material and certain indirect charges. Water systems acquired are recorded at estimated original cost of utility plant when first devoted to utility service and the applicable depreciation is recorded to accumulated depreciation. The difference between the estimated original cost, less accumulated depreciation, and the purchase price, if recognized by the regulator, is recorded as an acquisition adjustment within utility plant.

Depreciation is computed on the straight-line, remaining-life basis, group method, in accordance with the applicable ratemaking process. GSWC's provision for depreciation expressed as a percentage of the aggregate depreciable asset balances was 2.2% for 2019, 2.7% for 2018, and 2.6% for 2017. Depreciation expense for GSWC, excluding amortization expense and depreciation on transportation equipment, totaled $31.7 million, $37.3 million and $36.5 million for the years ended December 31, 2019, 2018 and 2017. Depreciation computed on GSWC's transportation equipment is recorded in other operating expenses and totaled $316,000, $238,000 and $242,000 for the years ended December 31, 2019, 2018 and 2017, respectively. Expenditures for maintenance and repairs are expensed as incurred. Retired property costs, including costs of removal, are charged to the accumulated provision for depreciation.

Estimated useful lives of GSWC's utility plant, as authorized by the CPUC, are as follows:

Source of water supply	30 years to 50
Pumping	25 years to 40
Water treatment	20 years to 35
Transmission and distribution	25 years to 55
Generation	40 years
Other plant	7 years to 40

Non-regulated property consists primarily of equipment utilized by ASUS and its subsidiaries for its operations. This property is stated at cost, net of accumulated depreciation, which is calculated using the straight-line method over the useful lives of the assets.

Asset Retirement Obligations: GSWC has a legal obligation for the retirement of its wells, which by law need to be properly capped at the time of removal. As such, GSWC incurs asset retirement obligations. GSWC records the fair value of a liability for these asset retirement obligations in the period in which they are incurred. When the liability is initially recorded, GSWC capitalizes the cost by increasing the carrying amount of the related long-lived asset. Over time, the liability is accreted to its present value each period, and the capitalized cost is depreciated over the useful life of the related asset. Upon settlement of the liability, GSWC either settles the obligation for its recorded amount or incurs a gain or loss upon settlement. Retirement costs have historically been recovered through rates subsequent to the retirement costs being incurred. Accordingly, recoverability of GSWC's asset retirement obligations are reflected as a regulatory asset. GSWC also reflects the loss or gain at settlement as a regulatory asset or liability on the balance sheet.

With regards to removal costs associated with certain other long-lived assets, such as water mains, distribution and transmission assets, asset retirement obligations have not been recognized as GSWC believes there is no legal obligation to do so. There are no CPUC rules or regulations that require GSWC to remove any of its other long-lived assets. In addition, GSWC's water pipelines are not subject to regulation by any federal regulatory agency. GSWC has franchise agreements with various municipalities in order to use the public right of way for utility purposes (i.e., operate water distribution and transmission assets), and if certain events occur in the future, GSWC could be required to remove or relocate certain of its pipelines. However, it is not possible to estimate an asset retirement amount since the timing and the amount of assets that may be required to be removed, if any, is not known.

Amounts recorded for asset retirement obligations are subject to various assumptions and determinations, such as determining whether a legal obligation exists to remove assets, estimating the fair value of the costs of removal, when final removal will occur and the credit-adjusted risk-free interest rates to be utilized on discounting future liabilities. Changes that may arise over time with regard to these assumptions will change amounts recorded in the future. Revisions in estimates for timing or estimated cash flows are recognized as changes in the carrying amount of the liability and the related capitalized asset. The estimated fair value of the costs of removal was based on third-party costs.

Impairment of Long-Lived Assets: Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable in accordance with accounting guidance for impairment or disposal of long-lived assets. Registrant would recognize an impairment loss on its regulated assets only if the carrying value amount of a long-lived asset is not recoverable from customer rates authorized by the CPUC. Impairment loss is measured as the excess of the carrying value over the amounts recovered in customer rates. For the years ended December 31, 2019, 2018 and 2017, no impairment loss was incurred.

Goodwill: At December 31, 2019 and 2018, AWR had approximately $1.1 million of goodwill. The $1.1 million goodwill arose from ASUS's acquisition of a subcontractor's business at some of the Military Utility Privatization Subsidiaries. In accordance with the accounting guidance for testing goodwill, AWR annually assesses qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. For 2019, AWR's assessment of qualitative factors did not indicate that an impairment had occurred for goodwill at ASUS.

Cash and Cash Equivalents: Cash and cash equivalents include short-term cash investments with an original maturity of three months or less. At times, cash and cash equivalent balances may be in excess of federally insured limits. Cash and cash equivalents are held with financial institutions with high credit standings.

Accounts Receivable: Accounts receivable is reported on the balance sheet net of any allowance for doubtful accounts. The allowance for doubtful accounts is Registrant's best estimate of the amount of probable credit losses in Registrant's existing accounts receivable from its water and electric customers, and is determined based on historical write-off experience and the aging of account balances. Registrant reviews the allowance for doubtful accounts quarterly. Account balances are written off against the allowance when it is probable the receivable will not be recovered. When utility customers request extended payment terms, credit is extended based on regulatory guidelines, and collateral is not required.

Receivables from the U.S. government include amounts due under contracts with the U.S. government to operate and maintain, and/or provide construction services for the water and/or wastewater systems at military bases. Other accounts receivable consist primarily of amounts due from third parties (non-utility customers) for various reasons, including amounts due from contractors, amounts due under settlement agreements and amounts due from other third-party prime government contractors pursuant to agreements for construction of water and/or wastewater facilities for such third-party prime contractors. The allowance for these other accounts receivable is based on Registrant's evaluation of the receivable portfolio under current conditions and a review of specific problems and such other factors that, in Registrant's judgment, should be considered in estimating losses.

Allowances for doubtful accounts are disclosed in Note 18. Registrant adopted Accounting Standards Update 2016-13, *Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* effective January 1, 2020, which did not have an impact on Registrant's allowance for doubtful accounts.

Materials and Supplies: Materials and supplies are stated at the lower of cost or net realizable value. Cost is computed using average cost. Major classes of materials include pipe, hydrants and valves.

Interest: Interest incurred during the construction of capital assets has generally not been capitalized for financial reporting purposes as such policy is not followed in the ratemaking process. Interest expense is generally recovered through the regulatory process. However, the CPUC has authorized certain capital projects to be filed for revenue recovery with advice letters when those projects are completed. During the time that such projects are under development and construction, GSWC may accrue an allowance for funds used during construction ("AFUDC") on the incurred expenditures to offset the cost of financing project construction. For the years ended December 31, 2019, 2018 and 2017, the amount of AFUDC recorded has been immaterial.

Debt Issuance Costs and Redemption Premiums: Original debt issuance costs are deducted from the carrying value of the associated debt liability and amortized over the lives of the respective issues. Premiums paid on the early redemption of debt, which is reacquired through refunding, are deferred and amortized over the life of the debt issued to finance the refunding as GSWC normally receives recovery of these costs in rates.

Advances for Construction and Contributions in Aid of Construction: Advances for construction represent amounts advanced by developers for the cost to construct water system facilities in order to extend water service to their properties. Advances are refundable in equal annual installments, generally over 40 years. In certain instances, GSWC makes refunds on these advances over a specific period of time based on operating revenues related to the main or as new customers are connected to receive service from the main. Contributions in aid of construction are similar to advances but require no refunding. Generally, GSWC depreciates contributed property and amortizes contributions in aid of construction at the composite rate of the related property. Utility plant funded by advances and contributions is excluded from rate base.

Fair Value of Financial Instruments: For cash and cash equivalents, accounts receivable, accounts payable and short-term debt, the carrying amount is assumed to approximate fair value due to the short-term nature of the amounts. The table below estimates the fair value of long-term debt issued by GSWC. Rates available to GSWC at December 31, 2019 and 2018 for debt with similar terms and remaining maturities were used to estimate fair value for long-term debt. Changes in the assumptions will produce differing results.

	2019		2018	
(dollars in thousands)	**Carrying Amount**	**Fair Value**	**Carrying Amount**	**Fair Value**
Long-term debt—GSWC **(1)**	$ 284,699	$ 376,467	$ 324,978	$ 387,889

(1) Excludes debt issuance costs and redemption premiums.

The accounting guidance for fair value measurements applies to all financial assets and financial liabilities that are being measured and reported on a fair value basis. Under the accounting guidance, GSWC makes fair value measurements on its publicly issued notes, private placement notes and other long-term debt using current U.S. corporate bond yields for similar debt instruments. Under the fair value guidance, these are classified as Level 2, which consists of quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability.

The following table sets forth by level, within the fair value hierarchy, GSWC's long-term debt measured at fair value as of December 31, 2019:

(dollars in thousands)	**Level 1**	**Level 2**	**Level 3**	**Total**
Long-term debt—GSWC	—	$ 376,467	—	$ 376,467

Stock-Based Awards: AWR has issued stock-based awards to its employees under stock incentive plans. AWR has also issued stock-based awards to its Board of Directors under non-employee directors stock plans. Registrant applies the provisions in the accounting guidance for share-based payments in accounting for all of its stock-based awards. See Note 13 for further discussion.

Recently Issued Accounting Pronouncements:

Accounting Pronouncements Adopted in 2019

In February 2016, the Financial Accounting Standards Board ("FASB") issued a new lease accounting standard, *Leases* (Accounting Standards Codification ("ASC") 842), which replaces the prior lease guidance, (ASC 840). Under the new standard, lessees will recognize a right-of-use asset and a lease liability for virtually all leases (other than leases that meet the definition of a short-term lease). For income statement purposes, leases will be classified as either operating or finance. Operating leases will result in straight-line expense while finance leases will result in a front-loaded expense pattern. Registrant adopted the new lease accounting standard as of January 1, 2019 and did not adjust comparative periods for it. There was no cumulative-effect impact to the opening balance of retained earnings as a result of this adoption. Registrant elected the practical expedient under Accounting Standards Update ("ASU") 2018-01 *Land Easement Practical Expedient for Transition to Topic 842* and did not review existing easements entered into prior to January 1, 2019. Leases with terms of twelve months or less were not recorded on the balance sheet. The adoption of the new lease guidance did not have a material impact on Registrant's results of operations or liquidity but resulted in the recognition of operating lease liabilities and operating lease right-of-use assets on its balance sheets. The adoption of this guidance as of January 1, 2019 resulted in the recognition of $7.6 million in right-of-use assets and $8.0 million in operating lease liabilities (see Note 16).

In August 2018, the FASB issued ASU 2018-15-Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*. Under this ASU, entities that enter into cloud computing service arrangements are required to apply existing internal-use software guidance to determine which implementation costs are eligible for capitalization. Under that guidance, implementation costs are capitalized or expensed depending on the nature of the costs and the project stage during which they are incurred. Registrant adopted this guidance effective January 1, 2019. The adoption of this accounting standard did not have a significant impact on Registrant's financial statements.

Accounting Pronouncements to be Adopted in Future Periods

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* and issued further guidance in November 2018 and May 2019 related to the impairment of financial instruments effective January 1, 2020. The new guidance provides an impairment model, known as the current expected credit loss model, which is based on expected credit losses rather than incurred losses over the remaining life of most financial assets measured at amortized cost, including trade and other receivables. Registrant's adoption of the new guidance effective January 1, 2020 did not have an impact on its financial statements.

In August 2018, the FASB issued ASU 2018-14-*Compensation-Retirement Benefits-Defined Benefit Plans-General (Subtopic 715-20): Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans*. This ASU removes disclosures to pension plans and other post-retirement benefit plans that no longer are considered cost beneficial, clarifies the specific disclosure requirements and adds disclosure requirements deemed relevant. This ASU is effective for fiscal years ending after December 15, 2020 and will be applied by Registrant on a retrospective basis to all periods presented. Registrant is still evaluating the ASU and has not yet determined the effect on its financial statements and disclosures.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740) - Simplifying the Accounting for Income Taxes*. The amendments in this update simplify the accounting for income taxes by removing certain exceptions and clarifying certain requirements regarding franchise taxes, goodwill, consolidated tax expenses, and annual effective tax rate calculations. The ASU is effective for fiscal years beginning after December 15, 2020. Early adoption is permitted. Registrant is evaluating the impact of this ASU on its financial statements.

Note 2 — Revenues

Most of Registrant's revenues are accounted for under the revenue recognition accounting standard, *"Revenue from Contracts with Customers - (Topic 606)."* The adoption of this accounting standard effective January 1, 2018 did not have a material impact on Registrant's measurement or timing of revenue recognition.

GSWC provides water and electric utility services to customers as specified by the CPUC. The transaction prices for water and electric revenues are based on tariff rates authorized by the CPUC, which include both quantity-based and flat-rate charges. Tariff revenues represent the adopted revenue requirement authorized by the CPUC intended to provide GSWC with an opportunity to recover its costs and earn a reasonable return on its net capital investment. The annual revenue requirements are comprised of operation and maintenance costs, administrative and general costs, depreciation and taxes in amounts authorized by the CPUC and a return on rate base consistent with the capital structure authorized by the CPUC.

Water and electric revenues are recognized over time as customers simultaneously receive and use the utility services provided. Water and electric revenues include amounts billed to customers on a cyclical basis, nearly all of which are based on meter readings for services provided. Customer bills also include surcharges for cost-recovery activities, which represent CPUC-authorized balancing and memorandum accounts that allow for the recovery of previously incurred operating costs. Revenues from these surcharges do not impact earnings as they are offset by corresponding increases in operating expenses to reflect the recovery of the associated costs. Customer payment terms are approximately 20 business days from the billing date. Unbilled revenues are amounts estimated to be billed for usage since the last meter-reading date to the end of the accounting period. The most recent customer billed usage forms the basis for estimating unbilled revenue.

GSWC bills certain sales and use taxes levied by state or local governments to its customers. Included in these sales and use taxes are franchise fees, which GSWC pays to various municipalities and counties (based on their ordinances) in order to use public rights of way for utility purposes. GSWC bills these franchise fees to its customers based on a CPUC-authorized rate for each ratemaking area as applicable. These franchise fees, which are required to be paid regardless of GSWC's ability to collect them from its customers, are accounted for on a gross basis. GSWC's franchise fees billed to customers and recorded as operating revenue were approximately $4.0 million, $3.6 million and $3.6 million for the years ended December 31, 2019, 2018 and 2017, respectively. When GSWC acts as an agent, and a tax is not required to be remitted if it is not collected from customers, the tax is accounted for on a net basis.

As authorized by the CPUC, GSWC records in revenues the difference between the adopted level of volumetric revenues as authorized by the CPUC for metered accounts (volumetric revenues) and the actual volumetric revenues recovered in customer rates. The difference is tracked under the Water Revenue Adjustment Mechanism ("WRAM") regulatory accounts for its water segment, and the Base Revenue Requirement Adjustment Mechanism ("BRRAM") regulatory account for its electric segment. If this difference results in an under-collection of revenues, GSWC records the additional revenue only to the extent that they are expected to be collected within 24 months following the year in which they are recorded in accordance with Accounting Standards Codification ("ASC") Topic 980, *Regulated Operations*.

ASUS's 50-year firm fixed-price contracts with the U.S. government are considered service concession arrangements under ASC 853 *Service Concession Arrangements*. Accordingly, the services under these contracts are accounted for under Topic 606 *Revenue from Contracts with Customers* and the water and/or wastewater systems are not recorded as Property, Plant and Equipment on Registrant's balance sheet. For ASUS, performance obligations consist of (i) performing ongoing operation and maintenance of the water and/or wastewater systems and treatment plants for each military base served, and (ii) performing construction activities (including renewal and replacement capital work) on each military base served. The transaction price for each performance obligation is either delineated in, or initially derived from, the applicable 50-year contract and/or any subsequent contract modifications. Depending on the state in which operations are conducted, the Military Utility Privatization Subsidiaries are also subject to certain state non-income tax assessments which are accounted for on a gross basis and have been immaterial to date.

The ongoing performance of operation and maintenance of the water and/or wastewater systems and treatment plants is viewed as a single performance obligation for each 50-year contract with the U.S. government. Registrant recognizes revenue for operations and maintenance fees monthly using the "right to invoice" practical expedient under ASC Topic 606. ASUS has a right to consideration from the U.S. government in an amount that corresponds directly to the value to the U.S. government of ASUS's performance completed to-date. The contractual operations and maintenance fees are firm-fixed, and the level of effort or resources expended in the performance of the operations-and-maintenance-fees performance obligation is largely consistent over the 50-year term. Therefore, Registrant has determined that the monthly amounts invoiced for operations and maintenance performance are a fair reflection of the value transferred to the U.S. government. Invoices to the U.S. government for operations and maintenance service, as well as construction activities, are due upon receipt.

ASUS's construction activities consist of various projects to be performed. Each of these projects' transaction prices are delineated either in the 50-year contract or through a specific contract modification for each construction project, which includes the transaction price for that project. Each construction project is viewed as a separate, single performance obligation. Therefore, it is generally unnecessary to allocate a construction transaction price to more than one construction performance obligation. Revenues for construction activities are recognized over time, with progress toward completion measured based on the input method using costs incurred relative to the total estimated costs (cost-to-cost method). Due to the nature of these construction projects, Registrant has determined the cost-to-cost input measurement to be the best method to measure progress towards satisfying its construction contract performance obligations, as compared to using an output measurement such as units produced. Changes in job performance, job site conditions, change orders and/or estimated profitability may result in revisions to costs and income for ASUS, and are recognized in the period in which any such revisions are determined. Pre-contract costs for ASUS, which consist of design and engineering labor costs, are deferred if recovery is probable, and are expensed as incurred if recovery is not probable. Deferred pre-contract costs have been immaterial to date.

Contracted services revenues recognized during the years ended December 31, 2019 and 2018 from performance obligations satisfied in previous periods were not material.

Although GSWC has a diversified base of residential, commercial, industrial and other customers, revenues derived from residential and commercial customers account for nearly 90% of total water revenues, and 90% of total electric revenues. The vast majority of ASUS's revenues are from the U.S. government. For the years ended December 31, 2019 and 2018, disaggregated revenues from contracts with customers by segment are as follows:

(dollar in thousands)	For The Year Ended December 31, 2019	For The Year Ended December 31, 2018
Water:		
Tariff-based revenues	$ 305,244	$ 298,818
CPUC-approved surcharges (cost-recovery activities)	4,322	2,962
Other	2,006	1,813
Water revenues from contracts with customers	311,572	303,593
WRAM under/(over)-collection (alternative revenue program)	8,258	(8,335)
Total water revenues	319,830	295,258
Electric:		
Tariff-based revenues	36,628	34,501
CPUC-approved surcharges (cost-recovery activities)	410	214
Electric revenues from contracts with customers	37,038	34,715
BRRAM under/(over)-collection (alternative revenue program)	2,510	(365)
Total electric revenues	39,548	34,350
Contracted services:		
Water	59,868	62,273
Wastewater	54,623	44,935
Contracted services revenues from contracts with customers	114,491	107,208
Total revenues	$ 473,869	$ 436,816

The opening and closing balances of the receivable from the U.S. government, contract assets and contract liabilities from contracts with customers, which related entirely to ASUS, are as follows:

(dollar in thousands)	December 31, 2019		December 31, 2018	
Unbilled receivables	$	10,467	$	5,696
Receivable from the U.S. government	$	64,819	$	61,126
Contract assets	$	15,631	$	24,447
Contract liabilities	$	11,167	$	7,530

Unbilled receivables from the U.S. government represent receivables where the right to payment is conditional only by the passage of time. The increase in unbilled receivables as of December 31, 2019 as compared to December 31, 2018 was due to the completion in 2019 of construction projects at Fort Riley, which will be collected in installments from the U.S. government over a 5-year period.

Contract Assets - Contract assets are those of ASUS and consist of unbilled revenues recognized from work-in-progress construction projects where the right to payment is conditional on something other than the passage of time. The classification of this asset as current or noncurrent is based on the timing of when ASUS expects to bill these amounts.

Contract Liabilities - Contract liabilities are those of ASUS and consist of billings in excess of revenue recognized. The classification of this liability as current or noncurrent is based on the timing of when ASUS expects to recognize revenue. Revenues for the year ended December 31, 2019 that were included in contract liabilities at the beginning of the period were $7.3 million.

As of December 31, 2019, Registrant's aggregate remaining performance obligations, all of which are for the contracted services segment, was $3.2 billion. Registrant expects to recognize revenue on these remaining performance obligations over the remaining terms of each of the 50-year contracts, which range from 36 to 50 years. Each of the contracts with the U.S. government is subject to termination, in whole or in part, prior to the end of its 50-year term for the convenience of the U.S. government.

Note 3 — Regulatory Matters

In accordance with accounting principles for rate-regulated enterprises, Registrant records regulatory assets, which represent probable future recovery of costs from customers through the ratemaking process, and regulatory liabilities, which represent probable future refunds that are to be credited to customers through the ratemaking process. At December 31, 2019, Registrant had approximately $43.1 million of regulatory liabilities, net of regulatory assets, not accruing carrying costs. Of this amount, (i) $79.9 million of regulatory liabilities relates to the creation of an excess deferred income tax liability brought about by a lower federal income tax rate as a result of the Tax Cuts and Jobs Act (see Note 11) that is expected to be refunded to customers, (ii) $12.4 million relates to flow-through deferred income taxes including the gross-up portion on the deferred tax resulting from the excess deferred income tax regulatory liability (also see Note 11), and (iii) $43.4 million of regulatory assets relates to the underfunded position in Registrant's pension and other post-retirement obligations (not including the two-way pension balancing accounts). The remainder relates to other items that do not provide for or incur carrying costs.

Regulatory assets represent costs incurred by GSWC for which it has received or expects to receive rate recovery in the future. In determining the probability of costs being recognized in other periods, GSWC considers regulatory rules and decisions, past practices, and other facts or circumstances that would indicate if recovery is probable. If the CPUC determines that a portion of GSWC’s assets are not recoverable in customer rates, GSWC must determine if it has suffered an asset impairment that requires it to write down the asset's value. Regulatory assets are offset against regulatory liabilities within each rate-making area. Amounts expected to be collected or refunded in the next twelve months have been classified as current assets and current liabilities by rate-making area.

Regulatory assets, less regulatory liabilities, included in the consolidated balance sheets are as follows:

(dollars in thousands)	December 31, 2019	December 31, 2018
GSWC		
Water Revenue Adjustment Mechanism and Modified Cost Balancing Account	$ 22,535	$ 17,763
Costs deferred for future recovery on Aerojet case	8,292	9,516
Pensions and other post-retirement obligations (Note 12)	40,693	33,124
Derivative unrealized loss (Note 5)	3,171	311
General rate case memorandum accounts	4,820	5,054
Other regulatory assets	18,842	18,440
Excess deferred income taxes (Note 11)	(79,886)	(81,465)
Flow-through taxes, net (Note 11)	(12,439)	(15,273)
Tax Cuts and Jobs Act ("Tax Act") memorandum accounts	—	(8,293)
Various refunds to customers	(8,478)	(7,517)
Total	$ (2,450)	$ (28,340)

Alternative-Revenue Programs:

Under the WRAM, GSWC records the difference between the adopted level of volumetric revenues as authorized by the CPUC for metered accounts (adopted volumetric revenues) and the actual volumetric revenues recovered in customer rates. While the WRAM tracks volumetric-based revenues, the revenue requirements approved by the CPUC include service charges, flat rate charges, and other items that are not subject to the WRAM. The adopted volumetric revenues consider the seasonality of consumption of water based upon historical averages. The variance between adopted volumetric revenues and actual billed volumetric revenues for metered accounts is recorded as a component of revenue with an offsetting entry to an asset or liability balancing account (tracked individually for each rate making area). The variance amount may be positive or negative and represents amounts that will be billed or refunded to customers in the future. The WRAM only applies to customer classes with conservation rates in place. The majority of GSWC's water customers have conservation rate structures.

Under the Modified Cost Balancing Account ("MCBA"), GSWC tracks adopted expense levels for purchased water, purchased power and pump taxes, as established by the CPUC. Variances (which include the effects of changes in both rate and volume) between adopted and actual purchased water, purchased power, and pump tax expenses are recorded as a component of the MCBA to be recovered from or refunded to GSWC's customers at a later date. This is reflected with an offsetting entry to an asset or liability balancing account (tracked individually for each rate-making area). Unlike the WRAM, the MCBA applies to all customer classes.

The recovery or refund of the WRAM is netted against the MCBA over- or under-collection for the corresponding rate-making area and bears interest at the current 90-day commercial-paper rate. During the year ended December 31, 2019, $11.6 million of pre-2019 WRAM/MCBA balances were recovered. During 2019, GSWC recorded an additional $16.3 million net under-collection in the WRAM/MCBA. The majority of this balance represents an under-collection of supply costs incurred and recorded in the MCBA due to a higher volume of purchased water as compared to adopted. As of December 31, 2019, GSWC had an aggregated regulatory asset of $22.5 million, which is comprised of an $11.0 million under-collection in the WRAM accounts and an $11.5 million under-collection in the MCBA accounts. In February 2020, GSWC filed with the CPUC for recovery of the 2019 WRAM/MCBA balances.

As required by the accounting guidance for alternative revenue programs, GSWC is required to collect its WRAM balances within 24 months following the year in which an under-collection is recorded. As of December 31, 2019, there were no WRAM under-collections that were estimated to be collected over more than 24 months.

Costs Deferred for Future Recovery:

The CPUC authorized a memorandum account to allow for the recovery of costs incurred by GSWC related to contamination lawsuits brought against Aerojet-General Corporation ("Aerojet") and the state of California. In July 2005, the CPUC authorized GSWC to recover approximately $21.3 million of the Aerojet litigation memorandum account, through a rate surcharge, which will continue for no longer than 20 years. Beginning in October 2005, a surcharge went into effect to begin amortizing the memorandum account over a 20-year period.

Aerojet also agreed to reimburse GSWC $17.5 million, plus interest accruing from January 1, 2004, for GSWC’s past legal and expert costs, which is included in the Aerojet litigation memorandum account. The reimbursement of the $17.5 million is contingent upon the issuance of land use approvals for development in a defined area within Aerojet property in Eastern Sacramento County and the receipt of certain fees in connection with such development. It is management’s intention to offset any proceeds from the housing development by Aerojet in this area against the balance in this litigation memorandum account. At this time, management believes the full balance of the Aerojet litigation memorandum account will be collected either from customers or Aerojet.

Pensions and Other Post-retirement Obligations:

A regulatory asset has been recorded at December 31, 2019 and 2018 for the costs that would otherwise be charged to “other comprehensive income” within shareholders’ equity for the underfunded status of Registrant’s pension and other post-retirement benefit plans because the cost of these plans has historically been recovered through rates. As discussed in Note 12, as of December 31, 2019, Registrant’s underfunded position for these plans that have been recorded as a regulatory asset totaled $43.4 million. Registrant expects this regulatory asset to be recovered through rates in future periods.

The CPUC has authorized GSWC to use two-way balancing accounts to track differences between the forecasted annual pension expenses adopted in both water and electric rates and the actual annual expense to be recorded by GSWC in accordance with the accounting guidance for pension costs. The two-way balancing accounts bear interest at the current 90-day commercial paper rate. As of December 31, 2019, GSWC has a net $2.7 million over-collection in the two-way pension balancing accounts, consisting of a $1.5 million over-collection related to the general office and water regions, and a $1.2 million over-collection related to BVES.

General Rate Case Memorandum Accounts:

The balance in the general rate case memorandum accounts represents the revenue differences between interim rates and final rates authorized by the CPUC due to delays in receiving decisions on various general rate case applications. As of December 31, 2019, there is a net aggregate $4.8 million under-collection in these accounts, primarily related to the revenue difference between interim rates and final rates authorized by the CPUC in the May 2019 decision, as further discussed below. GSWC has implemented surcharges ranging from 12-36 months to collect the $4.8 million balance.

Tax Cuts and Jobs Act ("Tax Act") Memorandum Accounts:

On December 22, 2017, the Tax Act was signed into federal law. The provisions of this major tax reform were generally effective January 1, 2018. The most significant provisions of the Tax Act impacting GSWC are the reduction of the federal corporate income tax rate from 35% to 21% and the elimination of bonus depreciation for regulated utilities. Pursuant to a CPUC directive, the 2018 impact of the Tax Act on the water segment’s adopted revenue requirement was tracked in a memorandum account effective January 1, 2018. For 2018, over-collections of approximately $7.1 million related to the water segment were tracked and recorded as a regulatory liability. On July 1, 2018, new lower water rates, which incorporate the new federal income tax rate, were implemented for all water ratemaking areas. GSWC refunded the $7.1 million to water customers in 2019.

The electric general rate case approved by the CPUC in August 2019 was retroactive to January 1, 2018. The new rates approved in this general rate case incorporate the effects of the Tax Act.

Reductions in the water and electric revenue requirements resulting from the impacts of the Tax Act are largely offset by decreases in GSWC's income tax expense, resulting in minimal impact to net earnings (see Note 11).

Other Regulatory Assets:

Other regulatory assets represent costs incurred by GSWC for which it has received or expects to receive rate recovery in the future. These regulatory assets are supported by regulatory rules and decisions, past practices, and other facts or circumstances that indicate recovery is probable.

Other Regulatory Matters:

Renewables Portfolio Standard:

BVES is subject to the renewables portfolio standard ("RPS") law, which requires BVES to meet certain targets for purchases of energy from qualified renewable energy resources. In December 2012, GSWC entered into a ten-year agreement with a third party to purchase renewable energy credits ("RECs") whereby GSWC agreed to purchase approximately 578,000 RECs over a ten-year period, which would be used towards meeting California's RPS requirements. As of December 31, 2019, GSWC believes it has purchased sufficient RECs to be in compliance for all periods through 2019. Accordingly, no provision for loss or potential penalties has been recorded in the financial statements as of December 31, 2019. The cost of these RECs has been included as part of the electric supply cost balancing account as of December 31, 2019.

Cost of Capital Proceeding:

In March 2018, the CPUC issued a final decision in the cost of capital proceeding for GSWC and three other water utilities for the years 2018 - 2020. Among other things, the final decision adopted for GSWC's water segment a return on equity of 8.90%, with a return on rate base of 7.91%. The previously authorized return on equity for GSWC's water segment was 9.43%, with a return on rate base of 8.34%. In April 2018, GSWC implemented new water rates to incorporate the cost of capital decision. For the year ended December 31, 2019, GSWC recorded a regulatory liability with a corresponding decrease in water revenues of approximately $982,000 representing the revenue difference between the old and new cost of capital rates through April 2018.

General Rate Case Filings:

Water Segment:

In July 2017, GSWC filed a general rate case application for all of its water regions and the general office to determine new rates for the years 2019 - 2021. On May 30, 2019, the CPUC issued a final decision on GSWC's water general rate case with rates retroactive to January 1, 2019. As a result of the May 2019 CPUC final decision, GSWC implemented new water rates on June 8, 2019. The CPUC in the final decision also approved the recovery of previously incurred costs that were being tracked in CPUC-authorized memorandum accounts. This resulted in a reduction to administrative and general expense of approximately $1.1 million, which was recorded during the second quarter of 2019.

Electric Segment:

In May 2017, GSWC filed its electric general rate case application with the CPUC to determine new electric rates for the years 2018 through 2021. In November 2018, GSWC and the Public Advocates Office filed a joint motion to adopt a settlement agreement between the two parties resolving all issues in connection with the general rate case.

On August 15, 2019, the CPUC issued a final decision on this general rate case, adopting the settlement agreement in its entirety. As a result of the decision, which was retroactive to January 1, 2018, Registrant recorded approximately $2.3 million of pretax income in 2019 which related to 2018. Among other things, the decision (i) authorizes a new return on equity for GSWC's electric segment of 9.60%, as compared to its previously authorized return of 9.95%; (ii) includes a capital structure and debt cost similar to those approved by the CPUC in March 2018 in connection with GSWC's water segment cost of capital proceeding; and (iii) extends the rate cycle by an additional year (new rates will be effective for 2018 - 2022).

Note 4 — Utility Plant and Intangible Assets

The following table shows Registrant's utility plant (regulated utility plant and non-regulated utility property) by major asset class:

	AWR December 31,		GSWC December 31,	
(dollars in thousands)	**2019**	**2018**	**2019**	**2018**
Water				
Land	$ 18,066	$ 14,890	$ 18,066	$ 14,890
Intangible assets	28,578	29,412	28,578	29,413
Source of water supply	91,685	91,349	91,685	91,349
Pumping	178,058	182,673	178,058	182,673
Water treatment	78,048	82,198	78,048	82,198
Transmission and distribution	1,219,285	1,142,105	1,219,285	1,142,105
Other	117,276	131,419	86,722	106,907
	1,730,996	1,674,046	1,700,442	1,649,535
Electric				
Transmission and distribution	84,018	82,257	84,018	82,257
Generation	12,583	12,583	12,583	12,583
Other **(1)**	11,824	11,224	11,824	11,224
	108,425	106,064	108,425	106,064
Less — accumulated depreciation	(543,263)	(561,855)	(531,801)	(551,244)
Construction work in progress	119,547	78,055	117,676	76,737
Net utility plant	$ 1,415,705	$ 1,296,310	$ 1,394,742	$ 1,281,092

(1) Includes intangible assets of $1.2 million for the years ended December 31, 2019 and 2018 for studies performed in association with the electricity segment of the Registrant's operations.

As of December 31, 2019 and 2018, intangible assets consist of the following:

	Weighted Average Amortization	AWR December 31,		GSWC December 31,	
(dollars in thousands)	**Period**	**2019**	**2018**	**2019**	**2018**
Intangible assets:					
Conservation programs	3 years	$ 9,486	$ 9,486	$ 9,486	$ 9,486
Water and service rights **(2)**	30 years	8,695	8,695	8,124	8,124
Water planning studies	14 years	11,808	12,641	11,808	12,641
Total intangible assets		29,989	30,822	29,418	30,251
Less — accumulated amortization		(24,309)	(24,399)	(24,166)	(24,268)
Intangible assets, net of amortization		$ 5,680	$ 6,423	$ 5,252	$ 5,983
Intangible assets not subject to amortization **(3)**		$ 402	$ 422	$ 402	$ 404

(2) Includes intangible assets of $571,000 for contracted services included in "Other Property and Investments" on the consolidated balance sheets as of December 31, 2019 and 2018.

(3) The intangible assets not subject to amortization primarily consist of organization and consent fees.

For the years ended December 31, 2019, 2018 and 2017, amortization of intangible assets was $1.3 million, $1.1 million and $1.5 million, respectively, for both AWR and GSWC. Estimated future consolidated amortization expenses related to intangible assets for the succeeding five years are (in thousands):

	Amortization Expense
2020	$ 90
2021	12
2022	12
2023	12
2024	12
Total	$ 138

Asset Retirement Obligations:

The following is a reconciliation of the beginning and ending aggregate carrying amount of asset retirement obligations, which are included in “Other Credits” on the balance sheets as of December 31, 2019 and 2018:

(dollars in thousands)	GSWC
Obligation at December 31, 2017	$ 4,963
Additional liabilities incurred	256
Liabilities settled	(46)
Accretion	55
Obligation at December 31, 2018	$ 5,228
Additional liabilities incurred	271
Liabilities settled	(173)
Accretion	86
Revision of previous estimates	3,451
Obligation at December 31, 2019	$ 8,863

Revision of previous estimates reflect updated estimated costs for the retirement of wells, which GSWC is legally required to cap at the time of removal. Wells have an estimated useful life of 50 years.

Note 5 — Derivative Instruments

GSWC's electric division, BVES, purchases power under long-term contracts at a fixed cost depending on the amount of power and the period during which the power is purchased under such contracts. In August 2019, the CPUC approved an application that allowed BVES to enter into new long-term purchased power contracts with energy providers, which BVES executed in September 2019. BVES began taking power under these long-term contracts during the fourth quarter of 2019 at a fixed cost over three and five-year terms depending on the amount of power and period during which the power is purchased under the contracts.

These long-term contracts are subject to the accounting guidance for derivatives and require mark-to-market derivative accounting. Among other things, the CPUC also authorized BVES to establish a regulatory asset and liability memorandum account to offset the mark-to-market entries required by the accounting guidance. Accordingly, all unrealized gains and losses generated from these purchased power contracts are deferred on a monthly basis into a non-interest bearing regulatory memorandum account that tracks the changes in fair value of the derivative throughout the term of the contract. As a result, these unrealized gains and losses do not impact GSWC’s earnings. As of December 31, 2019, there was a $3.2 million unrealized loss in the memorandum account, with a corresponding unrealized loss liability for the three and five-year purchased power contract as a result of the fixed prices being greater than the futures energy prices. The notional volume of derivatives remaining under these long-term contracts as of December 31, 2019 was approximately 638,000 megawatt hours.

As previously discussed in Note 1, the accounting guidance for fair value measurements establishes a framework for measuring fair value and requires fair value measurements to be classified and disclosed in one of three levels. Registrant’s valuation model utilizes various inputs that include quoted market prices for energy over the duration of the contracts. The market prices used to determine the fair value for these derivative instruments were estimated based on independent sources such as broker quotes and publications that are not observable in or corroborated by the market. When such inputs have a significant impact on the measurement of fair value, the instrument is categorized as Level 3. Accordingly, the valuation of the derivatives on Registrant's purchased power contracts have been classified as Level 3 for all periods presented. The following table presents changes in the fair value of GSWC's derivatives for the years ended December 31, 2019 and 2018:

(dollars in thousands)	2019	2018
Balance, at beginning of the period	$ (311)	$ (2,941)
Unrealized (loss) gain on purchased power contracts	(2,860)	2,630
Balance, at end of the period	$ (3,171)	$ (311)

Note 6 — Military Privatization

Each of the Military Utility Privatization Subsidiaries have entered into a service contract(s) with the U.S. government to operate and maintain, as well as perform construction activities to renew and replace, the water and/or wastewater systems at a military base or bases. The amounts charged for these services are based upon the terms of the 50-year contract between ASUS or the Military Utility Privatization Subsidiaries and the U.S. government. Under the terms of each of these agreements, the Military Utility Privatization Subsidiaries agree to operate and maintain the water and/or wastewater systems for: (i) a monthly net fixed-price for operation and maintenance, and (ii) an amount to cover renewal and replacement capital work. In addition, these contracts may also include firm, fixed-priced initial capital upgrade projects to upgrade the existing infrastructure. Contract modifications are also issued for other necessary capital upgrades to the existing infrastructure approved by the U.S. government.

Under the terms of each of these contracts, prices are subject to an economic price adjustment ("EPA") provision, on an annual basis. Prices may also be equitably adjusted for changes in law and other circumstances. During 2018, the U.S. government issued contract modifications for the majority of ASUS's 50-year contracts addressing the impacts of the Tax Act. The modifications did not result in a material impact to ASUS's results for the year ended December 31, 2018. ASUS is permitted to file, and has filed, requests for equitable adjustment.

Each of the contracts may be subject to termination, in whole or in part, prior to the end of the 50-year term for convenience of the U.S. government or as a result of default or nonperformance by the Military Utility Privatization Subsidiaries.

On July 1, 2018, ASUS assumed the operation, maintenance and construction management of the water distribution and wastewater collection and treatment facilities at Fort Riley, a United States Army installation located in Kansas. The 50-year contract is subject to annual economic price adjustments.

ASUS has experienced delays in receiving EPAs as provided for under its 50-year contracts. Because of the delays, EPAs, when finally approved, are retroactive. During 2019, the U.S. government approved EPAs at eight of the bases served. In some cases, these EPAs included retroactive operation and maintenance management fees for prior periods. For the years ended December 31, 2019 and 2018, retroactive operation and maintenance management fees related to prior periods were immaterial. For the year ended December 31, 2017, ASUS recorded approximately $1.0 million in retroactive operation and maintenance management fees and pretax operating income related to periods prior to 2017.

Note 7 — Earnings Per Share and Capital Stock

In accordance with the accounting guidance for participating securities and earnings per share ("EPS"), Registrant uses the "two-class" method of computing EPS. The "two-class" method is an earnings allocation formula that determines EPS for each class of common stock and participating security. AWR has participating securities related to restricted stock units that earn dividend equivalents on an equal basis with AWR's Common Shares that have been issued under AWR's 2016 employee plans and the 2003 and 2013 directors' plans. In applying the "two-class" method, undistributed earnings are allocated to both common shares and participating securities.

The following is a reconciliation of Registrant’s net income and weighted average Common Shares outstanding for calculating basic net income per share:

Basic: (in thousands, except per share amounts)	**For The Years Ended December 31, 2019**	**2018**	**2017**
Net income	$ 84,342	$ 63,871	$ 69,367
Less: (a) Distributed earnings to common shareholders	42,702	38,937	36,417
Distributed earnings to participating securities	180	204	197
Undistributed earnings	41,460	24,730	32,753
(b) Undistributed earnings allocated to common shareholders	41,285	24,601	32,577
Undistributed earnings allocated to participating securities	175	129	176
Total income available to common shareholders, basic (a)+(b)	$ 83,987	$ 63,538	$ 68,994
Weighted average Common Shares outstanding, basic	36,814	36,733	36,638
Basic earnings per Common Share	$ 2.28	$ 1.73	$ 1.88

Diluted EPS is based upon the weighted average number of Common Shares, including both outstanding shares and shares potentially issuable in connection with restricted stock units granted under AWR’s 2016 employee plans, and the 2003 and 2013 directors' plans, and net income. At December 31, 2019, there were also 159,720 restricted stock units outstanding including performance shares awarded to officers of the Registrant.

The following is a reconciliation of Registrant’s net income and weighted average Common Shares outstanding for calculating diluted net income per share:

Diluted: (in thousands, except per share amounts)	**For The Years Ended December 31, 2019**	**2018**	**2017**
Common shareholders earnings, basic	$ 83,987	$ 63,538	$ 68,994
Undistributed earnings for dilutive stock options and restricted stock units	175	129	176
Total common shareholders earnings, diluted	$ 84,162	$ 63,667	$ 69,170
Weighted average Common Shares outstanding, basic	36,814	36,733	36,638
Stock-based compensation **(1)**	150	203	206
Weighted average Common Shares outstanding, diluted	36,964	36,936	36,844
Diluted earnings per Common Share	$ 2.28	$ 1.72	$ 1.88

(1) In applying the treasury stock method of reflecting the dilutive effect of outstanding stock-based compensation in the calculation of diluted EPS, 159,720 restricted stock units, including performance awards, at December 31, 2019 were deemed to be outstanding in accordance with accounting guidance on earnings per share.

During the years ended December 31, 2019, 2018 and 2017, AWR issued Common Shares totaling 88,772, 44,906 and 56,498, respectively, under AWR's employee stock incentive plans and the non-employee directors' plans. In addition, during the years ended December 31, 2019, 2018 and 2017, AWR issued 30,998, 32,142 and 52,936 Common Shares for approximately $519,000, $546,000 and $909,000, respectively, as a result of the exercise of stock options. During 2019, 2018 and 2017, no cash proceeds received by AWR as a result of the exercise of stock options were distributed to any of AWR's subsidiaries. AWR has not issued any Common Shares during 2019, 2018 and 2017 under AWR's Common Share Purchase and Dividend Reinvestment Plan ("DRP") and the 401(k) Plan. Shares reserved for the 401(k) Plan are in relation to AWR’s matching contributions and investment by participants. As of December 31, 2019, there were 1,055,948 and 387,300 Common Shares authorized for issuance directly by AWR but unissued under the DRP and the 401(k) Plan, respectively.

During the years ended December 31, 2019, 2018 and 2017, AWR and GSWC made payments to taxing authorities on employees' behalf for shares withheld related to net share settlements. These payments are included in the stock-based compensation caption of the statements of equity. GSWC’s outstanding Common Shares are owned entirely by its parent, AWR. To the extent GSWC does not reimburse AWR for stock-based compensation awarded under various stock compensation plans, such amounts increase the value of GSWC’s common shareholder’s equity.

Note 8 — Dividend Limitations

GSWC is subject to contractual restrictions on its ability to pay dividends. GSWC's maximum ability to pay dividends is restricted by certain Note Agreements to the sum of $21.0 million plus 100% of consolidated net income from various dates plus the aggregate net cash proceeds received from capital stock offerings or other instruments convertible into capital stock from various dates. Under the most restrictive of the Note Agreements, $473.9 million was available to pay dividends to AWR as of December 31, 2019. GSWC is also prohibited from paying dividends if, after giving effect to the dividend, its total indebtedness to capitalization ratio (as defined) would be more than 0.6667-to-1. Dividends in the amount of $20.2 million, $68.9 million and $27.7 million were paid to AWR by GSWC during the years ended December 31, 2019, 2018 and 2017, respectively.

The ability of AWR, ASUS and GSWC to pay dividends is also restricted by California law. Under California law, AWR, GSWC and ASUS are each permitted to distribute dividends to its shareholders so long as the Board of Directors determines, in good faith, that either: (i) the value of the corporation's assets equals or exceeds the sum of its total liabilities immediately after the dividend, or (ii) its retained earnings equals or exceeds the amount of the distribution. Under the least restrictive of the California tests, approximately $346.0 million was available to pay dividends to AWR's shareholders at December 31, 2019. Approximately $257.4 million was available for GSWC to pay dividends to AWR at December 31, 2019. Approximately $62.1 million was available for ASUS to pay dividends to AWR as of December 31, 2019 to the extent that the subsidiaries of ASUS are able to pay dividends in that amount to ASUS under applicable state laws.

Note 9 — Bank Debt

AWR has access to a credit facility in order to provide funds to its subsidiaries, GSWC and ASUS, in support of their operations. In March 2019, AWR amended this credit facility to increase its borrowing capacity from $150.0 million to $200.0 million. In October 2019, AWR further amended the credit facility to temporarily increase its borrowing capacity to $225.0 million, effective until June 30, 2020, upon which the borrowing capacity reverts to $200.0 million. In February 2020, AWR received a binding commitment from its lender for the option to revise the temporary increase of the credit facility to $260.0 million through the end of 2020. AWR will be able to exercise this commitment and have immediate access to the additional funds when needed. On December 31, 2020, the borrowing capacity will revert to $200.0 million. At December 31, 2019, there was $205.0 million outstanding under the credit facility. Amounts due are generally priced off a spread to LIBOR. The aggregate effective amount that may be outstanding under letters of credit is $25.0 million. AWR has obtained letters of credit, primarily for GSWC, in the aggregate amount of $940,000, with fees of 0.65% including: (i) letters of credit in an aggregate amount of $340,000 as security for GSWC's business automobile insurance policy; (ii) a letter of credit, in an amount of $585,000 as security for the purchase of power; and (iii) a $15,000 irrevocable letter of credit pursuant to a franchise agreement with the City of Rancho Cordova. Letters of credit outstanding reduce the amount that may be borrowed under the revolving credit facility. AWR is not required to maintain any compensating balances.

Loans may be obtained under this credit facility at the option of AWR and bear interest at rates based on credit ratings and Euro rate margins. In December 2019, Standard and Poor's Global Ratings ("S&P") affirmed an A+ credit rating with a stable outlook on both AWR and GSWC. S&P's debt ratings range from AAA (highest possible) to D (obligation is in default). In May 2019, Moody's Investors Service ("Moody's") affirmed its A2 rating with a revised outlook from positive to stable for GSWC.

At times, AWR borrows under this facility and provides loans to its subsidiaries in support of their operations, on terms that are similar to that of the credit facility. AWR's borrowing activities (excluding letters of credit) for the years ended December 31, 2019 and 2018 were as follows:

	December 31,	
(in thousands, except percent)	**2019**	**2018**
Balance Outstanding at December 31,	$ 205,000	$ 95,500
Interest Rate at December 31,	2.44%	3.19%
Average Amount Outstanding	$ 167,392	$ 69,559
Weighted Average Annual Interest Rate	2.88%	2.66%
Maximum Amount Outstanding	$ 205,500	$ 95,500

All of the letters of credit are issued pursuant to the revolving credit facility. The revolving credit facility contains restrictions on prepayments, disposition of property, mergers, liens and negative pledges, indebtedness and guaranty obligations, transactions with affiliates, minimum interest coverage requirements, a maximum debt to capitalization ratio and a minimum debt rating. Pursuant to the credit agreement, AWR must maintain a minimum interest coverage ratio of 3.25 times interest expense, a maximum total funded debt ratio of 0.65 to 1.00 and a minimum Moody's Investor Service or S&P debt rating of Baa3 or BBB-, respectively. As of December 31, 2019, 2018 and 2017, AWR was in compliance with these requirements. As of December 31, 2019, AWR had an interest coverage ratio of 6.89 times interest expense, a debt ratio of 0.45 to 1.00 and a debt rating of A+ by S&P.

Note 10 — Long-Term Debt

Registrant's long-term debt consists primarily of notes and debentures of GSWC. Registrant summarizes its long-term debt in the Statements of Capitalization. GSWC does not currently have any outstanding mortgages or other encumbrances on its properties.

In March of 2019, GSWC repaid $40 million of its 6.7% senior note, which matured in that month. GSWC increased its intercompany borrowings from AWR to fund the repayment of this note.

Each of the private placement notes issued by GSWC contain various restrictions. Private placement notes issued in the amount of $28 million due in 2031 contain restrictions on the payment of dividends, minimum interest coverage requirements, a maximum total indebtedness to capitalization ratio and a negative pledge. Pursuant to the terms of these notes, GSWC must maintain a minimum interest coverage ratio of two times interest expense. As of December 31, 2019, GSWC had an interest coverage ratio of over four times interest expense.

In December 2014, GSWC issued $15.0 million in 3.45% private placement senior notes due in 2029. In 2005, GSWC issued senior private placement notes due in 2028. Pursuant to the terms of these notes, GSWC must maintain a total indebtedness to capitalization ratio (as defined) of less than 0.6667-to-1 and a total indebtedness to earnings before income taxes, depreciation and amortization ("EBITDA") of less than 8-to-1. As of December 31, 2019, GSWC had a total indebtedness to capitalization ratio of 0.4445-to-1 and a total indebtedness to EBITDA of 3.1-to-1.

Certain long-term debt issues outstanding as of December 31, 2019 can be redeemed, in whole or in part, at the option of GSWC subject to redemption schedules embedded in the agreements particular to each redeemable issue. The 9.56% notes are subject to a make-whole premium based on 55 basis points above the applicable Treasury Yield if redeemed prior to 2021. After 2021, the maximum redemption premium is 3% of par value. The 5.87% senior note is subject to a make-whole premium based on the difference between the bank's cost of funds on the date of purchase and the bank's cost of funds on the date of redemption plus 0.5%. The $15.0 million, 3.45% senior notes due in 2029 have similar redemption premiums.

In October 2009, GSWC entered into an agreement with the California Department of Public Health ("CDPH") whereby CDPH agreed to provide funds to GSWC of up to $9.0 million under the American Recovery and Reinvestment Act. Proceeds from the funds received were used to reimburse GSWC for capital costs incurred to install water meters to convert customers in GSWC's Arden-Cordova district from non-metered service to metered service. GSWC received a total of $8.6 million in reimbursements from the CDPH, half of which was recorded as a contribution in aid of construction and the other half as long-term debt in accordance with the terms of the agreement. The loan portion bears interest at a rate of 2.5% and is payable over 20 years beginning in 2013. A surcharge to recover from customers the debt service cost on this loan was approved by the CPUC and implemented in 2013.

Annual maturities of all long-term debt at December 31, 2019 are as follows (in thousands):

2020	$	344
2021		365
2022		392
2023		406
2024		425
Thereafter		282,767
Total	$	284,699

Note 11 — Taxes on Income

Registrant records deferred income taxes for temporary differences pursuant to the accounting guidance that addresses items recognized for income tax purposes in a different period from when these items are reported in the financial statements. These items include differences in net asset basis (primarily related to differences in depreciation lives and methods, and differences in capitalization methods) and the treatment of certain regulatory balancing accounts and construction contributions and advances. The accounting guidance for income taxes requires that rate-regulated enterprises record deferred income taxes and offsetting regulatory liabilities and assets for temporary differences where the rate regulator has prescribed flow-through treatment for ratemaking purposes (Note 3). Deferred investment tax credits ("ITC") are amortized ratably to deferred tax expense over the remaining lives of the property that gave rise to these credits.

GSWC is included in both AWR's consolidated federal income tax and its combined California state franchise tax returns. The impact of California's unitary apportionment on the amount of AWR's California income tax liability is a function of both the profitability of AWR's non-California activities and the proportion of AWR's California sales to its total sales. GSWC's income tax expense is computed as if GSWC were autonomous and separately files its income tax returns, which is consistent with the method adopted by the CPUC in setting GSWC's customer rates.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was signed into federal law. The provisions of this major tax reform were generally effective on January 1, 2018. Among its significant provisions, the Tax Act (i) reduced the federal corporate income tax rate from 35% to 21%; (ii) eliminated bonus depreciation for regulated utilities, while allowing 100% expensing for the cost of qualified property for non-regulated businesses; (iii) eliminated the provision that treated contributions in aid of construction provided to regulated water utilities as non-taxable; (iv) eliminated the domestic production activities deduction, and (v) limits the amount of net interest that can be deducted; however, this limitation is not applicable to regulated utilities and, therefore has not had, nor is it anticipated to have, a material impact to Registrant's ability to deduct net interest.

Pursuant to ASC Topic 740, *"Income Taxes"*, the effects of changes in tax laws must be recognized within the period in which the tax law is enacted. This required AWR and GSWC to record an adjustment in its 2017 financial statements to reflect the impact of the reduction in the corporate income tax rate from 35% to 21% on its cumulative deferred income-tax balances and its tax-related regulatory assets/liabilities. The remeasurement of Registrant's deferred income-tax balances and its tax-related regulatory assets/liabilities did not have a significant impact to Registrant's consolidated results of operations in 2017 since the majority of the remeasurement was related to GSWC's rate-regulated activities and was offset by a corresponding increase to a regulatory liability (Note 3). There were no material updates during the year ended December 31, 2018 to the remeasurement of Registrant's deferred income-tax balances and its tax-related regulatory assets/liabilities in accordance with Staff Accounting Bulletin 118.

The significant components of the deferred tax assets and liabilities as reflected in the balance sheets at December 31, 2019 and 2018 are:

	AWR		GSWC	
	December 31,		December 31,	
(dollars in thousands)	**2019**	**2018**	**2019**	**2018**
Deferred tax assets:				
Regulatory-liability-related **(1)**	$ 33,080	$ 33,419	$ 33,080	$ 33,419
Contributions and advances	5,777	5,281	6,158	5,666
Other	5,792	2,988	6,618	3,310
Total deferred tax assets	$ 44,649	$ 41,688	$ 45,856	$ 42,395
Deferred tax liabilities:				
Fixed assets	$ (144,444)	$ (131,413)	$ (147,759)	$ (135,617)
Regulatory-asset-related: depreciation and other	(20,641)	(18,146)	(20,641)	(18,146)
Balancing and memorandum accounts (non-flow-through)	(4,868)	(6,325)	(5,262)	(6,873)
Total deferred tax liabilities	(169,953)	(155,884)	(173,662)	(160,636)
Accumulated deferred income taxes - net	$ (125,304)	$ (114,196)	$ (127,806)	$ (118,241)

(1) Primarily represents the gross-up portion of the deferred income tax (on the excess-deferred-tax regulatory liability) brought about by the Tax Act's reduction in the federal income tax rate.

The current and deferred components of income tax expense are as follows:

	AWR		
	Year Ended December 31,		
(dollars in thousands)	2019	2018	2017
Current			
Federal	$ 12,507	$ 17,252	$ 20,978
State	5,540	6,538	5,844
Total current tax expense	$ 18,047	$ 23,790	$ 26,822
Deferred			
Federal	$ 6,407	$ (4,334)	$ 11,543
State	216	(1,439)	609
Total deferred tax (benefit) expense	6,623	(5,773)	12,152
Total income tax expense	$ 24,670	$ 18,017	$ 38,974

	GSWC		
	Year Ended December 31,		
(dollars in thousands)	2019	2018	2017
Current			
Federal	$ 9,616	$ 14,488	$ 15,044
State	5,480	5,932	5,045
Total current tax expense	$ 15,096	$ 20,420	$ 20,089
Deferred			
Federal	$ 4,924	$ (5,531)	$ 11,770
State	157	(1,286)	2,200
Total deferred tax (benefit) expense	5,081	(6,817)	13,970
Total income tax expense	$ 20,177	$ 13,603	$ 34,059

The AWR and GSWC effective tax rates differ from the federal statutory tax rate primarily due to (i) state taxes; (ii) permanent differences including the excess tax benefits from share-based payments, which were reflected in the income statements and resulted in a reduction to income tax expense; (iii) amortization, commencing in 2018, of the excess deferred income tax liability brought about by the lower federal corporate income tax rate, and (iv) differences between book and taxable income that are treated as flow-through adjustments in accordance with regulatory requirements (principally from plant, rate-case, and compensation expenses). As a regulated utility, GSWC treats certain temporary differences as flow-through in computing its income tax expense consistent with the income tax method used in its CPUC-jurisdiction ratemaking. Flow-through items either increase or decrease tax expense and thus impact the ETR.

The reconciliations of the effective tax rates to the federal statutory rate are as follows:

	AWR		
	Year Ended December 31,		
(dollars in thousands)	**2019**	**2018**	**2017**
Federal taxes on pretax income at statutory rate (21% in 2019 and 2018; 35% in 2017)	$ 22,872	$ 17,196	$ 37,919
Increase (decrease) in taxes resulting from:			
State income tax, net of federal benefit	4,758	3,693	4,382
Change in tax rate	—	(14)	(82)
Excess deferred tax amortization	(1,579)	(2,101)	—
Flow-through on fixed assets	1,244	429	845
Flow-through on removal costs	(1,582)	(1,445)	(1,980)
Domestic production activities deduction	—	(26)	(1,421)
Investment tax credit	(71)	(69)	(93)
Other – net	(972)	354	(596)
Total income tax expense from operations	$ 24,670	$ 18,017	$ 38,974
Pretax income from operations	$ 109,012	$ 81,888	$ 108,341
Effective income tax rate	22.6%	22.0%	36.0%

	GSWC		
	Year Ended December 31,		
(dollars in thousands)	**2019**	**2018**	**2017**
Federal taxes on pretax income at statutory rate (21% in 2019 and 2018; 35% in 2017)	$ 18,236	$ 12,939	$ 30,736
Increase (decrease) in taxes resulting from:			
State income tax, net of federal benefit	4,656	3,335	4,924
Change in tax rate	—	—	1,063
Excess deferred tax amortization	(1,579)	(2,101)	—
Flow-through on fixed assets	1,244	429	845
Flow-through on removal costs	(1,582)	(1,445)	(1,980)
Domestic production activities deduction	—	(25)	(1,148)
Investment tax credit	(71)	(69)	(93)
Other – net	(727)	540	(288)
Total income tax expense from operations	$ 20,177	$ 13,603	$ 34,059
Pretax income from operations	$ 86,840	$ 61,615	$ 87,816
Effective income tax rate	23.2%	22.1%	38.8%

AWR and GSWC had no unrecognized tax benefits at December 31, 2019, 2018 and 2017.

Registrant's policy is to classify interest on income tax over/underpayments in interest income/expense and penalties in "other operating expenses." Registrant did not have any material interest receivables/payables from/to taxing authorities as of December 31, 2019 and 2018, nor did it recognize any material interest income/expense or accrue any material tax-related penalties during the years ended December 31, 2019, 2018 and 2017.

Registrant files federal, California and various other state income tax returns. AWR's 2016 - 2018 tax years remain subject to examination by the Internal Revenue Service. AWR filed refund claims with the California Franchise Tax Board ("FTB") for the 2002 through 2008 tax years in connection with the matters reflected on the federal refund claims along with other state tax items. In the first quarter of 2017, the FTB issued a refund to AWR for the 2002 - 2004 claims of approximately $2.2 million. The FTB continues to review the 2005 - 2008 refund claims. The 2009 - 2018 tax years remain subject to examination by the FTB.

Note 12 — Employee Benefit Plans

Pension and Post-Retirement Medical Plans:

Registrant maintains a defined benefit pension plan (the "Pension Plan") that provides eligible employees (those aged 21 and older, hired before January 1, 2011) monthly benefits upon retirement based on average salaries and length of service. The eligibility requirement to begin receiving these benefits is 5 years of vested service. The normal retirement benefit is equal to 2% of the 5 highest consecutive years' average earnings multiplied by the number of years of credited service, up to a maximum of 40, reduced by a percentage of primary Social Security benefits. There is also an early retirement option. Annual contributions are made to the Pension Plan, which comply with the funding requirements of the Employee Retirement Income Security Act ("ERISA"). At December 31, 2019, Registrant had 939 participants in the Pension Plan.

Employees hired or rehired after December 31, 2010 are eligible to participate in a defined contribution plan. Registrant's existing 401(k) Investment Incentive Program was amended to include this defined contribution plan. Under this plan, Registrant provides a contribution ranging from 3% to 5.25% of eligible pay each pay period into investment vehicles offered by the plan's trustee. Full vesting under this plan occurs upon 3 years of service. Employees hired before January 1, 2011 continue to participate in and accrue benefits under the terms of the Pension Plan.

Registrant also provides post-retirement medical benefits for all active employees hired before February of 1995 through a medical insurance plan. Eligible employees, who retire prior to age 65, and/or their spouses, are able to retain the benefits under the plan for active employees until reaching age 65. Eligible employees upon reaching age 65, and those eligible employees retiring at or after age 65, and/or their spouses, receive coverage through a Medicare supplement insurance policy paid for by Registrant subject to an annual cap limit. Registrant's post-retirement medical plan does not provide prescription drug benefits to Medicare-eligible employees and is not affected by the Medicare Prescription Drug Improvement and Modernization Act of 2003.

In accordance with the accounting guidance for the effects of certain types of regulation, Registrant has established a regulatory asset for its underfunded position in its pension and post-retirement medical plans that is expected to be recovered through rates in future periods. The changes in actuarial gains and losses, prior service costs and transition assets or obligations pertaining to the regulatory asset are recognized as an adjustment to the regulatory asset account as these amounts are recognized as components of net periodic pension costs each year and in the rate-making process.

The following table sets forth the Pension Plan's and post-retirement medical plan's funded status and amounts recognized in Registrant's balance sheets and the components of net pension cost and accrued liability at December 31, 2019 and 2018:

	Pension Benefits		Post-Retirement Medical Benefits	
(dollars in thousands)	**2019**	**2018**	**2019**	**2018**
Change in Projected Benefit Obligation:				
Projected benefit obligation at beginning of year	$ 196,082	$ 207,690	$ 7,886	$ 8,491
Service cost	4,441	5,342	186	218
Interest cost	8,527	7,646	285	292
Plan amendment	—	3,626	—	—
Actuarial (gain) loss	29,784	(21,717)	(538)	(701)
Benefits/expenses paid	(6,982)	(6,505)	(424)	(414)
Projected benefit obligation at end of year	$ 231,852	$ 196,082	$ 7,395	$ 7,886
Changes in Plan Assets:				
Fair value of plan assets at beginning of year	$ 162,529	$ 173,648	$ 10,010	$ 11,053
Actual return on plan assets	33,018	(10,626)	1,685	(629)
Employer contributions	3,913	6,012	170	—
Benefits/expenses paid	(6,983)	(6,505)	(594)	(414)
Fair value of plan assets at end of year	$ 192,477	$ 162,529	$ 11,271	$ 10,010
Funded Status:				
Net amount recognized as accrued pension cost	$ (39,375)	$ (33,553)	$ 3,876	$ 2,124

(dollars in thousands)	Pension Benefits 2019	Pension Benefits 2018	Post-Retirement Medical Benefits 2019	Post-Retirement Medical Benefits 2018
Amounts recognized on the balance sheets:				
Non-current assets	$ —	$ —	$ 3,876	$ 2,124
Current liabilities	—	—	—	—
Non-current liabilities	(39,375)	(33,553)	—	—
Net amount recognized	$ (39,375)	$ (33,553)	$ 3,876	$ 2,124
Amounts recognized in regulatory assets consist of:				
Prior service cost (credit)	$ 3,191	$ 3,626	$ —	$ —
Net (gain) loss	37,309	31,587	(5,432)	(4,459)
Regulatory assets (liabilities)	40,500	35,213	(5,432)	(4,459)
Unfunded accrued pension cost	(1,125)	(1,660)	1,556	2,335
Net liability (asset) recognized	$ 39,375	$ 33,553	$ (3,876)	$ (2,124)
Changes in plan assets and benefit obligations recognized in regulatory assets:				
Regulatory asset at beginning of year	$ 35,213	$ 32,761	$ (4,459)	$ (5,650)
Net loss (gain)	7,140	81	(1,775)	421
New prior service cost	—	3,626	—	—
Amortization of prior service (cost) credit	(434)	—	—	—
Amortization of net gain (loss)	(1,419)	(1,255)	802	770
Total change in regulatory asset	5,287	2,452	(973)	1,191
Regulatory asset (liability) at end of year	$ 40,500	$ 35,213	$ (5,432)	$ (4,459)
Net periodic pension costs	$ 4,447	$ 3,070	$ (779)	$ (752)
Change in regulatory asset	5,287	2,452	(973)	1,191
Total recognized in net periodic pension cost and regulatory asset (liability)	$ 9,734	$ 5,522	$ (1,752)	$ 439
Estimated amounts that will be amortized from regulatory asset over the next fiscal year:				
Prior service (cost) credit	$ (434)	$ (434)	$ —	$ —
Net gain (loss)	$ (1,768)	$ (1,435)	$ 796	$ 598
Additional year-end information for plans with an accumulated benefit obligation in excess of plan assets:				
Projected benefit obligation	$ 231,852	$ 196,082	$ 7,395	$ 7,886
Accumulated benefit obligation	$ 215,996	$ 183,036	N/A	N/A
Fair value of plan assets	$ 192,477	$ 162,529	$ 11,271	$ 10,010
Weighted-average assumptions used to determine benefit obligations at December 31:				
Discount rate	3.43%	4.43%	3.12%	4.20%
Rate of compensation increase	*	*	N/A	N/A

* Age-graded ranging from 3.0% to 8.0%.

The components of net periodic pension and post-retirement benefits cost, before allocation to the overhead pool, for 2019, 2018 and 2017 are as follows:

	Pension Benefits			Post-Retirement Medical Benefits		
(dollars in thousands, except percent)	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**
Components of Net Periodic Benefits Cost:						
Service cost	$ 4,441	$ 5,342	$ 4,999	$ 186	$ 218	$ 227
Interest cost	8,527	7,646	7,904	285	292	324
Expected return on plan assets	(10,374)	(11,172)	(9,705)	(449)	(493)	(466)
Amortization of prior service cost (credit)	434	—	—	—	—	—
Amortization of actuarial (gain) loss	1,419	1,254	923	(801)	(769)	(775)
Net periodic pension cost under accounting standards	$ 4,447	$ 3,070	$ 4,121	$ (779)	$ (752)	$ (690)
Regulatory adjustment	(593)	—	465	—	—	—
Total expense recognized, before surcharges and allocation to overhead pool	$ 3,854	$ 3,070	$ 4,586	$ (779)	$ (752)	$ (690)
Weighted-average assumptions used to determine net periodic cost:						
Discount rate	4.43%	3.76%	4.44%	4.20%	3.52%	3.97%
Expected long-term return on plan assets	6.50%	6.50%	6.50%	*	*	*
Rate of compensation increase	**	**	**	N/A	N/A	N/A

*6.0% for union plan and 4.2% for non-union (net of income taxes) in 2019, 2018 and 2017.

** Age-graded ranging from 3.0% to 8.0%.

Regulatory Adjustment:

The CPUC authorized GSWC to track differences between the forecasted annual pension expenses adopted in rates for its water and electric regions and the general office and the actual annual expense to be recorded by GSWC in accordance with the accounting guidance for pension costs. During the year ended December 31, 2019, GSWC's actual expense was higher than the amounts included in customer rates by $593,000. In 2018 and 2017, GSWC's actual expense was lower than the amounts included in water and electric customer rates (including surcharges) by $1.7 million and $583,000, respectively. In 2017 the annual over-collections were used to recover previously incurred under-collections. The cumulative amounts recorded in the two-way pension balancing accounts are included within the pensions and other post-retirement obligations regulatory assets discussed in Note 3. As of December 31, 2019, the two-way pension balancing accounts had a $2.7 million cumulative net over-collection included within regulatory assets.

Plan Funded Status:

The Pension Plan was underfunded at December 31, 2019 and 2018. Registrant's market related value of plan assets is equal to the fair value of plan assets. Past volatile market conditions have affected the value of GSWC's trust established to fund its future long-term pension benefits. These benefit plan assets and related obligations are measured annually using a December 31 measurement date. Changes in the Pension Plan's funded status will affect the assets and liabilities recorded on the balance sheet in accordance with accounting guidance on employers' accounting for defined benefit pension and other post-retirement plans. Due to Registrant's regulatory recovery treatment, the recognition of the underfunded status for the Pension Plan has been offset by a regulatory asset pursuant to guidance on the accounting for the effects of certain types of regulation.

Plan Assets:

The assets of the pension and post-retirement medical plans are managed by a third party trustee. The investment policy allocation of the assets in the trust was approved by Registrant's Administrative Committee (the "Committee") for the pension and post-retirement medical funds, which has oversight responsibility for all retirement plans. The primary objectives underlying the investment of the pension and post-retirement plan assets are: (i) attempt to maintain a fully funded status with a cushion for unexpected developments, possible future increases in expense levels and/or a reduction in the expected return on investments; (ii) seek to earn long-term returns that compare favorably to appropriate market indexes, peer group universes and the policy asset allocation index; (iii) seek to provide sufficient liquidity to pay current benefits and expenses; (iv) attempt to limit risk exposure through prudent diversification; and (v) seek to limit costs of administering and managing the plans.

The Committee recognizes that risk and volatility are present to some degree with all types of investments. High levels of risk may be avoided through diversification by asset class, style of each investment manager and sector and industry limits. Investment managers are retained to manage a pool of assets and allocate funds in order to achieve an appropriate, diversified and balanced asset mix. The Committee's strategy balances the requirement to maximize returns using potentially higher-return generating assets, such as equity securities, with the need to control the risk of its benefit obligations with less volatile assets, such as fixed-income securities.

The Committee approves the target asset allocations. Registrant's pension and post-retirement plan weighted-average asset allocations at December 31, 2019 and 2018, by asset category are as follows:

	Pension Benefits		Post-Retirement Medical Benefits	
Asset Category	**2019**	**2018**	**2019**	**2018**
Actual Asset Allocations:				
Equity securities	56%	53%	61%	59%
Debt securities	39%	43%	38%	39%
Real Estate Funds	5%	4%	—%	—%
Cash equivalents	—%	—%	1%	2%
Total	100%	100%	100%	100%

Equity securities did not include AWR's Common Shares as of December 31, 2019 and 2018.

Target Asset Allocations for 2019:	**Pension Benefits**	**Post-retirement Medical Benefits**
Equity securities	60%	60%
Debt securities	40%	40%
Total	100%	100%

The Pension Plan assets are in collective trust funds managed by a management firm appointed by the Committee. The fair value of these collective trust funds is measured using net asset value per share. In accordance with ASU 2015-07 *Disclosures for Investments in Certain Entities that Calculate Net Asset Value per Share (or Its Equivalents)*, the fair value of the collective trust funds is not categorized in the fair value hierarchy as of December 31, 2019 and 2018.

The following tables set forth the fair value, measured by net asset value, of the pension investment assets as of December 31, 2019 and 2018:

	Net Asset Value as of December 31, 2019			
(dollars in thousands)	**Fair Value**	**Unfunded Commitments**	**Redemption Frequency**	**Redemption Notice Period**
Cash equivalents	$ 600	—	N/A	N/A
Fixed income fund	74,123	—	Daily	Daily
Equity securities:				
U.S. small/mid cap funds	17,865	—	Daily	Daily
U.S. large cap funds	47,132	—	Daily	Daily
International funds	43,778	—	Daily	Daily
Total equity funds	108,775	—		
Real estate funds	8,979	—	Daily	Daily
Total	$ 192,477	—		

	Net Asset Value as of December 31, 2018			
(dollars in thousands)	**Fair Value**	**Unfunded Commitments**	**Redemption Frequency**	**Redemption Notice Period**
Cash equivalents	$ 590	—	N/A	N/A
Fixed income fund	70,642	—	Daily	Daily
Equity securities:				
U.S. small/mid cap funds	22,313	—	Daily	Daily
U.S. large cap funds	46,133	—	Daily	Daily
International funds	15,548	—	Daily	Daily
Total equity funds	83,994			
Real estate funds	7,303	—	Daily	Daily
Total	$ 162,529	—		

The collective trust funds may be invested or redeemed daily, and generally do not have any significant restrictions to redeem the investments.

As previously discussed in Note 1, the accounting guidance for fair value measurements establishes a framework for measuring fair value and requires fair value measurements to be classified and disclosed in one of three levels. As required by the accounting guidance, assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. All equity investments in the post-retirement medical plan are Level 1 investments in mutual funds. The fixed income category includes corporate bonds and notes. The majority of fixed income investments range in maturities from less than 1 to 20 years. The fair values of these investments are based on quoted market prices in active markets.

The following tables set forth by level, within the fair value hierarchy, the post-retirement plan's investment assets measured at fair value as of December 31, 2019 and 2018:

	Fair Value as of December 31, 2019			
(dollars in thousands)	**Level 1**	**Level 2**	**Level 3**	**Total**
Fair Value of Post-Retirement Plan Assets:				
Cash equivalents	$ 69	—	—	$ 69
Fixed income	4,279	—	—	4,279
U.S. equity securities	6,923	—	—	6,923
Total investments measured at fair value	$ 11,271	—	—	$ 11,271

	Fair Value as of December 31, 2018			
(dollars in thousands)	**Level 1**	**Level 2**	**Level 3**	**Total**
Fair Value of Post-Retirement Plan Assets:				
Cash equivalents	$ 263	—	—	$ 263
Fixed income	3,871	—	—	3,871
U.S. equity securities	5,876	—	—	5,876
Total investments measured at fair value	$ 10,010	—	—	$ 10,010

Plan Contributions:

During 2019, Registrant contributed $3.9 million to its pension plan and did not make a contribution to the post-retirement medical plan. Registrant expects to contribute approximately $3.3 million to its pension plan in 2020. Registrant's policy is to fund the plans annually at a level which is deductible for income tax purposes and is consistent with amounts recovered in customer rates.

Benefit Payments:

Estimated future benefit payments at December 31, 2019 for the next five years and thereafter are as follows (in thousands):

	Pension Benefits	Post-Retirement Medical Benefits
2020	$ 7,910	$ 526
2021	8,574	599
2022	9,263	642
2023	9,839	677
2024	10,441	652
Thereafter	60,621	2,607
Total	$ 106,648	$ 5,703

Assumptions:

Certain actuarial assumptions, such as the discount rate, long-term rate of return on plan assets, mortality, and the healthcare cost trend rate have a significant effect on the amounts reported for net periodic benefit cost as well as the related benefit obligation amounts.

Discount Rate — The assumed discount rate for pension and post-retirement medical plans reflects the market rates for high-quality corporate bonds currently available. Registrant's discount rates were determined by considering the average of pension yield curves constructed of a large population of high quality corporate bonds. The resulting discount rate reflects the matching of plan liability cash flows to the yield curves.

Expected Long-Term Rate of Return on Assets — The long-term rate of return on plan assets represents an estimate of long-term returns on an investment portfolio consisting of a mixture of equities, fixed income and other investments. To develop the expected long-term rate of return on assets assumption for the pension plan, Registrant considered the historical returns and the future expectations for returns for each asset class, as well as the target asset allocation of the pension portfolio. Registrant's policy is to fund the medical benefit trusts based on actuarially determined amounts as allowed in rates approved by the CPUC. Registrant has invested the funds in the post-retirement trusts that will achieve a desired return and minimize amounts necessary to recover through rates. The mix is expected to provide for a return on assets similar to the Pension Plan and to achieve Registrant's targeted allocation. This resulted in the selection of the 6.0% long-term rate of return on assets assumption for the union plan and 4.2% (net of income taxes) for the non-union plan portion of the post-retirement plan.

Mortality — Mortality assumptions are a critical component of benefit obligation amounts and a key factor in determining the expected length of time for annuity payments. Registrant uses the latest mortality tables published by the Society of Actuaries. Accordingly, the benefit obligation amounts as of December 31, 2019 and 2018 have incorporated recent updates to the mortality tables.

Healthcare Cost Trend Rate **—** The assumed health care cost trend rate for 2020 starts at 5.9% grading down to 4.4% in 2035 for those under age 65, and at 5.0% grading down to 4.2% in 2025 for those 65 and over. Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects on the post-retirement medical plan:

(dollars in thousands)	1-Percentage-Point Increase	1-Percentage-Point Decrease
Effect on total of service and interest cost components	$ 34	$ (29)
Effect on post-retirement benefit obligation	$ 749	$ (645)

Supplemental Executive Retirement Plan:

Registrant has a supplemental executive retirement plan ("SERP") that is intended to restore retirement benefits to certain key employees and officers of Registrant that are limited by Sections 415 and 401(a)(17) of the Internal Revenue Code of 1986, as amended. The Board of Directors approved the establishment of a Rabbi Trust created for the SERP. Assets in a Rabbi Trust can be subject to the claims of creditors; therefore, they are not considered as an asset for purposes of computing the SERP's funded status. As of December 31, 2019, the balance in the Rabbi Trust totaled $21.6 million and is included in Registrant's other property and investments.

All equity investments in the Rabbi Trust are Level 1 investments in mutual funds. The fixed income category includes corporate bonds and notes. The fair values of these investments are based on quoted market prices in active markets. The following tables set forth by level, within the fair value hierarchy, the Rabbi Trust investment assets measured at fair value as of December 31, 2019 and 2018:

	Fair Value as of December 31, 2019			
(dollars in thousands)	Level 1	Level 2	Level 3	Total
Fair Value of Assets held in Rabbi Trust:				
Cash equivalents	$ 72	—	—	$ 72
Fixed income securities	8,427	—	—	8,427
Equity securities	13,054	—	—	13,054
Total investments measured at fair value	$ 21,553	—	—	$ 21,553

	Fair Value as of December 31, 2018			
(dollars in thousands)	Level 1	Level 2	Level 3	Total
Fair Value of Assets held in Rabbi Trust:				
Cash equivalents	$ 166	—	—	$ 166
Fixed income securities	6,251	—	—	6,251
Equity securities	9,995	—	—	9,995
Total investments measured at fair value	$ 16,412	—	—	$ 16,412

The following provides a reconciliation of benefit obligations, funded status of the SERP, as well as a summary of significant estimates at December 31, 2019 and 2018:

(dollars in thousands)	2019	2018
Change in Benefit Obligation:		
Benefit obligation at beginning of year	$ 24,517	$ 24,062
Service cost	1,193	1,096
Interest cost	1,069	888
Actuarial (gain) loss	3,419	(1,104)
Benefits paid	(495)	(425)
Benefit obligation at end of year	$ 29,703	$ 24,517
Changes in Plan Assets:		
Fair value of plan assets at beginning and end of year	—	—
Funded Status:		
Net amount recognized as accrued cost	$ (29,703)	$ (24,517)
Amounts recognized on the balance sheets:		
Current liabilities	$ (609)	$ (433)
Non-current liabilities	(29,094)	(24,084)
Net amount recognized	$ (29,703)	$ (24,517)
Amounts recognized in regulatory assets consist of:		
Prior service cost	$ —	$ —
Net loss	8,352	5,403
Regulatory assets	8,352	5,403
Unfunded accrued cost	21,351	19,114
Net liability recognized	$ 29,703	$ 24,517
Changes in plan assets and benefit obligations recognized in regulatory assets consist of:		
Regulatory asset at beginning of year	$ 5,403	$ 7,556
Net (gain) loss	3,419	(1,104)
Amortization of prior service credit	—	—
Amortization of net loss	(470)	(1,049)
Total change in regulatory asset	2,949	(2,153)
Regulatory asset at end of year	$ 8,352	$ 5,403
Net periodic pension cost	$ 2,733	$ 3,033
Change in regulatory asset	2,949	(2,153)
Total recognized in net periodic pension and regulatory asset	$ 5,682	$ 880
Estimated amounts that will be amortized from regulatory asset over the next fiscal year:		
Initial net asset (obligation)	$ —	$ —
Prior service cost	—	—
Net loss	(844)	(471)
Additional year-end information for plans with an accumulated benefit obligation in excess of plan assets:		
Projected benefit obligation	$ 29,703	$ 24,517
Accumulated benefit obligation	26,251	21,229
Fair value of plan assets	—	—
Weighted-average assumptions used to determine benefit obligations:		
Discount rate	3.36%	4.40%
Rate of compensation increase	4.00%	4.00%

The components of SERP expense, before allocation to the overhead pool, for 2019, 2018 and 2017 are as follows:

(dollars in thousands, except percent)	2019	2018	2017
Components of Net Periodic Benefits Cost:			
Service cost	$ 1,193	$ 1,096	$ 930
Interest cost	1,069	888	893
Amortization of prior service cost	—	—	12
Amortization of net loss	471	1,049	777
Net periodic pension cost	$ 2,733	$ 3,033	$ 2,612
Weighted-average assumptions used to determine net periodic cost:			
Discount rate	4.40%	3.72%	4.34%
Rate of compensation increase	4.00%	4.00%	4.00%

Benefit Payments: Estimated future benefit payments for the SERP at December 31, 2019 for the next five years and thereafter are as follows (in thousands):

2020	$ 609
2021	830
2022	932
2023	1,624
2024	1,704
Thereafter	10,117
Total	$ 15,816

401(k) Investment Incentive Program:

Registrant has a 401(k) Investment Incentive Program under which employees may invest a percentage of their pay, up to a maximum investment prescribed by law, in an investment program managed by an outside investment manager. Registrant's cash contributions to the 401(k) are based upon a percentage of individual employee contributions and for the years ended December 31, 2019, 2018 and 2017 were $2.5 million, $2.4 million and $2.3 million, respectively. The Investment Incentive Program also incorporates the defined contribution plan for employees hired on or after January 1, 2011. The cash contributions to the defined contribution plan for the years ended December 31, 2019, 2018 and 2017 were $1.6 million, $1.3 million and $1.1 million, respectively.

Note 13 — Stock-Based Compensation Plans

Summary Description of Stock Incentive Plans

As of December 31, 2019, AWR has three active stock incentive plans: the 2016 stock incentive plan for its employees, and the 2003 and 2013 non-employee directors plans for its Board of Directors, each more fully described below.

2016 Employee Plans — AWR adopted this employee plan, following shareholder approval, to provide stock-based incentive awards in the form of restricted stock units, stock options and restricted stock to employees as a means of promoting the success of Registrant by attracting, retaining and more fully aligning the interests of employees with those of customers and shareholders. The 2016 employee plan also provides for the grant of performance awards. There are no stock options or restricted stock grants currently outstanding. For restricted stock unit awards, the Compensation Committee determines the specific terms, conditions and provisions relating to each restricted stock unit. Each employee who has been granted a time-vested restricted stock unit is entitled to dividend equivalent rights in the form of additional restricted stock units until vesting of the time-vested restricted stock units. In general, time-vested restricted stock units vest over a period of 3 years. Restricted stock units may also vest upon retirement if the grantee is at least 55 and the sum of the grantee's age and years of service are equal to or greater than 75, or upon death or total disability. In addition, restricted stock units may vest following a change in control if the Company terminates the grantee other than for cause or the employee terminates employment for good reason. Each restricted stock unit is non-voting and entitles the holder of the restricted stock unit to receive one Common Share.

The Compensation Committee also has the authority to determine the number, amount or value of performance awards, the duration of the performance period or performance periods applicable to the award and the performance criteria applicable to each performance award for each performance period. Each outstanding performance award granted by the Compensation Committee has been in the form of restricted stock units that generally vest over a period of three years as provided in the performance award agreement. The amount of the performance award paid to an employee depends upon satisfaction of performance criteria following the end of a three-year performance period. Performance awards may also vest and be payable upon retirement if the grantee is at least 55 and the sum of the grantee's age and years of service are equal to or greater than 75, or upon death or total disability. In addition, performance awards may vest following a change in control if the Company terminates the grantee other than for cause or the employee terminates employment for good reason. The amount of the payment for performance awards granted will be at target in the event of death or a termination of employment (other than for cause) by the Company or termination by the employee for good reason within 24 months after a change in control. In all other circumstances, adjustments will be made to the amount of the payment to take into account the shortened performance period

2003 and 2013 Directors Plans — The Board of Directors and shareholders of AWR have approved the 2003 and 2013 directors plans in order to provide the non-employee directors with supplemental stock-based compensation to encourage them to increase their stock ownership in AWR. Grants may not be made under the 2003 directors plan. Non-employee directors are entitled to receive restricted stock units in an amount determined by the Board of Directors. This amount may not exceed two times the annual retainer paid to directors. Effective for grants of restricted stock units to non-employee directors after 2012, such units are convertible to AWR's Common Shares 90 days after the grant date.

All non-employee directors of AWR who were directors of AWR at the 2003 annual meeting have also received restricted stock units, which will be distributed upon termination of the director's service as a director.

All restricted stock units and performance awards have been granted with dividend equivalent rights payable in the form of additional restricted stock units.

Recognition of Compensation Expense

Registrant recognizes compensation expense related to the fair value of stock-based compensation awards. Share-based compensation cost is measured at the grant date, based on the calculated fair value of the award, and is recognized as an expense over the employee's requisite service period (generally the vesting period of the equity grant). Immediate vesting occurs if the employee is at least 55 years old and the sum of the employee's age and years of employment is equal to or greater than 75. Registrant assumes that pre-vesting forfeitures will be minimal, and recognizes pre-vesting forfeitures as they occur, which results in a reduction in compensation expense.

The following table presents share-based compensation expenses for the years ended December 31, 2019, 2018 and 2017. These expenses resulting from restricted stock units, including performance awards, are included in administrative and general expenses in AWR's and GSWC's statements of income:

	AWR			GSWC		
	For The Years Ended December 31,			For The Years Ended December 31,		
(in thousands)	2019	2018	2017	2019	2018	2017
Stock-based compensation related to:						
Restricted stock units	$ 2,517	$ 3,851	$ 2,885	$ 2,253	$ 3,397	$ 2,420
Total stock-based compensation expense	$ 2,517	$ 3,851	$ 2,885	$ 2,253	$ 3,397	$ 2,420

Equity-based compensation cost capitalized as part of GSWC's utility plant for the years ended December 31, 2019, 2018 and 2017 was $265,000, $199,000 and $195,000, respectively, for both AWR and GSWC. For the years ended December 31, 2019, 2018 and 2017, AWR recorded approximately $1.8 million, $1.6 million and $1.0 million, respectively, of tax benefits from stock-based awards. For the years ended December 31, 2019, 2018 and 2017, GSWC recorded approximately $1.8 million, $1.6 million and $1.0 million, respectively, of tax benefits from stock-based awards.

Registrant amortizes stock-based compensation over the requisite (vesting) period for the entire award. Time-vesting restricted stock units vest and become nonforfeitable in installments of 33% the first two years and 34% in the third year, starting one year from the date of the grant. Outstanding performance awards vest and become nonforfeitable in installments of 33% the first two years and 34% in the third year and are distributed at the end of the performance period if the performance criteria set forth in the award agreement are satisfied.

Restricted Stock Units (Time-Vested) — A restricted stock unit ("RSU") represents the right to receive a share of AWR's Common Shares and are valued based on the fair market value of AWR's Common Shares on the date of grant. The fair value of RSUs were determined based on the closing trading price of Common Shares on the grant date. A summary of the status of Registrant's outstanding RSUs, excluding performance awards, to employees and directors as of December 31, 2019, and changes during the year ended December 31, 2019, is presented below:

	Number of Restricted Share Units	Weighted Average Grant-Date Value
Restricted share units at January 1, 2019	102,235	$ 34.73
Granted	23,550	67.57
Vested	(48,017)	30.99
Forfeited	(2,697)	48.64
Restricted share units at December 31, 2019	75,071	$ 46.92

As of December 31, 2019, there was approximately $390,000 of total unrecognized compensation cost related to time-vested restricted stock units granted under AWR's employee stock plans. That cost is expected to be recognized over a weighted average period of 1.55 years.

Restricted Stock Units (Performance Awards) – During the years ended December 31, 2019, 2018 and 2017, the Compensation Committee granted performance awards in the form of restricted stock units to officers of the Registrant. A performance award represents the right to receive a share of AWR's Common Shares if specified performance goals are met over the performance period specified in the grant (generally three years). Each grantee of any outstanding performance award may earn between 0% and 200% of the target amount depending on Registrant's performance against performance goals, which are determined by the Compensation Committee on the date of grant. As determined by the Compensation Committee, the performance awards granted during the years ended December 31, 2019, 2018 and 2017 included various performance-based conditions and one market-based condition related to total shareholder return ("TSR") that will be earned based on Registrant's TSR compared to the TSR for a specific peer group of investor-owned water companies.

A summary of the status of Registrant's outstanding performance awards to officers as of December 31, 2019, and changes during the year ended December 31, 2019, is presented below:

	Number of Performance awards	Weighted Average Grant-Date Value
Performance awards at January 1, 2019	95,661	$ 45.36
Granted	22,035	65.86
Performance criteria adjustment	1,772	38.14
Vested	(33,080)	41.15
Forfeited	(1,739)	61.74
Performance awards at December 31, 2019	84,649	$ 51.85

A portion of the fair value of performance awards was estimated at the grant date based on the probability of satisfying the market-based condition using a Monte-Carlo simulation model, which assesses the probabilities of various outcomes of the market condition. The portion of the fair value of the performance awards associated with performance-based conditions was based on the fair market value of AWR's Common Shares at the grant date. The fair value of each outstanding performance award grant is amortized into compensation expense in installments of 33% the first two years and 34% in the third year of their respective vesting periods, which is generally over 3 years unless earlier vested pursuant to the terms of the agreement. The accrual of compensation costs is based on the estimate of the final expected value of the award and is adjusted as required for the portion based on the performance-based condition. Unlike the awards with performance-based conditions, for the portion based on the market-based condition, compensation cost is recognized, and not reversed, even if the market condition is not achieved, as required by the accounting guidance for share-based awards. As of December 31, 2019, $245,000 of unrecognized compensation costs related to performance awards is expected to be recognized over a weighted average period of 1.07 years.

Note 14 - Commitments

GSWC's Water Supply:

GSWC has contracts to purchase water or water rights for an aggregate amount of $4.1 million as of December 31, 2019. Included in the $4.1 million is a commitment of $2.1 million to lease water rights from a third party under an agreement which expires in 2028. The remaining $2.0 million is for commitments for purchased water with other third parties, which expire through 2038.

GSWC's estimated future minimum payments under these purchased water supply commitments at December 31, 2019 are as follows (in thousands):

2020	$	417
2021		417
2022		417
2023		417
2024		417
Thereafter		2,031
Total	$	4,116

Bear Valley Electric Service:

Generally, BVES purchases power at a fixed cost, under long-term purchased power contracts, depending on the amount of power and the period during which the power is purchased under such contracts. BVES began taking power pursuant to purchased power contracts approved by the CPUC effective in the fourth quarter of 2019 at a fixed cost over three and five-year terms depending on the amount of power and period during which the power is purchased under the contracts. As of December 31, 2019, GSWC's commitment under BVES's contracts totaled approximately $26.3 million.

See Note 16 for Registrant's future minimum payments under long-term non-cancelable operating leases.

Note 15 - Contingencies and Gain on Sale of Assets

Condemnation of Properties:

The laws of the State of California provide for the acquisition of public utility property by governmental agencies through their power of eminent domain, also known as condemnation, where doing so is necessary and in the public interest. In addition, these laws provide that the owner of utility property (i) may contest whether the condemnation is necessary and in the public interest, and (ii) is entitled to receive the fair market value of its property if the property is ultimately taken.

Ojai Water System and Gain on Sale of Assets:

In June 2017, pursuant to a settlement agreement to resolve an eminent domain action, Casitas Municipal Water District acquired the operating assets of GSWC's 2,900-connection Ojai water system by eminent domain for $34.3 million in cash. As a result of this transaction, GSWC recorded a pretax gain of $8.3 million on the sale of the Ojai water system during 2017. The terms of the settlement agreement resolved the eminent domain action and dismissed all claims against GSWC brought by Casitas and another third party.

Environmental Clean-Up and Remediation:

GSWC has been involved in environmental remediation and cleanup at a plant site ("Chadron Plant") that contained an underground storage tank, which was used to store gasoline for its vehicles. This tank was removed from the ground in July 1990 along with the dispenser and ancillary piping. Since then, GSWC has been involved in various remediation activities at this site. Analysis indicates that offsite monitoring wells may also be necessary to document effectiveness of remediation.

As of December 31, 2019, the total spent to clean-up and remediate the Chadron Plant was approximately $6.3 million, of which $1.5 million has been paid by the State of California Underground Storage Tank Fund. Amounts paid by GSWC have been included in rate base and approved by the CPUC for recovery. As of December 31, 2019, GSWC has a regulatory asset and an accrued liability for the estimated remaining cost of $1.3 million to complete the cleanup at the site.

The estimate includes costs for 2 years of continued activities of groundwater cleanup and monitoring, future soil treatment and site-closure-related activities. The ultimate cost may vary as there are many unknowns in remediation of underground gasoline spills and this is an estimate based on currently available information. Management also believes it is probable that the estimated additional costs will be approved in rate base by the CPUC.

Other Litigation:

Registrant is also subject to other ordinary routine litigation incidental to its business, some of which may include claims for compensatory and punitive damages. Management believes that rate recovery, proper insurance coverage and reserves are in place to insure against, among other things, property, general liability, employment and workers' compensation claims incurred in the ordinary course of business. Insurance coverage may not cover certain claims involving punitive damages. However, Registrant does not believe the outcome from any pending suits or administrative proceedings will have a material effect on Registrant's consolidated results of operations, financial position or cash flows.

Note 16 — Leases

The adoption of the new lease guidance did not have a material impact on Registrant's results of operations or liquidity but resulted in the recognition of operating lease liabilities and operating lease right-of-use assets on its balance sheets. Right-of-use ("ROU") assets represent the right to use an underlying asset for the lease term, and lease liabilities represent the obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at the lease commencement date based on the estimated present value of lease payments over the lease term. As of December 31, 2019, Registrant has right-of-use assets of $13.2 million, short-term operating lease liabilities of $1.8 million and long-term operating lease liabilities of $11.7 million.

Significant assumptions and judgments made as part of the adoption of this new lease standard include determining (i) whether a contract contains a lease, (ii) whether a contract involves an identified asset, and (iii) which party to the contract directs the use of the asset. The discount rates used to calculate the present value of lease payments were determined based on hypothetical borrowing rates available to Registrant over terms similar to the lease terms.

Registrant's leases consist of real estate and equipment leases, which are mostly GSWC's. Most of Registrant's leases require fixed lease payments. Some real estate leases have escalation payments, which depend on an index. Variable lease costs were not material. Lease terms used to measure the lease liability include options to extend the lease if the option is reasonably certain to be exercised. Lease and non-lease components were combined to measure lease liabilities.

GSWC's long-term debt includes $28 million of 9.56% private placement notes, which require GSWC to maintain a total indebtedness to capitalization ratio of less than 0.6667 -to-1. The indebtedness, as defined in the note agreement, includes any lease liabilities required to be recorded under GAAP. As of December 31, 2019, GSWC had a total indebtedness (including GSWC's lease liabilities) to capitalization ratio of 0.4445 -to-1. None of the other covenants or restrictions contained in Registrant's long-term debt agreements were affected by the adoption of the new lease standard.

Registrant's supplemental lease information for the year ended December 31, 2019 is as follows (in thousands, except for weighted average data):

	For The Year Ended December 31, 2019
Operating lease costs	$ 3,166
Short-term lease costs	159
Weighted average remaining lease term (in years)	7.24
Weighted-average discount rate	3.5%
Non-cash transactions	
Lease liabilities arising from obtaining right-of-use assets	$ 18,034

During 2019 and 2018 and 2017, Registrant's consolidated rent expense was approximately $2.8 million, $2.5 million and $2.4 million, respectively. Registrant's future minimum payments under long-term non-cancelable operating leases are as follows (in thousands):

	December 31, 2019	December 31, 2018
2020	$ 2,709	$ 2,530
2021	2,533	1,497
2022	2,217	1,007
2023	1,779	546
2024	1,499	293
Thereafter	5,246	311
Total lease payments	15,983	$ 6,184
Less: imputed interest	2,395	
Total lease obligations	13,588	
Less: current obligations	1,849	
Long-term lease obligations	$ 11,739	

The increase in future minimum lease payments from December 31, 2018 to December 31, 2019 was largely due to new office leases entered into during 2019. The consolidated operations of AWR and the operations of GSWC in regard to the future minimum payments under long-term cancelable operating leases are not materially different.

Note 17 - Business Segments

AWR has 3 reportable segments, water, electric and contracted services, whereas GSWC has 2 segments, water and electric. On a stand-alone basis, AWR has no material assets other than its equity investments in its subsidiaries and note receivables therefrom, and deferred taxes.

All activities of GSWC are geographically located within California. Activities of ASUS and the Military Utility Privatization Subsidiaries are conducted in California, Florida, Georgia, Kansas, Maryland, New Mexico, North Carolina, South Carolina, Texas and Virginia. Each of the Military Utility Privatization Subsidiaries is regulated, if applicable, by the state in which the subsidiary primarily conducts water and/or wastewater operations. Fees charged for operations and maintenance and renewal and replacement services are based upon the terms of the contracts with the U.S. government which have been filed, as appropriate, with the commissions in the states in which ASUS's subsidiaries are incorporated.

The tables below set forth information relating to GSWC's operating segments, ASUS and the Military Utility Privatization Subsidiaries and other matters. Total assets by segment are not presented below, as certain of Registrant's assets are not tracked by segment. The utility plant balances are net of respective accumulated provisions for depreciation. Capital additions reflect capital expenditures paid in cash and exclude U.S. government-funded and third-party prime funded capital expenditures for ASUS and property installed by developers and conveyed to GSWC.

	As Of And For The Year Ended December 31, 2019				
	GSWC			AWR	Consolidated
(dollars in thousands)	Water	Electric	ASUS	Parent	AWR
Operating revenues	$ 319,830	$ 39,548	$ 114,491	$ —	$ 473,869
Operating income (loss)	93,895	11,197	21,990	(9)	127,073
Interest expense, net	20,304	1,228	(734)	539	21,337
Utility Plant	1,322,062	72,680	20,963	—	1,415,705
Depreciation and amortization expense **(1)**	29,956	2,485	2,956	—	35,397
Income tax expense/(benefit)	17,295	2,882	5,202	(709)	24,670
Capital additions	131,353	11,499	9,088	—	151,940

	As Of And For The Year Ended December 31, 2018				
	GSWC			AWR	Consolidated
(dollars in thousands)	Water	Electric	ASUS	Parent	AWR
Operating revenues	$ 295,258	$ 34,350	$ 107,208	$ —	$ 436,816
Operating income	74,342	6,220	20,414	7	100,983
Interest expense, net	18,403	1,328	(327)	451	19,855
Utility Plant	1,218,468	62,624	15,218	—	1,296,310
Depreciation and amortization expense **(1)**	36,137	2,258	2,030	—	40,425
Income tax expense/(benefit)	12,391	1,212	4,939	(525)	18,017
Capital additions	110,934	5,420	10,207	—	126,561

	As Of And For The Year Ended December 31, 2017				
	GSWC			AWR	Consolidated
(dollars in thousands)	Water	Electric	ASUS	Parent	AWR
Operating revenues	$ 306,332	$ 33,969	$ 100,302	$ —	$ 440,603
Operating income (loss)	98,678	7,193	21,320	(96)	127,095
Interest expense, net	18,909	1,380	255	248	20,792
Utility Plant	1,137,995	59,945	7,052	—	1,204,992
Depreciation and amortization expense **(1)**	35,706	2,146	1,179	—	39,031
Income tax expense/(benefit)	32,212	1,847	7,136	(2,221)	38,974
Capital additions	104,546	5,941	2,639	—	113,126

(1) Depreciation computed on GSWC's transportation equipment is recorded in other operating expenses and totaled $316,000, $238,000 and $242,000 for the years ended December 31, 2019, 2018 and 2017, respectively.

The following table reconciles total utility plant (a key figure for rate-making) to total consolidated assets (in thousands):

	December 31,	
	2019	2018
Total utility plant	$ 1,415,705	$ 1,296,310
Other assets	225,626	205,123
Total consolidated assets	$ 1,641,331	$ 1,501,433

Note 18 — Allowance for Doubtful Accounts

The table below presents Registrant's provision for doubtful accounts charged to expense and accounts written off, net of recoveries. Provisions included in 2019, 2018, and 2017 for AWR and GSWC are as follows:

	AWR		
	December 31,		
(dollars in thousands)	2019	2018	2017
Balance at beginning of year	$ 951	$ 1,041	$ 764
Provision charged to expense	609	841	989
Accounts written off, net of recoveries	(644)	(931)	(712)
Balance at end of year	$ 916	$ 951	$ 1,041
Allowance for doubtful accounts related to accounts receivable-customer	$ 857	$ 892	$ 806
Allowance for doubtful accounts related to other accounts receivable	59	59	235
Total allowance for doubtful accounts	$ 916	$ 951	$ 1,041

	GSWC		
	December 31,		
(dollars in thousands)	2019	2018	2017
Balance at beginning of year	$ 951	$ 865	$ 761
Provision charged to expense	607	850	816
Accounts written off, net of recoveries	(642)	(764)	(712)
Balance at end of year	$ 916	$ 951	$ 865
Allowance for doubtful accounts related to accounts receivable-customer	$ 857	$ 892	$ 806
Allowance for doubtful accounts related to other accounts receivable	59	59	59
Total allowance for doubtful accounts	$ 916	$ 951	$ 865

Note 19 — Supplemental Cash Flow Information

The following table sets forth non-cash financing and investing activities and other cash flow information (in thousands).

	AWR			GSWC		
	December 31,			December 31,		
	2019	2018	2017	2019	2018	2017
Taxes and Interest Paid:						
Income taxes paid, net	$ 22,496	$ 21,084	$ 13,615	$ 17,206	$ 19,448	$ 4,822
Interest paid, net of capitalized interest	25,080	23,471	22,762	23,925	22,721	22,285
Non-Cash Transactions:						
Accrued payables for investment in utility plant	$ 23,736	$ 27,403	$ 20,131	$ 23,736	$ 27,403	$ 20,128
Property installed by developers and conveyed	6,220	2,082	2,082	6,220	2,082	2,082

Note 20 — Selected Quarterly Financial Data (Unaudited)

The quarterly financial information presented below is unaudited. Registrant's business is seasonal, and it is management's opinion that comparisons of earnings for the quarterly periods do not reflect overall trends and changes in Registrant's operations.

	AWR				
	For The Year Ended December 31, 2019				
(in thousands, except per share amounts)	First Quarter	Second Quarter (1)	Third Quarter (2)	Fourth Quarter	Year
Operating revenues	$ 101,733	$ 124,647	$ 134,496	$ 112,993	$ 473,869
Operating income	20,195	39,430	42,724	24,724	127,073
Net income	12,852	26,784	28,006	16,700	84,342
Basic earnings per share	0.35	0.72	0.76	0.45	2.28
Diluted earnings per share	0.35	0.72	0.76	0.45	2.28

	GSWC				
	For The Year Ended December 31, 2019				
(in thousands)	First Quarter	Second Quarter (1)	Third Quarter (2)	Fourth Quarter	Year
Operating revenues	$ 75,352	$ 95,548	$ 107,245	$ 81,233	$ 359,378
Operating income	15,327	34,037	36,982	18,746	105,092
Net income	9,022	22,298	23,362	11,981	66,663

	AWR				
	For The Year Ended December 31, 2018				
(in thousands, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Year
Operating revenues	$ 94,728	$ 106,901	$ 124,182	$ 111,005	$ 436,816
Operating income	18,691	25,568	33,975	22,749	100,983
Net income	10,782	16,348	22,952	13,789	63,871
Basic earnings per share *	0.29	0.44	0.62	0.37	1.73
Diluted earnings per share	0.29	0.44	0.62	0.37	1.72

	GSWC				
	For The Year Ended December 31, 2018				
(in thousands)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Year
Operating revenues	$ 74,244	$ 84,574	$ 95,564	$ 75,226	$ 329,608
Operating income	16,297	22,645	27,540	14,080	80,562
Net income	8,890	13,648	17,919	7,555	48,012

* The sum of the quarterly basic earnings per share amounts do not agree to the yearly total due to rounding.

(1) The second quarter of 2019 includes approximately $4.0 million of operating income related to the first quarter of 2019 as a result of the final CPUC decision on the water general rate case, which was received in May 2019 and was retroactive to January 1, 2019.

(2) The third quarter of 2019 includes the retroactive impact of the final decision on the electric general rate case approved by the CPUC in August 2019, which was retroactive to January 1, 2018. Included in the third quarter of 2019 results are approximately $1.4 million of pretax income related to the first two quarters of 2019 and approximately $2.3 million of pretax income related to 2018.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

(a) Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) or 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based on this evaluation, our principal executive officer and our principal financial officer concluded that the disclosure controls and procedures of AWR and GSWC were effective as of the end of the period covered by this annual report.

(b) Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control - Integrated Framework*, our management concluded that the internal control over financial reporting of AWR and GSWC was effective as of December 31, 2019.

(c) Attestation Report of the Independent Registered Public Accounting Firm

The effectiveness of our internal control over financial reporting of AWR as of December 31, 2019 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

(d) Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) or 15d(f) under the Exchange Act) of AWR and GSWC that occurred during the fourth quarter of 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information responsive to Part III, Item 10 is included in the Proxy Statement, to be filed by AWR with the SEC pursuant to Regulation 14A, under the captions therein entitled: (i) "Proposal 1: Election of Directors"; (ii) "Executive Officers"; (iii) "Governance of the Company"; (iv) "Stock Ownership"; (v) "Nominating and Governance Committee"; (vi) "Audit and Finance Committee;" and (vii) "Obtaining Additional Information From Us" and is incorporated herein by reference pursuant to General Instruction G(3).

Item 11. Executive Compensation

Information responsive to Part III, Item 11 is included in the Proxy Statement, to be filed by AWR with the SEC pursuant to Regulation 14A, under the captions therein entitled: (i) "Proposal 1: Election of Directors"; (ii) "Executive Officers;" and (iii) "Compensation Committee" and is incorporated herein by reference pursuant to General Instruction G(3).

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information responsive to Part III, Item 12 is included in the Proxy Statement, to be filed by AWR with the SEC pursuant to Regulation 14A, under the caption entitled "Stock Ownership" and is incorporated herein by reference pursuant to General Instruction G(3).

Securities Authorized for Issuance under Equity Compensation Plans:

AWR has made stock awards to its executive officers and managers under the 2008 and 2016 employee plans. It has also made stock awards to its non-employee directors under the 2003 and 2013 director plans. Information regarding the securities, which have been issued and which are available for issuance under these plans is set forth in the table below as of December 31, 2019. This table does not include any AWR Common Shares that may be issued under our 401(k) plan.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights(1)	Weighted-average exercise price of outstanding options, warrants and rights(2)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column)(3)
Equity compensation plans approved by shareholders	154,936	$16.68	1,993,901
Equity compensation plans not approved by shareholders	—	—	—
Total	154,936	$16.68	1,993,901

(1) Amount shown in this column consists of 2,412 options outstanding under the 2008 employee plan and 35,836 time-vested restricted stock units outstanding under the 2016 employee plan (including dividend equivalents thereon with respect to declared dividends), 77,453 performance awards at the maximum level (including dividend equivalents thereon with respect to declared dividends) outstanding under the 2016 employee plan and 39,235 restricted stock units (including dividend equivalents thereon with respect to declared dividends) outstanding under the 2003 directors plan

(2) Amount shown in this column is for options granted only.

(3) Amount shown in this column consists of 194,152 shares available under the 2003 directors plan, 119,712 shares available under the 2013 directors plan, 503,523 shares available under the 2008 employee plan and 1,176,514 shares available under the 2016 employee plan. The only shares that may be issued under the 2003 directors plan are pursuant to dividend equivalent rights on dividends not yet declared with respect to restricted stock units granted under the 2003 directors plan. No additional stock awards may be granted under the 2003 directors plan or the 2008 employee plan.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information responsive to Part III, Item 13 is included in the Proxy Statement, to be filed by AWR with the SEC pursuant to Regulation 14A, under the caption therein entitled "Governance of the Company" and is incorporated herein by reference pursuant to General Instruction G(3).

Item 14. Principal Accounting Fees and Services

Information responsive to Part III, Item 14 is included in the Proxy Statement, to be filed by AWR with the SEC pursuant to Regulation 14A, under the caption therein entitled "Proposal 3: Ratification of Auditors" and is incorporated herein by reference pursuant to General Instruction G(3).

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) The following documents are filed as a part of this Annual Report on Form 10-K:

1. Reference is made to the Financial Statements incorporated herein by reference to Part II, Item 8 hereof.
2. Schedule I — Condensed Financial Information of American States Water Company Parent at December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017. Schedules II, III, IV, and V are omitted as they are not applicable.
   See page 114.
3. Reference is made to Item 15(b) of this Annual Report on Form 10-K.

(b) Exhibits:

3.1	By-Laws of American States Water Company incorporated by reference to Exhibit 3.1 of Registrant's Form 10-Q, filed August 6, 2012 (File No. 1-14431)
3.2	By-laws of Golden State Water Company incorporated by reference to Exhibit 3.2 of Registrant's Form 8-K filed May 13, 2011 (File No. 1-14431)
3.3	Amended and Restated Articles of Incorporation of American States Water Company, as amended, incorporated by reference to Exhibit 3.1 of Registrant's Form 8-K filed June 19, 2013
3.4	Restated Articles of Incorporation of Golden State Water Company, as amended, incorporated herein by reference to Exhibit 3.1 of Registrant's Form 10-Q for the quarter ended September 30, 2005 (File No. 1-14431)
4.1	Indenture, dated September 1, 1993 between Golden State Water Company and The Bank of New York Mellon Trust Company, N.A., as successor trustee, as supplemented, incorporated herein by reference to Exhibit 4.01 of Golden State Water Company Form S-3 filed December 12, 2008 (File No. 333-156112)
4.2	Note Purchase Agreement dated as of October 11, 2005 between Golden State Water Company and Co-Bank, ACB incorporated by reference to Exhibit 4.1 of Registrant's Form 8-K filed October 13, 2005 (File No. 1-14431)
4.3	Description of Common Shares (1)
4.4	Description of Debt Securities (1)
10.1	Second Sublease dated October 5, 1984 between Golden State Water Company and Three Valleys Municipal Water District incorporated herein by reference to Registrant's Registration Statement on Form S-2, Registration No. 33-5151
10.2	Note Agreement dated as of May 15, 1991 between Golden State Water Company and Transamerica Occidental Life Insurance Company incorporated herein by reference to Registrant's Form 10-Q with respect to the quarter ended June 30, 1991 (File No. 1-14431)
10.3	Schedule of omitted Note Agreements, dated May 15, 1991, between Golden State Water Company and Transamerica Annuity Life Insurance Company, and Golden State Water Company and First Colony Life Insurance Company incorporated herein by reference to Registrant's Form 10-Q with respect to the quarter ended June 30, 1991 (File No. 1-14431)
10.4	Loan Agreement between California Pollution Control Financing Authority and Golden State Water Company, dated as of December 1, 1996 incorporated by reference to Exhibit 10.7 of Registrant's Form 10-K for the year ended December 31, 1998 (File No. 1-14431)
10.5	Agreement for Financing Capital Improvement dated as of June 2, 1992 between Golden State Water Company and Three Valleys Municipal Water District incorporated herein by reference to Registrant's Form 10-K with respect to the year ended December 31, 1992 (File No. 1-14431)
10.6	Water Supply Agreement dated as of June 1, 1994 between Golden State Water Company and Central Coast Water Authority incorporated herein by reference to Exhibit 10.15 of Registrant's Form 10-K with respect to the year ended December 31, 1994 (File No. 1-14431)
10.7	2003 Non-Employee Directors Stock Purchase Plan, as amended, incorporated herein by reference to Exhibit 10.4 to Registrant's Form 8-K filed on May 20, 2015 (File No. 1-14431) (2)

10.8	Dividend Reinvestment and Common Share Purchase Plan incorporated herein by reference to American States Water Company Registrant's Form S-3D filed November 12, 2008 (File No. 1-14431)
10.9	Form of Amended and Restated Change in Control Agreement between American States Water Company or a subsidiary and certain executives incorporated herein by reference to Exhibit 10.4 to Registrant's Form 8-K filed on November 21, 2014 (File No. 1-14431) (2)
10.10	Golden State Water Company Pension Restoration Plan, as amended, incorporated herein by reference to Exhibit 10.1 to the Registrant's Form 8-K filed on May 21, 2009 (File No. 1-14431) (2)
10.11	Amended and Restated Credit Agreement between American States Water Company dated June 3, 2005 with Wells Fargo Bank, N.A., as Administrative Agent, as amended, incorporated by reference to Exhibit 10.11 to Registrant's Form 10-Q filed for the ended September 30, 2019
10.12	Form of Indemnification Agreement for executive officers incorporated by reference to Exhibit 10.21 to Registrant's Form 10-K for the year ended December 31, 2006 (File No. 1-14431) (2)
10.13	Policy Regarding the Recoupment of Certain Performance-Based Compensation Payments incorporated herein by reference to Exhibit 10.3 to the Registrant's Form 8-K filed on April 2, 2014 (2)
10.14	Officer Relocation Policy incorporated herein by reference to Exhibit 10.5 to the Registrant's Form 8-K filed on July 31, 2009 (2)
10.15	Form of Indemnification Agreement for directors incorporated by reference herein to Exhibit 10.35 to the Registrant's Form 10-K for the period ended December 31, 2012 (1) (2)
10.16	2016 Stock Incentive Plan incorporated by reference to Exhibit 10.1 to Registrant’s Form 8-K filed on May 19, 2016 (2)
10.17	2013 Non-Employee Directors Plan incorporated by reference herein to Exhibit 10.2 to the Registrant's Form 8-K filed on March 25, 2016 (2)
10.18	Form of 2017 Performance Award Agreement incorporated by reference to Exhibit 10.2 of Registrant's Form 8-K filed on February 6, 2017 (2)
10.19	Form of Restricted Stock Award Agreement for officers with respect to time-vested restricted stock awards under the 2016 Stock Incentive Plan after December 31, 2017 incorporated by reference to Exhibit 10.1 of Form 8-K filed on November 3, 2017
10.20	Form of 2018 Performance Award Agreement incorporated by reference to Exhibit 10-1 of Registrant’s Form 8-K filed February 2, 2018 (2)
10.21	2019 Short-Term Incentive Agreement incorporated by reference to Exhibit 10.1 of Registrant’s Form 8-K filed on April 1, 2019 (2)
10.22	Form of Award Agreement for the 2019 Short-Term Incentive Program incorporated by reference to Exhibit 10.2 to Registrant’s Form 8-K filed on April 1, 2019 (2)
10.23	Form of Performance Award Agreement incorporated by reference to Exhibit 10.1 to Registrant's Form 8-K filed on February 1, 2019 (2)
10.24	Separation Agreement and General Release of All Claims (1),(2)
21	Subsidiaries of Registrant (1)
23.1	Consent of Independent Registered Public Accounting Firm for AWR (1)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for AWR (1)
31.1.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for GSWC (1)
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for AWR (1)
31.2.1	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for GSWC (1)
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (3)
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (3)

101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema (3)
101.CAL	XBRL Taxonomy Extension Calculation Linkbase (3)
101.DEF	XBRL Taxonomy Extension Definition Linkbase (3)
101.LAB	XBRL Taxonomy Extension Label Linkbase (3)
104	Cover Page Interactive Data File - (formatted as Inline XBRL and contained in Exhibit 101)

(c) See Item 15(a)(2)

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(1) Filed concurrently herewith
(2) Management contract or compensatory arrangement
(3) Furnished concurrently herewith

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Registrants have duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMERICAN STATES WATER COMPANY ("AWR"):

By: /s/ EVA G. TANG

Eva G. Tang
Senior Vice President-Finance, Chief Financial Officer, Treasurer and Corporate Secretary

GOLDEN STATE WATER COMPANY ("GSWC"):

By: /s/ EVA G. TANG

Eva G. Tang
Senior Vice President-Finance, Chief Financial Officer and Secretary

Date: February 24, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Registrants and in the capacities and on the dates indicated.

	Date:
/s/ ANNE M. HOLLOWAY	February 24, 2020
Anne M. Holloway Chairman of the Board and Director of AWR and GSWC	
/s/ ROBERT J. SPROWLS	February 24, 2020
Robert J. Sprowls Principal Executive Officer, President and Chief Executive Officer of AWR and GSWC and Director of AWR and GSWC	
/s/ EVA G. TANG	February 24, 2020
Eva G. Tang Principal Financial and Accounting Officer, Senior Vice President-Finance, Chief Financial Officer, Treasurer and Corporate Secretary of AWR; and Principal Financial and Accounting Officer, Senior Vice President-Finance, Chief Financial Officer and Secretary of GSWC	
/s/ JAMES L. ANDERSON	February 24, 2020
James L. Anderson Director of AWR and GSWC	
/s/SARAH. J. ANDERSON	February 24, 2020
Sarah. J. Anderson Director of AWR and GSWC	
/s/ DIANA M. BONTÁ	February 24, 2020
Diana M. Bontá Director of AWR and GSWC	
/s/ JOHN R. FIELDER	February 24, 2020
John R. Fielder Director of AWR and GSWC	
/s/ MARY ANN HOPKINS	February 24, 2020
Mary Ann Hopkins Director of AWR and GSWC	
/s/ JAMES F. MCNULTY	February 24, 2020
James F. McNulty Director of AWR and GSWC	
/s/ JANICE F. WILKINS	February 24, 2020
Janice F. Wilkins Director of AWR and GSWC	

AMERICAN STATES WATER COMPANY
SCHEDULE I - CONDENSED FINANCIAL INFORMATION OF PARENT
CONDENSED BALANCE SHEETS

	December 31,	
(in thousands)	**2019**	**2018**
Assets		
Cash and equivalents	$ 310	$ 34
Intercompany note receivables	185,094	76,072
Total current assets	185,404	76,106
Investments in subsidiaries	616,725	574,330
Deferred taxes and other assets	9,548	8,769
Total assets	$ 811,677	$ 659,205
Liabilities and Capitalization		
Notes payable to bank	$ 5,000	$ —
Income taxes payable	3,259	3,672
Other liabilities	274	291
Total current liabilities	8,533	3,963
Notes payable to bank	200,000	$ 95,500
Deferred taxes and other liabilities	1,614	1,519
Total other liabilities	201,614	97,019
Common shareholders' equity	601,530	558,223
Total capitalization	601,530	558,223
Total liabilities and capitalization	$ 811,677	$ 659,205

The accompanying condensed notes are an integral part of these condensed financial statements.

AMERICAN STATES WATER COMPANY
SCHEDULE I - CONDENSED FINANCIAL INFORMATION OF PARENT
CONDENSED STATEMENTS OF INCOME

	For the Years Ended December 31,		
(In thousands, except per share amounts)	**2019**	**2018**	**2017**
Operating revenues and other income	$ —	$ —	$ —
Operating expenses and other expenses	314	305	344
Income before equity in earnings of subsidiaries and income taxes	(314)	(305)	(344)
Equity in earnings of subsidiaries	83,947	63,651	67,490
Income before income taxes	83,633	63,346	67,146
Income tax benefit	(709)	(525)	(2,221)
Net income	$ 84,342	$ 63,871	$ 69,367
Weighted Average Number of Common Shares Outstanding	36,814	36,733	36,638
Basic Earnings Per Common Share	$ 2.28	$ 1.73	$ 1.88
Weighted Average Number of Diluted Common Shares Outstanding	36,964	36,936	36,844
Fully Diluted Earnings per Common Share	$ 2.28	$ 1.72	$ 1.88
Dividends Paid Per Common Share	$ 1.160	$ 1.060	$ 0.994

The accompanying condensed notes are an integral part of these condensed financial statements.

AMERICAN STATES WATER COMPANY
SCHEDULE I - CONDENSED FINANCIAL INFORMATION OF PARENT
CONDENSED STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,		
(in thousands)	**2019**	**2018**	**2017**
Cash Flows From Operating Activities	$ 40,459	$ 79,877	$ 36,024
Cash Flows From Investing Activities:			
Loans (made to)/repaid from, wholly-owned subsidiaries	(107,500)	(30,500)	30,500
Increase in investment of subsidiary	—	(47,500)	—
Net cash provided (used) in investing activities	(107,500)	(78,000)	30,500
Cash Flows From Financing Activities:			
Proceeds from stock option exercises	519	546	909
Net change in notes payable to banks	109,500	36,500	(31,000)
Dividends paid	(42,702)	(38,937)	(36,417)
Net cash provided (used) in financing activities	67,317	(1,891)	(66,508)
Change in cash and equivalents	276	(14)	16
Cash and equivalents at beginning of period	34	48	32
Cash and equivalents at the end of period	$ 310	$ 34	$ 48

The accompanying condensed notes are an integral part of these condensed financial statements.

Note 1 — Basis of Presentation

The accompanying condensed financial statements of AWR (parent) should be read in conjunction with the consolidated financial statements and notes thereto of American States Water Company and subsidiaries ("Registrant") included in Part II, Item 8 of this Form 10-K. AWR's (parent) significant accounting policies are consistent with those of Registrant and its wholly owned subsidiaries, Golden State Water Company ("GSWC") and American States Utility Services, Inc. ("ASUS"), except that all subsidiaries are accounted for as equity method investments.

Related-Party Transactions:

As further discussed in *Note 2 — Notes Payable to Banks*, AWR (parent) currently has access to a $225.0 million revolving credit facility. AWR (parent) borrows under this facility and provides funds to its subsidiaries, in support of their operations. Any amounts owed to AWR (parent) for borrowings under this facility are reflected as inter-company receivables on the condensed balance sheets. The interest rate charged to the subsidiaries is sufficient to cover AWR (parent)'s interest cost under the credit facility.

AWR (parent) guarantees performance of ASUS's military privatization contracts and agrees to provide necessary resources, including financing, which are necessary to assure the complete and satisfactory performance of such contracts.

Note 2 — Note Payable to Banks

AWR (parent) has access to a credit facility in order to provide funds to its subsidiaries, GSWC and ASUS, in support of their operations. In March 2019, AWR amended this credit facility to increase its borrowing capacity from $150.0 million to $200.0 million, and in October 2019 further amended the credit facility to temporarily increase its borrowing capacity to $225.0 million, effective until June 30, 2020. In February 2020, AWR received a binding commitment from its lender for the option to revise the temporary increase of the credit facility to $260.0 million through the end of 2020. When needed, AWR will be able to exercise this commitment and have immediate access to the additional funds. On December 31, 2020, the borrowing capacity will revert to $200.0 million. Amy amounts borrowed up to $200.0 million will be due in May 2023, and any amounts borrowed in excess of $200.0 million will be due in 2020.

The aggregate effective amount that may be outstanding under letters of credit is $25.0 million. AWR has obtained letters of credit, primarily for GSWC, in the aggregate amount of $940,000, with fees of 0.65% including: (i) letters of credit in an aggregate amount of $340,000 as security for GSWC's business automobile insurance policy; (ii) a letter of credit in an amount of $585,000 as security for the purchase of power; and (iii) a $15,000 irrevocable letter of credit pursuant to a franchise agreement with the City of Rancho Cordova. Letters of credit outstanding reduce the amount that may be borrowed under the revolving credit facility. AWR was not required to maintain any compensating balances.

Loans can be obtained under this credit facility at the option of AWR and bear interest at rates based on credit ratings and Euro rate margins. In December 2019, Standard and Poor's Global Ratings ("S&P") affirmed an A+ credit rating with a stable outlook on both AWR and GSWC. S&P's debt ratings range from AAA (highest possible) to D (obligation is in default). In May 2019, Moody's Investors Service ("Moody's") affirmed its A2 rating with a revised outlook from positive to stable for GSWC.

At December 31, 2019, there was $205.0 million outstanding under this facility. At times, AWR (parent) borrows under this facility and provides loans to its subsidiaries in support of its operations, under terms that are similar to that of the credit facility. AWR's (parent) borrowing activities (excluding letters of credit) for the years ended December 31, 2019 and 2018 were as follows:

	December 31,	
(in thousands, except percent)	**2019**	**2018**
Balance Outstanding at December 31,	$ 205,000	$ 95,500
Interest Rate at December 31,	2.44%	3.19%
Average Amount Outstanding	$ 167,392	$ 69,559
Weighted Average Annual Interest Rate	2.88%	2.66%
Maximum Amount Outstanding	$ 205,500	$ 95,500

All of the letters of credit are issued pursuant to the revolving credit facility. The revolving credit facility contains restrictions on prepayments, disposition of property, mergers, liens and negative pledges, indebtedness and guaranty obligations, transactions with affiliates, minimum interest coverage requirements, a maximum debt to capitalization ratio and a minimum debt rating. Pursuant to the credit agreement, AWR must maintain a minimum interest coverage ratio of 3.25 times interest expense, a maximum total funded debt ratio of 0.65 to 1.00 and a minimum debt rating from Moody's or S&P of Baa3 or BBB-, respectively. As of December 31, 2019, 2018 and 2017, AWR was in compliance with these covenants. As of December 31, 2019, AWR had an interest coverage ratio of 6.89 times interest expense, a debt ratio of 0.45 to 1.00 and a debt rating of A+ by S&P.

Note 3 — Income Taxes

AWR (parent) receives a tax benefit for expenses incurred at the parent-company level. AWR (parent) also recognizes the effect of AWR's consolidated California unitary apportionment, which is beneficial or detrimental depending on a combination of the profitability of AWR's consolidated non-California activities as well as the proportion of its consolidated California sales to total sales.

Note 4 — Dividend from Subsidiaries

Dividends in the amount of $42.7 million, $79.0 million and $36.5 million were paid to AWR (parent) by its wholly owned subsidiaries during the years ended December 31, 2019, 2018 and 2017, respectively.

Board of Directors

AMERICAN STATES WATER COMPANY AND GOLDEN STATE WATER COMPANY

Anne M. Holloway
(Chairman of the Board of Directors)
Retired, Partner
Navigant Consulting, Inc.
Director since 1998
Non-voting ex-officio member of all committees

James L. Anderson (A,B)
(Chairperson of the Compensation Committee)
Retired, Senior Vice President
Americo Life Inc.
Director since 1997

Sarah J. Anderson (C)
(Chairperson of the Audit & Finance Committee)
Retired, Partner
Ernst & Young LLP
Director since 2012

Diana M. Bontá (A,B)
(Chairperson of the Nominating and Governance Committee)
President & CEO
The Bontá Group
Director since 2007

John R. Fielder (C,D)
Retired, President
Southern California Edison Company
Director since 2013

Mary Ann Hopkins (A,D)
Group Executive, Arcadis NV
Director since 2019

James F. McNulty (A,B,D)
(Chairperson of the ASUS Committee)
Retired, Chairman & CEO
Parsons Corporation
Director since 2010

Janice F. Wilkins (C,D)
Retired, Vice President of Finance and Director of Internal Audit
Intel Corporation
Director since 2011

Robert J. Sprowls (D)
President and Chief Executive Officer
Director since 2009

(A) Member – Compensation Committee
(B) Member – Nominating & Governance
(C) Member – Audit & Finance Committee
(D) Member – ASUS Committee

Officers

AMERICAN STATES WATER COMPANY

Robert J. Sprowls (15)
President and Chief Executive Officer

Eva G. Tang (23)
Senior Vice President – Finance, Chief Financial Officer, Corporate Secretary and Treasurer

Gladys M. Farrow (17)
Assistant Secretary

Officers

GOLDEN STATE WATER COMPANY

Robert J. Sprowls (15)
President and Chief Executive Officer

Denise L. Kruger (27)
Senior Vice President – Regulated Utilities

Eva G. Tang (23)
Senior Vice President – Finance, Chief Financial Officer and Secretary

Gladys M. Farrow (17)
Vice President – Finance, Treasurer and Assistant Secretary

Sunil K. Pillai (16)
Vice President – Environmental Quality

Paul J. Rowley (12)
Vice President – Water Operations

Bryan K. Switzer (19)
Vice President – Regulatory Affairs

Board of Directors

AMERICAN STATES UTILITY SERVICES, INC. AND SUBSIDIARIES

James F. McNulty
(Chairman of the Board of Directors)
Director since 2012

Anne M. Holloway
Director since 2018

Robert J. Sprowls
President and Chief Executive Officer
Director since 2009

Officers

AMERICAN STATES UTILITY SERVICES, INC. AND SUBSIDIARIES

Robert J. Sprowls (15)
President and Chief Executive Officer

Eva G. Tang (23)
Senior Vice President – Finance, Chief Financial Officer and Secretary

Granville R. Hodges, Jr. (41)
Acting Senior Vice President

Gabriel G. Willis (9)
Vice President - Strategic Business Development

Gladys M. Farrow (17)
Treasurer and Assistant Secretary

(#) Years of Service with Corporation

SHAREHOLDER ASSISTANCE

For shareholder questions related to your AWR shares, contact:
Computershare
462 South 4th Street, Suite 1600
Louisville, KY 40202
Toll Free: (888) 816-6998
www.Computershare.com

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

PricewaterhouseCoopers, LLP
601 South Figueroa Street
Los Angeles, California 90017

STOCK EXCHANGE

Common shares of American States Water Company are traded on the New York Stock Exchange (NYSE) under the symbol AWR.

INVESTOR INFORMATION FROM THE COMPANY

Call (877) 463-6297 (INFOAWR)
investorinfo@aswater.com
www.aswater.com

ASWATER.COM

American States
Water Company

630 East Foothill Boulevard San Dimas, CA 91773   909.394.3600